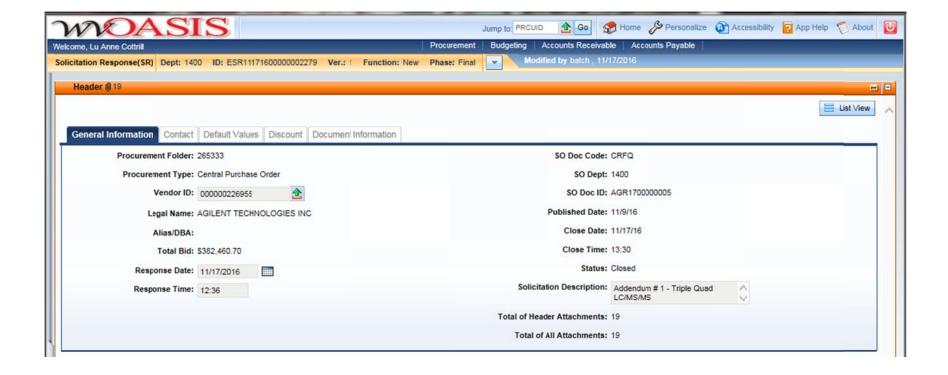
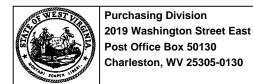


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026 Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





State of West Virginia Solicitation Response

Proc Folder: 265333

Solicitation Description: Addendum # 1 - Triple Quad LC/MS/MS

Proc Type: Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2016-11-17 13:30:00	SR 1400 ESR11171600000002279	1

VENDOR

000000226955

AGILENT TECHNOLOGIES INC

Solicitation Number: CRFQ 1400 AGR1700000005

Total Bid: \$382,460.70 **Response Date:** 2016-11-17 **Response Time:** 12:36:10

Comments: Agilent Technologies, Inc. (Agilent) is bidding in accordance with attached quotation 2163851 which

is hereby incorporated by reference. Please refer to the quotation and attachments for details of this

offer.

FOR INFORMATION CONTACT THE BUYER

Linda Harper (304) 558-0468 linda.b.harper@wv.gov

Signature on File FEIN # DATE

All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-SR-001

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	LCMSMS, Workstation, software, printer	1.00000	EA	\$305,024.300000	\$305,024.30

Comm Code	Manufacturer	Specification	Model #	
41100000				

Extended Description:

LCMSMS, Workstation, software, printer per specification 3.1.1 & 3.1.2

Comments: 6460 QQQ LC/MS with additional accessory instruments

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Shipping Charges and inside delivery	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #
78121603			

Extended Description:

Shipping Charges and inside deliver per section 3.1.3

Comments: Included

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Installation/validation	1.00000	EA	\$0.000000	\$0.00

Comm Code	Manufacturer	Specification	Model #	
73171605				

Extended Description:

Installation/validation per section 3.1.3

Comments: Included

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Training/Warranty	1.00000	EA	\$7,828.000000	\$7,828.00

Comm Code	Manufacturer	Specification	Model #	
73171605				
Extended Descrip	otion: Training/Warranty	per section 3.1.3		

Comments: H2149A

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Service	1.00000	EA	\$69,608.400000	\$69,608.40

Comm Code	Manufacturer	Specification	Model #
73171605			
Foton de d.B. conintien	0		
Extended Description	: Service per section 3.1.3		

Comments: SYS-LM-QQQ



Purchasing Divison 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Request for Quotation 01 — Agricultural

 Proc Folder: 265333

 Doc Description: Triple Quad LC/MS/MS

 Proc Type: Central Purchase Order

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2016-10-24
 2016-11-17 (13:30:00)
 CRFQ
 1400 AGR1700000005
 1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

Agilent Technologies, Inc. 2850 Centerville Road Wilmington, DE 19808 800-227-9770

- *Agilent Technologies Inc. (Agilent) is bidding in accordance with attached quotation 2163851 which is hereby incorporated by reference. Please refer to the quotation and attached documents for details. Agilent states the following clarifications:
- 13. Payment- Agilent's payment terms are Net 30 Days from invoice date. For Products without installation included in the purchase price, acceptance occurs upon delivery. For Products with installation included in the purchase price, acceptance occurs when the Product passes Agilent's installation and test procedures. If Customer schedules or delays installation by Agilent more than thirty (30) days after delivery, acceptance of the Product will occur on the thirty-first (31st) day after delivery.
- 27. Warranty Please see Agilent's Warranty Statement along with the attachments.
- 41. Background Check

If required, Agilent will submit background screening results through Agilent's provider.

OR INF	ORMAT	ION	CONT	ACT	THE	BUYER	

Linda Harper (304) 558-0468 linda.b.harper@wv.gov

Signature X

Boyum date +

77-0518772

11/16/2016

DATE

All offers subject to all terms and conditions contained in this solicitation

Page: 1

FEIN #

FORM ID: WV-PRC-CRFQ-001

ADDITIONAL INFORMAITON:

The West Virginia Purchasing Division for the Agency, The West Virginia Department of Agriculture is soliciting bids from qualified vendors to establish a "One-Time" contract for the purchase of a Liquid Chromatography/Mass Spectrometer (LC/MS) Instrument per the Specifications, Terms & Conditions and bid requirements as attached.

INVOICE TO	《《公司》 中,1960年,1961年	SHIP TO	
PROCUREMENT OFFICER	304-558-2221	AUTHORIZED RE	ECEIVER 304-558-2227
AGRICULTURE DEPARTMI ADMINISTRATIVE SERVICE			DEPARTMENT OF PROTECTION DIVISION
1900 KANAWHA BLVD E		313 GUS R DOU	GLAS LN, BLDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
LCMSMS, Workstation, software,	1.00000	EA	\$305 024 30	\$305,024.30
	LCMSMS, Workstation, software,		LCMSMS, Workstation, software, 1.00000 EA	LCMSMS, Workstation, software, 1.00000 EA

Comm Code	Manufacturer	Specification	Model #
41100000	Agilent	LCMSMS, Workstation, software, printer	6460 QQQ LC/MS with
	100 100 100 100 100 100 100 100 100 100	1001	additional accessory instruments

Extended Description:

LCMSMS, Workstation, software, printer per specification 3.1.1 & 3.1.2

INVOICE TO		SHIP TO	
PROCUREMENT OFFICE AGRICULTURE DEPARTM ADMINISTRATIVE SERVIO	MENT OF	AUTHORIZED RECEIVER : AGRICULTURE DEPARTM REGULATORY PROTECTION	ENT OF
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN,	BLDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price	
2	Shipping Charges and inside delivery	1.00000	EA	\$0.00	\$0.00	

Comm Code	Manufacturer	Specification	Model #	
78121603	Agilent	Shipping Charges and inside delivery	N/A	

Extended Description:

Shipping Charges and inside deliver per section 3.1.3

INVOICE TO		SHIP TO	
PROCUREMENT OFFICER 3	04-558-2221	AUTHORIZED RECEIVER 3	304-558-2227
AGRICULTURE DEPARTMEN	NT OF	AGRICULTURE DEPARTME	ENT OF
ADMINISTRATIVE SERVICES	3	REGULATORY PROTECTION	ON DIVISION
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN, I	BLDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Installation/validation	1.00000	EA	\$0.00	\$0.00

Comm Code	Manufacturer	Specification	Model #	
73171605	Agilent	Installation	44K	

Extended Description:

Installation/validation per section 3.1.3

INVOICE TO		SHIP TO	
PROCUREMENT OFFICER	304-558-2221	AUTHORIZED RECEIVER	R 304-558-2227
AGRICULTURE DEPARTM ADMINISTRATIVE SERVICE		AGRICULTURE DEPARTI REGULATORY PROTECT	5.5.5.5.5.5.000 8.50.5
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN	I, BLDG 11
CHARLESTON	WV 25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Training/Warranty	1.00000	EA	\$7,828.00	\$7,828.00

Comm Code	Manufacturer	Specification	Model #	
73171605	Agilent	Training/Warranty	H2149A	

Extended Description:

Training/Warranty per section 3.1.3

INVOICE TO		SHIP TO	SHIP TO		
PROCUREMENT OFFICER 304-558-2221		AUTHORIZED RECEIVER	2 304-558-2227		
AGRICULTURE DEPARTMENT OF ADMINISTRATIVE SERVICES			AGRICULTURE DEPARTMENT OF REGULATORY PROTECTION DIVISION		
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN	I, BLDG 11		
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312		
US		US			

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Service	1.00000	EA	\$69,608.40	\$69,608.40

Comm Code	Manufacturer Specification Model #		Model #	
73171605	Agilent	Service	SYS-LM-QQQ	

Extended Description:

Service per section 3.1.3

SCHEDULE OF EVENTS

 Line
 Event
 Event Date

 1
 Question Deadline 3:00 p.m.
 2016-11-04

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

- 1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
- **2. MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

3. PREBID MEETING: The item identified below shall apply to this Solicitation.
A pre-bid meeting will not be held prior to bid opening
☐ A NON-MANDATORY PRE-BID meeting will be held at the following place and time:
☐ A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted e-mails should have solicitation number in the subject line.

Question Submission Deadline: Friday, November 4, 2016, 3:00 p.m.

Submit Questions to: Linda Harper, Senior Buyer

2019 Washington Street, East

Charleston, WV 25305

Fax: (304) 558-4115 (Vendors should not use this fax number for bid submission)

Email: Linda.B.Harper@wv.gov

- **5. VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.
- **6. BID SUBMISSION:** All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include electronic submission via wvOASIS, hand delivery, delivery by courier, or facsimile.

The bid delivery address is: Department of Administration, Purchasing Division 2019 Washington Street East Charleston, WV 25305-0130

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Purchasing Division.:

SEALED BID: Triple Quad LC/MS/MS

BUYER: Linda B. Harper

SOLICITATION NO.: CRFQ AGR1700000005 BID OPENING DATE: November 17, 2016

BID OPENING TIME: 1:30 p.m.

FAX NUMBER:

The Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. Submission of a response to an Expression or Interest or Request for Proposal is not permitted in wvOASIS.

For Request For Proposal ("RFP") Responses Only: In the event that Vendor is responding a request for proposal, the Vendor shall submit one original technical and one original cost
roposal plus N/A convenience copies of each to the Purchasing Division at the
ddress shown above. Additionally, the Vendor should identify the bid type as either a technical r cost proposal on the face of each bid envelope submitted in response to a request for proposal s follows:
BID TYPE: (This only applies to CRFP) Technical Cost

7. BID OPENING: Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: November 17, 2016, 1:30 p.m.

Bid Opening Location: Department of Administration, Purchasing Division

2019 Washington Street East Charleston, WV 25305-0130

- **8.** ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
- **9. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.
- 10. ALTERNATES: Any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.
- 11. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.
- **12. COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.
- **13. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.
- 14. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.
- **15. PREFERENCE:** Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Vendor Preference Certificate form has been attached hereto to allow Vendor to apply for the preference. Vendor's failure to submit the Vendor Preference Certificate form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

- **16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, womenowned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.
- **17. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.
- **18. ELECTRONIC FILE ACCESS RESTRICTIONS:** Vendor must ensure that its submission in wvOASIS can be accessed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately opened and/or viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening if those documents are required with the bid.
- 19. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance."
- **20.** ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b."
- **21. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

GENERAL TERMS AND CONDITIONS:

- 1. CONTRACTUAL AGREEMENT: Issuance of a Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
- **2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.
- **2.1.** "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
- 2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.
- **2.3.** "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.
- **2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.
- **2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.
- **2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.
- **2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- **2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
- **2.9. "Vendor"** or **"Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:
☐ Term Contract
Initial Contract Term: This Contract becomes effective on
Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.
☐ Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days.
Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within days.
Upon completion, the vendor agrees that maintenance, monitoring, or warranty services will be provided for one year thereafter with an additional successive one year renewal periods or multiple renewal periods of less than one year provided that the multiple renewal periods do not exceed months in total. Automatic renewal of this Contract is prohibited.
☑ One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.
Other: See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.
5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.
☐ Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.
☐ Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.
✓ Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.
One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.
6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.
7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.
☐ BID BOND (Construction Only): Pursuant to the requirements contained in W. Va. Code § 5-22-1(c), All Vendors submitting a bid on a construction project shall furnish a valid bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.
☐ PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of The performance bond must be received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be delivered to the Purchasing Division prior to Contract award. In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.
MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.
☐ INSURANCE: The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:
Commercial General Liability Insurance: In the amount of or more.
☐ Builders Risk Insurance: In an amount equal to 100% of the amount of the Contract.

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.
The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.
8. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.
9. LITIGATION BOND: The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.
10. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount of
for
This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

- 11. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.
- **12. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.
- **13. PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.
- **14. PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.
- ☐ Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.
- **15. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 16. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.
- 17. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.
- **18. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-6.1.e.

- **19. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- **20. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- **21. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.
- **22. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
- 23. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.
- **24. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
- 25. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.
- **26. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.

- 27. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.
- **28. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
- **29. BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.
- **30. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/default.html.
- **31. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

32. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

- 33. ANTITRUST: In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.
- **34. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein.

Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

35. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

- **36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.
- **37. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
- **38. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). Any extension of this Contract to the aforementioned Other Government Entities must be on the same prices, terms, and conditions as those offered and agreed to in this Contract, provided that such extension is in compliance with the applicable laws, rules, and ordinances of the Other Government Entity. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
- **39. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.
- following reports identified by a checked box below:

 Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

 Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

40. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the

41. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

- **42. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:
- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
- c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

43. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Tom Fenton/Bids Technical Response Specialist or Georgeann Foster/Business Sales Specialist

(Name, Title)

(Printed Name and Title)
2850 Centerville Road, Wilmington, DE 19808

(Address)
800-227-9770/302-993-5941

(Phone Number) / (Fax Number)
_lscabids@agilent.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Agilent Technologies, Inc.

(email address)

(Company)	Georgeann Foster/Business Sales Specialist
(Authorized Signature) (Representative Nan	ne, Title)
Georgeann Foster/Business Sales Special	ist
(Printed Name and Title of Authorized Repr	resentative)
11/16/2016	
(Date)	
800-227-9770/302-993-5941	
(Phone Number) (Fax Number)	

SPECIFICATIONS

- 1. PURPOSE AND SCOPE: The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Agriculture to establish a contract for the one time purchase of a Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS), workstation PC, software, printer, shipping, installation, validation, warranty, training, and service.
- **2. DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - **2.1** "APCI" means atmospheric pressure chemical ionization.
 - **2.2** "Contract Services" means the LC/MS/MS with inside delivery, installation, validation, warranty, and training.
 - 2.3 "ESI" means electrospray ionization.
 - 2.4 "FG" means femtogram.
 - **2.5** "Installation" means unpacking and setting instrumentation in place with all connections secured for the instrument(s) to be in working order including software installation on the computer connected to the instrument.
 - **2.6** "LC/MS/MS" means Liquid Chromatography Triple Quadrupole Mass Spectrometer.
 - 2.7 "MRM" means multiple reactions monitoring.
 - **2.8** "MSMS" means tandem mass spectrometry.
 - **2.9** "Pricing Page" means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.
 - **2.10 "Service"** means performing routine maintenance work or repair to the instrument or software.
 - **2.11 "SIM"** means selected ion monitoring
 - 2.12 "S/N" means signal noise.

- **2.13 "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- **2.14 "Training"** means teaching staff how to use and maintain the instrument and software.
- **2.15 "Validation"** means is the process used to confirm that the analytical procedure employed for a specific test or matrices is suitable for its intended use.
- **2.16 "Warranty"** means the written warranty of the manufacturer of a new instrument of its condition and fitness for use, including any terms or conditions precedent to the enforcement of obligations under that warranty.

3. GENERAL REQUIREMENTS:

- 3.1 Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below for the Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS).
 - 3.1.1 Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS)
 - 3.1.1.1 Must be capable of detecting a variety of analytes including pesticides, herbicides, toxins, and drugs in matrices such as foods, soil, vegetation, animal feed, and water.
 - 3.1.1.2 MSMS must have two ion sources that operate independently which can be set to electrospray ionization (ESI) or atmospheric pressure chemical ionization (APCI). The instrument must enable combinations such as ESI/APCI, ESI/ESI, APCI/APCI with the same or opposite polarities without having to remove the sources to switch modes.
 - 3.1.1.3 Minimum sensitivity requirement for positive ion mode: signal/noise (S/N) 2000:1 25 femtograms (fg) of reserpine on column. Minimum sensitivity requirement for negative ion mode: signal/noise (S/N)>2000:1, 25 femtograms (fg) of chloramphenicol on column.
 - **3.1.1.4** The source probes must be easy to remove without the use of tools.
 - 3.1.1.5 Ion source must have flat response across flow rate up to 3 milliliters per minute without loss of sensitivity.

- **3.1.1.6** Capable of switching between rapidly between positive and negative ion detection without high voltage switching.
- **3.1.1.7** Acquisition modes: Q1 scan, Q2 scan, multiple reactions monitoring (MRM), selected ion monitoring (SIM), Neutral Loss scans, Product Ion, Precursor Ion, Time managed MRM
- 3.1.1.8 Minimum mass range requirement: 5-1500 mass to charge ratio (m/z)
- **3.1.1.9** Mass stability required: 0.05 atomic mass unit (amu) in 24 hours
- **3.1.1.10** Mass accuracy needed: minimum 0.1 unit across mass range
- 3.1.1.11 Scan speed: $\leq 30,000$ daltons per second (da/s)
- **3.1.1.12** Quad resolution: unit, low and high, minimal sensitivity loss at 0.1 Daltons resolutions
- **3.1.1.13** Polarity switching time: <15 milliseconds
- **3.1.1.14** Dynamic range: 6 orders
- **3.1.1.15** Dual source switching speed: <20 milliseconds
- **3.1.1.16** Minimum multiple reactions monitoring (MRM) Dwell Time: 1 millisecond
- **3.1.1.17** MRM transitions: 450 per time segment > 40,000 ion transactions per method
- **3.1.1.18** Must have high selectivity mass filter at 0.3 Daltons. Signal loss must not be more than 10%.
- 3.1.1.19 For minimal tuning during method development and minimal maintenance of the ion path, the LC/MS/MS utilizes Hot Source Induced Desolvation interface to the mass analyzer by patented Laminar Flow Ion Guide using gas flow
- **3.1.1.20** High performance liquid chromatograph capable of solvent and column switching without user intervention
- **3.1.1.21** High performance liquid chromatograph capable of regulating column temperature of at least 2 different columns
- **3.1.1.22** High performance liquid chromatograph with an autosampler
- **3.1.1.23** The LC/MS/MS instrument must be fully automated for analysis with a system controller that is loaded with the necessary software.
- **3.1.1.24** The LC/MS/MS must include a maintenance kit.
- 3.1.1.25 Vendor must provide documentation for recommended environmental conditions, electrical requirements, gas requirements, or any other factor that would affect instrument performance.

3.1.2 Workstation and software

- 3.1.2.1 Data station with windows based operating system capable of multitasking allowing data processing and data acquisition simultaneously.
- **3.1.2.2** Operating system must be fully integrated to control LS/MS/MS.

3.1.3 Shipping, Installation, Validation, Warranty, Training and Service

- 3.1.3.1 Vendor must be on-site for delivery and perform the installation (labor and supplies included) of the LCMSMS.
- **3.1.3.2** The vendor must provide a written validation of the instrument's performance after installation.
- **3.1.3.3** Vendor will provide a full one-year parts and labor warranty on all items, including 2 preventative maintenances.
- **3.1.3.4** Vendor must be able to perform resolutions to service requests within 72 hours which includes on-site resolutions.
- **3.1.3.5** Vendor will provide on-site training (labor and non-consumable supplies included) for all instruments and software.
- **3.1.3.6** Vendor will provide copies of all system manuals (operations, training, technical, service, maintenance).

4. CONTRACT AWARD:

- **4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Page: Vendor should complete the Pricing Page by placing all inclusive information in each column for item number, model/brand name, unit price and extended amount. There should be a price for the LCMSMS, workstation, software, printer, shipping/inside delivery, installation, validation, warranty, training and service. If there is no charge for any deliverable, indicate in the cell with "no charge". The bidder/vendor information must be completed and include an authorize signature. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

- **6.1 Shipment and Delivery:** Vendor should ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at 313 Gus R. Douglass Lane, Charleston, WV 25312.
- **6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.
 - Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.
- **6.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.
- 6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 Return Due to Agency Error: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall

be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 VENDOR DEFAULT:

- **7.1** The following shall be considered a vendor default under this Contract.
 - **7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
 - **7.1.2** Failure to comply with other specifications and requirements contained herein.
 - **7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
 - **7.1.4** Failure to remedy deficient performance upon request.
- 7.2 The following remedies shall be available to Agency upon default.
 - **7.2.1** Immediate cancellation of the Contract.
 - **7.2.2** Immediate cancellation of one or more release orders issued under this Contract.
 - **7.2.3** Any other remedies available in law or equity.
- 8 FACILITIES ACCESS: Performance of Services will require access to the facility.
 - **8.1** Vendor must identify principal service personnel who will be asked for identification upon entrance to the facility.
 - **8.2** Anyone performing under this Contract will be subject to Agency's security protocol and procedures.
 - **8.3** Vendor shall inform all staff of Agency's security protocol and procedures.

	PRICING PAGE					
Item No.	Description	Model No/Brand Name	Quanity	Unit Price	Extended Amount	
3.1.1 & 3.1.2	LCMSMS, workstation, software, printer	Agilent 6460 QQQ LC/MS, 1290 Infinity II Flexible Pump, 1290 Infinity Thermostatted Column Compartment, 1290 Infinity Multisampler, Multmode ES/APCI Source, 1290 Infinity II Diode Array Detector FS, 2pos/6port Quick-Change valve head, LC/MS Triple Quad Standalone	1	\$305,024.30	\$305,024.30	
3.1.3	Shipping charges and inside delivery	Pesticide tMRM	1	\$0.00	\$0.00	
3.1.3	Installation/validation		1	\$0.00	\$0.00	
3.1.3	Training/warranty		1	\$7,828.00	\$7,828.00	
3.1.3	Service		1	\$69,608.40	\$69,608.40	
	Failure to use this form may result in disqualification			GRAND TOTAL	\$382,460.70	
	Bidder / Vendor Information					
Name:	Agilent Technologies, Inc.					
Address:	2850 Centerville Road					
	Wilmington, DE 19808					
Phone:	800-227-9770					
Email Address:	lscabids@agilent.com					
Signature:	Bergen Jate					

Shipping and Installation are included in the above pricing.

WV-10 Approved / Revised 08/01/15

State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1- -	Application is made for 2.5% vendor preference for the reason checked: Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or, Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2.	Application is made for 2.5% vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3.	Application is made for 2.5% vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4.	Application is made for 5% vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Application is made for 3.5% vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6	Application is made for 3.5% vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
7.	Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules. Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.
requiren	inderstands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the nents for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency cted from any unpaid balance on the contract or purchase order.
authorize the requ	nission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and es the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid ired business taxes, provided that such information does not contain the amounts of taxes paid nor any other information by the Tax Commissioner to be confidential.
and acc	benalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true curate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate is during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.
Bidder:	Signed:
Date	Title

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

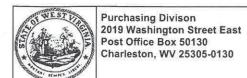
"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

My Commission Expires May 5, 2018
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

2 1 100 0 1 100 0 1	
Vendor's Name: Agilent Technologies, Inc.	
Authorized Signature:	Date:
State of Pennsylvania	
County of Montgomery , to-wit:	
Taken, subscribed, and sworn to before me this $\underline{^{14t}h}$ ta	y of November , 20 16.
My Commission expires <u>05 MAY</u>	
AFFIX SEAL HERE	NOTARY PUBLIC
COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Kimberly Zera, Notary Public Whitemarsh Twp., Montgomery County Whitemarsh Twp., Montgomery 5, 2018	Purchasing Affidavit (Revised 08/01/2015)



State of West Virginia Request for Quotation 01 — Agricultural

Proc Folder: 265333

Doc Description: Addendum # 1 - Triple Quad LC/MS/MS

Proc Type: Central Purchase Order

 Date Issued
 Solicitation Closes
 Solicitation No
 Version

 2016-11-09
 2016-11-17
 CRFQ
 1400 AGR1700000005
 2

 13:30:00
 2
 1400 AGR1700000005
 2

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:

Agilent Technologies, Inc. 2850 Centerville Road Wilmington, DE 19808 800-227-9770

Acknowledging Addendum 1.

FOR INFORMATION CONTACT THE BUYER

Linda Harper (304) 558-0468

linda.b.harper@wv.gov

Signature X

Gorgan data

77-0518772

DATE

11-14-2016

All offers subject to all terms and conditions contained in this solicitation

Page: 1

FORM ID: WV-PRC-CRFQ-001

ADDITIONAL INFORMAITON:

Addendum 1 issued for the following reasons:

- 1. To modify Section 3.1.1.2 of the specifications based on Q.A./14. of vendor questions. Revised specifications attached.
- 2. To publish the vendor questions with responses.

No other changes.

INVOICE TO		SHIP TO	
PROCUREMENT OFFICE	R 304-558-2221	AUTHORIZED RECEIVER	304-558-2227
AGRICULTURE DEPART	MENT OF	AGRICULTURE DEPARTM	MENT OF
ADMINISTRATIVE SERVI	CES	REGULATORY PROTECT	ION DIVISION
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN,	, BLDG 11
CHARLESTON	WV 25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	LCMSMS, Workstation, software.	1.00000	EA		
50	printer		Se	e Pricing on RFQ	

Comm Code	Manufacturer	Specification	Model #	
41100000				

Extended Description:

LCMSMS, Workstation, software, printer per specification 3.1.1 & 3.1.2

INVOICE TO		SHIP TO	
PROCUREMENT OFFICE	R 304-558-2221	AUTHORIZED RECEIVER	304-558-2227
AGRICULTURE DEPARTM	MENT OF	AGRICULTURE DEPARTM	MENT OF
ADMINISTRATIVE SERVI	CES	REGULATORY PROTECT	ION DIVISION
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN,	BLDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Shipping Charges and inside delivery	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #	
78121603				

Extended Description:

Shipping Charges and inside deliver per section 3.1.3

INVOICE TO		SHIP TO	
PROCUREMENT OFFICE	R 304-558-2221	AUTHORIZED RECEIVER	304-558-2227
AGRICULTURE DEPART	MENT OF	AGRICULTURE DEPARTM	MENT OF
ADMINISTRATIVE SERVI	CES	REGULATORY PROTECT	ION DIVISION
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN	BLDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Installation/validation	1.000			

Comm Code	Manufacturer	Specification	Model #	
73171605				

Extended Description:

Installation/validation per section 3.1.3

INVOICE TO		SHIP TO	
PROCUREMENT OFFICE	R 304-558-2221	AUTHORIZED RECEIVER 30	04-558-2227
AGRICULTURE DEPARTM	NITCHE DE	AGRICULTURE DEPARTMENT	
ADMINISTRATIVE SERVI	CES	REGULATORY PROTECTION	N DIVISION
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN, BI	LDG 11
CHARLESTON	WV25305-0173	CHARLESTON	WV 25312
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Training/Warranty	1.00000	EA		

		Model #	Specification	Manufacturer	Comm Code
73171605	-				73171605

Extended Description:

Training/Warranty per section 3.1.3

INVOICE TO		SHIP TO	SHIP TO			
PROCUREMENT OFFICE	R 304-558-2221	AUTHORIZED RECEIVER 3	304-558-2227			
AGRICULTURE DEPARTM	MENT OF	AGRICULTURE DEPARTM	ENT OF			
ADMINISTRATIVE SERVI	CES	REGULATORY PROTECTION	REGULATORY PROTECTION DIVISION			
1900 KANAWHA BLVD E		313 GUS R DOUGLAS LN,	BLDG 11			
CHARLESTON	WV25305-0173	CHARLESTON	CHARLESTON WV 25312			
US		us				

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Service	1.00000	EA		

Comm Code	Manufacturer	Specification	Model #	
73171605				
a Committee - Committee				

Extended Description:

Service per section 3.1.3

SCHEDULE OF EVENTS

Line Event Question Deadline 3:00 p.m.

Event Date 2016-11-04

SOLICITATION NUMBER: AGR1700000005 Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Ī]	Modify bid opening date and time
[🗸	1	Modify specifications of product or service being sought
[🗸	1	Attachment of vendor questions and responses
[I	Attachment of pre-bid sign-in sheet
]	l	Correction of error

Description of Modification to Solicitation:

Other

Applicable Addendum Category:

Addendum 1 issued for the following reasons:

- 1. To modify Section 3.1.1.2 of the specifications based on Q.A./14. of vendor questions. Revised specifications attached.
- 2. To publish the vendor questions with responses.

No other changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

- 1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
- 2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

CRFQ AGR1700000005

Vendor Questions

Q.1. Specification 3.1.1.20 says that the system should come with solvent and column selection. Can you please clarify how many solvents per pump (2, 3, 4, etc.) and how many columns (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12? Specification 3.1.1.21 mentioned 2 columns, but we want to be certain.

A.1. 4 solvents per pump preferred and 2 columns

Q.2. Specification 3.1.1.21 mentioned a column temperature, but no temperature range on the column oven is provided. We offer a heating oven and a heating (ambient up to 85 degrees) and cooling oven (10 degrees below ambient up to 85 degrees). Can you please clarify which you need?

A.2. 4-90°

- Q.3. Specification 3.1.1.22 mentions a High Performance Liquid Chromatograph with an autosampler. This leads to a series of questions on the configuration:
 - a. I assume you want a binary high pressure pump? Or, did you want a quaternary low pressure pump?

3a. quaternary low pressure pump

b. What pressure range do you want on the system? We offer standard (6000 psi), mid (9000 psi) and UHPLC (19000 psi).

3b. since systems vary 15,000 to 19,000 psi is acceptable

c. Should the autosampler be ambient or Peltier-cooled?

3c. cooled

d. Will you be sampling from 2 mL vials, which is typically standard, or do you want to sample from microtitre plates, etc..?

3d. possibly both

e. How many vials do you want your autosampler to hold? Shimadzu offers 100 and 324 2 mL vial options.

3e. 48 vials or more

- f. Do you want the HPLC to include a traditional HPLC detector (such as a photo diode array) inline to help with troubleshooting and method development?
- g. 3f. yes

Q.4. There is no mention of a Nitrogen or Air generator, and this will be necessary to run any LC/MS/MS. Should this be included on the bid, or should just the specifications be included as per 3.1.1.25?

A.4. Do not include in bid

Q.5. There is no mention of a UPS on the bid. This is highly recommended to protect the turbomolecular pump and deliver a stable source of power to the instrument. Should this be added?

A.5. Do not include in bid

- Q.6. Section 3.1.3.4 refers to response time for service requests. Does this refer to requests under warranty or post warranty? Also, is there a requirement for post warranty contractual support pricing for this solicitation?
- A.6 This refers to any service when the instrument has failed and the laboratory cannot process samples. The best response time is critical to the laboratory to maintain production, therefore, a 72 hour resolution to service requests is critical.
- Q.7. Is the lab that is interested in purchasing an LCMS system interested or currently running any regulated EPA, FDA, or USDA LCMS Methods and if so which method numbers are being analyzed?
- A.7. Multiple methods from the EPA, FDA, USDA, FERN, AOAC are being ran or are intended to be ran.
- Q.8. Would they be able to outline which pesticides, herbicides, toxins, and drugs they would like analyze with the LCMS/MS system and what limits of detection and quantification they need for their work?
- A.8. The laboratory will test an array of substances that are of concern under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In addition, two specific methods are of current interest USDA FSIS CLG.TOX 001 and TOX 002 which screen for drugs, pesticides and poisons.
- Q.9. Would they be able to outline a specific LCMS method that requires a flow rate of 3 mL/min and why this would be more advantegous than a lower flow rate method?
- A.9. No specific LCMS method is referenced. The specification was referring to a loss in sensitivity at different flow rates and anything that meets that requirement or is more sensitive is required.
- Q.10. Are they currently using any sample preparation for the analysis of these components and if they could optimize or potentially eliminate sample prep would that be something they would be interested in doing?
- A.10. It is dependent upon the official method. If the method dictates the sample preparation, then the laboratory will have to follow it. Some preparations can be eliminated if the laboratory validates

- the method. Also changes is methods that are validated will have to be approved by our customers before a validation is performed.
- Q.11. Would they be able to outline a specific LCMS method that requires a scan rate of 30,000 Da/sec and how is this advantegous?
- A.11 No specific LCMS method is referenced, however the laboratory will be performing method development and will be comparing if the chromatographic resolution is better with the higher scan rates.
- Q.12. How does size of the LCMS solution they are looking to obtain affect their decision? If they could get a small footprint LCMS system would that add value to the work they do?
- A.12. If all the specifications are met in the RFQ, the size could be something that would determine an award of the bid.
- Q.13. We would like to be able to propose suggestion exceptions to terms and conditions with a mutual negotiation and agreement. Will you allow this should we be awarded the bid or will you disqualify us? Bid states "may" result in disqualification but we would like to attempt to negotiate if possible.
- A.13. Suggested exceptions should be submitted and will be reviewed for acceptance. Certain State of West Virginia terms and conditions are non-negotiable.
- Q.14. Can you clarify the need and importance for the spec listed in 3.1.1.2? I don't see how it applies to the real world applications. We have canned methods for all of the applications in question and none require this functionality.
- A.14. There is an error in the specification 3.1.1.2. It should state "dual ion sources that operate independently which can be set to electrospray ionization (ESI) or atmospheric pressure chemical ionization (APCI). A copy of the revised specifications attached.

SPECIFICATIONS

- 1. PURPOSE AND SCOPE: The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Department of Agriculture to establish a contract for the one time purchase of a Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS), workstation PC, software, printer, shipping, installation, validation, warranty, training, and service.
- **2. DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - **2.1** "APCI" means atmospheric pressure chemical ionization.
 - **2.2** "Contract Services" means the LC/MS/MS with inside delivery, installation, validation, warranty, and training.
 - 2.3 "ESI" means electrospray ionization.
 - 2.4 "FG" means femtogram.
 - 2.5 "Installation" means unpacking and setting instrumentation in place with all connections secured for the instrument(s) to be in working order including software installation on the computer connected to the instrument.
 - **2.6** "LC/MS/MS" means Liquid Chromatography Triple Quadrupole Mass Spectrometer.
 - 2.7 "MRM" means multiple reactions monitoring.
 - 2.8 "MSMS" means tandem mass spectrometry.
 - **2.9** "Pricing Page" means the pages, contained in wvOASIS or attached as Exhibit A, upon which Vendor should list its proposed price for the Contract Items.
 - **2.10 "Service"** means performing routine maintenance work or repair to the instrument or software.
 - 2.11 "SIM" means selected ion monitoring
 - 2.12 "S/N" means signal noise.

- **2.13 "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
- **2.14 "Training"** means teaching staff how to use and maintain the instrument and software.
- **2.15 "Validation"** means is the process used to confirm that the analytical procedure employed for a specific test or matrices is suitable for its intended use.
- **2.16** "Warranty" means the written warranty of the manufacturer of a new instrument of its condition and fitness for use, including any terms or conditions precedent to the enforcement of obligations under that warranty.

3. GENERAL REQUIREMENTS:

- 3.1 Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below for the Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS).
 - 3.1.1 Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS)
 - 3.1.1.1 Must be capable of detecting a variety of analytes including pesticides, herbicides, toxins, and drugs in matrices such as foods, soil, vegetation, animal feed, and water.
 - 3.1.1.2 MSMS must have dual ion sources that operate independently which can be set to electrospray ionization (ESI) or atmospheric pressure chemical ionization (APCI). The instrument must enable combinations such as ESI/APCI, ESI/ESI, APCI/APCI with the same or opposite polarities without having to remove the sources to switch modes.
 - 3.1.1.3 Minimum sensitivity requirement for positive ion mode: signal/noise (S/N) 2000:1 25 femtograms (fg) of reserpine on column. Minimum sensitivity requirement for negative ion mode: signal/noise (S/N)>2000:1, 25 femtograms (fg) of chloramphenicol on column.
 - **3.1.1.4** The source probes must be easy to remove without the use of tools.
 - 3.1.1.5 Ion source must have flat response across flow rate up to 3 milliliters per minute without loss of sensitivity.

- **3.1.1.6** Capable of switching between rapidly between positive and negative ion detection without high voltage switching.
- 3.1.1.7 Acquisition modes: Q1 scan, Q2 scan, multiple reactions monitoring (MRM), selected ion monitoring (SIM), Neutral Loss scans, Product Ion, Precursor Ion, Time managed MRM
- 3.1.1.8 Minimum mass range requirement: 5-1500 mass to charge ratio (m/z)
- 3.1.1.9 Mass stability required: 0.05 atomic mass unit (amu) in 24 hours
- 3.1.1.10 Mass accuracy needed: minimum 0.1 unit across mass range
- 3.1.1.11 Scan speed: <30,000 daltons per second (da/s)
- **3.1.1.12** Quad resolution: unit, low and high, minimal sensitivity loss at 0.1 Daltons resolutions
- **3.1.1.13** Polarity switching time: ≤15 milliseconds
- 3.1.1.14 Dynamic range: 6 orders
- **3.1.1.15** Dual source switching speed: <20 milliseconds
- **3.1.1.16** Minimum multiple reactions monitoring (MRM) Dwell Time: 1 millisecond
- **3.1.1.17** MRM transitions: 450 per time segment > 40,000 ion transactions per method
- **3.1.1.18** Must have high selectivity mass filter at 0.3 Daltons. Signal loss must not be more than 10%.
- 3.1.1.19 For minimal tuning during method development and minimal maintenance of the ion path, the LC/MS/MS utilizes Hot Source Induced Desolvation interface to the mass analyzer by patented Laminar Flow Ion Guide using gas flow
- **3.1.1.20** High performance liquid chromatograph capable of solvent and column switching without user intervention
- **3.1.1.21** High performance liquid chromatograph capable of regulating column temperature of at least 2 different columns
- 3.1.1.22 High performance liquid chromatograph with an autosampler
- **3.1.1.23** The LC/MS/MS instrument must be fully automated for analysis with a system controller that is loaded with the necessary software.
- 3.1.1.24 The LC/MS/MS must include a maintenance kit.
- 3.1.1.25 Vendor must provide documentation for recommended environmental conditions, electrical requirements, gas requirements, or any other factor that would affect instrument performance.

3.1.2 Workstation and software

- 3.1.2.1 Data station with windows based operating system capable of multitasking allowing data processing and data acquisition simultaneously.
- **3.1.2.2** Operating system must be fully integrated to control LS/MS/MS.

3.1.3 Shipping, Installation, Validation, Warranty, Training and Service

- 3.1.3.1 Vendor must be on-site for delivery and perform the installation (labor and supplies included) of the LCMSMS.
- **3.1.3.2** The vendor must provide a written validation of the instrument's performance after installation.
- **3.1.3.3** Vendor will provide a full one-year parts and labor warranty on all items, including 2 preventative maintenances.
- **3.1.3.4** Vendor must be able to perform resolutions to service requests within 72 hours which includes on-site resolutions.
- 3.1.3.5 Vendor will provide on-site training (labor and non-consumable supplies included) for all instruments and software.
- **3.1.3.6** Vendor will provide copies of all system manuals (operations, training, technical, service, maintenance).

4. CONTRACT AWARD:

- **4.1 Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 Pricing Page: Vendor should complete the Pricing Page by placing all inclusive information in each column for item number, model/brand name, unit price and extended amount. There should be a price for the LCMSMS, workstation, software, printer, shipping/inside delivery, installation, validation, warranty, training and service. If there is no charge for any deliverable, indicate in the cell with "no charge". The bidder/vendor information must be completed and include an authorize signature. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

- **6.1 Shipment and Delivery:** Vendor should ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at 313 Gus R. Douglass Lane, Charleston, WV 25312.
- 6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.
 - Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.
- **6.3 Delivery Payment/Risk of Loss:** Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.
- 6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- **6.5 Return Due to Agency Error**: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall

be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 VENDOR DEFAULT:

- 7.1 The following shall be considered a vendor default under this Contract.
 - **7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
 - **7.1.2** Failure to comply with other specifications and requirements contained herein.
 - **7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
 - **7.1.4** Failure to remedy deficient performance upon request.
- 7.2 The following remedies shall be available to Agency upon default.
 - **7.2.1** Immediate cancellation of the Contract.
 - **7.2.2** Immediate cancellation of one or more release orders issued under this Contract.
 - **7.2.3** Any other remedies available in law or equity.
- 8 FACILITIES ACCESS: Performance of Services will require access to the facility.
 - **8.1** Vendor must identify principal service personnel who will be asked for identification upon entrance to the facility.
 - **8.2** Anyone performing under this Contract will be subject to Agency's security protocol and procedures.
 - **8.3** Vendor shall inform all staff of Agency's security protocol and procedures.

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: AGR1700000005

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addend	um Num	bers R	eceived:

(Check the box next to each addendum received)

	j	Addendum No. 1	1]	Addendum No. 6
1]	Addendum No. 2	1]	Addendum No. 7
I]	Addendum No. 3	[]	Addendum No. 8
1]	Addendum No. 4]]	Addendum No. 9
]]	Addendum No. 5	1]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Agilent Technologies, Inc.

Company

Authorized Signature

11-14-2016

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing. Revised 6/8/2012

3. GENERAL REQUIREMENTS:

3.1 Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below for the Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS).

3.1.1 Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC/MS/MS)

- 31.1.1 Must be capable of detecting a variety of analytes including pesticides, herbicides, toxins, and drugs in matrices such as foods, soil, vegetation, animal feed, and water. The Agilent 6460 meets this specification. Please see attached list of recent publications highlighting performance capabilities of the instrument. Additionally, Agilent has available MRM databases of hundreds of compounds relevant to pesticides, herbicides, veterinary drugs and illicit substances that speed method development time and simplify compound identification.
- **3.1.1.2 MSMS** must have two ion sources that operate independently which can be set to electrospray ionization (ESI) or atmospheric pressure chemical ionization (APCI). The instrument must enable combinations such as ESI/APCI, ESI/ESI, APCI/APCI with the same or opposite polarities without having to remove the sources to switch modes. The Agilent 6460 meets this specification.
- 3.1.1.3 Minimum sensitivity requirement for positive ion mode: signal/noise (S/N) 2000:1 25 femtograms (fg) of reserpine on column. Minimum sensitivity requirement for negative ion mode: signal/noise (SIN)>2000:1, 25 femtograms (fg) of chloramphenicol on column. The Agilent 6460 has a S/N specification of 30,000:1 in positive ionization mode for the injection of 1 pg reserpine on column and 10,000:1 in negative ionization mode for the injection of 1 pg chloramphenicol on column. However, determining instrument sensitivity using a signal to noise ratio is not a true measure of instrument performance and can vary widely depending on what region of the chromatogram is selected as noise and what pre-processing algorithms are used to smooth the data. Additionally, when S/N ratios are measured in the range of several thousand to one, these numbers become Agilent has adopted the more realistic and meaningless. scientifically valid method of determining instrument sensitivity by calculating the instrument detection limit. This is the amount of analyte that can be detected reproducibly over 8 consecutive injections with a 99% confidence interval (see Agilent publication

5990-7651 and 5990-8341). The calculated Instrument Detection Limit (or IDL) for the 6460 is less than 12.5 fg when injecting 20 fg on column.

- **3.1.1.4** The source probes must be easy to remove without the use of tools. The Agilent 6460 meets this specification.
- **3.1.1.5** Ion source must have flat response across flow rate up to 3 milliliters per minute without loss of sensitivity. The Agilent 6460 Jet Stream Ion source has a flow rate range up to 2.5 mL/min.

- 3.1.1.6 Capable of switching between rapidly between positive and negative ion detection without high voltage switching. The Agilent 6460 can alternate rapidly between positive and negative ion detection rapidly.
- 3.1.1.7 Acquisition modes: Q1 scan, Q2 scan, multiple reactions monitoring (MRM), selected ion monitoring (SIM), Neutral Loss scans, Product Ion, Precursor Ion, Time managed MRM The Agilent 6460 meets these specifications.
- **3.1.1.8** Minimum mass range requirement: 5-1500 mass to charge ratio (m/z) The Agilent 6460 has a mass range of 5-3,000 daltons
- **3.1.1.9** Mass stability required: 0.05 atomic mass unit (amu) in 24 hours The Agilent 6460 has a mass stability of <0.1 Da in 24 hours
- **3.1.1.10** Mass accuracy needed: minimum 0.1 unit across mass range The Agilent 6460 has a mass accuracy of 0.1 Da from m/z 5-1000, 0.01% from 1000-2000 m/z and 0.02% from 2,000-3,000 m/z.
 - **3.1.1.11** Scan speed: <30,000 daltons per second (da/s) The Agilent 6460 has a data acquisition speed of 12,500 Da/s
 - **3.1.1.12** Quad resolution: unit, low and high, minimal sensitivity loss at 0.1 Daltons resolutions The mass resolution of the Agilent 6460 is 0.5 Da.
 - 3.1.1.13 Polarity switching time: <15 milliseconds The polarity switching time of the Agilent 6460 is 30 ms.
 - **3.1.1.14** Dynamic range: 6 orders The Agilent 6460 meets this specification.
 - **3.1.1.15** Dual source switching speed: <20 milliseconds The Agilent 6460 has an optional multimode source whereby both the ESI and APCI sources can be functioning simultaneously. Therefore, there is no switching time required between ionization types.
 - **3.1.1.16** Minimum multiple reactions monitoring (MRM) Dwell Time: 1 millisecond The Agilent 6460 meets this specification
 - **3.1.1.17** MRM transitions: 450 per time segment > 40,000 ion transactions per method The Agilent 6460 meets this specification
 - **3.1.1.18** Must have high selectivity mass filter at 0.3 Daltons. Signal loss must not be more than 10%. The Agilent 6460 has a mass resolution of 0.5 Da
- **3.1.1.19** For minimal tuning during method development and minimal maintenance of the ion path, the LC/MS/MS utilizes Hot Source Induced Desolvation interface to the mass analyzer by patented Laminar Flow Ion Guide using gas flow The Agilent 6460 uses a patented orthogonal nebulization electrospray ionization source. Nebulization (spray) orthogonal to the axis of the sampling capillary reduces noise related to incomplete drying of solvent droplets. This allows the use of on-axis ion optics elements for greater ion transmission efficiency, without increased noise. It also keeps the sampling capillary and ion optics cleaner. Together, superior nebulization, counter-

flow drying gas, and orthogonal nebulization increase mass spectrometer performance by increasing signal while simultaneously reducing noise. They also make Agilent's ion sources very tolerant of nonvolatile components in samples and mobile phases.

- **3.1.1.20** High performance liquid chromatograph capable of solvent and column switching without user intervention The Agilent 1290 II LC system meets this specification.
- **3.1.1.21** High performance liquid chromatograph capable of regulating column temperature of at least 2 different columns The Agilent 1290 II LC system meets this specification.
- **3.1.1.22** High performance liquid chromatograph with an autosampler The Agilent 1290 II LC system meets this specification.
- **3.1.1.23** The LC/MS/MS instrument must be fully automated for analysis with a system controller that is loaded with the necessary software. The Agilent 6460QQQ and 1290 II LC system meets this specification.
- **3.1.1.24** The LC/MS/MS must include a maintenance kit. The Agilent 1290 II LC and 6460 QQQ system meets this specification.
- 3.1.1.25 Vendor must provide documentation for recommended environmental conditions, electrical requirements, gas requirements, or any other factor that would affect instrument performance. The Agilent 6460 QQQ and 1290 II LC system meets this specification.

3.1.2 Workstation and software

- **3.1.2.1** Data station with windows based operating system capable of multitasking allowing data processing and data acquisition simultaneously. The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- **3.1.2.2** Operating system must be fully integrated to control LS/MS/MS. The Agilent 6460 QQQ and 1290 II LC system meets this specification.

3.1.3 Shipping, Installation, Validation, Warranty, Training and Service

- **3.1.3.1 Vendor must be on-site for** delivery and perform the installation (labor and supplies included) of the LCMSMS. The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- 3.1.3.2 The vendor must provide a written validation of the instrument's performance after installation. The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- 3.1.3.3 Vendor will provide a full one-year parts and labor warranty on all items, including 2 preventative maintenances. The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- 3.1.3.4 Vendor must be able to perform resolutions to service requests within 72 hours which includes on-site resolutions. . The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- 3.1.3.5 Vendor will provide on-site training (labor and non-consumable supplies included) for all instruments and software. The Agilent 6460 QQQ and 1290 II LC system meets this specification.
- 3.1.3.6 Vendor will provide copies of all system manuals (operations, training, technical, service, maintenance). The Agilent 6460 OOO and 1290 II LC system meets this specification.

Agilent 6460 QqQ Mass Spectrometer

The 6460, with Agilent Jet Stream thermal gradient focusing, improves detection limits by more than six-fold over the 6430, breaking the femtogram sensitivity barrier for many compounds. The 6460 provides excellent sensitivity for the analysis of pharmaceutical compounds, trace-level environmental or food contaminants, drugs, metabolites, and biomarkers.



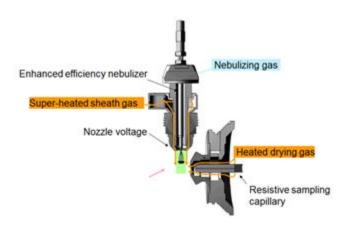
With 1 ms dwell times and no collision cell cross talk, the 6460 QqQ is ideally coupled with the 1260 or 1290 Infinity II UHPLC LC system for fast sample analyses, allowing reliable peak integration and quantitation across even 1 second-wide UPHLC peaks. For very 4,000 transitions per method and polarity switching in as little as 30 ms. These rapid polarity switching times are due, in part, to the resistively coated capillary that reacts very quickly to voltage changes.

The 6460 combines Agilent Jet Stream technology with improved ion optics and vacuum system innovations to achieve sub-femtogram sensitivity. These innovations include:

- Agilent Jet Stream thermal gradient focusing technology dramatically enhances sensitivity.
- High-mass quadrupoles and precise RF control improve performance across the mass range.
- A resistively coated sampling capillary enhances ion transmission and enables rapid ion polarity switching with minimal ion losses.
- A high-capacity vacuum system, with a second turbomolecular pump, increases conductance throughout the mass analyzer, maximizing ion transmission and improving sensitivity.
- Agilent's advanced hexapole collision cell, eliminates background noise and cross-talk, enabling the high sensitivity required for accurate quantification at low levels
- Compatible with Agilent's HPLC-Chip Nano LC system, allowing low attomole sensitivity for peptide quantitation

Agilent JetStream Electrospray Source

The 6460 QTOF features Agilent's new JetStream source technology to enhance ESI-MS sensitivity a factor of 5-10 fold over ESI at conventional flow rates (50 $\mu\text{L/min}-2.5~\text{mL/min})$. The Agilent Jet Stream thermal gradient focusing technology was developed to significantly enhance sensitivity in ESI-MS by improving the desolvation and spatial focusing of ions. This desolvation helps to reduce noise. Additionally, superheated



nitrogen sheath gas confines the nebulizer spray to more effectively dry ions and concentrate them in a thermal confinement zone. This confinement of the spray by the superheated nitrogen gas eliminates sample recirculation and reduces peak tailing. Agilent Jet Stream technology is suited for today's most demanding applications —it provides maximum sensitivity for the analysis of pharmaceutical compounds to support drug development applications and trace-level pesticide and chemical analysis to assure environmental quality and food safety.

MassHunter Software

The 6460 QqQ is controlled by MassHunter Workstation software. This software simplifies the processing and reporting of quantitative analyses, turning raw data into meaningful results with a minimum of manual intervention. MassHunter Software makes use of tools such as:

- Dynamic MRM
- MassHunter Optimizer
- Peptide Optimizer
- Parameter-less integrator
- Batch-at-a-glance data review
- Curve-fit assistant
- Dynamically linked results
- Outlier flagging
- Customizable views

When it comes to reporting your results, MassHunter Software provides fully customizable reports to enable collaborative, better-informed decision making

MassHunter software stores all results in XML files and uses Microsoft® Excel and a custom macro add-in for reporting. A wide range of application-specific report templates or customized reports are available in this familiar Excel environment, including custom calculations to meet your needs.

For individuals working in regulated environments, MassHunter software provides comprehensive tools to help you address all the requirements of GLP/GMP and 21 CFR Part 11 compliance. With built-in audit trails, multi-user login security, user permissions, and electronic signatures, the software makes it easier for your laboratory to operate in a regulated environment. Agilent also offers a complete suite of Installation and Operation Qualification services to shorten the time between installation and running critical samples.

Dynamice MRM

The most common MS/MS approach to perform compound quantitation on a triple quadrupole mass spectrometer is to generate highly specific MRM-based experiments. For many situations, such as biomarker validation and pesticide testing, an experiment could contain as many as several hundred to several thousand MRM transitions that need to be monitored. To maximize sensitivity, it is critical to optimize the MRM cycle times to monitor as few MRM transitions as possible at any one time. Traditionally, this has been done by dividing the chromatogram into multiple time segments and monitoring only a given number of MRM transitions at each time window. Not only is this a challenge to set up and/or alter if additional compounds need to be added, it still often monitors more MRM transitions than required because closely eluting peaks prevent discreet time windows from being drawn.

To overcome these challenges, the Agilent 6460 Triple Quadrupole LC/MS system uses dynamic MRM (DMRM) technology. The DMRM algorithm automatically constructs DMRM timetables for multiple analytes using retention times and detection windows (Delta RT) for each analyte of interest. MRM data is acquired only during the retention time window such that the MS duty cycle is not wasted by monitoring ions during periods of time when the compounds are not expected to elute. Because each MRM transition is linked to a retention time, users no longer have to create chromatographic time segments linked to specific ion transition. DMRM also reduces the number of concurrent ion transitions, thus maximizing dwell time and should therefore improve sensitivity. DMRM utilizes a constant cycle time to ensure uniform distribution of data points. This will improve the sampling of chromatographic peaks resulting in better peak symmetry that enables reproducibility in retention time measurement, peak areas, and accuracy of quantitation.

Triggered MRM

Triggered MRM is a unique data acquisition mode which increases your confidence in compound identity while maintaining the fast duty cycles and high sensitivities critical in quantitative measurements. Triggered MRM allows the user to specify up to 8 additional, confirmatory, MRM transitions for a given compound. These additional MRM transitions, however, are only performed if the primary MRM transition is detected. In this manner, a compound's identity can be decisively established by detecting the presence of up to 9 fragment ions (fragment ion from initial MRM pair plus additional 8 confirmatory fragments). Because there additional MRM transitions are only acquired if the initial MRM is detected, the instrument duty cycle is not negatively impacted by monitoring for these MRM transitions when the compound of interest is not detected. In addition, because this subsequent fragmentation information is acquired in very fast, sensitive MRM mode as opposed to much slower and less sensitive scanning mode, the instrument maintains its incredibly fast cycle time and high sensitivity in confirmatory as well as quantitative modes.

MassHunter Optimizer

To ensure the optimum sensitivity from a triple quadrupole mass spectrometer, a user must determine the optimum MRM transitions to monitor and the optimum fragmentation energy for each of these transitions. Agilent MassHunter Optimizer software optimizes ion transitions and fragmentor and collision energies for both singly charged small molecules and multiply charged peptides, automatically determining the optimum conditions for each target analyte and maximizing instrument sensitivity.

With unique flexibility for infusion or for injection onto a column to achieve the maximum success for auto-optimization, MassHunter Optimizer software supports the following workflows:

- DMPK and ADME/Tox applications.
- Food, environmental and forensic analyses.
- Biomarker validation with multiple MRMs for hundreds of peptides

MRM Databases

To meet demand for low limits of detection for veterinary drug, pesticide and drugs of abuse screening, scientists must be able to quantify trace-level compounds—and positively confirm their identities. Based on its selectivity and sensitivity, triple quadrupole LC/MS is ideal for low-level compound testing in a variety of complex matrices; however, method development for targeted multicompound screens can be difficult and time consuming. Additionally, in complex matrices, several cases have been reported where matrix constituents were interfering with the MRM traces of the analytes with similar or identical retention times, eventually resulting in false positives.

One approach to avoiding these problems is to acquire additional transitions or a full compound spectrum for all the compounds of interest. Using traditional MRM methodologies, this typically compromises the number of compounds which can be included in the method. Agilent has solved this conundrum through the use of Triggered MRM. Triggered MRM enables both, fast cycle times allowing for methods with hundreds of compounds and full spectrum acquisition.

To simplify the method development for these screening workflows, Agilent has created a series of Triggered MRM databases. These databases allow scientists to instantly build targeted screening and quantitation methods for hundreds of compounds in a single run. These databases contain

Market	Compounds in Database
Forensics Toxicology	2893
Pesticide	754
Vet Drugs	675

hundreds of triple quadrupole LC/MS transition parameters, allowing scientists to create MRM, dynamic MRM (dMRM), or triggered MRM (tMRM) methods, based on their analytical needs. The table to the right shows the current tMRM databases that are available and the number of compounds included in each.



Quotation

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2163851	10/31/2016		12 Weeks	1 of 7
Contact		Phone no.		Valid to
Rick Browning		304-84	10-4752	12/30/2016

To place an order: Call 1-800-227-9770 Option 1

For Instruments Fax : 302-633-8953
Email: LSCAinstrumentsales@agilent.com
For Consumables Fax : 302-633-8901
Email: CAG_sales-NA@agilent.com
For Genomics Fax: 512-321-3128

Email: orders@agilent.com

For additional instructions, see last page

AGR1700000005 17NOV2016

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price	
G6460CA	1.000 EA	402,318.00 USD	181,043.10-	221,274.90	

6460 Triple Quadrupole LC/MS System including 6460 TripleQuad, workstation PC, MassHunter Software with two Data Analysis licenses, Installation and Familiarization training, and 1Y Software Upgrade/Phone Assist.

With the following configuration:

Select Desired Technology : Agilent Jet Stream (Std)

Ship-to Country : USA Installation (44K)

Familiarization at Installation (44L)

1 Year SW Update/Phone Assist (44W)

Training (44P)

1YR PC Repair Recovery Service (0TP)

Special discount of 45.00 % is applied.

G7104A 1.000 EA 39,322.00 USD 14,549.14- 24,772.86

1290 Infinity II Flexible Pump.
Power range 1300 bar and 5ml/min
flow, quaternary low pressure
mixing, highest precision and accuracy.
Includes Active Seal Wash, Tool Kit
Solvent Cabinet and bottles, ISET and
Blend Assist.

With the following configuration: High speed UCT (033): selected

Manual DVD for 1220/1260/1290 : DVD included

Ship-to Country: USA



With the following configuration:

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Contact		Phone no.		Valid to	
Rick Browning		304-84	10-4752	12/30/2016	

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Email: orders@agilent.com

For additional instructions, see last page

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
Ultra Low Dispersion Kit				
Ultra Clean Tubing Kit				
Installation (44K)				
ecial discount of 37.00 % is applied.				
G1316C	1.000 EA	7,364.00 USD	2,724.68-	4,639.32
1290 Infinity Thermostatted Column				
Compartment. For use with any 1290 Infinity				
or 1260 Infinity system requiring low				
dispersion or special valve solutions.				
Temperature up to 100 degree C.				
With the following configuration:				
Valve Kits ordered for G1316C : G423xA/B ord	dered			
Ship-to Country: USA				
Valve drive for TCC SL plus				
Delete low dispersion kit				
Installation (44K)				
Familiarization at Installation (44L)				
ecial discount of 37.00 % is applied.				
G7167B	1.000 EA	31,693.00 USD	11,726.41-	19,966.59
1290 Infinity Multisampler up to 1300 bar				
for well plates and individual sample				
containers. Includes 1 sample drawer, 2x				
54-vial containers, a needle flush				
port, 40 uL metering device, 20 uL loop.				
(for Dual-needle instruments metering is				
100 ul and loop size is 100 ul).				



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Email: orders@agilent.com

For additional instructions, see last page

Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
Dual-height drawer kit (132) : 1 Ship-to Country : USA				
Agilent Infinity Sample cooler				
Dual-height drawer (2H)				
Installation (44K)				
pecial discount of 37.00 % is applied.				
G1733CA	1.000 EA	3,941.00 USD	985.25-	2,955.75
LC/MS TripleQuad Standalone Pesticide tMRM				
database (DB).				
With the following configuration:				
Ship-to Country : USA				
pecial discount of 25.00 % is applied.				
H2149A	1.000 EA	9,785.00 USD	1,957.00-	7,828.00
Method and Application Consulting				
On-site consulting for a maximum of 4				
participants. Certificates and manuals				
not included.				
With the following configuration:				
Ship-to Country: USA				
Three Day On-site (Includes Travel)				
pecial discount of 20.00 % is applied.				
765				



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Rick Brownin	g	304-840-4752		12/30/2016	

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		Unit	D	Extended
Product/Description	Qty/Unit	List Price	Discount Amount	Net Price
The product number listed below is a part of spe	•			
order to be eligible for this promotion, all product	·	•	•	
allowed. All orders for this promotional special m		•	•	
2016, which is the expiration date of this promor ability to ship.	tion, whichever comes first. D	elivery of products inclu	ided in the promotion v	vill be within Agilent#s
SYS-LM-QQQ	1.000 EA	98,040.00 USD	28,431.60-	69,608.40
Support for:				
LCMS Triple Quad System				
With the following configuration:				
Ship-to Country : USA				

Promotion discount 9.00 %.

Special discount of 20.00 % is applied.

G1978B 1.000 EA 28	8,280.00 USD 1	12,726.00- 1	15,554.00
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Multimode ESI/APCI Source

With the following configuration:

Configuration for usage with: Triple Quad

CrossLab Prev Maintenance - 5yrs total CrossLab Bronze Govt/Acad - 5yrs total

Ship-to Country : USA Installation (44K)

Familiarization at Installation (44L)

Special discount of 45.00 % is applied.

G7117A 1.000 EA 21,200.00 USD 7,844.00- 13,356.00



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2163851	10/3	31/2016	12 Weeks	5 of 7	
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Rick Brownin	g	304-840-4752		12/30/2016	

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Email: orders@agilent.com

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Product/Description	Qty/Unit	Unit List Price	Discount Amount	Extended Net Price
1290 Infinity II Diode Array Detector FS				
for ultra sensitivity, fast multi-wavelength				
and spectral analysis. Data rates of up to				
120 Hz. RFID tags for cell and lamp.				
Includes 10 mm flow cell.				
With the following configuration:				
Ship-to Country : USA				
Installation (44K)				
pecial discount of 37.00 % is applied.				
G4231A	1.000 EA	3,976.00 USD	1,471.12-	2,504.88
2pos/6port Quick-Change valve head, 600 b	oar.			
With the following configuration:				
Kap kit LDHE (004): selected				
Ship-to Country : USA				
2/6 cap kit 0.12 mm ID, LDHE double				
Installation (44K)				
pecial discount of 37.00 % is applied.				
			_	
		Gross Amount	: \$	645,919.00
		Total Discount	: \$: \$	263,458.30
		Net Amount	. \$	382,460.70



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2163851	10/3	31/2016	12 Weeks		6 of 7
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Rick Brownin	ıg	304-84	10-4752	1	2/30/2016

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- 1) Visit http://www.agilent.com/chem/supplies to place online orders using a purchase order or credit card.
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Quote No.	Crea	ate Date	Delivery Tim	ne Page	
2163851	10/3	31/2016	12 Weeks	7 of 7	
Contact		Phone no.		Valid to	
Rick Brownin	g	304-840-4752		12/30/2016	

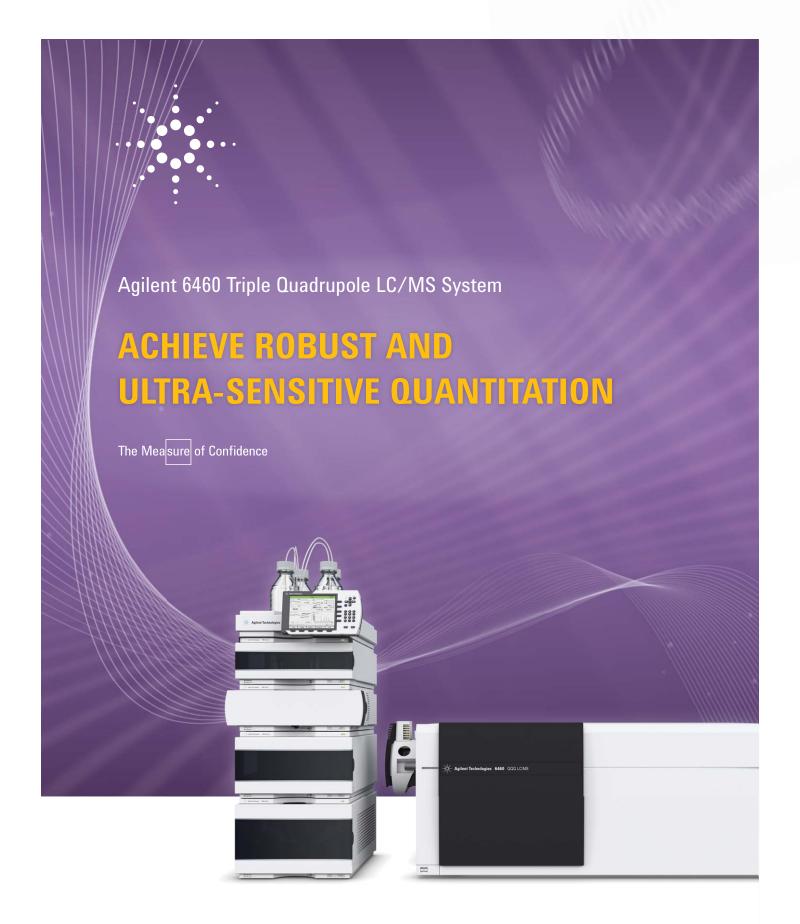
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SUPERIOR SENSITIVITY AND PRODUCTIVITY FOR YOUR CHALLENGES IN QUANTITATIVE ANALYSIS

The Agilent 6460 Triple Quadrupole LC/MS System is equipped with Agilent Jet Stream Technology to provide ultra-sensitive performance for analytes in the most complex matrices. This makes the 6460 the instrument of choice for a wide range of applications including environmental and food safety analysis, clinical research, and peptide quantitation. The 6460 provides a fast and robust solution for simultaneously quantifying, screening, and confirming analytes using triggered MRM (tMRM).

The Agilent 6460 Triple Quadrupole LC/MS is engineered to deliver robust, accurate quantitation of analytes present at extremely low levels. Updated electronics enable high speed data acquisition while fast polarity switching makes the instrument an ideal choice for rapid separations and high-throughput analyses of diverse compound types.

The 6460 Triple Quad LC/MS is a feature-packed new addition to the Agilent Triple Quadrupole product family:

- Excellent sensitivity for many applications
- 1 ms dwell time with no collision cell cross talk
- · Very fast polarity switching for multi-analyte studies
- Dynamic Multiple Reaction Monitoring (dMRM) to maximize MRM efficiency
- Triggered Multiple Reaction Monitoring (tMRM) for simultaneous quantitation and confirmation



The 6460 Triple Quad offers full control of Agilent LC systems to provide an optimal solution for UHPLC, standard LC, or nanoLC chromatography. Seamless support and a single point of service contact minimize delays and maximize your up time.

Robust, Ultra-Trace Quantitation at UHPLC Flow Rates

Meet the challenges of multiplexed quantitative analysis for a wide variety of compound classes. The 6460 Triple Quadrupole with Agilent Jet Stream technology is built to deliver the highest level of robustness, accuracy, and reproducibility in complex sample matrices, such as those commonly encountered in food safety and environmental analysis.

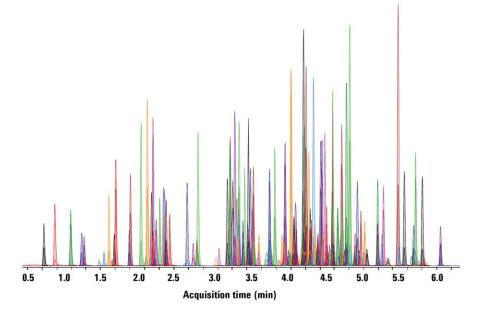


Figure 1. dMRM analysis of 224 pesticides at the 500 parts per trillion level in less than 7 minutes.

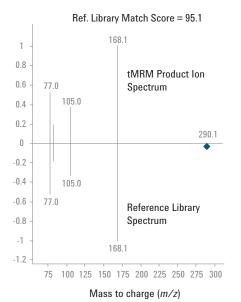


Figure 2. A library match score of 95.1 is based on a close correlation between the tMRM product ion spectrum and the reference library spectrum.

Triggered MRM – Data Dependent Scanning for Compound Confirmation

Triggered MRM (tMRM) acquisition is available on all Agilent Triple Quadrupole LC/MS systems. tMRM acquisition effectively combines MRM quantitative analysis with data dependent acquisition of a product ion spectrum which can also be used for library searching, identification, and confirmation. tMRM analysis is faster and more sensitive than conventional product ion scanning and enables quantitative and qualitative analysis in a single LC/MS run.

In tMRM analysis mode, when the primary transitions exceed a user-defined threshold, an additional set of secondary transitions are triggered. The primary transitions are used for quantitation and can be combined with the secondary triggered transitions to generate a tMRM product ion spectrum. This product ion spectra can be searched against an application-specific library, such as the Agilent Personal Compound Database and Library, or against publicly available spectral libraries.

Advantages of tMRM:

- Confirmation of compound ID to avoid false positives
- Faster and more sensitive than data dependent full scans
- · Optimal collision energy for each ion transition acquired

Maximize Your Quantitative Performance with Dynamic MRM

Dynamic MRM (dMRM) creates more powerful quantitative methods by grouping MRMs in retention time windows instead of time segments. Compound specific MRMs and their retention times are easily imported into the dMRM method that can quantify up to 4,000 compounds in a single run. Fast MRM speeds support the analysis of over 100 overlapping compounds in a given retention time window.

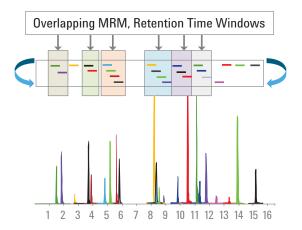


Figure 3. Using dMRM, a retention time window is profiled for each analyte and the list of analytes is adjusted dynamically based on chromatographic run time. Analytes are only monitored when they are expected to elute, improving the overall duty cycle.

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Agilent 6460 Triple Quadrupole LC/MS with Agilent Jet Stream Technology

Data Sheet



The Agilent 6460 Triple Quadrupole LC/MS delivers superior sensitivity for trace level analysis with performance specifications in Signal-to-Noise ratio (S/N) and Instrument Detection Limit (IDL). IDL is a rigorous, statistically based metric that indicates practical sensitivity performance of your quantitative assays. The Agilent 6460 Triple Quadrupole LC/MS achieves sensitivity and resolution specifications with autotune.

Parameter	Measure	Specification
MRM sensitivity Signal-to-Noise ratio (S/N) ESI positive	1 pg of reserpine injected on column, quantifying on the transition m/z 609 to 195	S/N > 30,000:1 Noise 1 × RMS
MRM sensitivity Signal-to-Noise ratio (S/N) ESI negative	1 pg of chloramphenicol injected on column, quantifying on the transition <i>m/z</i> 321 to 152	S/N > 10,000:1 Noise 1 × RMS
MRM sensitivity Instrument Detection Limit (IDL) ESI positive	20 fg of reserpine injected on column, quantifying on the transition m/z 609 to 195	IDL < 12.5 fg
MRM sensitivity Instrument Detection Limit (IDL) ESI negative	20 fg of chloramphenicol injected on column, quantifying on the transition <i>m/z</i> 321 to 152	IDL < 12.5 fg
Mass range		m/z 5 – 3,000
Polarity switching		30 ms
Mass resolution (autotune) Mass resolution (manual tune)	Full width at half maximum Full width at half maximum	0.7 Da 0.5 Da
Mass accuracy		0.1 Da from 5 - 1,000 <i>m/z</i> 0.01% from 1,000 - 2,000 <i>m/z</i> 0.02% from 2,000 - 3,000 <i>m/z</i>
Mass stability		< 0.1 Da in 24 h
Dynamic range		> 6.0 × 10 ⁶
Scan modes		MS scan, MS/MS product ion scan, MRM, MS/MS neutral loss/gain scan and precursor ion scan, SIM
Maximum scan rate		12,500 Da/s
Minimum MRM dwell time		1 ms
MRM transitions		450 per time segment > 40,000 ion transactions per method
Dynamic MRM transitions		4,000 ion transitions per method
Triggered MRM transitions		Up to 10 MRM transitions (primary and secondary) for library search and compound confirmation
Collision cell ion clearance		< 1 ms



General system specifications

Parameter	Specification	
Single point of control	Single-point data system method capability with full control of Agilent 1200 Series	
	HPLC systems and 6460C Triple Quadrupole LC/MS System	
Time programming	Polarity change in time segment	
	 Scan and SIM or MRM (plus other modes of data collection) 	
	 Dynamic and triggered MRM aligns MRMs with compound retention time 	
	Solvent divert through calibrant delivery system valve	
Wide range of ionization sources • Electrospray (ESI)		
	Nanospray with HPLC-Chip Cube MS interface	
	 APCI source (Atmospheric Pressure Chemical Ionization) 	
	Multimode source (simultaneous ESI and APCI)	
	APPI source (Atmospheric Pressure Photo Ionization)	
Autotune	Automated optimization of ion optics and mass axis calibration in positive and	
	negative ion modes using a proprietary tune solution	
Solvent declustering	Countercurrent gas	
Detector	High-energy conversion dynode and high-gain electron multiplier horn	
Vacuum system	Two turbomolecular pumps with one mechanical pump	

Ordering information

G6460CA: 6460 Triple Quadrupole LC/MS System

Includes the 6460 Triple Quadrupole Mass Spectrometer, MassHunter Workstation Software with both compliance and method optimization software, a PC, a monitor and printer, and service installation of the system

The above are not standard installation specifications for the 6460 Triple Quad. Performance specifications in this document are reviewed for accuracy, but they do not represent the tests and procedures performed at installation, which are described in the Agilent 6400 Series Triple Quad LC/MS System Installation Manual, document G3335-90170 or subsequent version number. See Site Preparation Guide and Service Notes for additional product and specification information.

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2 Site Requirements and Specifications Physical Specifications

Physical Specifications

Table 1 Physical Specifications

Туре	Specification	Comments
Weight	22 kg w/o sample cooler	
Dimensions (height × width × depth)	320 mm x 396 mm x 468 mm	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	180 VA/180 W/614 BTU/h	
Ambient operating temperature	4-40°C (39.2 -131°F)	
Ambient non-operating temperature	-40 – 70 °C (-40 – 158 °F)	
Humidity	< 95 % r.h. at 40 °C (104 °F)	Non-condensing
Operating altitude	Up to 3000 m (9842 ft)	
Non-operating altitude	Up to 4600 m (15091 ft)	For storing the module
Safety standards: IEC, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.

Performance Specifications

Table 2 Performance Specifications

Туре	Specification	Comment
Injection range	$0.1-20~\mu L$ in $0.1~\mu L$ increments (default) $0.1-40~\mu L$ in $0.1~\mu L$ increments if $40~\mu L$ loop is installed $0.1-120~\mu L$ in $0.1~\mu L$ increments with 1290 Infinity large volume injection kit (hardware modification required) pressure range up to 1200 bar $0.1-100~\mu L$ in $0.1~\mu L$ increments with 100 μL upgrade kit hardware (modification required) up to 1200 bar	
Precision	Typically <0.15 % RSD or SD<10 nL	Measured caffeine
Pressure range	Up to 1200 bar > 500 µL Multidraw with 100 µL Analytical Head Up to 400 bar > 900 µL Analytical Head	with Upgrade Kit (hardware modification required)
Sample viscosity range	0.2 – 5 cp	
Sample capacity	1H Drawer Up to 8 drawers and 16 positions Shallow well plates (MTP)	Max. 6144/1536 samples (384MTP/96)
	2H DrawerUp to 4 drawers and 8 positions MTP, deep well plates, vials, Eppendorf	3072 samples, 432 vials (2 mL)
	3H DrawerUp to 2 drawers and 4 positions MTP, deep well plates, vials up to 6 mL, Eppendorf	1536 samples, 60 vials (6 mL), 384 vials (1 mL), 216 vials (2 mL)
Injection cycle time	<10 s using following standard conditions: Default draw speed: 100 μ L/min Default eject speed: 400 μ L/min Injection volume: 1 μ L	

Site Requirements and SpecificationsPerformance Specifications

Performance Specifications Table 2

Туре	Specification	Comment
Carry Over	<0.003 % (30 ppm) Multisampler Standard <0.0009 % (9 ppm) Multisampler Multiwash	Using the following conditions: Column: Agilent ZORBAX SB-C18, 2.1x 50 mm1.8 mm (827700-902) Mobile Phase: A: 0.1 % TFA in water B: 0.1 % TFA in Acetonitrile Isocratic: % B=35 % Flow rate: 0.5 mL/min Temperature: 25 °C Wavelength: 257 nm Sample: 1200 ng/µL Chlorhexidine for UV, 2400 ng/µL Chlorhexidine for MS (dissolved with mobile phase A), 1 µL injected and measured both on Agilent 6410 QQQ and G4212A DAD Wash solution: H2O with 0.1 % TFA (5 s)
Control and data evaluation	Agilent Open Lab CDS Mass hunter QQQ Mass hunter QTOF Lab Advisor ICF for 3rd party SW control LC and CE Drivers	A.01.03 or above (A.02.02 supports Sample Entry UI (Slydini)) B.07.01 or above B.06.01 or above B.02.05 or above A.02.01 or above A.02.10 or above
Local Control	Agilent Instant Pilot (G4208A)	B.02.16 or above (currently not supported/official release 2015)
Communications	Controller-area network (CAN),Local Area Network (LAN) ERI: ready, start, stop and shut-down signals	
Safety and maintenance	Extensive support for troubleshooting and maintenance is provided by the Instant Pilot, Agilent Lab Advisor, and the Chromatography Data System. Safety-related features are leak detection, safe leak handling, leak output signal for shutdown of pumping system, and low voltages in major maintenance areas.	

Performance Specifications Table 2

Туре	Specification	Comment
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage with user-settable limits and feedback messages. Electronic records of maintenance and errors.	
Housing	All materials recyclable.	
Metering device	Metering device in high pressure flow path	

2 Site Requirements and Specifications

Physical Specifications of the Sample Cooler

Physical Specifications of the Sample Cooler

Cooling unit is designed as vapor-compression refrigeration system. Contains fluorinated greenhouse gas (refrigerant) according to the Kyoto protocol. For specifications of refrigerant, charge capacity, carbon dioxide equivalent (CDE), and global warming potential (GWP) see instrument label.

Table 3 Physical Specification of the Sample Cooler

Туре	Specification	Comments
Weight	< 6 kg	
Dimensions (height × width × depth)	205 mm X 340 mm X 370 mm	
Refrigerant gas	HFKW-134a (0.042 kg)	Ozone depletion potential (ODP) = 0
Line voltage	24 VDC (nominal)	
Current	10 A max.	
Ambient operating temperature	4 – 40 ° C (39.2 – 131 ° F)	
Ambient non-operating temperature	-40 – 70 ° C (-20 – 158 ° F)	
Humidity	< 95 % r.h. at 40 °C (104 ° F)	Non-condensing
Operating altitude	Up to 3000 m (9842 ft)	
Non-operating altitude	Up to 4600 m (15091 ft)	
Safety standards: IEC, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.

Physical Specifications of the Sample Cooler

CAUTION

General hazards and improper disposal

Improper disposal of the media and components used pollutes the environment.

- → The breakdown of the sample cooler unit must be carried out by specialist refrigeration company.
- → All media must be disposed of in accordance with national and local regulations.
- → Please contact your local Agilent Service Center in regard to safe environmental disposal of the appliance.

Table 4 Performance Specifications Agilent 1290 Sample Cooler

Туре	Specifications
Temperature range	Settable from 4 – 40 °C in 1 ° increments
Temperature accuracy (<25°C, <50% r.H.)	2 °C to 6 °C at a setpoint of 4 °C
Temperature accuracy at ambient temperatures and humidity <60 %	2 °C to 8 °C at a setpoint of 4 °C
Temperature Stability	+/- 1°C



Agilent 1290 Infinity II Diode Array Detector FS

Data Sheet



Product Description

The Agilent 1290 Infinity II Diode Array Detector FS (fixed slit) is based on the Agilent Max-Light cartridge cell with optofluidic waveguides that improve light transmission to near 100 % efficiency without sacrificing resolution caused by cell dispersions effects. With typical detector noise levels of < \pm 0.6 μ AU/cm the revolutionary 60 mm flow cell gives up to 10 times higher sensitivity than detectors with conventional flow cells. Any compromising refractive index and thermal effects are almost completely eliminated, resulting in significantly less baseline drift for more reliable and precise peak integration. For fast separations, the 1290 Infinity II DAD FS offers multiple wavelength and full spectral detection at sampling rates up to 120 Hz.

Features

- Universal Agilent Max-Light standard cartridge cell with 10 mm optical path length provides high sensitivity (noise: < ±3 μAU) and low peak dispersion for 2.1, 3 and 4.6 mm id columns.
- Multiple wavelength and full spectral detection at high sampling rate of 120 Hz, keeping pace with fast analysis speeds.
- More reliable and robust peak integration process due through less baseline drift
- Full spectral detection for compound identification by spectral libraries or verification of the separation quality with peak purity analysis for ultrafast LC. Simultaneous detection of up to 8 signals for increased sensitivity and selectivity.
- Upgrade option to 1290 Infinity II HDR DAD solution provides 30x wider linear range for samples with widely different concentration levels.
- Radio frequency identification (RFID) technology for flow cells and lamp improve data security and traceability.
- Next generation of Electronic temperature control (ETC) provides maximum baseline stability and practical sensitivity under fluctuating ambient temperature and humidity conditions.

Specifications

 Table 1
 Physical Specifications

Туре	Specification	Comments
Weight	11.5 kg (25.4 lbs)	
Dimensions (height × width × depth)	140 x 396 x 436 mm (5.5 x 15.6 x 17.2 inches)	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	110 VA, 100 W	
Ambient operating temperature	4 – 40 °C (39 – 104 °F)	
Ambient non-operating temperature	-40 – 70 °C (-40 – 158 °F)	
Humidity	< 95 % r.h. at 40 °C (104 °F)	Non-condensing
Operating altitude	Up to 2000 m (6562 ft)	
Non-operating altitude	Up to 4600 m (15092 ft)	For storing the module
Safety standards: IEC, EN, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.

Table 2 Agilent 1290 Infinity II Diode Array Detector FS (G7117A) Performance Specifications

Feature	Specification
Detector type	1024-element diode array
Light source	Deuterium
Number of signals	8
Maximum sampling rate	120 Hz (both spectra and signals)
Short-term noise	with 10 mm Max-Light cartridge cell: $<\pm 3\cdot 10^{-6}$ AU at 230/4 nm, slit width 4 nm, TC 2 s, ASTM with 60 mm Max-Light cartridge cell: $<\pm 0.6\cdot 10^{-6}$ AU/cm at 230/4 nm, slit width 4 nm, TC 2 s, ASTM
Drift	<0.5·10 ⁻³ AU/h at 230 nm
Linearity	>2.0 AU (5 %) at 265 nm Typically 2.5 AU (5 %)
Wavelength range	190 – 640 nm

Table 2 Agilent 1290 Infinity II Diode Array Detector FS (G7117A) Performance Specifications

Feature	Specification	
Wavelength accuracy	±1 nm, self-calibration with deuterium lines	
Wavelength precision	<±0.1 nm	
Diode width	~0.5 nm	
Wavelength bunching	Programmable, 2 – 400 nm, in steps of 1 nm	
Flow cells	User-exchangeable, self-aligning cartridge cells with RFID tags. Max-Light Cartridge Cell (Standard): 10 mm, $\sigma_V=1.0~\mu L$	
	Max-Light Cartridge Cell (High Sensitivity): 60 mm, σ_V = 4 μ L Max-Light Cartridge Ultra Low Dispersion (ULD) Cell: 10 mm, σ_V = 0.6 μ L Max-Light Cartridge High Dynamic Range (HDR) Cell: 3.7 mm, σ_V = 0.8 μ L	
	Maximum Operating Pressure (MOP) ¹ : 70 bar Maximum Incidental Pressure (MIP) ² : 150 bar	
Spectral tools	Data analysis software for spectra evaluation, including spectral libraries and peak purity functions	
Analog output	Recorder/integrator: 100 mV or 1 V, output range $0.001-2\ AU$, one output	
Communications	LAN, controller-area network (CAN), ERI: ready, start, stop and shut-down signals	
GLP features	Data recovery card to prevent data losses. RFID for electronics records of flow cell and UV lamp conditions (path length, volume, product number, serial number, test passed, usage) Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of lamp burn time with user settable limits and feedback messages. Electronic records of maintenance and errors. Verification of wavelength accuracy with deuterium lines.	
Safety and maintenance	Extensive diagnostics, error detection and display through Agilent Instant Pilot and Agilent Lab Advisor software. Leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.	
Others	Second generation of Electronic temperature control (ETC) for the complete optical unit	

Maximum operating pressure (MOP): Maximum pressure at which a system can operate continuously under normal conditions.

Maximum incidental pressure (MIP): The maximum pressure which the system can experience during a short time.

Ordering Details

Description	Product Number
1290 Infinity II Diode Array Detector FS	
120 Hz data rate, fixed slit 4 nm Includes 10 mm Max-Light cartridge cell	G7117A
Replace cell with high-sensitivity cell, 60 mm	G7117A #030
Add high-sensitivity flow cell	G7117A #031
Replace cell with high-dynamic-range (HDR) flow cell, 3.7 mm	G7117A #034
Replace cell with ultralow-dispersion (ULD) flow cell, 10 mm	G7117A #035
Add ultralow-dispersion (ULD) flow cell, 10 mm	G7117A #036
Add test cell	G7117A #040

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Agilent 1290 Infinity Thermostatted Column Compartment

Features, Specifications and Ordering Details



Precise column thermostatting with maximum application flexibility

The Agilent 1290 Infinity Thermostatted Column Compartment facilitates precise column thermostatting over a temperature range from 10 °C below ambient up to 100 °C, providing infinite flexibility for optimizing the speed and selectivity of a separation. Ultra high pressure valves enable a wide range of solutions such as dual or multicolumn selection, sample preparation, or alternating column regeneration. The 1290 Infinity TCC is also the basis for multimethod solutions, and can be used together with an Agilent 1290 Infinity LC and Agilent 1260 Infinity LC systems as well as with existing Agilent 1200 Series LC and RRLC or even Agilent 1100 Series LC systems.

Features

- \bullet Temperature precision specification of \pm 0.05 °C for repeatable retention times and peak areas
- Maximum application flexibility through Peltier cooling and heating for two independent temperature zones from 10 °C below ambient up to 100 °C
- Low dispersion optimized for low internal volume contribution
- Spacious column racks provide room for three 30-cm columns or two shorter columns
- Ultra high pressure valves for many applications such as alternating column regeneration, sample preparation, and dual or multicolumn selection
- Unique pull-out and Quick Change Valve design for easy plumbing and valve exchange
- Clustering of up to three 1290 Infinity TCC modules for maximum flexibility for multimethod applications such as automated method development
- Further features include a door-open sensor, improved thermal insulation, a leak funnel, and a capillary guide



Specifications – Agilent 1290 Infinity Thermostatted Column Compartment

Temperature range	10 °C below ambient to 100 °C
Temperature stability	± 0.05 °C
Temperature accuracy	\pm 0.8 °C, with calibration \pm 0.5 °C
Temperature zones	2 (single TCC) 4 (dual-TCC cluster) 6 (triple-TCC cluster) Individual standby temperatures definable for cluster configurations!
Column capacity	2 columns of 300 mm length with individual solvent heating 3 columns of 300 mm length in series 4 columns of 100 mm length each with individual low dispersion heat exchanger 6 columns (max. 300 mm) with triple-TCC clustering and column selection valves 8 columns (max. 100 mm) with dual-TCC clustering and column selection valves
Heat-up/cool-down time	5 minutes from ambient to 40 °C 10 minutes from 40 °C to 20 °C
Internal volume	With low dispersion heat exchangers: 1.6 µL for heating 1.5 µL for optional post-column cooler With standard heat exchangers: 3 µL left heat exchanger 6 µL right heat exchanger
Valve options	Optionally integrated Quick-change valve drive with radio frequency identification of optional valve heads with different pressure ratings: 2-position/6-port (up to 1,200 bar), 2-position/10-port (up to 1,200 bar), 8-column selection valve-kit (up to 1,200 bar).
Communications	Controller-area network (CAN), RS 232, APG remote: ready, start, stop, and shut-down signals
Safety and maintenance	Extensive diagnostics, error detection and display (through an Instant Pilot control module and an Agilent LabAdvisor), leak detection, safe leak handling, and a leak output signal for shutdown of the pumping system. Low voltages in the main maintenance areas. Door-open sensor.
GLP	Column identification module for GLP documentation of column type. Valves carrying RFID-tags with serial number, pressure rating, number of switches and valve type.
Housing	All materials recyclable
Dimensions (h x w x d)	140 × 410 × 435 mm, (5.5 × 16 × 17 in)

^{*} Specifications are valid for distilled water at ambient temperature (25 °C) setpoint a 40 °C and a flow range from 0.1 to 5.0 mL/min, for the temperature range above 80 °C. The specifications are valid for a flow range from 0.1 to 2.5 mL/min.

Ordering Details – Agilent 1290 Infinity Thermostatted Column Compartment

Description	Product number	
Agilent 1290 Infinity Thermostatted Column Compartment	G1316C	
Installed valve drive for flexible installation of separately available valve heads	G1316C #058	





Agilent Pesticide tMRM LC/MS Application Kit G1733BA for Agilent QQQ LC/MS

Information Sheet

The Agilent Pesticide tMRM LC/MS Application kit reduces method setup time and delivers high quality results.

Kit Component	Specifications				
Pesticide tMRM Database and Library B.06.00	 tMRM conditions for up to ten MRM transitions per compound for 754 Pesticides, Insecticides, 				
	Herbicides, Fungicides, and other compound classes.				
	 Fully optimized MRM transitions for 635 compounds, including 253 compounds present in Pesticide 				
	Comprehensive Test Mix				
	Reference tMRM library spectra for 247 compounds				
LC/MS Acquisition Methods	 QQQ LC/MS screening methods for analysis of all compounds in Pesticide Comprehensive Test Mix 				
	UHPLC and RRLC compatible				
	iFunnel and non-iFunnel acquisition methods				
	Compatible with all currently shipping Agilent LC/MS QQQ models				
Quick Start Guide	Detailed protocol for kit installation and familiarization				
Method Setup Guide	Guidance for setup of MRM acquisition methods for Pesticides Comprehensive Test Mix				
LC Columns	 Eclipse Plus C18, 2.1x100mm,1.8μm,1200bar (P/N 959758-902) 				
	• Eclipse Plus C18, 2.1x150mm,1.8µm,1200bar (P/N 959759-902)				
	 Poroshell 120 EC-C18, 2.1x100mm, 2.7μm (P/N 695775-902) 				
Pesticide Checkout Test Mix	Basic compounds used for Installation and Familiarization				
(P/N 5190-0469)	22 Pesticides in 2 sub-mixes (acidic and basic compounds)				
Availability subject to country-specific import	• 100 μg/mL in acetonitrile				
regulations	3 x 1mL ampoules of each solution (6 x 1mL ampoules total)				
	Analytical Reference Standard with Lot Number and Certificate of Analysis				
Pesticide Comprehensive Test Mix	Used for On-Site Consulting				
(P/N 5190-0551)	 253 Pesticides in 8 sub-mixes (8 x 1 mL ampoules total) 				
Availability subject to country-specific import	• 100 μg/mL in acetonitrile				
regulations	Analytical Reference Standard with Lot Number and Certificate of Analysis				
Installation and Familiarization	4 hours installation and kit checkout by application-certified Field Service Engineer				
	2 hours familiarization by application-certified Field Service Engineer				
	 Preventative Maintenance (PM) required for existing systems within 4 weeks of kit installation (not 				
	required for new install)				
On-Site Consulting	Performed by a certified Application Expert				
	3 days on-site application consulting				
	Will implement screening method with compounds in Pesticide Comprehensive Test Mix				
	Flexible tasks per arrangements made with customer prior to on-site visit				
Software Requirements	Windows 7 Professional 64-Bit				
·	MassHunter QQQ Acquisition B.06 or Higher				
	MassHunter Qualitative Analysis B.06 or Higher				
	MassHunter Quantitative Analysis B.05.02 or Higher				



Agilent Multimode Source

Simultaneous ESI and APCI for maximum throughput





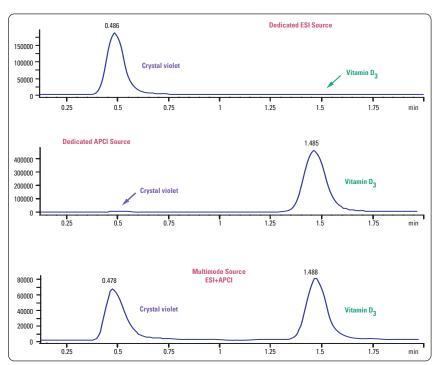


Simultaneous ESI and APCI for maximum throughput

The Agilent multimode source for the LC/MSD is a breakthrough in LC/MS technology, delivering *simultaneous* electrospray ionization and atmospheric pressure chemical ionization, classical spectra, and excellent sensitivity. It maximizes throughput by eliminating the need to run samples twice to ensure all components are identified.

Eliminate the guesswork and reanalysis

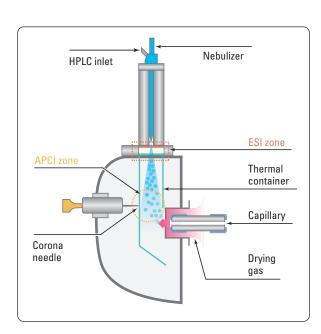
Not every compound responds to every ionization technique. Some compounds ionize only by electrospray ionization (ESI). Other compounds respond only to atmospheric pressure chemical ionization (APCI). When you analyze unknowns, you do not know ahead of time which mode to choose. Even when looking for target compounds, you need to know if an unexpected impurity is present. To be sure, you must exchange sources and reanalyze. The Agilent multimode source is the only ion source capable of simultaneously acquiring ESI and APCI data—making reanalysis a thing of the past.



Simultaneous ESI and APCI maximizes throughput by eliminating the need to exchange sources and reanalyze samples

Separate zones, simultaneous ionization

ESI and APCI are very different processes and require very different conditions for optimum performance. Only a truly revolutionary source could accomplish simultaneous, high-performance ESI and APCI. The innovative Agilent solution is a single source with two separate, optimized zones—one for ESI and one for APCI. Ions from both ionization modes are analyzed simultaneously by the mass spectrometer.



Multimode source incorporates optimized ESI and APCI zones

Polarity switching extends coverage

The Agilent multimode source can switch ion polarities on a scan-to-scan basis. With this rapid polarity switching, you can acquire positive and negative ESI and APCI data in a single run, significantly increasing coverage over single-mode ion sources.

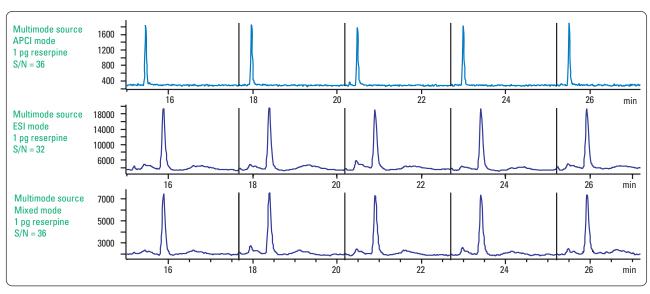
	APCI Source		ESI Source		Multimode Source	
Compound	Positive	Negative	Positive	Negative	Positive	Negative
Acetazolamide	_	D	_	D	_	D
Butyl-4-aminobenzoate	D	-	D	_	D	-
Cortisone	D	D	D	_	D	D
Gemfibrozil	_	D	_	D	_	D
Hexahydrodione	D	-	D	_	D	-
Hydroflumethiazide	_	D	_	D	_	D
Indole	D	-	-	-	D	-
lodipamide	-	-	-	D	D	D
Labetalol	D	D	D	D	D	D
Lidocaine	D	-	D	-	D	-
Morin	D	D	D	D	D	D
Paclitaxel	_	-	D	-	D	-
Phenylbutazone	D	D	D	D	D	D
Procainimide	D	-	D	-	D	-
Progesterone	D	-	D	-	D	-
Sulfamethoxazole	D	D	D	D	D	D
Tolazamide	D	D	D	D	D	D
Uracil	_	D	-	-	-	D
Detected by polarity	67%	56 %	67%	50 %	78 %	61%
Detected by source	89%		89 %		100%	

D = compound detected

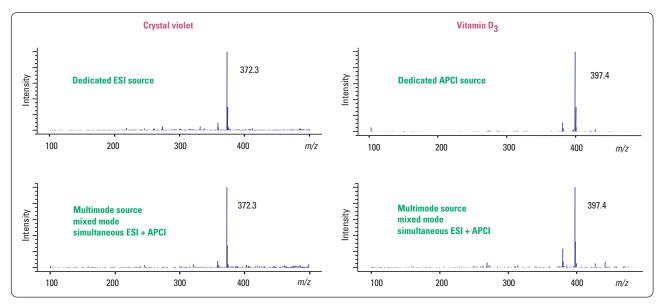
No compromises

Some sources try to provide an approximation of true simultaneous acquisition by switching back and forth between ESI and APCI modes. After subtracting the switching dead time, a switching source scans less than 50% of the time in each ionization mode. The inevitable result is a loss of data, especially when doing fast chromatography with narrow peaks.

The Agilent multimode source makes no such compromises. It can acquire data in both ionization modes 100% of the time. There is no loss of data, and sensitivity in mixed (simultaneous acquisition) mode is very close to the sensitivity provided by Agilent's state-of-the-art, individual ESI and APCI sources.



Operating in the mixed ionization mode entails minimal loss of sensitivity



Spectra from the multimode source are indistinguishable from those generated on dedicated sources

Familiar spectra

The Agilent multimode source delivers spectra identical to the spectra from dedicated sources. In cases where a compound responds well to both ionization modes, the electrospray process dominates, but you can operate the multimode source in ESI-only and APCI-only modes if you want to obtain a specific type of mass spectrum.

Accommodates a wide range of LC flows

Powerful infrared emitters in the Agilent multimode source provide tremendous drying capacity so you never need to compromise on LC flow rate. The multimode source can accommodate anything from 1-mm columns at 50 μ L/min to 4.6-mm columns at 2 mL/min. There is no need for tricky, unreliable flow splitting, even at 2 mL/min of 100 percent water.

Reduced drying gas consumption

The same infrared emitters that help the multimode source accommodate a wide range of LC flows also drastically reduce drying gas consumption. At high flow rates, the Agilent multimode source consumes less than half the drying gas of a dedicated ESI source.

For more information

For more information about the Agilent multimode source, call toll free:

1-800-227-9770 (U.S. and Canada)

In other countries, please call your local Agilent Technologies analytical sales office or authorized Agilent Technologies distributor.

You can also visit our site on the World Wide Web at:

www.agilent.com/chem

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JAN. 2016 Update

HP Model Z230 SFF PC

MANUFACTURER: Hewlett-Packard PRODUCT LINE: Z230 Workstation FORM FACTOR: Small Form Factor

OPERATING SYSTEM: Windows 7 PRO 64bit SP-1

PROCESSOR: Intel® Xeon® E3-1225v3 (3.20 GHz, 8 MB cache, 4 cores)

CHIPSET: Intel® C226

MEMORY: HP 4GB (1x4GB) DDR3-1600 non-ECC RAM

STORAGE: 500GB SATA 7200 RPM 6G/s HDD

GRAPHICS / DISPLAY (AS APPLICABLE): Intel® HD Graphics P4600

COMMUNICATIONS: Integrated Intel 1217LM PCIe GbE Controller; 2nd HP Serial Port Adapter

Second LAN Card - Intel Ethernet PCIe NIC

OPTICAL DRIVE: HP 16X DVD+/-RW SuperMulti SATA Drive

AUDIO: Integrated Realtek HD ALC221 Audio

PERIPHERAL: HP USB Optical Scroll Mouse / HP No Keyboard Option

EXPANSION: 1 PCIe Gen3 x16 slot 1 PCIe Gen2 x4 slot /x16 connector 1 PCIe Gen2 x1 slot /x4 connector

1 PCle Gen2 x1 slot

(All slots are low-profile.)

4 USB 3.0 ports (2 in front, 2 rear)

6 USB 2.0 (2 in front, 4 in rear)

Graphics Cable Adapters: HP DisplayPort To DVI-D Adapter (FH973AA)

Included Accessories:

HP 19" Standard Format LED Backlit LCD Monitor

LaserJet P3015d (HP Model #: CE526A)

HP USB 2.0 Printer Cable (A-B), 3-meters (HP p/n: C6520A)



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	Reference tMRM library spectra for 247 compounds				
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Software Requirements	Windows 7 Professional 64-Bit				
·	MassHunter QQQ Acquisition B.06 or Higher				
	MassHunter Qualitative Analysis B.06 or Higher				
	MassHunter Quantitative Analysis B.05.02 or Higher				



Total repair coverage priced exclusively for government and academic labs

With Agilent Advantage Bronze for Government and Academia, you get the peace of mind and security that comes with knowing you are fully protected against costly repairs. The plan covers all costs of onsite repair including engineer travel and labor, as well as coverage of all parts required to return your system to normal operations. Ideal for laboratories with flexible response time requirements, the Agilent Advantage Bronze for Government and Academia plan gives you an economical way to obtain access to our full complement of repair service features even when you face budget constraints.

Valuable services delivered by highly skilled professionals — that's how Agilent completes more than 85% of service calls the first day. It's also why we enjoy a 98% satisfaction rate among customers worldwide.¹ With Agilent attending to your instrument system, you can stay focused on the work at hand.







Agilent Advantage Bronze for Government and Academia offers affordably priced, all-inclusive repair coverage:

On-Site Repair Visits — Unlimited, on-demand hardware service visits restore your systems to operating condition and minimize downtime. Coverage includes travel and labor.

All Parts and Supplies Required for Repair — Genuine Agilent parts necessary for repairs are covered by your plan including consumables and supplies required for repair*

Hardware and Software Telephone Support – Technical support for both hardware and software is as close as the phone, as often as you need it.

Agilent Remote Advisor-Assist** — Single-click service requests and remote diagnosis of problems helps to speed repairs. More than 60% of service calls may be resolved immediately without delay.

Agilent Remote Advisor-Report**— Detailed, on-demand reports on system configuration, utilization and service history give you the insights you need for effective capacity planning and maximum workflow efficiency.

Preferred Level Service — While this plan does not provide a guaranteed response time, you'll get timely service with preferred response over per-incident service calls.

Agilent Service Guarantee – 100% repair coverage guarantee provides total peace of mind. If we cannot fix an Agilent instrument covered by our service agreement, we'll replace it.

For more information about Agilent Advantage Bronze and other Agilent Services, please call your local Agilent Representative or visit www.agilent.com/chem/services



Total protection from costly repairs

With Agilent Advantage Bronze for Government and Academia, you can rest assured that your systems will be accurately diagnosed and repaired every time. If the timing of repairs is critical, we recommend that you consider our standard Agilent Advantage Bronze repair plan.

Should your lab also require scheduled preventive maintenance, additional proactive support technology features, or priority response to maximize instrument uptime and performance, please consider Agilent's more full-featured service plans including Advantage Silver and Advantage Gold.

Service Plans for Systems

The Agilent Advantage Bronze Government and Academia plan provides fully integrated service coverage for all of the modules that make up your analytical system. As with all Agilent Advantage service plans, you'll receive holistic support of your complete configuration, so you can rest assured that your entire system is covered.

CONTACT AGILENT SALES AND SERVICE CENTERS

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Revision 1.1



¹ Satisfaction with service engineers as reported in the Agilent customer satisfaction survey, 2007.

^{*} Per local parts replacement policy.

^{**} Where available. Installation required. Installation fees waived when connecting minimum number of systems.



MassHunter Workstation is a versatile software platform with dedicated modules for quantitation, compound confirmation, target compound screening, degradant, unknown identification, characterization of biomolecules, and protein and metabolite identification.

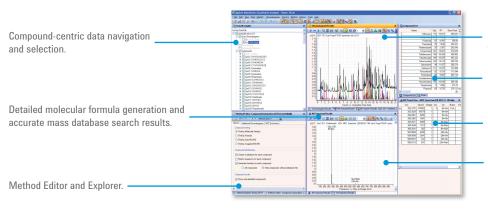
- One comprehensive portfolio of software for LC/MS, CE/MS, GC/MS, and ICP-MS workflows.
- Seamless workflows for your application from sample submission to reporting.
- A single, consistent user experience across all your Agilent MS platforms minimizes the learning curve, and reduces training time and operator errors.

Quantitative

- Unprecedented productivity with time-saving features such as Batch-at-a-Glance data review, dynamically linked results, and customizable views.
- Over 40 outlier criteria for flagging and a parameter-less integrator with built-in peak validation capability let you focus exclusively on problem peaks and minimize manual reintegration.
- Simple, quick creation of quantitation methods with tools such as Concentration Setup Assistant
- Comprehensive features to support quantitation for compliance with 21 CFR Part 11 regulation.

Qualitative

- Advanced data mining and processing tools, such as Molecular Feature Extractor (MFE) and integrated deconvolution algorithms, let you rapidly and accurately find all detectable compounds in your samples and easily confirm targets or identify unknowns.
- Unique compound-centric data organization and navigation lets you easily compare complex MS data files and review results quickly and efficiently.
- NEW Accurate mass screening workflow with Agilent GC/Q-TOF using All lons data.



Overlaid Compound chromatograms for each compound.

List of compounds with best molecular formulas and accurate mass database search hits.

Mass peak list with identified ion species for each compound.

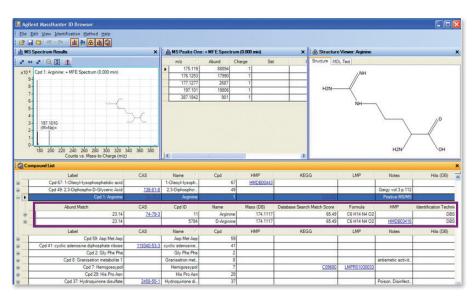
Compound mass spectrum with theroretical isotope pattern overlaid for generated formulas.



Fast, integrated library searches

To enhance your productivity and more easily identify targeted and untargeted analytes, MassHunter Workstation software can automatically search significant compounds against METLIN, the Fiehn Library, NIST, Spectrum Mill, and many other application-focused databases. Best-in-class algorithms, optimized for your MS platform, ensure the highest accuracy.

- The METLIN Library contains MS/MS spectra to identify thousands of metabolites with high confidence.
- Market-focused MS/MS libraries include pesticides, mycotoxins, water, and designer drugs.



Search compounds against MS/MS libraries such as the METLIN Metabolite Personal Compound Database and Library (PCDL).

Agilent PCDLs are integral parts of the targeted screening workflows using the All Ions MS/MS technique for the LC and GC Q-TOF. You can easily use identification results from databases and libraries in other MassHunter programs such as Pathway Architect for pathway analysis.

New MassHunter B.07.00 Features

- Fewer false negatives from MS/MS library searches using multiple adduct species, not just M+H.
- Faster creation of custom MS/MS libraries using new "Send to PCDL" functionality.
- · More comprehensive library searches with updated METLIN Metabolite PCDL.
- · More accurate profiling of sample differences using updated Mass Profiler software.

The MassHunter Suite of Software

- MassHunter Acquisition (including compliance modules)
 Part Number: G3335AA
- MassHunter Quantitative Analysis (including compliance module)
 Part Number: G3336AA
- MassHunter Qualitative Analysis
 Part Number: G3336AA
- MassHunter PCDL Manager
 Part Number: G3336AA
- MassHunter BioConfirm
 Part Number: G6829AA
- MassHunter Mass Profiler Part Number: G3297AA
- Spectrum Mill Proteomics Workbench Part Number: G2721AA

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INCREASE RELIABILITY, MAXIMIZE PRODUCTIVITY AND EXTEND INSTRUMENT LIFE

Studies show that 60% of instrument failures can be traced to a single cause — lack of preventive maintenance*. These studies also show that failure rates decrease by up to 25% for all mechanical systems when a laboratory implements a preventive maintenance program.

That's why it pays to have experienced, highly trained service engineers regularly clean your instrument and perform the vital system checks that maintain the reliability and sensitivity of your instruments. You'll increase uptime, maximize productivity and extend your instruments' life.

At Agilent we carefully tailor our preventive maintenance services to match **your instruments**, **your industry**, **and your particular needs**. So take a moment now to review the services detailed on the following pages. Then speak to your Agilent Representative about implementing the services that are designed to maximize your laboratory productivity.

GC Preventive Maintenance Service

Designed to keep Agilent GCs performing at the highest levels of reliability and sensitivity, this service includes:

- Inspection: Perform general inspection of the complete system.
- System Cleaning: Remove dust from fans and vent covers, inspect and clean inlet and detector where applicable.
- Leak Test: Perform inlet pressure decay test.
- Autosampler Maintenance: Inspect cabling and configuration setting. Inspect and clean syringe and all fans.
- **Verification:** Re-establish normal operating conditions, check and record detector offset. Perform chemical checkout.
- Documentation: Record maintenance in instrument service logs.

Enhanced GC Preventive Maintenance Service

Created especially for GCs equipped with the headspace sampler, it includes all GC Preventive Maintenance items, plus the following additional maintenance on the headspace sampler:

- Replace Flow Path Components: Tubing assembly, union, sample probe, and loop.
- System Cleaning: Vacuum dust from pneumatic compartment, clean 6-port valve sensor.

GC/MS Preventive Maintenance Service

This service includes all of the steps listed above for GC preventive maintenance, as well as:

- Source Cleaning: Remove and clean the Mass Spec ion source.
- Vacuum System Maintenance: Inspect vacuum pumps, and replace mechanical/diffusion pump oil.
- Vacuum System Verification: Establish vacuum and verify pressure. Perform system auto-tune.

^{*}Based on Agilent service and repair studies

ICP/MS Preventive Maintenance Service

This service includes:

- Inspection: Perform general inspection of the complete system.
- System Cleaning: Remove covers and clean dust from fans and vent covers.
- Pump Maintenance: Replace oil mist filter, drain and replace mechanical pump oil. Verify proper pump operation.
- Ion Lens Cleaning: Remove and clean surfaces of the ion lens.
 Sonicate ion lens parts.
- Vacuum System Maintenance: Inspect vacuum hoses and exhaust tubes for possible problems. Check pump for evidence of leakage.
- Verification: Check quadropole matching. Replace octopole and perform octopole matching. Perform system auto-tune.
- **Documentation:** Record maintenance in instrument service logs.

LC Preventive Maintenance Service

This service includes:

- Inspection: Perform general inspection of the complete system.
- System Cleaning: Remove dust from fans and vent covers.
- LC Pump Maintenance: Replace pump head seal, purge valve seal, and filter assembly frits. Perform wear-in procedure and leak test
- Sampler Maintenance: Replace rotor seal and needle seat assembly. Clean and inspect sampler and perform pressure test.
- Column Maintenance: Replace column switching valve rotor seal. Perform pressure test.
- Valve Maintenance: Replace rotor seal. Inspect valve fittings and capillaries for leaks.
- Detector Maintenance: Inspect flow cell for leaks and verify performance.
- Fraction Collector Maintenance: Replace tubing. Clean and inspect ALS thermostat.
- Verification: Prime system and run test injection.
- **Documentation:** Record maintenance in instrument service logs.



LC/MS Preventive Maintenance Service

This service includes all the steps listed above for LC preventive maintenance, as well as:

- Source Cleaning: Remove and clean the Mass Spec ion source.
- Vacuum System Maintenance: Inspect vacuum pumps, and replace mechanical pump oil.
- Vacuum System Verification: Establish vacuum and verify pressure. Perform system auto-tune.

Enhanced LC and LC/MS Preventive Maintenance Service

Designed exclusively for Agilent 1100 and 1200 series LCs and LC/MSs equipped with these LCs. Includes all LC Preventive Maintenance items, as well as:

- Enhanced LC Pump Maintenance: Replace outlets, outlet caps, sieves for outlet valves, active inlet valve cartridge, sapphire pistons, plunger seals, glass solvent inlet filters, and support seal assemblies.
- Autosampler Maintenance: Replace stator face assembly and isolation seal.
- Detector Maintenance: Replace deuterium lamp. Install standard flow cell kit.

Interim LC and LC/MS Preventive Maintenance

Depending on your usage and sample types, Agilent also recommends Interim Preventive Maintenance to inspect your vacuum system and replace pump oil between annual maintenance services.

Enhance your instruments' reliability

Get more information regarding the many benefits of Agilent Preventive Maintenance. Or learn how Agilent's full portfolio of Service and Support solutions can help you achieve the highest accuracy and productivity at www.agilent.com/chem/services



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Revision 1.0





Agilent Value Promise

OUR INSTRUMENTS LAST FOR YEARS OUR COMMITMENT LASTS FOREVER

The Measure of Confidence





MAXIMIZE YOUR INSTRUMENT INVESTMENT

Plan to optimize

Through the years, you've trusted Agilent Technologies to provide the instrumentation, supplies, and support needed to keep your lab running at peak performance. As each of your instruments reach the end of its useful life and as technology applications evolve, you can continue looking to Agilent to maximize the longevity of your initial investment. Let Agilent help ensure that your lab is always running at its highest level of efficiency and productivity. Plan to optimize your assets with our timely and cost-effective transition solutions.

Promising 10 years of value



The Agilent Value Promise reflects upmost confidence in our unrivaled industry standards for quality system design and manufacturing. From the date you purchase select instruments from our leading Agilent chromatography, spectrometry, and spectroscopy

product lines, our Value Promise guarantees at least 10 years' use or residual-value credit towards a replacement model upgrade. Because we stand behind our systems, our Value Promise maximizes your return on investment by assuring your purchase is safe.

Plan a smooth transition

Long before your instrument's end-of-production date, Agilent is helping you smoothly transition by taking full advantage of our fixed-cost, multi-year support agreements for continuous support, service, and supplies, and by planning to move to the latest technology. With our wide variety of cost-effective program options, we work to meet your specific support and system requirements throughout each lifecycle. During current production, you can rely on Agilent's highly-rated support to maximize your assets. When your system reaches its end-of-production date you can expect uninterrupted support and parts, as well as a clear and strategic path to the most cost-effective transition options for optimal performance. All the while, our 10-year Value Promise stays in force to ensure your lab gets the most for its budget.

Agilent's first concern is helping you maintain optimal instrument uptime so your lab can be competitively efficient and profitable. Let our range of service options and technology transition solutions protect your investment.

Mike McMullen Senior Vice President & President Chemical Analysis Group

A PROVEN PARTNER FOR YOUR SUCCESS

At Agilent, we look for ways to optimize your lab's performance by enhancing our 45 years of measurement solutions expertise with constant customer communication. That is why you can rely on us to provide the tools you need. Proudly, the Agilent name has become the assurance of unequalled dependability, reliability, ease of use, and enhanced productivity because we rigorously design, test and manufacture our comprehensive array of instruments, supplies, and services to the highest standards. We become your experienced partner delivering unrivaled systems, solutions, technical support, and education to help your lab increase efficiency and profit.

Plan for uninterrupted lab operation

As your instrument is phased out of production, trust the Agilent support process—from our Service Guarantee to our Value Promise. By informing you along the way, we keep you ahead of the curve in managing the lifetime of your instrument.

AGILENT VALUE PROMISE - 10 YEARS

The Agilent Value Promise guarantees you at least 10 years of use of your new instrument, from the date of purchase, or we will credit you with the residual value of that system when you upgrade to a replacement model¹.

AGILENT SERVICE GUARANTEE

If you are under an Agilent Advantage contract and a hardware problem cannot be solved immediately, a formal escalation process ensures that key technical and management resources quickly attend to your issue. If this process does not resolve the hardware issue, we will replace your analytical instrument for free. This escalation process exemplifies how Agilent is committed to keeping your lab up and running, no matter what.

Best effort support

with parts

EGS

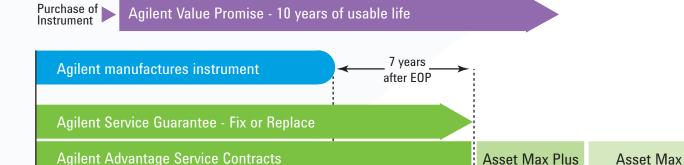
End of guaranteed support

Best effort support

with no parts

EOS

End of Support



E₀P

End of production

Product

introduction

Applies to current generation Agilent instruments not being used in highly corrosive and bio-hazardous environments

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agilent.com/chem/value

Find an Agilent Customer Center in your country:

agilent.com/chem/contactus



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Agilent Technologies Warranty Terms

- 1. Each Product will receive a global warranty. A global warranty includes the standard warranty for the country of purchase. If a Product is moved to another country, the destination country's standard warranty will apply except for on-site warranty where Agilent does not have an applicable Product specific support presence or authorized representative in that country.
- 2. The warranty period begins on acceptance. Customer may receive a different warranty when the Product is purchased as part of a system.
- 3. Agilent warrants that Software will not fail to execute its programming instructions due to defects in materials and workmanship when properly installed and used on the hardware designated by Agilent. Agilent warrants that Agilent owned standard Software substantially conforms to Specifications. Agilent does not warrant that Software will operate in hardware and software combinations selected by Customer, or meet requirements specified by Customer.
- 4. Agilent does not warrant that the operation of Products will be uninterrupted or error free.
- 5. If Agilent receives notice of defects or non-conformance during the warranty period, Agilent will, at its option, repair or replace the affected Product. Customer will pay shipping expenses for return of such Product to Agilent. Agilent will pay expenses for shipment of repaired or replacement Product. If Agilent is unable, within a reasonable time, to repair or replace the affected Product(s), Customer will be entitled to a refund of the purchase price upon prompt return of the Product(s) to Agilent.
- 6. Agilent warrants that Agilent Service will be provided in a professional and workmanlike manner. For ninety (90) days from the date of repair, Agilent will replace, at no charge, defective parts used in Agilent's repair of Products.
- 7. Some newly manufactured Agilent Products may contain and Agilent Service may use remanufactured parts which are equivalent to new in performance.
- 8. Customer's Product warranty is transferable upon Agilent's receipt of written notification. Such notification must include the serial number, model number and the name, address and location of transferee and the transferee must agree in writing to Agilent's warranty terms.
- 9. Agilent reserves the right to invalidate Customer's warranty for Product with an on-site warranty, or Product that has been installed by Agilent, in the event Customer relocates such Product. Customer's warranty for such Product may be reinstated provided Agilent verifies, at Customer's expense, that such Product is in good operating condition.
- 10. The above warranties do not cover defects resulting from improper or inadequate maintenance, installation, repair or calibration performed by Customer or a third party not authorized by Agilent; Customer or third party supplied hardware or software, interfacing or supplies; unauthorized modification; improper use or operation outside of the Specification for the Product; abuse, negligence, accident, loss or damage in transit; or improper site preparation.
- 11. THE WARRANTIES IN THESE TERMS ARE EXCLUSIVE, AND NO OTHER WARRANTY, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED. AGILENT SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.