



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Solicitation

NUMBER
ERP140039

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
GUY NISBET
304-558-2596

*322154941 740-965-3400

DIVERSATEC RESOURCES INC
 10022 CHESHIRE RD

SUNBURY OH 43074

RODNEY

STATE AUDITOR'S OFFICE
 RECORDS MGT FACILITY
 4916 KANAWHA BLVD., E.
 MALDEN, WV

25306-6330 304-926-1717

SHIP TO

DATE PRINTED
03/05/2014

BID OPENING DATE 03/18/2014

BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		205-05	\$735.79	\$264,884.40
ALL-IN-ONE DESK TOP COMPUTERS						
REQUEST FOR QUOTATION (RFQ)						
THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WEST VIRGINIA ENTERPRISE RESOURCE PLANNING BOARD, IS SOLICITING BIDS FOR A "ONE-TIME" PURCHASE OF 160 "ALL IN ONE" STYLE DESK TOP COMPUTERS, PER THE SPECIFICATIONS AND TERMS & CONDITIONS AS ATTACHED.						
***** THIS IS THE END OF RFQ ERP140039 ***** TOTAL:						\$264,884.40

03/18/14 11:38:38AM
 West Virginia Purchasing Division

SIGNATURE <i>Carmen M. Grant</i>	TELEPHONE 740-965-3400	DATE 3/14/2014
TITLE President	FEIN 20-2059989	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

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 non-binding.

Question Submission Deadline:	March 12th, 2014 at 10:00 AM. EST.
Submit Questions to:	Guy Nisbet, Senior Buyer 2019 Washington Street, East Charleston, WV 25305 Fax: 304.558.3970 Email: Guy.L.Nisbet@WV.Gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made 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 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 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

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID Guy Nisbet
 BUYER: _____
 SOLICITATION NO.: ERP140039
 BID OPENING DATE: 3/18/14
 BID OPENING TIME: 1:30 PM
 FAX NUMBER: 304-558-3970

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: 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 time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time: March 18th, 2014 at 1:30 PM. EST.

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.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order 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 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.

 - 2.3 "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

 - 2.4 "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

 - 2.5 "Purchase Order" 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 successful bidder and Contract holder.

 - 2.6 "Solicitation" means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.

 - 2.7 "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

 - 2.8 "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 _____ and extends for a period of _____ year(s).

Renewal Term: This Contract may be renewed upon the 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 request for renewal must be submitted to the Purchasing Division Director thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to _____ successive one (1) year periods. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

Release Order Limitations: In the event that this contract permits release orders, a release order may only be issued during the time this Contract is in effect. Any release order issued within one year of the expiration of this Contract shall be effective for one year from the date the release order is issued. No release 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 _____ twenty eight (28) calendar _____ days.

- One Time Purchase:** The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall 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 Purchase Order 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. **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.
7. **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 a 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.
8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

- BID BOND:** All Vendors shall furnish a 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 issued and 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 issued and 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.
- WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.
- 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:** or more.
- Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.
-
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-
-
-

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.

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. **ALTERNATES:** Any model, brand, or specification listed herein 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. LIQUIDATED DAMAGES: Vendor shall pay liquidated damages in the amount
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.

13. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.

14. 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.

15. 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.

16. 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.

17. 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, to the Agency at the address on the face of the purchase order labeled "Invoice To."

18. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

19. DELIVERY: All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.

20. INTEREST: Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.

21. 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 Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

- 22. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, 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, women-owned, 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 submission of its bid 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.
- 23. 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.
- 24. 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 cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
- 25. 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.
- 26. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 27. 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.
- 28. COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
- 29. PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

30. **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.
31. **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). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
32. **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.
33. **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.
34. **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.
35. **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.
36. **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.
37. **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.

38. [RESERVED]

39. **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>.

40. **DISCLOSURE:** Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

41. **LICENSING:** In accordance with West Virginia Code of State Rules §148-1-6.1.7, 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.

42. **ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Purchase Order 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.

- 43. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid 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 RFQ in its entirety, understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid 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 on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid 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.

- 44. 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.

- 45. 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.

- 46. 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.

47. **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.
48. **ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to 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"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. 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.
49. **CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any 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.
50. **REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the 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.
51. **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.

52. 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:

- a. 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
- b. 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.

53. 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.

REQUEST FOR QUOTATION
ERP140039 – “All in One” Style Desktop Computer

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of WV Enterprise Resource Planning Board to establish a contract for the one time purchase of 360 “All in One” style desktop computers.
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 **“Contract Item”** means personal computer
 - 2.2 **“Pricing Page”** means the pages upon which Vendor should list its proposed price for the Contract Items in the manner requested. The Pricing Page is either included on the last page of this RFQ or attached hereto as Exhibit A.
 - 2.3 **“RFQ”** means the official request for quotation published by the Purchasing Division and identified as ERP140039.
3. **GENERAL REQUIREMENTS:**
 - 3.1 **Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.
 - 3.1.1 **“All in One” style desktop computer - Dell Inspiron One 2020 Consumer Grade (or equal), not Business Grade**
 - 3.1.1.1 Microsoft Windows 7 or 8 minimum
 - 3.1.1.2 Intel or AMD compatible processor or equal
 - 3.1.1.3 Intel HD graphics (integrated) or equal
 - 3.1.1.4 Touch or non-touch based 20” or larger diagonal widescreen WLED minimum or equal
 - 3.1.1.5 Standard configurations: Memory 4GB minimum
 - 3.1.1.6 Integrated 10/100/1000 NIC minimum
 - 3.1.1.7 Built-in support for 802.11 b, g, and n wireless minimum
 - 3.1.1.8 USB Standard Keyboard or equal
 - 3.1.1.9 USB optical scroll mouse: Two buttons with scroll wheel acting as third button or equal
 - 3.1.1.10 Hard drive: 250GB minimum
 - 3.1.1.11 Optical drive: CD-ROM or DVD-ROM or equal

REQUEST FOR QUOTATION
ERP140039 – “All in One” Style Desktop Computer

- 3.1.1.12 USB 2.0 (minimum of 3 ports) or equal
- 3.1.1.13 Integrated sound minimum
- 3.1.1.14 One power connector/cable
- 3.1.1.15 Hardware Parts Warranty, 1 year minimum

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 Exhibit “A” by supplying the price per unit and then the extended price (unit price multiplied number of units). 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.

Notwithstanding the foregoing, the Purchasing Division may correct errors as it deems appropriate. 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 shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Vendor shall deliver the Contract Items within twenty-eight (28) calendar days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at 4916 Kanawha Blvd E, Malden, WV 25306-6330.

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.

REQUEST FOR QUOTATION
ERP140039 – “All in One” Style Desktop Computer

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.

Item	DESCRIPTION	ALTERNATE BID BRAND	Alternate MODEL NO	UNIT OF MEASURE	UNIT PRICE	QTY	EXTENDED COST
Processor	Intel or AMD - computer processor or equal	HP	HP ProOne 400	EA	\$735.79	360	\$264,884.40
Warranty	Hardware Parts Warranty - 3 year minimum or equal	HP	3 year mfg warranty included	EA	included	360	
GRAND TOTAL							\$264,884.40

Diversatec Resources, Inc.

Vendor/Company Name (Print)

Carmen M. Frost

Vendor Representative Signature

3-14-14

Date

740-965-3400

Phone

carmen.frost@diversatec.net

Email

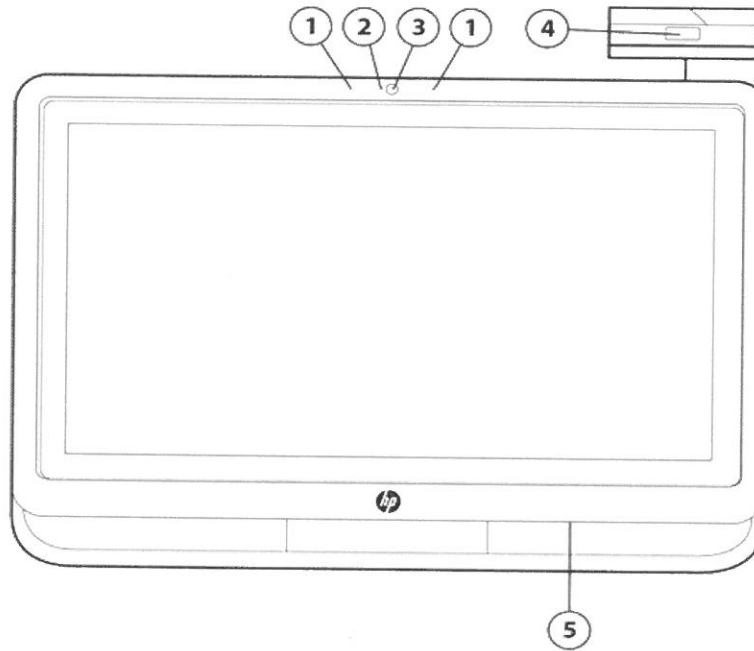
4-6 weeks/ARO

Delivery Estimate ARO

PLEASE NOTE:

The Configuration has a 500 GB
 HARD DRIVE AND 3/3/3 MAINTENANCE AS
 the original request. We reduced our
 price to you.

HP ProOne 400 G1 All-in-One Business PC

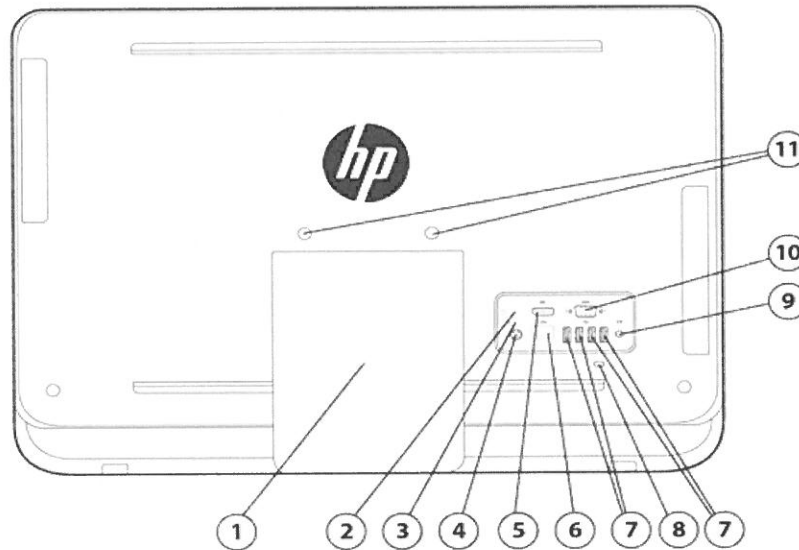


FRONT

1. Microphones (optional)
2. Webcam activity LED
3. Webcam (optional)
4. Power button
5. Speakers

Overview

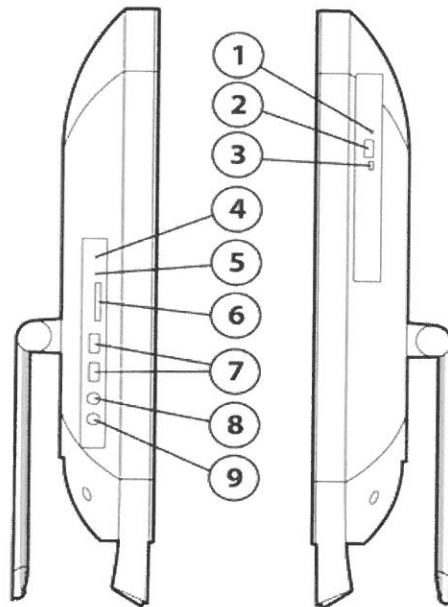
HP ProOne 400 G1 All-in-One Business PC



BACK

1. Stand
2. Security screw
3. Power connector LED indicator
4. Power connector
5. DisplayPort
6. RJ-45 Gigabit Ethernet port
7. (4) USB 2.0 ports
8. Security lock slot
9. Stereo audio line out
10. Serial RS-232 port
11. VESA mount

HP ProOne 400 G1 All-in-One Business PC



SIDE

1. Optical Disc Drive (optional)
2. Optical eject button
3. Optical activity LED
4. Hard Disc Drive activity LED
5. Media Card Reader activity LED
6. SD Media Card Reader (optional)
7. (2) USB 3.0 Ports, including 1 fast charging port
8. Microphone jack
9. Headphone jack

Overview

At A Glance

- Windows 7 or Windows 8.1
- 21.5 inch Touch diagonal widescreen WLED backlit LCD
- Integrated all-in-one form factor
- Intel® H81 Express chipset
- Intel 4th Generation Core™ processors
- Integrated Intel HD Graphics
- Integrated Realtek RTL8151GH-CG GbE Ethernet Controller
- Optional wireless connectivity:
 - Intel Dual Band Wireless-N 7260 (mini PCI Express)
 - Intel 802.11 a/b/g/n
 - WLAN and Bluetooth Combo Card
 - HP 802.11 a/b/g/n Bluetooth® 4.0
- WiDi support (with Intel 7260 WLAN and Intel® HD Graphics)
- Optional Integrated 1 MP webcam & dual microphone array
- Business quality speakers
- DTS Sound +™
- Up to 16 GB of DDR3 SDRAM, dual channel memory support, two SODIMM slots
- 256GB Self-Encrypting Solid State Drive, 500GB Self-encrypting Drive, 1TB Solid State Hybrid Drive
- Optional Slim Tray-load SuperMulti DVD Writer, DVD-ROM, or BDXL Blu-ray Writer Optical Disc Drive
- Optional SD Media Card Reader
- Serial port
- DisplayPort out with multi-stream
- Integrated VESA 100 x 100 mounting holes
- Skype Ready
- Low Halogen
- ENERGY STAR® qualified. EPEAT® registered where applicable/supported. See www.epeat.net for registration status by country.
- CCC, CECP & SEPA Certified

Standard Features and Configurable Components (availability may vary by country)

OPERATING SYSTEM

Preinstalled

Windows 8.1 Pro (64-bit)*
Windows 8.1 (64-bit)*
Windows 7 Professional (32-bit)**
Windows 7 Professional (64-bit)**
Windows 7 Professional (32-bit) (available through downgrade rights from Windows 8.1 Pro)***
Windows 7 Professional (64-bit) (available through downgrade rights from Windows 8.1 Pro)***
Windows 7 Home Premium (32-bit)**
Windows 7 Home Premium (64-bit)**
Windows 7 Home Basic (32-bit)**

FreeDOS
Novell SUSE Linux Enterprise Desktop 11

*Not all features are available in all editions of Windows 8.1. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8.1 functionality. See <http://www.microsoft.com>.

**Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

***This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8.1 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

PROCESSOR

Intel® 4th Generation Core™ i7 Processors

Intel® Core™ i7-4770T

Up to 3.7 GHz Max. Turbo Frequency (2.5 GHz base frequency), 8 MB cache, 4 cores, 8 threads
Intel HD Graphics 4600
Supports DDR3 memory up to 1600 MT/s data rate
Intel Stable Image Platform Program (SIPP)

Intel® 4th Generation Core™ i5 Processors

Intel® Core™ i5-4670T

Up to 3.3 GHz Max. Turbo Frequency (2.3 GHz base frequency), 6 MB cache, 4 cores, 4 threads
Intel HD Graphics 4600
Supports DDR3 memory up to 1600 MT/s data rate
Intel Stable Image Platform Program (SIPP)

Intel® Core™ i5-4570T

Up to 3.6 GHz Max. Turbo Frequency (2.9 GHz base frequency), 4 MB cache, 2 cores, 4 threads
Intel HD Graphics 4600
Supports DDR3 memory up to 1600 MT/s data rate
Intel Stable Image Platform Program (SIPP)

Intel® 4th Generation Core™ i3 Processors

Intel® Core™ i3-4330 T

3.0 GHz base frequency, 4 MB cache, 2 cores, 4 threads
Supports DDR3 memory 1600 MT/s data rate
Intel HD Graphics 4600

Intel® Core™ i3-4130T

2.9 GHz base frequency, 3 MB cache, 2 cores, 4 threads
Supports DDR3 memory 1600 MT/s data rate
Intel HD Graphics 4400

Intel® 4th Generation Pentium® Processors

Intel® Pentium® G3420T

2.7 GHz base frequency, 3 MB cache, 2 cores, 2 threads
Intel HD Graphics
Supports DDR3 memory 1600 MT/s data rate

Standard Features and Configurable Components (availability may vary by country)

Intel® Pentium® G3220T

2.6 GHz base frequency, 3 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory 1333 MT/s data rate

Intel® 4th Generation Celeron® Processors

Intel® Celeron® G1820T

2.4 GHz base frequency, 2 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory 1333 MT/s data rate

CHIPSET

Intel® H81 Express

SMBIOS

System Management BIOS, previously known as DMI BIOS, is used to store system management information.

HP BIOSphere

Key features of the HP BIOS include:

- Deployment and manageability - HP BIOS provides several technologies that help integrate the HP ProOne 400 Business PC into the enterprise, such as PXE, and F10 Setup support for 12 languages.
- Support UEFI specification 2.3.1
- Thermal and power management - The HP BIOS provides and enables thermal and power management technologies so component temperatures are managed for high reliability and to assist in operating the HP Business Desktop computer in any enterprise environment.
- Thermal Controlled Fans - Automatic or manual controlled fan speeds for cooling and acoustic performance
- Serviceability - HP BIOS provides diagnostic and detailed service information.
- Upgrades and recovery - HP BIOS provides numerous ways to upgrade HP Business Desktop computers, including BIOS updates from within DOS (DOSFlash), BIOS updates from within Windows (HPQFlash), HP Client Manager, and fail-safe recovery (Emergency Boot Block Recovery). In addition, the HP Business Desktop BIOS Utilities tool enables replicated BIOS setup throughout the Enterprise; it is available from within the BIOS F10 setup and from the support website.
- HP BIOS uses PKI signing of the BIOS for trusted BIOS upgrades and recovery.

Additional HP BIOS Features:

- Power-On password - Helps prevent an unauthorized user from powering on the system.
- Administrator password - Also known as the setup password, this helps prevent unauthorized changes to the system configuration. If the administrator password is not known, the BIOS version cannot be changed and changes cannot be made to BIOS settings using F10 setup or under the OS.
- Advanced Configuration and Power Interface (ACPI) - Represents a significant innovation in power and configuration management, allowing operating systems and applications to manage power based on activity and usage. HP Pro models use ACPI to provide power conservation features.
- S5 Max Power Savings setting supports EU Lot6 requirement and allows the computer to power down below 1W in S5 (when turned off). When S5 Max Power Savings feature is enabled power to slots is turned off along with WOL functionality.
- Master Boot Record Security - Helps to prevent changes and/or infections to the Master Boot Record caused by viruses or malicious code.
- HP BIOS Protection - prevents unauthorized updates or changes to the BIOS due to malware, viruses, or malicious BIOS updates. Based on NIST SP800-147 policy guidelines.

GRAPHICS

Integrated (depends on processor)

Intel HD Graphics: 4600 or 4400. Please see specific processors for graphics configuration.

Graphics controller	Intel® Processor Graphics
DisplayPort	Support for 1 external display
Memory	Up to 1.8GB DDR3
Supported Graphics APIs	DX11.1, OpenGL 4.0, OpenCL 1.2, full 1080p Blu-Ray Disc (H264) playback in hardware

QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Standard Features and Configurable Components (availability may vary by country)

WIRELESS DISPLAY

WiDi support with Intel Dual Band Wireless-N 7260 (mini PCI Express) and Intel® HD graphics

Desktop system requirements for Intel® Wireless Display

System Component	Requirement
Processor	4th generation Intel® Core processor
Graphics	Intel® HD Graphics
Wireless	Intel Dual Band Wireless-N 7260
Software	Intel® My WiFi Technology and Intel® Wireless Display must be pre-installed and enabled
OS*	Windows 7 32-bit/64-bit Home Premium, Ultimate, Professional; Windows 7 32-bit Home

* Windows 8.1 supports Wireless Display natively.

DISPLAY

Six camera Optical Touch; five Touch points
21.5" diagonal Wide Viewing Angle widescreen WLED backlit LCD

Display Panel	Type	Wide Viewing Angle WLED Backlit LCD
	Viewable image area (H x V) (mm)	(min) 476.064 x 267.786
	Screen opening (H x V) (mm)	517.8 x 309.3
	Resolution(H x V)	1920 x 1080
	Aspect ratio	16:9
	Contrast ratio (typical)	1000:1
	Brightness (typical)	250nits (cd/m ²)
	Viewing angle (typical)	R/L 178°, U/D 178°
	Pixel pitch (H x V) (mm)	0.248 x 0.248
	Backlight lamp life (to half brightness)	30,000 hours minimum
	Color support	Over 16 million colors (through FRM)
	Anti-glare	No
	Default color temperature	Warm (6500K)

NOTE: All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

Adjustable Tilt Stand/Tilt Angle

10° to +25° to the vertical plane

WEBCAM & MIC

Optional integrated 1 MP webcam & dual microphone array; maximum resolution of 1280x720

STORAGE

3.5" SATA Hard Drive

500 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV
1 TB, 7200 rpm, SATA 6.0 Gb/s, SMART IV

2.5" SATA Hard Drive

500 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV

2.5" Self-Encrypting Solid State Drive

120 GB Intel Pro 1500, SATA, Self-Encrypting Opal 1 Solid State Drive
128 GB, SATA, Self-Encrypting Opal 2 Solid State Drive
180 GB Intel Pro 1500, SATA, Self-Encrypting Opal 1 Solid State Drive
256 GB, SATA, Self-Encrypting Opal 2 Solid State Drive

2.5" Self-Encrypting Drive

500 GB, SATA, Self-Encrypting Drive

2.5" Solid State Hybrid Drive



Standard Features and Configurable Components (availability may vary by country)

500 GB, SATA, Solid State Hybrid Drive
1 TB SATA, Solid State Hybrid Drive

Optical Disc Drive

Slim SATA DVD-ROM
Slim SATA SuperMulti DVD Writer
Slim SATA BDXL Blu-ray Writer
No included Optical Disc Drive

Removable

HP Slim Removable SATA HDD Frame/Carrier

Media Card Reader

HP 5-in-1
Supports Secure Digital (SD, SDHC, SDXC, Memory Stick (MS), Memory Stick Pro (MS Pro))

MEMORY

Type

Non-ECC, DDR3 SDRAM, 1600 MHz, SODIMM

Maximum

16 GB

of Slots

2

204-pin supporting dual-channel memory

Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory slots.

NOTE: Full availability of 4 GB or more of memory requires a 64-bit operating system. With Windows 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)

Integrated Realtek RTL8151GH-CG GbE LOM 10/100/1000

- With Wake-on-LAN

NOTE: The term "10/100/1000" or "Gigabit" Ethernet indicates compliance with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Wireless

Intel 802.11 a/b/g/n wireless 7260 PCIe minicard (optional)

- Up to 300 mbps data rate

HP 802.11 a/b/g/n wireless PCIe minicard with Bluetooth Combo (optional)

- Up to 300 mbps data rate
- Bluetooth 4.0 compliant
- Works with a wide range of Bluetooth devices

AUDIO/MULTIMEDIA

DTS Sound +™

Realtek ALC3228 codec - 16 & 24-bit PCM

Integrated business class 2.0 speakers (2W x 2)

Stereo headphone jack

Microphone in

Stereo line out

Optional integrated 1.0 MP webcam & dual microphone array - Up to 30 frames/sec

QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Standard Features and Configurable Components (availability may vary by country)

KEYBOARDS AND POINTING DEVICES

Keyboard

HP USB Standard	104 keys plus special functions for Mute, Volume Up, Volume Down, Sleep & Multimedia control keys Separate numeric keypad Cable length 71 in (180 cm)
HP Wireless Keyboard & Mouse	104 keys plus special functions for Mute, Volume Up, Volume Down, Sleep Separate numeric keypad; two buttons with scroll wheel acting as third button Operates at ~ 2.4 GHz and supports a working distance of up to 23 ft (7m) Keyboard contains 25% post-consumer recycled plastic material
HP USB CCID SmartCard Keyboard	104, 105, 106, 107, 109 layout (depending upon country) All ISO 7816 smart cards
HP USB PS/2 Washable Keyboard	SpillSeal® keyboard technology protection USB & PS/2 support in one solution Separate numeric keypad Cable length 7ft (2.2m)

Mice

HP USB Optical Mouse	Two buttons with scroll wheel 71 in (180 cm)
HP USB 1000dpi Laser Mouse	1000 dpi support Two buttons with scroll wheel Cable length 70.8 in (180 cm)
HP USB PS/2 Washable Scroll Mouse	SpillSeal® mouse technology protection Two buttons with scroll wheel 8.8 ft total 70 cm+ 2m extension

SECURITY

Security lock slot
HP Keyed Cable Lock
USB port disable
Rear cover security screw

POWER

External 120W, up to 89% efficient, active PFC
100-240V AC

Power Efficiency	89%	88%
Volts	230	100/115

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Included

Security

Windows 7

Computrace
HP Device Access Manager with Just In Time Authentication
HP Drive Encryption
HP File Sanitizer (SSDs and Hybrid Drives not supported)
HP Disk Sanitizer External Edition¹
HP Client Security
HP Trust Circles Standard
Microsoft Security Essentials

Windows 8.1

Computrace
HP Device Access Manager with Just In Time Authentication
HP Drive Encryption
HP File Sanitizer (SSDs and Hybrid Drives not supported)
HP Disk Sanitizer External Edition¹
HP Client Security
HP Trust Circles Standard
Microsoft Defender
Cyberlink Power DVD, BD
Cyberlink Power2Go (Secure Burn)

MultiMedia

Cyberlink Power DVD, BD
Cyberlink Power2Go (Secure Burn)
Cyberlink YouCam BE

HP Wireless Hotspot

Communication

HP Value Add

HP ePrint Driver²
HP Manageability (activation required)
HP PageLift
HP Recovery Manager
HP Support Assistant
HP Recovery Disk Creator

HP ePrint Driver²
HP Manageability (activation required)
HP PageLift
HP Recovery Manager
HP Support Assistant



QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Standard Features and Configurable Components (availability may vary by country)

3rd Party	Adobe Flash Player Box PDF Complete, Corporate Edition Skype	Box PDF Complete, Corporate Edition Skype
Microsoft Products	Buy Office	Buy Office

¹ Available via download.

² Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.

ENVIRONMENTAL & INDUSTRY

ENERGY STAR® qualified models available

EPEAT® registered where applicable/supported. See www.epeat.net for registration status by country.

Industry standard certifications:

UL
CSA
FCC compliance
ENERGY STAR®
EPEAT® Gold
EUP Lot6 Tier2
CCC
CECP
SEPA
CEL

For accessibility information on HP products, please visit: <http://www.hp.com/accessibility>.

WEIGHTS & DIMENSIONS

Weight	With stand	Dimensions (W x D x H)	With stand
	17.6 - 17.9 lbs		22 x 3.3 x 15.9 in
	7.99 - 8.14 kg		557.9 x 84.4 x 402.6 mm
	Without stand		Without stand
	16.4 - 16.7 lbs		22 x 2.3 x 14.3 in
	7.42 - 7.57 kg		557.9 x 59.4 x 362.9 mm
	Shipping box		Shipping box
	26.69 lbs		25.51 x 6.89 x 21.34 in
	12.11 kg		648 x 175 x 542 mm
	Shipping pallet (20 units)		Shipping pallet (20 units)
	578.71 lbs		47.2 x 39.4 x 48.27 in
	262.5 kg		1200 x 1000 x 1226 mm

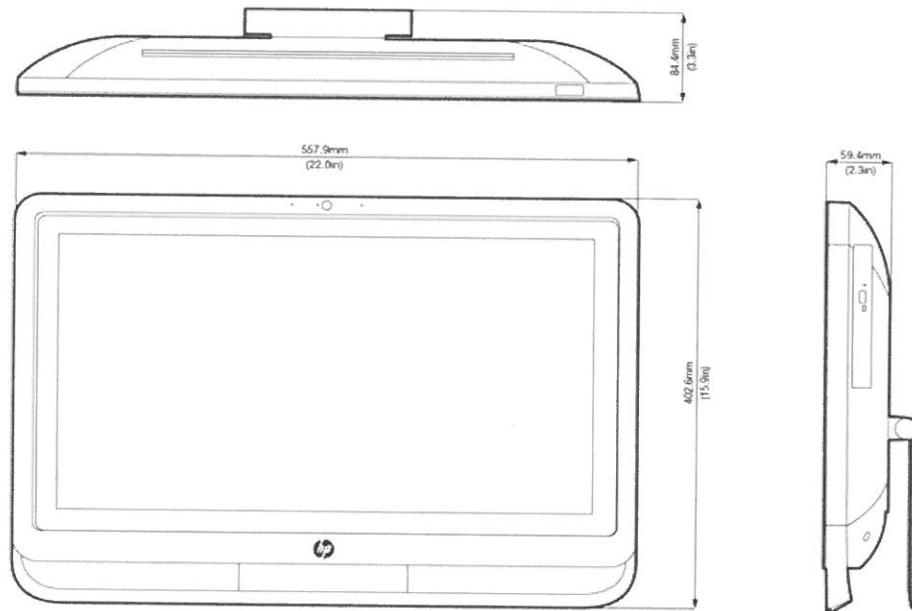
Detailed dimensions



QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Standard Features and Configurable Components (availability may vary by country)



TEMPERATURE, HUMIDITY, ALTITUDE

Temperature	Operating	41 to 95°F 5 - 35°C
	Non-operating	-22 to 149°F -30° to 65°C
Relative humidity	Operating	15 - 80% at 26° C
Altitude (unpressurized)	Operating	0 to 6500 ft (0 to 2000 m)
	Non-operating	0 to 15,000 ft (0 to 4,572 m)

PORTS

I/O Ports - Standard

2 - USB 3.0 (2 side including 1 fast charging)

USB Fast Charging Port:

- Up to 2.5A charging current (5 times the maximum current supported by a USB 2.0 port; 2.8 times the maximum current supported by a USB 3.0 port)
- D+/D- CDP/DCP Modes per USB Battery Charging Specification 1.2
- D+/D- Shorted Mode per Chinese Telecommunication Industry Standard YD/T 1591-2009
- Supports non-BC1.2 Charging Modes by Automatic Selection
- D+/D- Divider Modes 2.0V/2.7V and 2.7/2.0V
- D+/D- 1.2V Mode
- Supports Sleep-Mode Charging
- Automatic SDP/CDP Switching for Devices That do not Connect to CDP Ports

- 4 - USB 2.0 (rear)
- 1 - Microphone in (side)
- 1 - Headphone jack (side)
- 1 - Serial RS-232 (rear)
- 1 - Stereo audio line out (rear)
- 1 - Power connector (rear)
- 1 - RJ-45 (rear)
- 1 - DisplayPort

DisplayPort connector supports multimode technology to support connection to DVI-D, HDMI and VGA monitors with optional adapters or to a DisplayPort monitor with a DisplayPort Cable.

DisplayPort Cable

Provides a direct connection between the PC's DisplayPort interface to the display's DisplayPort interface



Standard Features and Configurable Components (availability may vary by country)

DisplayPort To DVI-D Adapter	Provides a connection from the PC's DisplayPort interface to the display's DVI-D interface; adapts the DP output to the DVI-D input
DisplayPort To HDMI Adapter	Provides a connection from the PC's DisplayPort interface to the display's HDMI interface; adapts the DP output to the HDMI input
DisplayPort To VGA Adapter	Provides a connection from the PC's DisplayPort interface to the display's analog VGA interface; adapts the digital DP output to the analog VGA input

SLOTS

1 - mini PCIe half-length (used by optional wireless LAN module)

BAYS

1 - 3.5" internal; Supports One - 3.5" hard drive or up to One - 2.5" hard drives (HDD/SSD/SED/SSHD)
1 - 5.25" external; Slim Line Optical Drive

SERVICE AND SUPPORT

On-site Warranty ¹: Standard three-year (3-3-3²) limited warranty delivers three years of on-site, next business day ³ service for parts and labor and includes free telephone support ⁴ 24 x 7. One-year onsite and labor are not available in all countries. Service offers terms up to 5 years by choosing a Care Pack. To choose the right level of service for your HP product, visit HP Care Pack Central: www.hp.com/go/cpc

NOTE 1: Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.

NOTE 2: One-year (1/1/1) in Mexico only.

NOTE 3: On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.

NOTE 4: Technical telephone support applies only to HP-configured Compaq and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

QuickSpecs

Technical Specifications - Graphics

Intel HD Graphics

VGA Controller	Integrated
DisplayPort	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 2 displays (including the integrated panel)
Bus Type	N/A
RAMDAC	N/A
Memory	Intel graphics do not have dedicated memory but utilizes some of the computer's system memory. The amount of memory used for graphics depends on the amount of system memory installed, BIOS settings, operating system, and system load. 32 MB is pre-allocated for graphics use at system boot time. Additional memory can be allocated at boot time by the BIOS for PAVP (Protected Audio Video Playback) support for playback of protected video content.

Additional memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.

Maximum Graphics Memory	Microsoft Windows 7	Windows 8.1
	Up to 1.7GB	Up to 1.8GB

NOTE: the actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.

Maximum Color Depth 32 bits/pixel

Graphics/Video API Support 4th Generation Core processors:

- The Processor Graphics contains a refresh of the seventh generation graphics core enabling substantial gains in performance and lower power consumption. Up to 16 EU support.
- Next Generation Intel Clear Video Technology HD Support is a collection of video playback and enhancement features that improve the end user's viewing experience
 - Encode/transcode HD content
 - Playback of high definition content including Blu-ray Disc
 - Superior image quality with sharper, more colorful images
- DirectX Video Acceleration (DXVA) support for accelerating video processing
 - Full AVC/VC1/MPEG2 HW Decode
- Advanced Scheduler 2.0, 1.0
- Windows 7, Windows 8.1, Linux OS Support
- DirectX 11.1
- OpenGL 4.0
- Open CL 1.2

Supported Display Resolutions and Refresh Rates

NOTE: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Resolution	Refresh Rates
800x600	60 Hz
1024x768	60 Hz
1152x864	60 Hz
1280x600	60 Hz
1280x720	60 Hz
1280x800	60 Hz
1280x960	60 Hz
1280x1024	60 Hz
1360x768	60 Hz
1366x768	60 Hz
1400x1050	60 Hz
1440x900	60 Hz
1600x900	60 Hz
1600x1200*	60 Hz
1680x1050	60 Hz
1920x1080	60 Hz
1920x1200*	60 Hz
1920x1440*	60 Hz
2560x1440*	60 Hz
2560x1600*	60 Hz



QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Technical Specifications - Graphics

* Only supported on displays connected to the external DisplayPort connector.



Technical Specifications – Hard Disk and Solid State Storage

Introduction:

HP Serial Advanced Technology Attachment (SATA) Hard Drives maximize the performance of HP Business PCs by providing the technologies to meet your increasing storage demands with high-capacity drives offering superior reliability and performance.

SATA provides faster data transfer speeds, better system cooling airflow, more bandwidth, more headroom for speed increases in future generations and better data integrity. A next-generation technology, the SATA interface connects hard drives to the PC platform enabling easy aggregation of multiple hard drives into a single PC. This offers you the additional benefits of dedicated bandwidth, the ability to more easily identify device failures and scalability. The HP ProOne 400 G1 Series Business PC supports the latest SATA 6.0Gb/s specification.

SMART IV Technology

Self Monitoring Analysis and Reporting Technology (SMART) hard drive technology allows hard drives to monitor their own health and to raise flags if imminent failures are predicted. If the drive determines that a failure is imminent, the SMART hard drive technology enables the intelligent manageability or management software to generate a fault alert. While the current versions of SMART hard drives do a good job monitoring the data on the hard drive media, the ever increasing emphasis on reliability and quality has promoted HP to implement SMART IV technology which constantly checks that the data flow from host interface to media and media to host interface is not compromised. This is accomplished by inserting a 2 byte parity code into every 512 byte block in the data path of the hard drive's Cache RAM. This unique parity checking performed by HP's SMART IV technology hard drives, allows for more complete error detection coverage encompassing the entire data path between the host and the hard drive.

Smart IV is also known as IOEDC: I/O Error Detection Code.

Native Command Queuing

NCQ or Native Command Queuing is a SATA protocol extension that allows the hard drive to have several write or read commands outstanding at the same time. In contrast, normal non-queued operation requires each command to be completed before the next command is issued by the host system. Queuing allows the drive to complete the commands in the order that allows for best overall throughput. It also involves an advanced method of transferring data to or from the host, called First Party Direct Memory Access (FPDMA), which allows the hard drive and the host controller to manage the data transfers for multiple outstanding commands, without involving the host processor. NCQ can contribute to better performance but the results are dependent on many factors, including the access patterns of the various applications and operating system functions that are initiating drive accesses. Enabling NCQ features in the hard drive requires AHCI support from the host system BIOS, controller, and driver. AHCI support is typically implemented in RAID configurations

NOTE: GB = 1 billion bytes. Actual available capacity is less.

HP 500-GB 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive

Capacity	500,107,862,016 bytes	
Rotational Speed	7,200 rpm	
Interface	SATA 6 Gb/s	
Buffer Size	16 MB	
Logical Blocks	976,773,168	
Seek Time (typical reads, includes controller overhead, including settling)	Single Track:	2.0 ms
	Average:	11 ms
	Full-Stroke:	21 ms
Height (nominal)	1 in/2.54 cm	
Width (nominal)	Media diameter:	3.5 in/8.89 cm
	Physical size:	4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)	

Technical Specifications – Hard Disk and Solid State Storage

HP 1-TB 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive

Capacity	1,000,204,886,016 bytes	
Rotational Speed	7,200 rpm	
Interface	SATA 6 Gb/s	
Buffer Size	32 MB	
Logical Blocks	1,953,525,168	
Seek Time (typical reads, includes controller overhead, including settling)	Single Track:	2.0 ms
	Average:	11 ms
	Full-Stroke:	21 ms
Height (nominal)	1 in/2.54 cm	
Width (nominal)	Media diameter:	3.5 in/8.89 cm
	Physical size:	4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)	

HP 500-GB 7.2K SATA 6.0Gb/s 2.5" Hard Disk Drive

Capacity	500,107,862,016 bytes	
Rotational Speed	7,200 rpm	
Interface	SATA 6 Gb/s	
Buffer Size	16 MB	
Logical Blocks	976,773,168	
Seek Time (typical reads, includes controller overhead, including settling)	Single Track:	2.0 ms
	Average:	12 ms
	Full-Stroke:	25 ms
Height (nominal)	0.374 in/9.5 mm	
Width (nominal)	Media diameter:	2.5 in/63.5 mm
	Physical size:	2.75 in/70 mm
Operating Temperature	41° to 131° F (5° to 55° C)	

HP 128 GB SATA 2.5" Self-Encrypting (SED) Solid State Drive

Unformatted Capacity	128 GB	
Architecture	Self-Encrypting (SED) Solid State Drive using NAND Flash and SATA interface	
Interface	SATA 6 Gb/s	
Height	.267 in/6.80 mm	
Width	2.75 in/69.85 mm	
Length	3.94 in/100.2 mm	
Weight	0.121 lb (55 g) max	
Performance	Host Transfer Rate:	600 MB/s
	Sequential Read:	Up to 520 MB/s
	Sequential Write:	Up to 340 MB/s
	* Actual performance may vary depending on use conditions and environment	
Power	** NOTES:	
	1. Measured at HP 8570p@Win7 x64	
	2. Performance measured using CrystalDiskMark 3.01c	
	3. Drive was connected as primary	
System Reliability	System power consumption: Active* - 0.78A / 3.891W (typical)	
	System power consumption: Idle** - 0.005A / 0.026W (typical)	
Environmental (all conditions, non-condensing)	* Active power is measured during execution of IOMeter 2006 in Windows 7	
	** Idle power is measured on DOS Idle status with DIPM on	
	MTBF - 1,500,000 Hours	
Environmental (all conditions, non-condensing)	Operating Temperature:	32° to 158° F (0° to 70° C)
	Relative Humidity:	5% to 95%
	Shock:	1500G, duration 0.5ms, Half Sine Wave

QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Technical Specifications – Hard Disk and Solid State Storage

HP 256 GB SATA 2.5" Self-Encrypting (SED) Solid State Drive

Unformatted Capacity	256 GB
Architecture	Self-Encrypting (SED) Solid State Drive using NAND Flash and SATA interface
Interface	SATA 6 Gb/s
Height	.267 in/6.80 mm
Width	2.75 in/69.85 mm
Length	3.94 in/100.2 mm
Weight	0.121 lb (55 g) max
	Host Transfer Rate: 600 MB/s
	Sequential Read: Up to 520 MB/s
	Sequential Write: Up to 460 MB/s
Performance	* Actual performance may vary depending on use conditions and environment
	** NOTES:
	1. Measured at HP 8570p@Win7 x64
	2. Performance measured using CrystalDiskMark 3.01c
	3. Drive was connected as primary
	System power consumption: Active* - 0.78A / 3.891W (typical)
Power	System power consumption: Idle** - 0.005A / 0.026W (typical)
	* Active power is measured during execution of IOMeter 2006 in Windows 7
	** Idle power is measured on DOS Idle status with DIPM on
System Reliability	MTBF - 1,500,000 Hours
Environmental (all conditions, non-condensing)	Operating Temperature: 32° to 158° F (0° to 70° C)
	Relative Humidity: 5% to 95%
	Shock: 1500G, duration 0.5ms, Half Sine Wave

HP 500-GB 7200 RPM SATA 2.5" Self-Encrypting (SED) Hard Disk Drive

Capacity	500,107,862,016 bytes
Rotational Speed	7,200 rpm
Drive Type	Self-Encrypting Drive (SED) with SATA interface
Interface	SATA 6 Gb/s
Segmented Buffer with write cache	32768 KB - A portion of buffer capacity used for firmware
Number of Sectors	976,773,168
	Single Track: 1.0 ms
Seek Time (typical reads)	Average: 13 ms
	Full-Stroke: 25 ms
Media Diameter	2.5 in/63.5 mm
Height	0.267 in/6.8 mm, ±0.2mm
Width	2.75 in/69.85 mm, ±0.25mm
Length	3.945 in/100.2 mm, ±0.25mm
Weight	3.35 oz/95 g (max)
Operating Temperature	32° to 140° F (0° to 60° C)



Technical Specifications – Hard Disk and Solid State Storage

HP 500 GB SATA 6G 2.5" 8GB Solid State Hybrid Drive (SSHD)

Formatted Capacity	500 GB
Spindle Speed	5,400 rpm +/- 0.2%
Drive Type	Solid State Hybrid Drive (SSHD) technology with NAND Flash
Interface	SATA 6 Gb/s
Cache Buffer	64 MB
NAND Flash	8 GB
Commercial Multilevel Cell (cMLC)	
Number of Sectors	976,773,168
Seek Time (typical reads)	Single Track: 2.0 ms
	Average: 12 ms
Height	0.268 +/- .008 in (6.8 +/- 0.2 mm)
Width	2.750 +/- 0.010 in (69.85 +/- 0.25 mm)
Length	3.951 +0.008 / -0.010 in (100.35 +0.20 / -0.25 mm)
Weight	0.209 lb/95 g (max)
Operating Temperature	32° to 140° F (0° to 60° C)

HP 1-TB SATA 6G 2.5" 8GB Solid State Hybrid Drive (SSHD)

Formatted Capacity	1 TB
Spindle Speed	5,400 rpm +/- 0.2%
Drive Type	Solid State Hybrid Drive (SSHD) technology with NAND Flash
Interface	SATA 6 Gb/s
Cache Buffer	64 MB
NAND Flash	8 GB
Commercial Multilevel Cell (cMLC)	
Number of Sectors	976,773,168
Seek Time (typical reads)	Single Track: 2.0 ms
	Average: 12 ms
Height	0.374 +/- .008 in (9.5 +/- 0.2 mm)
Width	2.750 +/- 0.010 in (69.85 +/- 0.25 mm)
Length	3.951 +0.008 / -0.010 in (100.35 +0.20 / -0.25 mm)
Weight	0.254 lb/115 g (max)
Operating Temperature	32° to 140° F (0° to 60° C)

QuickSpecs

Technical Specifications - Removable Storage

HP Slim SuperMulti DVD Writer Drive

Height	12.7mm height	
Orientation	Either horizontal or vertical	
Interface type	SATA/ATAPI	
Disc recording capacity	Up to 8.5 GB DL or 4.7 GB standard	
Dimensions (W x H x D)	5.0 x 0.5 x 5.0 in (128 x 13.6 x 129 mm)	
Weight (max)	0.42 lb (190 g)	
	DVD-RAM	Up to 5X
	DVD-R DL	Up to 6X
	DVD+R	Up to 8X
	DVD+RW	Up to 8X
Write speeds	DVD+R DL	Up to 6X
	DVD-R	Up to 8X
	DVD-RW	Up to 6X
	CD-R	Up to 24X
	CD-RW	Up to 24X
	DVD-RAM	Up to 5X
	DVD-RW, DVD+RW	Up to 8X
	DVD-R DL, DVD+R DL	Up to 8X
Read speeds	DVD+R, DVD-R	Up to 8X
	DVD-ROM DL, DVD-ROM	Up to 8X
	CD-ROM, CD-R	Up to 24X
	CD-RW	Up to 24X
Access time (typical reads, including settling)	Random	DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical)
	Full Stroke	DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical)
	Stop Time	6 seconds typical
Power	Source	Slimline SATA DC power receptacle
	DC Power Requirement	5 VDC \pm 5%-100 mV ripple p-p
	DC Current	5 VDC (< 1000 mA typical, 1600 mA maximum)
	Temperature	41° to 122° F (5° to 50° C)
Environmental conditions (operating - non-condensing)	Relative Humidity	10% to 90%
	Maximum Wet Bulb Temperature	84° F (29° C)

HP Slim Blu-ray BDXL Drive

Height	12.7mm height	
Orientation	Either horizontal or vertical	
Interface type	SATA/ATAPI	
Disc recording capacity	Up to 128 GB QL, 100 GB TL, 50 GB DL or 25 GB standard SL	
Dimensions (W x H x D)	5.04 x 0.5 x 5.0 in (128 x 12.7 x 127 mm) without bezel	
Weight (max)	Up to 0.37 lb (170 g) without bezel	
Write speeds	Triple-layer	Quadruple-layer



QuickSpecs

Technical Specifications - Removable Storage

	BD-R	Up to 4X	Up to 4X
	BD-RE	Up to 2X	Not supported
		Single-layer	Double-layer
	BD-R	Up to 6X	Up to 6X
	BD-RE	Up to 2X	Up to 2X
	DVD-R	Up to 8X	Up to 6X
	DVD-RW	Up to 6X	Not supported
	DVD+R	Up to 8X	Up to 6X
	DVD+RW	Up to 8X	Not supported
	DVD-RAM	Up to 5X	N/A
	CD-R	Up to 24X	N/A
	CD-RW	Up to 24X	N/A
		Triple-layer	Quadruple-layer
	BD-R	Up to 4X	Up to 4X
	BD-RE	Up to 4X	Not supported
		Single-layer	Double-layer
	BD-ROM	Up to 6X	Up to 6X
	BD-R	Up to 6X	Up to 6X
	BD-RE	Up to 6X	Up to 6X
	DVD-ROM	Up to 8X	Up to 8X
	DVD-R	Up to 8X	Up to 8X
	DVD-RW	Up to 8X	N/A
	DVD+R	Up to 8X	Up to 8X
	DVD+RW	Up to 8X	N/A
	BDMV (AACIS Compliant Disc)	Up to 6X/2X (Read/Play)	N/A
	DVD-RAM	Up to 5X	N/A
	DVD-Video (CSS Compliant Disc)	Up to 8X/4X (Read/Play)	N/A
	CD-R/RW/ROM	Up to 24X	N/A
	CD-DA(DAE)	Up to 20X/10X (Read/Play)	N/A
	Random	BD-ROM: 205 ms (typical), DVD-ROM: 185 ms (typical), CD-ROM: 165 ms (typical)	
	Full Stroke	BD-ROM: 350 ms (typical), DVD-ROM: 345 ms (typical), CD-ROM: 340 ms (typical)	
	Source	Slimline SATA DC power receptacle	
Power	DC Power Requirement	5 VDC ± 5%-100 mV ripple p-p	
	DC Current	5 VDC -1200 mA typical, 2000 mA maximum	
	Temperature	41° to 122° F (5° to 50° C)	
Environmental conditions (operating - non-condensing)	Relative Humidity	10% to 80%	
	Maximum Wet Bulb Temperature	84° F (29° C)	



Technical Specifications - Removable Storage

HP Slim DVD-ROM Drive

Height	12.7mm	
Orientation	Either horizontal or vertical	
Interface type	SATA/ATAPI	
Dimensions (W x H x D)	5.04 x 0.5 x 5.0 in (128 x 12.7 x 127 mm) without bezel	
Weight (max)	Up to 0.37 lb (170 g) without bezel	
	DVD+R/-R/+RW/ -RW/+R DL /-R DL	Up to 8X
Read speeds	DVD-ROM	Up to 8X
	CD-ROM, CD-R	Up to 24X
	CD-RW	Up to 24X
Access time (typical reads, including settling)	Random	DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical)
	Full Stroke	DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical)
	Source	Slimline SATA DC power receptacle
Power	DC Power Requirement	5 VDC \pm 5%-100 mV ripple p-p
	DC Current	5 VDC - <1000 mA typical, < 1600 mA maximum
	Temperature	41° to 122° F (5° to 50° C)
Environmental (all conditions non-condensing)	Relative Humidity	10% to 80%
	Maximum Wet Bulb Temperature (operating)	84° F (29° C)

Technical Specifications – Memory

System Memory Support

The HP ProOne 400 G1 Business PC supports the 4th generation Intel® Core™ processor family. Based on a new PC micro-architecture, the processor is designed for a two-chip platform consisting of a processor and Platform Controller Hub (PCH). Unlike previous generations, the 4th generation Intel® Core™ processor includes an Integrated Memory Controller (IMC). The IMC supports DDR3/DDR3L protocols with two independent, 64-bit wide channels each accessing one or two DIMMs.

- Two channels of DDR3/DDR3L unbuffered small outline dual in-line memory modules (SO-DIMM) with a maximum of two DIMMs per channel
- Single-channel and dual-channel memory organization modes
- Data burst length of eight for all memory organization modes
- Memory data transfer rates of up to 1600 MT/s; actual supported data transfer rate determined by the configured processor.
- 64-bit wide channels
- DDR3/DDR3L system memory I/O voltage of 1.5V
- Theoretical maximum memory bandwidth of:
 - 21.3 GB/s in dual-channel mode assuming 1333 MT/s
 - 25.6 GB/s in dual-channel mode assuming 1600 MT/s

Platform Memory Support

- The All-in-One supports up to two (2) industry-standard DDR3-SDRAM SO-DIMMs.

CAUTION: You must shut down the computer and disconnect the power cord before adding or removing memory modules. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the computer is plugged in to an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or system board.

NOTE: For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

Technical Specifications - Networking/Communication

Realtek RTL8151GH-CG GbE LOM Network Adapter

Connector	RJ-45
System Interface	Integrated on PCA
Controller	Realtek RTL8151GH-CG Gigabit Ethernet Controller
Memory	16 KB FIFO packet buffer memory
Data rates supported	10/100/1000 Mbps 802.1P 802.1Q 802.3 802.3ab 802.3az 802.3u
IEEE Compliance	
Bus architecture	PCI Express
Data transfer mode	PCIe-based interface for active state operation (S0 state)
Power requirement	Requires 3.3V and 1V or just 3.3V with integrated regulators Power consumption 0.425 W
Network transfer mode	Full-duplex Half-duplex (not supported for the 1000BASE-T transceiver)
Network transfer rate	10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps
Environmental	Operating Temperature: 32° to 158° F (0° to 70° C) Operating Humidity: 60% RH
Management	WOL, auto MDI crossover, PXE, Multi-port teaming, Advanced cable diagnostic

Intel Dual Band Wireless-N 7260 802.11 a/b/g/n (2x2) Wireless Network Interface Connection

Wireless LAN Standards	IEEE 802.11a/b/g/n	
Interoperability	Wi-Fi certified (802.11 a/b/g/n WMM, WPA, WPA2 and WPS) Cisco Compatible Extensions Program compliant with Microsoft Windows 7, Windows Vista and XP. NOTE: WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.	
Frequency Band	802.11b/g/n	2.402-2.482 GHz
	802.11a/n	4.9 - 4.95 GHz (Japan) 5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz 5.825 - 5.850 GHz
Antenna Structure	2 transmit; 2 receive (2x2)	
Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)	
Modulation	Direct Sequence Spread Spectrum CCK, BPSK, QPSK, 16-QAM, 64-QAM	
Security	<ul style="list-style-type: none"> • IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • IEEE 802.11i • Cisco Certified Extensions, all versions through CCX4 and CCX Lite • WAPI 	

Technical Specifications - Networking/Communication

	NOTE: Check latest software/driver release for updates on supported security features.	
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.	
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)	
Roaming	IEEE 802.11 compliant roaming between band Access Points	
Output Power	<ul style="list-style-type: none"> ● 2.4G: +13.5dBm minimum ● 5G: +12dBm minimum 	
	NOTE: Maximum output power may vary by country according to local regulations.	
Power Consumption	Transmit: 2.0 Watts Receive: 1.6 Watts Idle mode: 250 mW (WLAN associated) In Power Save Polling mode and on battery power. Idle mode: 100 mW (WLAN unassociated) Radio off: 100 mW (WLAN unassociated)	
Power Management	ACPI compliant power management 802.11 compliant power saving mode	
Receiver Sensitivity	802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74 dBm (54 Mbps) 802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88 dBm (11 Mbps) 802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74 dBm (54 Mbps)	
	NOTE: Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).	
Antenna Connections	2 U.FL type connectors (output impedance of 50 ± 2 ohms)	
Form Factors	PCI-Express Half-MiniCard	
Weight	0.0068 lb (3.1 g)	
Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)	
Operating Voltage	3.3V +/- 9%	
Temperature	Operating:	14° to 158° F (-10° to 70° C)
	Non-operating:	-40° to 176° F (-40° to 80° C)
Humidity	Operating:	10% to 90% (non-condensing)
	Non-operating:	5% to 90% (non-condensing)
Altitude	Operating:	0 to 10,000 ft (3,048 m)
	Non-operating:	0 to 50,000 ft (15,240 m)
LED Activity	LED Amber - Radio OFF; LED White - Radio ON	

HP 802.11a/b/g/n Wireless Minicard with Bluetooth Combo

Dimensions (L x H)	1.18 x 1.06 in (30 x 26.8 mm)
Chipset	Broadcom BCM43228 + BCM20702
System interface	PCI Express x1
Network standard	802.11 a/b/g/n
Frequency band	Bluetooth: 2.402 - 2.480 GHz Wi-Fi: 802.11a - 5.15-5.85 GHz; 802.11bg 2.412-2.4835 GHz
Operating temperature	32° to 131°F, operating (0° to 55°C, operating)
Storage temperature	-40° to 176°F, non-operating (-40° to 80°C, non-operating)
Humidity	5-90% operating 5-95% non-operating
Operating voltage	3.3 V ±9% I/O supply voltage

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Technical Specifications - Networking/Communication

	Platform/WLAN Mode	Power Consumption
Power Consumption	Wi-Fi	
	Tx Mode	515 mA
	Rx Mode	425 mA
	Bluetooth	
	Tx Mode	40 mA
	Rx Mode	38 mA
	Standby Mode	Wi-Fi + Bluetooth - 165 mA Wi-Fi only - 165 mA Bluetooth only - 0.5 mA
	Radio Off	77 mA
	802.11 a	15.5 dBm@6Mbps; 15.5 dBm@54Mbps
	802.11 b	18.5 dBm@11Mbps
Output Power (2x2 - Tolerance +/- 1.5 dBm)	802.11 g	16.5 dBm@6Mbps; 16.5 dBm@54Mbps
	802.11 n/2.4G	20MHz: 18 dBm@MCS0; 18 dBm@MCS15 40MHz: 17 dBm@MCS0; 17 dBm@MCS15
	802.11 n/5G	20MHz: 16 dBm@MCS0; 16 dBm@MCS15 40MHz: 16 dBm@MCS0; 16 dBm@MCS15
Security	IEEE 802.11i 64-/128-bit WEP encryption WPS, WPA, WPA2, WEP 64bit & 128bit, IEEE 802.11x, IEEE 802.11i	
Antenna	Dual antenna connectors	

Technical Specifications - Audio

Realtek ALC3228 High Definition Audio

Type	Integrated
HD Stereo Codec	Realtek ALC3228 4-channel codec
Ports	Line-In/Microphone input ports are 47K (nominal) at the pin
	Line-Out intended to drive an external 10K load (nominal) and an on board shunt resistor of 20-47K (nominal)
	Headphone-Out designed to drive 32 ohm (nominal) headphones or a 10K (nominal) load
	All ports are 3.5 mm
Internal Speaker Amplifier	2.2W/channel Class-D stereo BTL speaker amplifier@ 4 ohms and 5V
Sampling	The ALC3228 audio CODEC provides stereo 24-bit, full duplex resolution supporting sample rates up to 192kHz by the DAC and ADC. Additional sample rates are supported by the driver software.
Analog Audio	Yes
# of Channels on Line-Out	4 Channels (2 stereo DACs and 2 stereo ADCs) with 24-bit resolution
Internal Speaker	Yes

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HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Technical Specifications – Keyboards and Mice

HP USB Keyboard

	Keys	104, 105, 106, 107, 109 layout (depending upon country)
Physical characteristics	Dimensions (L x W x H)	18.12 x 6.47 x 0.96 in (46.03 x 16.43 x 2.44 cm)
	Weight	2 lb (0.9 kg)
	Operating voltage	+ 5VDC \pm 5%
	Power consumption	50-mA maximum (with three LEDs ON)
Electrical	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft® PC 99 - 2001	Functionally compliant
	Keycaps	Low-profile design
	Switch actuation	55-g nominal peak force with tactile feedback
Mechanical	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 140° F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
Environmental	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence
Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC	
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS	
Kit contents	Keyboard	Installation Guide
	Warranty Card	Safety and Comfort Guide

Technical Specifications – Keyboards and Mice

HP Wireless Keyboard and Mouse

Keyboard	Dimensions (H x L x W)	1.09 x 18.1 x 6.47 in (27.87 x 460.3 x 164.3 mm)
	Weight – Without Two AA Alkaline Batteries	1.94 lb (880 g)
Mouse	Dimensions (H x L x W)	1.46 x 4.53 x 2.47 in (37 x 115 x 62.9 mm)
	Weight – Without Two AA Alkaline Batteries	0.15 lb (67 g)
Receiver	Dimensions (H x L x W)	0.33x 1.79 x 0.72 in (8.4 x 45.5 x 18.4 mm)
	Weight	0.21 oz (5.9 g)
	Cable Length – Minimum	6 ft (1.8 m)
	Range	32.8 ft (10 m)
System Requirements	Windows 7 Home Basic*, Windows 7 Home Premium*, Windows 7 Professional Edition 32*, Windows 7 Professional Edition 64*, Windows 7 Ultimate Edition 32*, Windows 7 Ultimate Edition 64* Windows Vista or Windows XP Available USB port for the receiver CD-ROM Drive *This system may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.	
	Product Safety	UL; CSA /TUV (Europe only); CE Mark; CB Report
	Ergonomics	ANSI; ISO (Europe only); GS Mark (Germany only)
	EMC	FCC; CE; ACA (-tick); BSMI; KC ; VCCI
	CE Mark	EN 55022:2010; EN 55024; EN 301489-1; EN 61000
	Design Guidelines for PCs	PC 99 - connector overmold colors; PC 2001 - full functionality
	Telecom	All local telecom requirements and approvals for intended markets
	USA	FCC Title 47 CFR, Par 15, Subpart C; other local requirements
	Country Support	US, Belgium, Switzerland, Spain, Denmark, Netherlands, France, Germany, Italy, Portugal, Sweden, Norway, Finland, UK, Poland, Czech Republic, Turkey, Greece, Austria, Bulgaria, Cyprus, Estonia, Hungary, Ireland, Latvia, Lithuania, Luxemburg, Malta, Romania, Slovakia, Slovenia, Vietnam, HK, Australia, NZ, Malaysia, Singapore, Indonesia, Philippines, Thailand, Canada, China, Japan, Korea, Taiwan, India, Venezuela, Ecuador, Russia, Ukraine, Israel, Croatia, United Arab Emirates, Peru, Brazil, Chile, Argentina, Mexico, South Africa, and up to 193 countries worldwide.
	Environmental	Keyboard contains 25% post-consumer recycled plastic material

HP USB Smart Card (CCID) Keyboard

Introduction:

Boost your security, simplify access procedures and reduce the costs associated with managing networks by preventing unauthorized access to your computers and networks using smartcard technology with the HP Smart Card (CCID) Keyboard.

The USB Smart Card (CCID) Keyboard is a full-sized keyboard that takes advantage of digital signatures and certificates to secure the environment for transactions performed on both public and private networks. The USB Smart Card (CCID) Keyboard works with all smart cards that comply with ISO standard 7816.

Smart cards are easy-to-use credit card-sized devices which require multiple forms of information to be validated before you gain access to your accounts or resources. Used worldwide, smart cards strengthen access to a network or other resource



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Technical Specifications – Keyboards and Mice

using dual-factor authentication. Implementing a two-factor authentication (or multi-factor authentication) process reduces the risk of unauthorized access by verifying and validating your identity in one of the following ways:

- Something you know – a combination of username and password or PIN
- Something you have – a smart card or security token.

Something you have (smart card) plus something you know (PIN), improves user-access security within corporate network environments. Smart cards are used in government agencies, healthcare companies and the finance industry.

HP ProtectTools Smart Card Manager provides authentication software for the smart card. The Smart Card Reader module works with the HP ProtectTools Security Manager and enables the user to setup, use, and manage the smart card. This allows strengthened security with HP patented technology.

- Protects against unauthorized access with smart card technology
- Delivers even greater security when combined with a HP ProtectTools smart card and the HP ProtectTools Security Software
- Combination of username and password or pin with a smart card or security token
- Secures online transactions using digital signatures and certificates
- Conforms to industry standards for ease of setup and use
- Delivers long product life and quiet operation with high-impact materials and lubricated keys
- Spill drain feature

Key Benefits:

	Keys	104, 105, 106, 107, 109 layout (depending upon country)
Physical Characteristics	Form factor	USB basic smart card keyboard
	Colors	Carbonite/Silver
	Dimensions (H x W x D)	18.2 x 6.3 x 1.3 in (46.3 x 16.1 x 3.3 cm)
	Weight	2 lb (0.9 kg) minimum
	Operating voltage	+ 5VDC ± 5%
Electrical	Power consumption	100-mA maximum (with four LEDs ON)
	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft PC 99 - 2001	Functionally compliant
Mechanical	Languages	30+ available
	Keycaps	Standard design
	Switch actuation	55 g nominal peak force with tactile feedback
	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
Environmental	Non-operating temperature	-22° to 140° F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence
	Support	All ISO 7816 smart cards
Interface	Reads from and writes to all ISO7816-1, 2, 3, 4 memory and microprocessor smart cards (T=0, T=1)	
Chipset	SCM STCIII	
Standard APIs supported	PC/SC, EMV2000, CT-API	



Technical Specifications – Keyboards and Mice

	Power	USB Port	
		Short circuit detection (protects smart card and reader)	
		Power supply compliant with ISO7816 and EMV (5V, 60 mA)	
		Supports 3-V and 5-V cards	
SmartCard Function	Power consumption	100-mA maximum draw	
	Communication	From card	9600 bps to 330,000 bps
		From computer	12 Mbps (USB transfer speed)
	Landing mechanism	Contact device	Friction contact
		Card insertions rating	Up to 100,000 insertion cycles
	Interface modes	CCID protocol	
	Reader performance interface	USB connection	
	Electro-magnetic standards	Europe	2004/108/EC
		USA	USAFCC part 15
Approvals	CE-Mark, UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, EMV2000, USB-IF		
Ergonomic Compliance	ISO 9241-4, TUVGS		
Kit Contents	Keyboard, I/O Security and Documentation CD, warranty card		

HP USB PS/2 Washable Keyboard

	Keys	104 (US) Layout, 105 (EU) layout - depending upon country
Physical Characteristics	Dimensions (L x W x H)	17.67x 6.62 x 1.38 in (449 x 168 x 35 mm)
	Weight	1.7 lb (0.77 kg) minimum
	Operating voltage	+ 5VDC ±5%
	Power consumption	50-mA maximum (with three LEDs ON)
Electrical	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft® PC 99 - 2001	Functionally compliant
	Keycaps	Stepped -profile design
	Switch actuation	55-g nominal peak force with tactile feedback
	Switch life	20 million keystrokes
Mechanical	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	7 ft (2.2 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	4° to 149° F (-20° to 65° C)
	Operating humidity	10% to 95% (non-condensing at ambient)
	Non-operating humidity	0% to 95% (non-condensing at ambient)
Environmental	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence

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HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Technical Specifications – Keyboards and Mice

Operating system support	Windows® 7, Windows Vista, Windows XP Professional
Approvals	UL, cUL, FCC, CE, TUV GS, VCCI, BSMI, C-Tick, KCC, USB-IF, WHQL, EN/IEC 60601-1, IP66/NEMA4X
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS

HP USB Mouse

Dimensions (H x L x W)	1.5 x 4.5 x 2.5 in (3.7 x 11.5 x 6.3 cm)
Weight	0.22 lb (0.10 kg)
Cable length	70.9 in (180 cm)
System requirements	Available USB port

HP USB 1000dpi Laser Mouse

Dimensions (H x L x W)	1.47 x 4.53 x 2.47 in (37.3 x 114.97 x 62.86 mm)
Weight	3.360 oz (102g)
Cable length	70.9 in (180 cm)
System requirements	Available USB port
Environmental	Operating Temperature 32° to 104° F (0° to 40° C) Non-operating Temperature -4° to 140° F (-20° to 60° C) Operating Humidity 10% to 90% (non-condensing at ambient)
Mechanical	Resolution 1000dpi Tracking Speed 45 cm/sec Cable Length 70.9 in (180 cm)

HP USB PS/2 Washable Mouse

Dimensions (H x L x W)	1.56 x 2.44 x 4.61 in (3.95 x 6.21 x 11.7 cm)
Weight	4.44 oz (126 g)
Environmental	Operating temperature -32° to 104°F (0° to 40° C) Non-operating temperature -4° to 140°F (-20° to 60° C) Operating humidity 10% to 90% (non condensing at ambient) Non-operating humidity 10% to 90% (non condensing at ambient) Operating shock 40 g, 6 surfaces Non-operating shock 80 g, 6 surfaces Operating vibration 2 g peak acceleration Non-operating vibration 4 g peak acceleration Drop (out of box) 80 cm height onto asphalt tile over concrete or equivalent, 5-drop in 5 direction except the cable face
Electrical	Operating voltage 5 VDC ± 10% Power consumption 100mA System consumption PS/2 mini-din connector ESD CE level 4, 15 kV air discharge EMI-RFI Conforms to FCC rules for a Class B computing device Microsoft® PC99 – 2001 Functionally compliant
Mechanical	Resolution 400 ± 20% DPI Tracking speed 10 in/s (25.4 cm/s) maximum Acceleration 100 in/s/s (2.54 m/s/s)



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HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Technical Specifications – Keyboards and Mice

	Switch actuation	61 g nominal peak force
	Switch life	3,000,000 operations (using Hasco modified tester)
	Switch type	Low force micro-switches
	Tracking mechanism life	155 mi (250 km) at average speed of 10 in/s
	Cable length	6 ft (1.8 m)
	Microsoft PC99 – 2001	Mechanically compliant
Scroll wheel	Width	8 mm
	Diameter	1.01 in (25.6 mm)
	Maximum rotation speed	48 rats/sec
	Switch type	Light force micro-switch
	Switch life	1 million operations
	Mechanical life	Minimum 200,000 revolutions
Regulatory approvals	Compliant	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC
Compatibility	Operating system support	Windows 7, Windows Vista Business 64*, Windows Vista Business 32*, Windows Vista Home Basic 32*, Windows 2000, Windows XP Professional or Windows XP Home 32* (No driver is required for this device. Native support is provided by the operating system.), xpe, ce.net, Linux, XP-64

* Certain Windows Vista product features require advanced or additional hardware. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit: <http://www.windowsvista.com/upgradeadvisor>. For Windows Vista system requirements, visit: <http://www.windowsvista.com/systemrequirements>.

QuickSpecs

Technical Specifications – Environmental Data

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT<Gold> registered in the United States. See <http://www.epeat.net> for registration status in your country.

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the All-in-One PC model is based on a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Energy Consumption (in accordance with US ENERGY STAR® test method)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation (short_Idle)	40.69 W	39.9 W	39.95 W
Normal Operation (Long_Idle)	24.95 W	23.93 W	24.79W
Sleep	1.33 W	1.44 W	1.32 W
Off (WOL enable)	0.95 W	0.98 W	0.91 W

NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation (short_Idle)	138 BTU/hr	136 BTU/hr	136 BTU/hr
Normal Operation (Long_Idle)	85 BTU/hr	81 BTU/hr	84 BTU/hr
Sleep	4.5 BTU/hr	4.9 BTU/hr	4.5 BTU/hr
Off	3 BTU/hr	3 BTU/hr	3 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions

(in accordance with ISO 7779 and ISO 9296)

	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Typically Configured - Idle	3.0	22.1
Fixed Disk - Random writes	3.0	22.6

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

- 6 USB ports
- 2 memory slots
- 1 Mini PCIe half-length slot
- 1 mSATA slot
- 1 2.5" internal bay supporting up to Two 2.5" hard drives (HDD/SSD/SED/SSHD)
- 1 5.25" external supporting optical drive

<edit list of features as required>

Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:

- Mercury greater the 1ppm by weight
- Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)

Battery type: Lithium



Technical Specifications – Environmental Data

- Additional Information**
- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
 - This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
 - This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
 - This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see www.epeat.net
 - Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
 - This product contains 2.7% post-consumer recycled plastic (by wt.)
 - This product is 98% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	2402 g
	PAPER/Cardboard & misc	2370 g
Internal:	PLASTIC/EPE-Expanded Polyethylene	658 g
	PLASTIC/Polyethylene low density	500 g
	PLASTIC/Plast. Other	x

The corrugated packaging material contains at least 60% recycled content.

The plastic packaging materials contains at least 0 % recycled content.

- Material Usage**
- This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

- Packaging Usage**
- HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

- End-of-life Management and Recycling**
- Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Technical Specifications – Environmental Data

**Hewlett-Packard
Corporate
Environmental
Information**

For more information about HP's commitment to the environment:

Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications

<http://www8.hp.com/us/en/hp-information/environment/ecolabels.html>

ISO 14001 certificates:

http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Options and Accessories (sold separately)

AFTER MARKET OPTIONS:

MEMORY

HP 2GB DDR3-1600 (PC3-12800) SODIMM
HP 4GB DDR3-1600 (PC3-12800) SODIMM
HP 8GB DDR3-1600 (PC3-12800) SODIMM

Part Number
B4U38AA
B4U39AA
B4U40AA

DATA STORAGE DRIVES AND ACCESSORIES

HP 1TB, 7200 rpm, SATA -6.0 Gb/s
HP 500GB, 7200 rpm, SATA -6.0 Gb/s
HP 500GB SATA , 6G (8GB cache) Solid State Hybrid Drive (SSHD)
HP 128GB SATA Solid State Drive
HP Slim SATA DVD-ROM Drive
HP Slim SATA BDXL Blu-Ray Writer Drive
HP Slim SATA SuperMulti DVD Writer Drive
HP Slim Removable SATA HDD Frame/Carrier
HP Slim Removable SATA HDD Carrier

Part Number
QK555AA
QK554AA
E1C62AA
QV063AA
VP033AA
E0X94AA
QS209AA
C1N41AA
E3F39AA

INPUT DEVICES - KEYBOARD AND MOUSE COMBO

HP USB PS/2 Washable Keyboard & Mouse
HP Wireless Keyboard & Mouse
HP USB Keyboard and Mouse + mousepad

Part Number
BU207AA
QY449AA
B1T09AA

INPUT DEVICES - KEYBOARD

HP USB Smart Card (CCID) Keyboard
HP USB Keyboard

Part Number
E6D77AA
QY776AA

INPUT DEVICES - MOUSE

HP USB 1000dpi Laser Mouse
HP USB Mouse
HP Mouse Pad

Part Number
QY778AA
QY777AA
AT485AA

SECURITY

HP UltraSlim Cable Lock

Part Number
H4D73AA

GRAPHICS - VIDEO ADAPTERS AND CABLES

HP DisplayPort Cable Kit
HP DisplayPort To DVI-D Adapter
HP DisplayPort To HDMI Adapter
HP DisplayPort To VGA Adapter
HP DVI Cable
USB Graphics Adapter
HP Dual Output USB Graph Adapter

Part Number
VN567AA
FH973AA
BP937AA
AS615AA
DC198A
NL571AA
C5U89AA

STANDS AND MONITOR ARM

HP Single Monitor Arm
HP Quick Release

Part Number
BT861AA
EM870AA

MISCELLANEOUS

Belkin 7-Outlet Surge Protector for North America 120V
Belkin USB to Serial Adapter
Belkin CAT5e Patch Cable RJ45/RJ45
HP Business Headset

Part Number
AG290AA
EM449AA
AH122AA
QK550AA

ADDITIONAL MONITORS FOR MULTI-DISPLAY CONFIGURATIONS

Part Number



QuickSpecs

HP ProOne 400 G1 All-in-One Business PC (21.5" Touch)

Options and Accessories (sold separately)

HP EliteDisplay E201 20-inch LED Backlit Monitor	C9V73AA
HP EliteDisplay E221 21.5-inch LED Backlit Monitor	C9V76AA
HP EliteDisplay E231 23-inch LED Backlit Monitor	C9V75AA
HP LA2405x 24-inch LED Backlit Monitor	D0P36AA
HP EliteDisplay E271i 27-inch LED Backlit Monitor	D7Z72AA
HP EliteDisplay E221c 21.5-inch WebCam LED Backlit Monitor	D9E49AA
HP L2206tm 21.5-inch LED Backlit Touchscreen Monitor	B0L55AA

LANDESK SOFTWARE (E-DELIVERY)

Part Number

Contact your HP representative for available options.

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KITCHEN DAILY

HOW TO MAKE A MCDONALD'S SHAMROCK SHAKE AT HOME

THE DAILY MEAL | 3/14/14

Starbucks Secret Menu: The Ultimate Guide

The whole world has gone green for McDonald's Shamrock Shake, available across the country until St. Patrick's Day. It's inspired a cult-like following, a Harlem Shake meme (yes, really), and dozens of copy-cat recipes. And we can see why everyone wants to try it at home. Since the Shamrock Shake launched in 1970, more than 60 million Shamrock Shakes have been sold in McDonald's nationwide.

[Click here for the How to Make a Shamrock Shake at Home Slideshow](#)

And surprisingly, the history of the Shamrock Shake is about more than just the green. According to McDonald's, the Philadelphia Eagle's tight end Fred Hill was looking for a way to help his 3-year old daughter get treatment for leukemia in 1974. His vision: the Ronald McDonald's House for children and families to have a "home away from home" treatment. Hill, with the support of McDonald's founder Ray Kroc and local McDonald's managers, worked up a Shamrock Shake promotion with profits going toward the cause; the first-ever Ronald's McDonald's House opened near the Children's Hospital of Philadelphia in 1974.

But of course, paying for a signature green shake with a maraschino cherry on top has a price to your waistline — a cool 530 calories and 15 grams of fat in a 12-ounce Shamrock Shake. (At least, Philadelphia magazine points out, there's 11 grams of protein in it.) The pro of making one at home is that you can easily control your portion sizes and make a less-fattening version. However, there's also a con — you can feel free to add as much whipped cream, chocolate syrup, Oreos, and whiskey as you want — which may result in an even bigger calorie-buster than the Mickey D's version.

Fortunately, it's not hard to make your own Shamrock Shake at home. If you have the supplies for a vanilla milkshake, plus extra essentials for baking, you have basically all you need to make the shake yourself. However, there are lots of ways to update the Shamrock Shake — including a little boozy treat for the adults. (Because why drink green beer when you can drink an alcoholic, and green, milkshake?) [Click ahead for tips and recipes on how to make the Shamrock Shake at home.](#)

See our slideshow above to find out how to make homemade Shamrock Shake.

Starbucks Secret Menu: The Ultimate Guide

[How to Make a Wendy's Frosty at Home](#)

[6 Dairy Milk Alternatives](#)

[How to Make a Pumpkin Spice Latte at Home](#)

[12 Quick and Easy Drinks to Start the Day](#)



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Credit: Flickr/ floridecires



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STEP 1: PERFECT THE VANILLA MILKSHAKE

If you can make a vanilla milkshake, you're more than prepared to make a Shamrock Shake at home. All you need is vanilla ice cream and milk to make the base.

Credit: Flickr/ mackenzie photo



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STEP 2: ADD PEPPERMINT EXTRACT

Peppermint extract goes a long way, remember, so don't overdo it in your vanilla milkshake. When adding the ingredients to a blender, add the peppermint extract for a creamy mint treat. Our best proportions for a shamrock shake:

- 2 cups vanilla ice cream
- $\frac{3}{4}$ cup of milk
- $\frac{3}{4}$ teaspoon peppermint extract

Credit: Flickr/ kfisto



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STEP 3: ADD FOOD COLORING

As the final touch to your Shamrock Shake, add up to eight drops of green food coloring. (Remember, like peppermint extract, it's a potent ingredient — so don't overdo it.) Blend all ingredients on high speed until smooth, and you're good to go. (Whipped cream and a maraschino cherry not included.)

Credit: Flickr/ _kasey



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THE PIMPED-OUT SHAMROCK SHAKE

There's lots of ways to amp up your average Shamrock Shake. The easiest way? Add some chocolate syrup to your glass before pouring in the shake — consider it a homemade version of mint chocolate chip ice cream. Or, as Tasty Kitchen does it, add some Oreos for a crunchy milkshake. The ultimate add-on for a Shamrock Shake? A Girl Scouts Thin Mint. That is, if you're willing to sacrifice a few for a shake.

Credit: Flickr/ floridecires



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THE ADULT SHAMROCK SHAKE

For an Irish treat, you had better add some Irish whiskey to the mix. Jameson or Tullamore is always a good basic Irish whiskey to add to the blender — but keep away from the kids. Not a whiskey fan? Peppermint Schnapps can add a minty kick to your shake, or crème de menthe, as in the Twinkibelle (adult) milkshake. (If you can still get your hands on a Twinkie, that's one good way to spice up a Shamrock Shake.) There's more than one way to spike a Shamrock Shake.

Credit: Flickr/ dallasfoodie



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THE LIGHT SHAMROCK SHAKE

Like we said, we can't — or don't want to — control just how much whipped cream or ice cream we're adding to our Shamrock Shakes at home. If you're looking to avoid the calories, try low-calorie frozen yogurt and skim milk instead, and avoid the toppings at all costs. Want to add some vitamins and protein to the shake? We like Peanut Butter and Pepper's healthy recipe for a Shamrock Shake, with a banana, Greek yogurt, and coconut milk.

Credit: Flickr/ elenas pantry

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 Resident Vendor Preference, if applicable.

- 1. Application is made for 2.5% resident 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% resident 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% resident 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% resident 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% resident 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% resident 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.
X 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.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Diversatec Resources, Inc
Date: 3/12/2014

Signed: Carmen M. Frost
Title: President

RFQ No. ERP140039

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 to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in 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, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that 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 exceeds 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:
Diversatec Resources, Inc.

Vendor's Name: _____

Authorized Signature: Carmen M. Frost Date: 03-14-14

State of Ohio

County of Delaware, to-wit:

Taken, subscribed, and sworn to before me this 14th day of March, 20 14.

My Commission expires October 1, 20 18



ANNE KRAMER
NOTARY PUBLIC - OHIO
MY COMMISSION EXPIRES 10-1-18

NOTARY PUBLIC Anne Kramer

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Diversatec Resources, Inc

(Company)

Carmen M. Frost

(Authorized Signature)

Carmen Frost, President

(Representative Name, Title)

740-965-3400

(Phone Number)

740-965-3403

(Fax Number)

3/12/14

(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: ERP140039

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.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> 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.

Diversatec Resources, Inc.

Company

Carmen M. Frost

Authorized Signature

Date

03-14-14

Date

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.