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## Header 2

[List View](#)[General Information](#) | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#) | [Clarification Request](#)

Procurement Folder: 1247426

Procurement Type: Central Purchase Order

Vendor ID: 000000220925 

Legal Name: Howard Industries Inc

Alias/DBA: Howard Technology Solutions

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Response Date: 08/18/2023 

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Responded By User ID: howardtech 

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Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
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**State of West Virginia  
 Solicitation Response**

**Proc Folder:** 1247426  
**Solicitation Description:** Panasonic Toughbook Laptops or equal  
**Proc Type:** Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2023-08-22 13:30	SR 0313 ESR08182300000000758	1

**VENDOR**  
 000000220925  
 Howard Industries Inc

**Solicitation Number:** CRFQ 0313 DEP2400000005  
**Total Bid:** 92981.41999999999825377017259 **Response Date:** 2023-08-18 **Response Time:** 12:20:36  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**

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**Vendor Signature X** **FEIN#** **DATE**

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Panasonic Toughbook33, or equal	14.00000	EA	4544.480000	63622.72

Comm Code	Manufacturer	Specification	Model #
43211503			

**Commodity Line Comments:** Alternate Specs Zebra

**Extended Description:**

Panasonic Toughbook33, or equal

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Docking Station	14.00000	EA	1817.190000	25440.66

Comm Code	Manufacturer	Specification	Model #
43210000			

**Commodity Line Comments:** Alternate quoted Zebra

**Extended Description:**

Docking Station

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Car Charger	14.00000	EA	234.860000	3288.04

Comm Code	Manufacturer	Specification	Model #
43210000			

**Commodity Line Comments:** Quoting Alternate Zebra

**Extended Description:**

Car Charger

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Hand/Shoulder Strap	14.00000	EA	45.000000	630.00

Comm Code	Manufacturer	Specification	Model #
43210000			

**Commodity Line Comments:**

**Extended Description:**

Hand/Shoulder Strap



**ZEBRA**  
CAPTURE  
YOUR EDGE

# ET80/ET85 Rugged 2-in-1 Tablet

## Accessory Guide

August, 2021



# Contents

1. Accessory Overview
2. 2-in-1 Rugged Keyboard
3. Docking Solutions
4. Expansion & Input Solutions
5. Battery & Charging
6. Carrying & Protective Solutions



# Accessories

# Overview

Unmatched comprehensive suite of accessories

## Workflow options



Common Dock  
• Vehicle  
• Office  
• Forklift



Expansion back  
• Rotating hand strap  
• Aux battery Slot



Friction Hinge  
Rugged Keyboard



Ethernet/ Serial: Tool-less  
Thumb-Screw  
Attach Option



AC Adapter USB-C  
• AC cord sold  
separately



Expansion back Kickstand  
• Can be added to ET80 /  
ET85 expansion back



Ethernet: Tool-less  
Thumb-Screw  
Attach Option



Stylus MPP 2.0



Expansion Back - CAC  
• Aux battery slot  
• Optional Kickstand sold  
separately

## Carrying/Protective options



Handle with  
stylus holder



Rugged Boot  
with Attach Points for  
Straps / Handles



Stylus Tether



Shoulder Strap

## Charging/Power options



Auxiliary Battery  
(For use with  
expansion back)



Internal Battery



4-Slot Battery Charger

# ET8x Rugged Tablet Accessories

## 2-in-1 Keyboards



## 2-in-Rugged Keyboard

- Add to any ET80 or ET85 tablet for a true 2-in-1 laptop experience
- Friction hinge to set viewing angle to user preference
- IP65 dust and water sealing
- Works with Zebra docking solutions, rugged boot, and other accessories
- Large touchpad with ergonomic mouse buttons and Microsoft multi-finger gestures
- Extendable integrated handle for easy portability
- 82 full sized keys (19 mm)
- Multi-color backlit keyboard – color user programmable with provided application
- Five programmable buttons including emergency / SOS key
- Additional quick access button to blank keyboard backlight



### Part Numbers:

#### Rugged 2-in-1 Keyboard

- KYB-ET8X-2IN1-US1-01 – US English
- KYB-ET8X-2IN1-UK1-01 – UK English
- KYB-ET8X-2IN1-FR1-01 – French
- KYB-ET8X-2IN1-ES1-01 – Spanish
- KYB-ET8X-2IN1-DE1-01 – German

# ET8x Rugged Tablet Accessories

## Docking Solutions

## Docking Solutions: Vehicle Dock

- Comprehensive solution for vehicle installations
- Easy one-hand release allows for fast “grab and go” transitions between the vehicle, field and office
- Extensive port expansion
  - 2 USB 2.0 Type A
  - 2 USB 3.0 Type A
  - 3 Ethernet RJ45
- E-Mark certified for 12V vehicle systems
- Supports VESA 100x100 & 75x75 mounting patterns
- Works with or without keyboard, rugged boot, expansion backs and other Zebra accessories
- Tablet cameras, barcode reader and side connections accessible while mounted
- IP65 water and dust ingress protected
- Many components of docking system available separately and can be added in field
- Barrel lock with 2 keys
- No power adapter required for 12V vehicles
- Power Adapters and Cables sold separately



### **Part Numbers:**

#### **Vehicle Dock**

CRD-ET8X-VEHDK1-01

#### **Related Power Accessories**

450143 CLA Cable

300039 Direct Connect Cable

450019 CLA DC converter for 24 V vehicles

450083 DC converter - Forklifts 9 – 60V

450084 DC converter - Forklifts 50 - 150 volts

## Docking Solutions: Office Dock

- Comprehensive solution for office use and industrial situations
- Easy one-hand release allows for fast “grab and go” transitions between the field and office
- Extensive port expansion includes video
  - 2 USB 2.0 Type A
  - 2 USB 3.0 Type A
  - 3 Ethernet RJ45
  - 2 HDMI
- Works with or without keyboard, rugged boot, expansion backs and other Zebra accessories
- Tablet cameras, barcode reader and side connections accessible while mounted
- IP65 water and dust ingress protected
- Many components of docking system available separately and can be added in field
- Barrel lock with 2 keys
- Power Adapters and line cables sold separately



### Part Numbers:

#### Vehicle Dock

CRD-ET8X-OFFDK1-01

#### Related Power Accessories

450020 (AC Adapter)

#### AC Line Cords

450040 (for US)

450047 (for Australia/New Zealand)

450042 (for EU)

450041 (for UK)

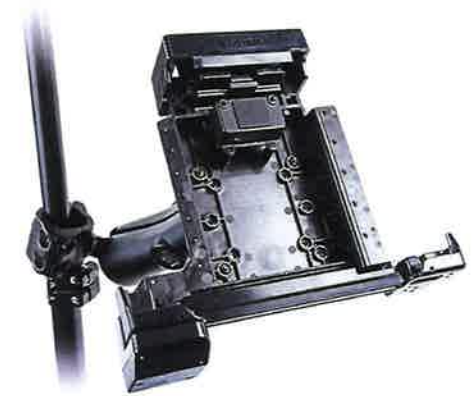
ACC-L10LINECORD-TW (for Taiwan)

ACC-L10LINECORD-JP (for Japan)

ACC-L10LINECORD-CN (for China)

## Docking Solutions: Power Dock

- Comprehensive solution for installations requiring only power (see vehicle dock for port expansion docking solution)
- Easy one-hand release allows for fast “grab and go” transitions
- E-Mark certified for 12V vehicle systems
- Supports VESA 100x100 & 75x75 mounting patterns
- Works with or without keyboard, rugged boot, expansion backs and other Zebra accessories
- Tablet cameras, barcode reader and side connections accessible while mounted
- IP65 water and dust ingress protected
- Many components of docking system available separately and can be added in field
- Barrel lock with 2 keys
- Power Adapters and Cables sold separately



Shown with RAM mounting kit 350025 (not included)

### **Part Numbers:**

#### **Power Dock**

CRD-ET8X-PWRDK1-01

#### **Related Power Accessories**

450143 CLA Cable

300039 Direct Connect Cable

450019 CLA DC converter for 24 V vehicles

450083 DC converter - Forklifts 9 – 60V

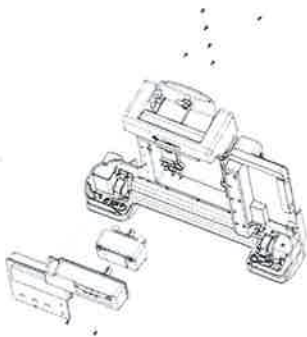
450084 DC converter - Forklifts 50 - 150 volts

## Docking Solutions: RF Pass-Through Antenna Module



### CRD-ET8X-M-PTA1-01 – PTA Module

- Field installable module for deployments requiring external antenna, such as situations where tablet is RF shielded
- Three pass-through antennas
- Requires factory installed PTA option in tablet – see options below
- The same dock PTA module compatible with all tablet PTA configurations



Tablet must be ordered in PTA configuration to use PTA module in dock. Configurations include:

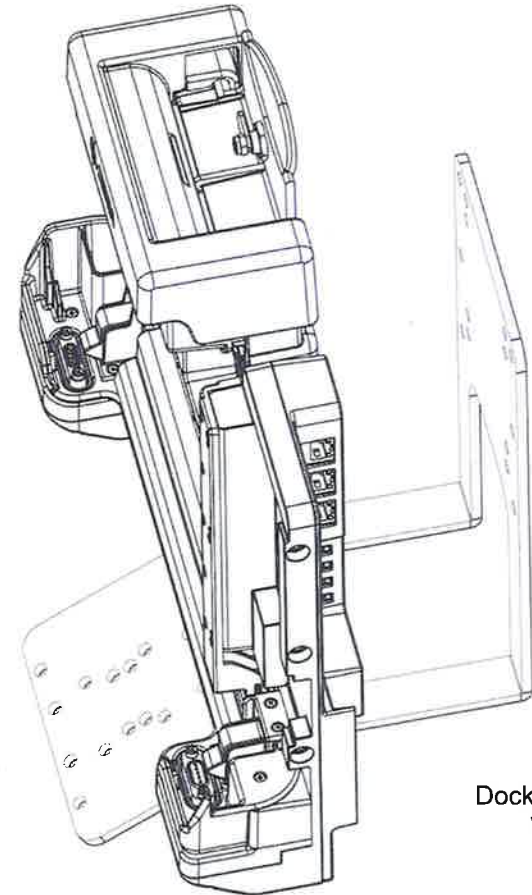
Tablet Part Number	ANT1	GPS	ANT2	External Antenna
ET8XX-XXXXX-XX0	N/A	N/A	N/A	N/A
ET80A-XXXXX-XXA	NONE	NONE	WIFI	MGRM3
ET85X-XXXXX-XXB (5G SKU)	WWAN	GPS	WWAN	LTMG931
ET85X-XXXXX-XXC (4G SKU)	WWAN	GPS	WIFI	LTMG931

## Docking Solutions: Keyboard Bracket



### CRD-ET8X-M-KBBK1-01 Keyboard Bracket

- Field installable keyboard tray, primarily for detached keyboard solutions. Optional for ET8x 2-in-1 keyboard.
- Includes bracket (no screws)

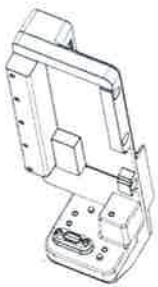


Hole patterns support most third-party keyboards  
VESA 75mm x 75mm  
AMPs 38mm X 30mm Vertical  
AMPs 38mm X 30mm Horizontal

Dock and Bracket support  
VESA 100 x 100  
100 x 50  
75 x 75  
Hole patterns

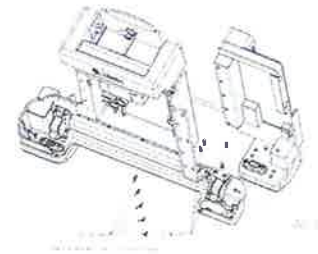


## Docking Solutions: Additional Expanded Functionality with Field Installable Modules



### **CRD-ET8X-M-9PEM1-01 Port Expander with Video**

- Field installable 9 port expander with 2 USB 2.0 Type A, 2 USB 3.0 Type A, 3 Ethernet RJ45, 2 HDMI
- Add to Zebra Power Dock for vehicle docking solution with HDMI video



### **CRD-ET8X-M-PEM1-01 Port Expander Cover**

- Optional field installable cover with thumbscrew convenience for Zebra docking solutions with port expansion, such as the vehicle dock or office dock



### **CRD-ET8X-M-FAN1-01 Keyboard Bracket**

- Attaches to dock and provides ventilation for extreme climates
- Only recommended for elevated temperatures with excessive solar loading or non-air-conditioned vehicles





## Antenna options (sold through 3rd party)

Typically used with Vehicle Dock – Requires dock with RF Pass Through Antennas module (CRD-ET8X-M-PTA1-01) and PTA enabled tablet SKU



### **Mobile Mark LTM931 (Cellular, Wifi and GPS)**

- The 5-cable LTM series antennas include three Cellular antennas, one WiFi antenna and one GPS antenna.
- Antenna is ideal for fleet management systems that combine GPS with a broadband cellular modem as well as WiFi.
- Covers cellular frequencies worldwide: 694-960 & 1710-3700 MHz.
- Antenna versions available for surface mounting or magnetic mounting.



### **Mobile Mark MGRM3 (Wifi Antenna)**

- External antenna may provide additional WiFi coverage in challenging environments
- Antenna supports 2.4Ghz only
- Magnetic mount can easily be installed on top of forklift cab

# ET8x Rugged Tablet Accessories

## Expansion & Input Solutions

# Expansion Back Solutions & Kickstand

*All compatible with Zebra docking solutions*



## **ZBK-ET8X-SMARTCARD-01 Expansion Back with CAC Smartcard Reader & Battery Slot**

- Adds enhanced device security and chip card reading with a Common Access Card (CAC) reader
- Replaces existing battery door and screws down to back of tablet.
- Provides slot for hot swappable ET8x auxiliary Powerpack battery (BTRY-ET8X-PRPK1-01) (sold separately)



## **ZBK-ET5X-10RH1-01 Rotating Hand Strap with Battery Slot**

- Replaces existing battery door and screws down to back of tablet
- Provides slot for hot swappable ET8x auxiliary Powerpack battery (BTRY-ET8X-PRPK1-01) (sold separately)



## **ZBK-ET8X-KICKSTAND-01 Kickstand**

- Provides adjustable viewing angle, keeping the tablet upright for easy reading and touch while in the field
- Folds away for mobility
- Requires ET8x Expansion Back accessory (sold separately)



## Active Stylus



- Allows for a large range of pressure sensitivity, tilt detection and hover capability
- IP55 water and dust protected
- Supports Microsoft Pen Protocol MPP 2.0
- Two side buttons for easy erase and menu access
- Can be tethered to tablet with SG-ET5X-SLTETR-01 (sold separately)
- Can be secured to tablet with Pen Loop Holder or inserted into ET8x handle SG-ET8X-HANDLE1-01 (sold separately)
- Uses one AAAA battery, included

- Adhesive Loop attaches to rear of tablet
- Compatible with Zebra rugged boot, docks, and other accessories



**Part Numbers:**  
SG-ET8X-STYLUS1-01 (ET8x Active Stylus)  
SG-ET8X-PENLOOP1-01 (Stylus holder)  
SG-ET5X-SLTETR-01 (Coiled Tether)

## Adapter Solutions

### **Ethernet (RJ45) Adapter Cable**

- Connects to tablet expansion port to provide cabled true Ethernet access to tablet
- Includes options to secure adapter to tablet via screws or via tool-less screws for easier removal



### **Serial Adapter Cable**

- Connects to tablet expansion port to provide DB9 (RS-232) true serial port
- Includes options to secure adapter to tablet via screws or via tool-less screws for easier removal

**Part Numbers:**

CBL-ET8X-E1-01 (Ethernet adapter cable)  
CBL-ET8X-SER1-01 (Serial adapter cable)

# ET8x Rugged Tablet Accessories

## Battery and Charging

## AC Power Supply

- 45W USB-PD charger connects to the USB-C port on the ET8X for when a dock is not used to charge the tablet
- Requires AC line cord appropriate for the countries of use (sold separately)
- NOTE: Power Supply is not included with ET8X. Order this item if ET8x needs to be charged outside of docking stations.



### Part Numbers:

#### Power Adapter

PWR-BGA15V45W-UC-WW (45W ET8x adapter)

#### AC Line Cords

450040 (for US)

450047 (for Australia/New Zealand)

450042 (for EU)

450041 (for UK)

ACC-L10LINECORD-TW (for Taiwan)

ACC-L10LINECORD-JP (for Japan)

ACC-L10LINECORD-CN (for China)

## Battery Solutions



### **BTRY-ET8X-12IN1-01 Replacement Tablet Battery**

- Main internal battery for tablet
- 39.8 Whr (5180 mAh @ 7.7V)



### **BTRY-ET8X-PRPK1-01 Auxiliary power pack battery**

- Hot swappable additional power; enables 24x7 usage
- 25.8 WHr (3400 mAh @ 7.6V)
- Used in addition to the main battery capacity
- Gas Gauge LED to display the amount of charge
- Charges with 4 slot battery charger (SAC-ET5X-4PPK1-01 sold separately)
- Requires Expansion Back supporting expansion battery including ZBK-ET8X-SMARTCARD-01 & ZBK-ET5X-10RH1-01



### **MISC-ET8X-BTDR1-01 Battery door**

- Replacement tablet battery door



# ET8x Rugged Tablet Accessories

Carry and Protective Solutions

## Carry and Protective Solutions



### **SG-ET8X-BOOT1-01 Rugged Boot**

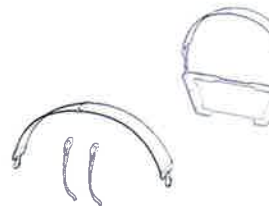
- Increases tablet drop spec to 5 ft. (1.5m)
- Compatible with 2-in-1 keyboard, Docks, Expansion Backs and other Zebra accessories
- Includes tether points to attach optional Handle Strap or Shoulder Strap
- USB port door with captive screw to secure or allow access to the ports
- Boot is required for Class I, Div 2 certification

### **SG-ET8X-HANDLE1-01 Soft Handle**

- Convenient top mounted handle in smooth durable soft rubber for maximum grip without sacrificing comfort
- Includes a stylus storage slot and tether for stylus (stylus sold separately)
- Attaches to Rugged Boot via fabric included straps
- Also includes tether point for Shoulder Strap to allow both the Soft Handle and Shoulder Strap to be used at the same time

### **SG-ET8X-SHLDR1-01 Shoulder Strap**

- Convenient for carrying the ET8X long distances while freeing up hands.
- Attaches to Rugged Boot via included fabric straps or can be attached directly to Soft Handle (SG-ET8X-HANDLE1-01).





## Contact

**Zebra Technologies Corporation**

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Lincolnshire, IL 60069

[www.zebra.com](http://www.zebra.com)

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## ET80/ET85 Rugged 2-in-1 Tablet

The dependable Windows tablet created for the workers the world depends on

Every day, we depend on the workers that are essential to our way of life — from first responders that protect our communities to field service teams that maintain utility infrastructure to manufacturing production line workers that make the products that we rely on. These vital workers need more than just a rugged tablet. They need a tablet that is tailored for the indispensable work they perform. And the ET80/ET85 delivers. With support for the advanced wireless connectivity of WiFi 6E, 4G/5G and more, these tablets keep workers connected to the information and people they need, every minute of every shift. As workers move from the field to a vehicle to inside a facility, these tablets can instantly transform into a laptop or a full fixed or mobile workstation to best meet the needs of the moment. Value-add Zebra-only software tools take collaboration and productivity to the next level. And many feature options and accessories allow you to create the perfect tablet for every job. The ET80/ET85 — mission critical mobility for mission critical workers.



### Superior ergonomics for mission critical workers

#### Thin and light — redefined

These rugged 2-in-1 tablets set the bar when it comes to portability — they are greater than 35% thinner and 20% lighter than major 2-in-1 competitors with the same screen size. When the tablet is placed in a vehicle dock, the low profile provides drivers with maximum visibility for improved safety, as well as easy access to information-rich screens.

#### Unmatched versatility — 2 devices in 1

The ET80 and ET85 are true laptop replacements, with a level of flexibility no laptop can provide. Go from tablet to laptop and back in seconds by simply attaching and detaching the rugged keyboard. Use it as a standalone tablet for maximum mobility. Need to enter a lot of data? Just attach the keyboard with its friction hinge, allowing the screen to be placed at any angle — instead of a limited number of pre-set angles. And with the universal dock, the tablet transforms into a desktop in the office or a mobile workstation in a police car, truck, forklift and more.

#### A display that's all business

The large 12 in. screen and its 3:2 'all business' aspect ratio provides more real estate to display more information, improving productivity and ease of use. The screen is easy to view indoors and outside, even in bright sunlight. The touchscreen works when wet and with gloves. And with a keystroke, conceal mode instantly turns off the display and keyboard backlight for safety and data privacy.

#### Built-in protection prevents unauthorized access

Keep your tablets secure while giving users easy, instant access. Every model includes the Windows Hello camera for facial recognition or add the optional fingerprint reader, enabling easy two-factor authentication.

The ET80/ET85 — the right tablet for the workers the world depends on.

For more information, visit [www.zebra.com/et8x-series](http://www.zebra.com/et8x-series)

### **Tailor your tablets for every user with a full family of accessories**

Make backroom management easier with 4-slot battery chargers. Create a mobile workstation in vehicles and forklifts or a desktop in the office with the universal docking solution that accommodates tablet and laptop modes. Add a rugged boot to boost durability. A shoulder strap and a handle can make life easier out in the field. An adapter adds an Ethernet and serial port — no tools required. And two expansion backs with an optional kickstand allow you to add an auxiliary secondary battery slot for double-shift power, plus either a rotating hand strap or a Common Access Card (CAC) reader for government-grade data security.

### **The most advanced features and the latest technologies**

#### **The most advanced wireless connections**

When it comes to wireless connectivity, the ET80 and ET85 have it all — all the latest wireless technologies. You get the fastest WiFi, cellular and Bluetooth speeds with support for WiFi 6E, 4G/5G and Bluetooth 5.2. With support for the new Citizens Broadband Radio Service (CBRS)<sup>1</sup>, companies can enable private LTE networks that provide cost-effective wireless connectivity in the largest facilities — indoors and outside. Public safety network certification provides first responders with a connection they can count on. Workers can always find the best path to the next location with robust optional GPS. And workers get consistently superior wireless services even in vehicles with the WiFi, cellular and GPS antenna passthroughs.

#### **Designed to the latest rugged standards**

Accidents happen. That's why the ET80 and ET85 are built to deliver reliable operation despite the inevitable drops. Are your workers out in dusty areas? No problem, these tablets are dust tight. If they are dropped in the mud, just hose them off — even if the ports are open. The fanless thermal design is ideal for manufacturing clean rooms and other contaminant sensitive areas — and improves sealing. And with Class 1 Division 2 certification, you can configure the ET80 and ET85 for safe use when flammable hazardous materials are present.

#### **World-class data capture**

The best-in-class 13 MP rear color camera with flash captures high resolution images to document just about anything — from vehicle damage resulting from a traffic accident to the condition of a wound to a fallen tree on a power line or a machine on the production line in need of repair. The optional integrated scanner delivers first-

time every-time capture of barcodes, even if they are damaged, scratched or poorly printed. And the scanner is thoughtfully located in the bottom right corner, allowing officers to easily scan driver's licenses when the tablet is docked in the vehicle.

#### **Superior audio**

The tablets offer dual speakers, plus four noise cancelling microphones in the front and back that strip out background noise. So whether you're on a push-to-talk or video call, dictating notes or using voice commands to perform a wide variety of actions on the tablet, you, your callers and your tablet will always hear every word.

#### **The ultimate processing power for the ultimate user experience**

Intel's 11th generation processors provide a generational leap in application performance, boosting productivity.

### **Zebra Mobility and DataCapture DNA**

#### **Seamless push-to-talk communication and secure text messaging**

Make your team even tighter with Workforce Connect's enterprise-class push-to-talk and text messaging features. Workers can talk to an individual or a team with the press of a button, whether they are inside your facility, in the field or in a vehicle. And secure text messaging includes visibility into which workers are available to respond, worker location and a complete log of all text messages for all workers.

#### **Ingenious battery technology**

The PowerPrecision+ batteries provide a wealth of information that can be viewed right on the tablet. Visibility into critical battery health metrics helps ensure that workers have battery power they can count on, every shift, every day.

#### **Scanner configuration and data integration made easy**

Automatically detect and easily configure the scanner in your ET80 and ET85 tablets with 123Scan, an easy to use tool that allows even first time users to get your scanners up and running quickly. And the ability to format barcode data for your application makes it easy to integrate scanning into any workflow, eliminating data entry errors.

# Specifications

PHYSICAL CHARACTERISTICS	
Form Factor	2-in-1 rugged tablet with friction hinge rugged keyboard option
Dimensions	<b>Tablet:</b> 12.1 in. W x 8.9 in. L x 0.6 in. H 308 mm W x 225 mm L x 16 mm H <b>Tablet with keyboard:</b> 12.1 in. W x 9.6 in. L x 1.1 in. H 308 mm W x 244 mm L x 29 mm H
Weight	<b>Tablet (with standard battery):</b> 2.8 lbs/1.3 kg
Display	12 in. 3.2 QHD (2160 x 1440) — 800 nits Sunlight readable Corning Gorilla Glass Anti-reflective (AR)/Anti-Smudge screen treatment Night-vision mode
Touchpanel	Capacitive 10-point multi-touch, Glove and Wet modes; MPP 2.0 active pen compatible
SIM Slots	ET85 configurations only: Two SIM: (1) Nano SIM (4FF) and (1) eSIM
Interface Ports and Expansion	(1) USB-C USB 3.2 Gen2, USB-PD charging, USB DisplayPort (2) USB 3.2 Gen2 Type A ports Expansion connector for available 10/100/1000 Ethernet and DB9 true serial ports WWAN, WLAN and GNSS Antenna pass through Keyboard and docking connectors  Optional docking solution may be configured with: (2) USB 3.0/2.0 Type A (2) USB 2.0 Type A (2) HDMI Type A (3) 10/100/1000 Ethernet RJ45, power in
Notifications	Charging, camera and battery indicators
Audio	Stereo front facing speakers; (2) front facing microphones; (2) rear facing microphones; audio headset supported in USB-C and USB-A ports
Buttons	Volume up/down button, power on/off button; barcode scanner button (user definable in configurations without the barcode reader)
Keyboard	Available detachable friction hinge rugged keyboard with standard sized keys; precision multitouch touchpad with two physical click buttons; adjustable color backlighting; waterproof IP65; (6) programmable keys including emergency key
PERFORMANCE CHARACTERISTICS	
CPU	11th generation Intel® Core™ i7-1180G7 vPro(R) processor 11th generation Intel® Core™ i5-1140G7 vPro(R) processor 11th generation Intel® Core™ i5-1130G7 processor
Operating System	Windows® 10 Professional 64-bit Windows® 10 IoT Enterprise 64-bit
Memory	8 GB or 16 GB LPDDR4x-4266
Storage	128 GB, 256 GB or 512 GB tool-less user removable PCIe SSD
USER ENVIRONMENT	
Operating Temp.	-4° F to 140° F/-20° C to 60° C
Storage Temp.	-22° F to 158° F/-30° C to 70° C
Humidity	5% to 95% non-condensing

USER ENVIRONMENT (CONTINUED)	
Drop Specifications	MIL-STD-810H drop to plywood over concrete Standard: 4 ft / 1.2 m With optional rugged boot: 5 ft / 1.5 m With keyboard: 3 ft / 0.9 m
Sealing	IEC 60529 Clause 13.4 enclosures, IP65 for tablet with ports open, keyboard and dock
Vibration	Operational: MIL-STD-810H 514.8 Composite Wheel; Non-Operating: MIL-STD-810H 514.8 E-1
Electromagnetic Compatibility	MIL-STD 461G; EN 55032; EN 55024
Thermal Shock	MIL-STD-810H 503.7 -4° F to 140° F/-20° C to 60° C (operating), -22° F to 158° F/-30° C to 70° C (non-operating)
Electrostatic Discharge	IEC61000-4-2, ± 15kV air discharge, ± 8 kV contact
Shock	MIL-STD-810H Method 516.8, Procedure I; 20 g operating, 40 g non-operating
Solar Radiation	MIL-STD 810H 505.7
Contamination by Fluids	MIL-STD-810H, Method 504.3
Approved Cleaning and Disinfecting Agents	Mild dish soap, 70% Isopropyl Alcohol solution, 0.5-3% Hydrogen Peroxide solution, 1:10 Diluted 5.5% Bleach (Sodium Hypochlorite) solution <sup>†</sup>
Hazardous Location Certification	CID2 (tablet and keyboard); rugged boot required
Certifications	EPEAT, Energy Star, EU CoC
Vehicle certifications	E-Mark Europe 12V system ECE Regulation No.10 Rev 6 (Tablet with keyboard in docking station) No external DC to DC converter required for 12 volt automobile systems
POWER	
Battery	5180 mAh, 7.7V rechargeable Li-Polymer; user replaceable (39.8 Whr) Charge time 0 to 90% in 2 hours Optional not swappable 3400mAh, 7.6V (25.8 Whr) secondary battery (expansion back required) Operation: 11 hours (17 hours with auxiliary battery) <sup>†</sup> 45W USB-PD (Type C) AC adapter sold separately
SENSORS	
Ambient Light Sensor	Automatically adjusts display attributes and keyboard backlight
Magnetometer	3-axis e-compass
Motion Sensor	3-axis gyroscope; 3-axis accelerometer
DATA CAPTURE	
Scanning	SE4107 2D scanner (available option)
Rear Camera	13 MP auto-focus camera with user controllable LED flash; mechanical privacy shade
Front Camera	5 MP Windows Hello auto-focus camera; mechanical privacy shade
Video	Intel Gen 12 Gfx with 4 unique display pipes and 8K Intel wireless display External display support: DP 1.2 up to 4096 x 2160 px, 60Hz; dock supports (2) HDMI 1080p displays

## Applications

### State and Local Government/Public Safety

- Routing/dispatch communications
- Personnel tracking
- Incident reporting
- Patient care reporting
- E-Citation
- Records management
- Mobile incident command
- Inventory management

### Utilities/Critical Field Service

- Routing/dispatch communications
- Personnel tracking
- Emergency repairs
- Mobile work order management
- Safety inspection and compliance
- Meter reading
- Remote assistance

### Manufacturing

- Plant management
- Mobile HMI
- PLC programming
- Communications
- Maintenance repair and overhaul
- Quality assurance
- Forklift operations
- Specialized (clean room, pharma and more)

# Specifications

## WIRELESS COMMUNICATIONS

<b>WiFi (WLAN)</b>	WiFi 6E, 802.11ax R2 including the new 6 GHz band, 2x2 MIMO, 802.11a/b/g/n/ac R2/ax R2, WPA, WPA2, WPA3, WPS, PMF, WMM, WMM-PS, WFD, WiFi Agile Multiband, WiFi Optimized Connectivity, WiFi Location, WiFi TimeSync
<b>Cellular (WWAN)</b>	ET85 configurations required: available 5G (support for 3 GPP Rel 15 including Cat 22 LTE, 3G, and sub 6 GHz NR) data only or Global LTE Category 12 data only
<b>Bluetooth (WPAN)</b>	Bluetooth 5.2 + Audio LE Class 1
<b>GPS</b>	ET85 configurations required: GPS, GLONASS, BeiDou/Compass, Galileo. Dual band (L1 + L5) with aGPS
<b>NFC</b>	Supports NFC peer to peer, card reader/writer and card emulation modes; P2P: ISO/IEC 18092; Reader/Writer: ISO 14443 – A-B, MIFARE, FeliCa™, ISO 15693, NFC Forum Tag Types 1 to 4, Card emulation: ISO 14443 – A-B-B', MIFARE, FeliCa RF

## SECURITY FEATURES

TPM v2.0 ; NIST BIOS compliant; Windows Hello front facing camera; Windows Hello fingerprint reader (optional); insertable Common Access Card (CAC) smartcard reader (optional); contactless NFC smartcard reader; persistence technology by Absolute embedded in BIOS<sup>1</sup>; Kensington cable lock slots available on the tablet only or the tablet with the keyboard attached

## PERIPHERALS AND ACCESSORIES

Accessories include: modular vehicle and office docking stations; 4-slot auxiliary battery charger; rugged boot; expansion back to easily add accessories (hand strap, auxiliary battery bay, kickstand, CAC card reader); Active MPP2.0 stylus; shoulder strap; handle strap; charging cables and more

## WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the ET80/ET85 is warranted against defects in workmanship and materials for a period of three (3) years from the date of shipment. For complete warranty statement, please visit [www.zebra.com/warranty](http://www.zebra.com/warranty)

## FOOTNOTES

1. CBRS is only available in the US. CBRS requires 4G or 5G radio
  2. Expected Q4 2021
  3. For further information on recommended cleaning agents to refer to the ET80/85 Users Guide.
  4. Battery runtime from MobileMark 2014. Battery performance can vary according to usage conditions.
  5. Requires software and activation.
- Specifications subject to change without notice.

## MOBILITY AND DATA CAPTURE DNA

Mobility DNA and DataCapture DNA solutions help you get more value out of your Zebra devices by adding functionality as well as simplifying deployment and management of our mobile devices.

Features may vary by model and a Support Contract may be required. To learn what solutions are supported, please visit: <https://www.zebra.com/mobilitydna> and <https://www.zebra.com/datacapturedna>



**NA and Corporate Headquarters**  
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Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Request for Quote  
 Info Technology

<b>Proc Folder:</b> 1247426			<b>Reason for Modification:</b>
<b>Doc Description:</b> Panasonic Toughbook Laptops or equal			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2023-08-04	2023-08-22 13:30	CRFQ 0313 DEP2400000005	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:** Howard Technology Solutions  
 a division of Howard Industries, Inc.

**Vendor Name :** Howard Technology Solutions  
 a division of Howard Industries, Inc.

**Address :** P.O. Box 1590

**Street :**

**City :** Laurel

**State :** MS **Country :** USA **Zip :** 39441

**Principal Contact :** Brandey Boyd

**Vendor Contact Phone:** 601-425-3181 **Extension:** 5831

**FOR INFORMATION CONTACT THE BUYER**

Joseph E Hager III  
 (304) 558-2306  
 joseph.e.hageriii@wv.gov

**Vendor Signature X** *Dale Pal* **FEIN#** 64-0466143 **DATE** 8-18-23

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



**ADDITIONAL INFORMATION**

The West Virginia Purchasing Division is soliciting bids on behalf of WV Department of Environmental Protection to establish a contract for the one-time purchase of fourteen (14); 2-in-1 Panasonic Toughbook or equal per the attached specifications and terms and conditions.

**INVOICE TO****SHIP TO**ENVIRONMENTAL  
PROTECTIONENVIRONMENTAL  
PROTECTIONENVIRONMENTAL  
ENFORCEMENT

601 57TH ST

601 57TH ST SE

CHARLESTON

WV

CHARLESTON

WV

US

US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Panasonic Toughbook33, or equal	14.00000	EA	<i>\$4,544.48</i>	<i>\$63,622.72</i>

**Comm Code****Manufacturer****Specification****Model #**

43211503

*Zebra**See Quote.***Extended Description:**

Panasonic Toughbook33, or equal

**INVOICE TO****SHIP TO**ENVIRONMENTAL  
PROTECTIONENVIRONMENTAL  
PROTECTIONENVIRONMENTAL  
ENFORCEMENT

601 57TH ST

601 57TH ST SE

CHARLESTON

WV

CHARLESTON

WV

US

US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Docking Station	14.00000	EA	<i>\$1,817.19</i>	<i>\$25,440.66</i>

**Comm Code****Manufacturer****Specification****Model #**

43210000

*Zebra**See Quote.***Extended Description:**

Docking Station

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION		ENVIRONMENTAL PROTECTION	
ENVIRONMENTAL ENFORCEMENT		601 57TH ST	
601 57TH ST SE			
CHARLESTON WV		CHARLESTON WV	
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Car Charger	14.00000	EA	# 234.86	# 3288.04

Comm Code	Manufacturer	Specification	Model #
43210000	Zebra		See Quote.

Extended Description:  
Car Charger

INVOICE TO		SHIP TO	
ENVIRONMENTAL PROTECTION		ENVIRONMENTAL PROTECTION	
ENVIRONMENTAL ENFORCEMENT		601 57TH ST	
601 57TH ST SE			
CHARLESTON WV		CHARLESTON WV	
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Hand/Shoulder Strap	14.00000	EA	# 45.00	# 630.00

Comm Code	Manufacturer	Specification	Model #
43210000	Zebra		ZED-S6ET8XSHLDR101

Extended Description:  
Hand/Shoulder Strap

**SCHEDULE OF EVENTS**

Line	Event	Event Date
------	-------	------------

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

(Printed Name and Title) Darlene Parker, Bid Specialist  
(Address) P.O. Box 1590 Laurel, MS 39441  
(Phone Number) / (Fax Number) 601-425-3181 601-399-5077  
(Email address) bids@howardcomputers.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; 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; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Howard Technology Solutions  
a division of Howard Industries, Inc.

(Company) \_\_\_\_\_  
(Signature of Authorized Representative) Darlene Parker  
(Printed Name and Title of Authorized Representative) (Date) Darlene Parker Bid Specialist  
(Phone Number) (Fax Number) 601-425-3181 601-399-5077  
(Email Address) bids@howardcomputers.com

**9. WORKERS' COMPENSATION INSURANCE:** Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. VENUE:** All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

**11. LIQUIDATED DAMAGES:** 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. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

\_\_\_\_\_ for \_\_\_\_\_.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. 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. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

**14. PAYMENT IN ARREARS:** Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

**15. PAYMENT METHODS:** Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

**16. 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.

ADDENDUM ACKNOWLEDGEMENT FORM  
SOLICITATION NO.:

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 |

NA

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.

Howard Technology Solutions  
a division of Howard Industries, Inc.

Company \_\_\_\_\_

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

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



Phone: 1.888.912.3151  
 Fax: 1.601.399.5077  
 Online: www.howardcomputers.com



Howard Computers  
 P.O. Box 1588  
 Laurel, MS 39441

## Online Quotation

**Quote No:** TJ2 1321956.00  
**Customer Name:** Guy Nisbet  
**Company Name:** State of West Virginia  
**Quote Name:** BID# 01527

**Quote Date:** August 17, 2023  
**Phone Number:** 3045582306  
**Fax Number:** 3045583970

### Item 1

System Type:	Category	Description	Qty.	Unit Price	Ext. Price
1:	Accessories	ET80, 12", 4G WWAN, WIN10 PRO, i5, 16GB MPN: ET85B-3P5B2-C00-HZ	14	\$3,346.00	\$46,844.00 1
2:		ET8X 2-IN-1 ATTACHABLE RUGGED 82 KEY MPN: KYB-ET8X-2IN1-US2-01	14	\$435.00	\$6,090.00 1
3:		T8X VEHICLE DOCK SOLUTION. TOP CLAMP MPN: CRD-ET8X-VEHDK1-01	14	\$628.00	\$8,792.00 2
4:		ET8x Dock Keyboard Support Bracket MPN: CRD-ET8X-M-KBBKW1-01	14	\$181.00	\$2,534.00 2
5:		ET8X ETHERNET RJ45 CABLE MPN: CBL-ET8X-E1-01	14	\$38.00	\$532.00 2
6:		XDIM G2 Wiring kit 5.5 X 2.5 plug. Table MPN: ZEB-300039	14	\$17.00	\$238.00 3
7:		POWER CLA FOR G2 DOCK MPN: ZEB-450143	14	\$23.00	\$322.00 3
8:		DETACHABLE SHOULDER STRAP MPN: ZEB-SGET8XSHLDR101	14	\$45.00	\$630.00 4
9:		ET8X MPP 2.0 ACTIVE STYLUS MPN: ZEB-SGET8XSTYLUS101	14	\$97.00	\$1,358.00 1
10:		ET5X STYLUS COIL TETHER MPN: ZEB-SGET5XSLTETR01	14	\$8.00	\$112.00 1
11:		5 yr Z1C Select ET8XXX, CC MPN: ZEB-Z1ASET8XXX5C03	14	\$491.20	\$6,876.80 1
12:		XPLORE KEYBOARD 5Y OneCarE MPN: OPT-KYBDXP-5	14	\$167.28	\$2,341.92 1
13:		ET8X OFFICE DOCK SOLUTION. TOP CLAMP MPN: CRD-ET8X-OFFDK1-01	14	\$970.19	\$13,582.66 2
14:		PWR ADPT 100-240V AC 14V DC 5.5/2.5 MPN: ZEB-450020	14	\$104.96	\$1,469.44 3
15:		POWER, US PWR ADAPTER CORD (L10,B10, D10) MPN: ZEB-450040	14	\$15.30	\$214.20 3
16:		POWER SUPPLY FOR ET8X USB-C DC CONNECTOR MPN: PWR-BGA15V45W-UC2-WW	14	\$74.60	\$1,044.40 3

**Sub-Total:** \$92,981.42  
**Shipping & Handling :** \$84.20  
**Taxes:** Tax Exempt  
**Total for Item 1:** \$93,065.62

This quote will expire September 16, 2023.  
 To expedite your order, please include your quote number with your Purchase Order.

## Total for all pre-configured items

<b>Sub-Total:</b>	<b>\$92,981.42</b>
<b>Shipping &amp; Handling :</b>	<b>\$84.20</b>
<b>Taxes:</b>	<b>Tax Exempt</b>
<b>Total:</b>	<b>\$93,065.62</b>

### Notes:

Pricing and availability subject to change without notice. Packaging, Shipping, and Handling fees are not included unless specifically stated. Prices and lease payments do not include applicable taxes. Ship dates are approximations and are not guarantees. Quick ship items not available in Alaska, Hawaii, or outside the United States. Specific state laws may affect shipment of products.

Any order for kiosks must be canceled prior to 21 days from the scheduled date of shipment to avoid incurring a 50% cancellation fee. Any cancellation made within that 21-day window will automatically incur a charge equivalent to 50% of the total kiosk order being canceled.

Howard reserves the right to charge a 25% restocking fee for cancellation of a purchase order after Howard has commenced fulfillment of the order. Howard may, with notice, cancel any purchase order at any time without any liability to the Purchaser. Howard reserves the right to charge the Purchaser full purchase price for delaying shipment of a purchase order for an extended period of time which then results in the cancellation of said order.

Given the current uncertainties related to international trade, Howard hereby reserves the right to unilaterally revise the prices quoted herein in the event its manufacturing or procurement costs for such goods increase due to the imposition by the United States or any other country of new or higher tariff(s) or of any other similar tax, fee or charge.

If Purchaser fails to pay any invoice in full within the time quoted herein, Howard may, without notice, accelerate the due date of all outstanding invoices and require that all outstanding invoices, including any interest thereon, be immediately due and payable in full.

Howard's product warranties and return policies and related information, which are available at <https://www.howardcomputers.com/support/warranties.cfm> and <https://www.howardcomputers.com/support/returnpolicy.cfm>, are fully adopted and incorporated herein by reference. These may also be obtained by calling 1-888-912-3151 or emailing [webmaster@howardcomputers.com](mailto:webmaster@howardcomputers.com).

THIS QUOTATION IS EXPRESSLY LIMITED TO, AND EXPRESSLY MADE CONDITIONAL ON, PURCHASER'S ACCEPTANCE OF THE TERMS SET FORTH OR INCORPORATED HEREIN; HOWARD OBJECTS TO ANY DIFFERENT OR ADDITIONAL TERMS.