

Small, Durable, and Connected Wearable/Vehicle-Mounted Computer

Zypad BR2000

- Lightweight compact battery operated wearable/vehicle mount computer
- Intel Atom based device running standard OSs
- Integrated wired and wireless communication capabilities
- Designed to MIL-STD-810G and IP67
- Extended temperature range operations



FEATURES

Use-case Flexibility – The Zypad BR2000 can be mounted onto a vehicle such as a truck or service vehicle, or worn on the vest, utility belt, or pocket offering portability and flexibility depending on the situation.

Communications Interfaces – The Zypad BR2000 supports high-speed wired and wireless protocols including Gigabit Ethernet, 802.11 b/g/n, Bluetooth Class 1, and a 50-channel GPS receiver, all with integrated antennas as well as USB 2.0, serial ports, and multimedia.

Durable and Ruggedized Design – With extended operating temperature support, compliancy with the IP67 standard, and a submersible rugged enclosure, the Zypad BR2000 ensures reliable operation even in the most extreme environments.

Long Battery Life – Typical battery life runs between 4 to 6 hours with hot swap ability so no lost data.

- Defense
- Mining
- Industrial
- Transportation
- Emergency crew

The Zypad BR2000 is a rugged, small form factor battery operated computer featuring wired connectivity and wireless connectivity designed for use under extreme conditions. Being rugged, lightweight and extremely compact it can be used as a wearable and vehicle mountable computer in applications where the need for reliable wired, wireless connectivity and performance is a must.

The Zypad BR2000 weighs less than 820 gr (1.8 lbs) including the battery, featuring an IP67 rugged case along with a set of single-hand blind mate connectors that are exposing the wired interfaces while the antennas are integrated within the case. Being compact it can be placed into a vehicle or worn on a tactical vest, utility belt, pocket or backpack and interface with a wrist-worn, vest-mounted or hand-held display and/or helmet monacle.

Leveraging the low-power architecture of the Intel Atom processor together with high-speed wired and wireless network and device I/O interfaces, the Zypad BR2000 offers extensive communications capabilities such as WiFi, Bluetooth, and GPS. Standard I/O includes Gigabit Ethernet, USB 2.0, RS232/422, on-board Flash and Compact Flash, Audio, and 2D/3D Video Output.

Operating system support includes Windows 7, WES 7, Wind River Linux, and other OSs. The Zypad BR2000 can run the Everyware™ Software Framework for quick application development and is compatible with Everyware™ Device Cloud.

System Architecture

PROCESSOR	<ul style="list-style-type: none"> Intel® Atom™ E660T @ 1.3 GHz CPU Intel PCH EG20T
GRAPHICS/AUDIO	<ul style="list-style-type: none"> 1 x 2D/3D VGA display output (LVDS optional) 1 x Composite video (NTSC/PAL) output Audio microphone and headset output
MEMORY	<ul style="list-style-type: none"> 1GB RAM (up to 2GB supported) High-capacity Compact Flash (with option for Secure Erase) Up to 32GB Onboard Flash
OPERATING SYSTEM	<ul style="list-style-type: none"> WES XP Embedded Linux Android (contact factory on availability) Wind River Linux WIN 7
USB	<ul style="list-style-type: none"> 6x USB 2.0 ports
SERIAL PORTS	<ul style="list-style-type: none"> 1 x RS-232/422 (full port) 2x RS-232 (Tx/Rx)
INTEGRATED WIRELESS RADIOS	<ul style="list-style-type: none"> 802.11 b/g/n with integrated antenna Bluetooth (Class 1, EDR up to 2-3Mbps) with integrated antenna 50-channel GPS receiver with integrated antenna
ETHERNET	<ul style="list-style-type: none"> 1 x 10/100/1000BASE-T Ethernet interface
I/O EXPANSION PORTS	<ul style="list-style-type: none"> Expansion device support via USB, PCIe, DIO, RS-232/422 (accessible in connector interface panel)
SECURITY	<ul style="list-style-type: none"> Trusted Platform Module v1.2 Emergency Erase/Sanitize support
USER CONTROLS	<ul style="list-style-type: none"> 1x Power on/off button 4x Programmable keypad buttons (Up, Down, Select, Back) Configuration control/maintenance display LED indicators for alarm, power, and battery level Concealed emergency erase button
PHYSICAL	<ul style="list-style-type: none"> Weight: 820gr (1.8 lb) Dimensions: 168 x 107 x 40 mm Metal: Aluminum alloy, corrosion resistant Mounting: Screw-down attach points for direct fixed mount or quick release brackets Humidity: Up to 95% relative humidity (non-condensing, conformal coating option) IEC 60529 IP67-class enclosure (sealed against water, dust) Connectors: Miniature military-grade push-pull circular, single-hand blindmate
POWER	<ul style="list-style-type: none"> 5W average power consumption (typical wearable use case) Up to 6 hours of battery pack run time (25Wh battery pack capacity) Internal backup battery for main battery fast swap External DC power input range from 9 to 16VDC Remote power on/off support Auxiliary power output for external peripherals (5VDC) Field replaceable battery pack options: Li-Ion rechargeable/disposable CR123 Operating temperature: -20°C to +50°C (with standard battery) Operating temperature: -40°C to +71°C (no battery)
DESIGNED TO MEET	<ul style="list-style-type: none"> Crash safety shock: 75g, 11ms, 2 pos/neg per axis, total 12 sawtooth pulses Random vibration: SAE J1455-2006, vehicle profile; MIL-STD-810G (Method 514) Water immersion: 1 meter submersion, 30 minutes (similar to IP67) Dust ingress: designed for compliance w/method 510.4, no dust ingress Operational altitude: sea level to ~20,000 ft (~6096 meters)
EMI/EMC CERTIFICATIONS	<ul style="list-style-type: none"> IEC 61000-4-2 EMC-Part 4-2 EN 55022/CISPR22 Immunity and Emissions MIL-STD-461F for conducted and radiated emissions/susceptibility

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