

## RTCU-2 RUGGED TABLET COMPUTER UNIT

Reliable in the Extreme



# MYMILTOPE

Take the best-in-class tablet technology and coupled it with a dock that increases functionality for evolving requirements, then add the military-grade ruggedness for which VT Miltope is famous, and you get the RTCU-2: The multi-mission computer system that's not only powerful, but built to survive the harshest environments that military personnel and vehicles encounter. My Miltope!

### RTCU-2 Features and Functions:

- Expanded I/O when docked
- 10.4" 1024x768 Nit before touch LED backlit DMSR display
- 2 GB Ram expandable to 8 GB
- Handheld tablet or vehicle mounted unit



## TABLET

### PROCESSOR:

1.06 GHz Intel® Core™ i7-620UE processor + 4MB L2 Smart Cache, 1,066 MHz FSB

### OPERATING SYSTEM:

Windows® 7 Professional - Linux® OS (optional/custom configuration)

**RAM:** 2 GB DDR3, 1,066 MHz, Expandable up to 8 GB DDR3

### VRAM:

Intel HD video technology (OR, graphics engine is integrated into the processor, for higher performance and better power management)

### STORAGE:

30-160 GB Solid-State Drives (80 GB Intel SSD Standard); 160 GB 1.8" NON-RUGGED SATA HDD (optional)

### DISPLAY SYSTEM:

TFT XGA 10.4" (1024 x 768 min); 1000 Nit before touch LED backlit DMSR Display (500:1 contrast), NVIS mode (luminosity compliant)

### EXTERNAL INTERFACES:

One 10/100/1000 Ethernet port (RJ-45), Two USB 2.0 ports (type A), One SVGA video port (standard), (HD-15), Audio In/Out (3.5 mm barrel), Two Expansion ports RS 232/422/485 (1 standard, 1 XPL2), 3 MP auto-focus camera, MicroSD

### EMBEDDED INTERFACES:

Internal mini PCI-E, XPL and XPL2 expandability (15 pin USB + serial, 10 pin USB), Two PCIe (express) card slots (not user accessible, used foreembedded hardware - Wireless LAN etc. factory installed)

### PHYSICAL:

Dimensions 11.2"W x 8.25"H x 1.6"D; Weight, 5.4 lbs (with 10 cell battery)

### POWER:

One Removable Li-ion 68 WHr rechargeable battery; AC Adapter and power cord, Auto sensing 100-240V, 50-60Hz

### BATTERY LIFE:

2.5 Hrs (min); 4.0 Hrs (typical), 6.5 Hrs (max) at ambient temperatures

## DOCK

Standard I/O ports with circular MIL connectors with tethered covers:

### BASE DOCK EXTERNAL INTERFACES:

- Three USB 2.0 ports (Type A, enclosed in MIL-C-38999, Series III; one port in front, two ports in back)
- One (audio in/out) Headset jack in front (MIL-C-55116, GC283, 6 pin)
- One RS-232/RS-422/RS-485 port on side (13 pin, MIL-C-38999, Series III, D38999/20WB35SN)
- One Power Input port (6 pin MIL-C-38999, Series III, D38999/20WB98PN)
- Dual GB Ethernet (RJ-45, enclosed in MIL-C-38999, Series III, RJF-TV-2-2-G housing)

### DOCK EXPANSION OPTIONS:

OPTION 1, Telematic Module

- Single SAE J1708/J1939 CANbus Interface w/Built-In SAE J1939 Message Parsing (10 pin, MIL-C-38999, Series III, D38999/20WC-98SN)
- 802.11 b/g WLAN interface (Antenna via TNC Male connector)
- GPS module (Antenna CFE via SMA connector)

OPTION 2, Serial Interface Module

- Optionally, one to five asynchronous RS-232/422/423/485 serial ports (factory configured)
- Connectors are clocked MIL-C-38999, Series III, D38999/20WA35P (clocked N, A, B, C, D) to prevent misconnection(s)

### POWER:

24VDC nominal (10-33V range) to 19 (+/- 3 VDC) conversion (MIL-STD-1275D)

### PHYSICAL DOCK SIZE:

13" x 12.5" (13.8" open) x 6.8" (8.0" with optional isolation kit) (WxHxD) maximum, and 3.25" clearance for arm

**WEIGHT:** 6-8 lbs. (configuration dependent)

## ENVIRONMENTALS:

### TEMPERATURE:

MIL-STD-810G Methods 501.5, 502.5 Procedure I and II  
Operating Tablet: -32°C to +60°C (-25.6°F to +140°F)

### OPERATING TABLET W/DOCK:

-45°C to +60°C (-49°F to +140°F), requires 15 min warm up at -45°C; Storage (both Tablet and/or Dock): -45°C to +70°C (-49°F to +158°F)

### THERMAL SHOCK:

MIL-STD-810G, Method 503.5, Procedure II Cyclic; -45°C to +70°C within 15 min, 70°C to +30°C within 15 min

### SOLAR RADIATION (NON-OPERATIONAL):

MIL-STD-810G Method 505.5, Procedure II; 1120 W/m<sup>2</sup> (355 Btu/ft<sup>2</sup>/hr) UVB @ 50°C, 7 x 24 hr cycles

### VIBRATION OPERATIONAL:

MIL-STD-810G, Method 514.6, Procedure I, category 4 (Truck)

### VIBRATION (NON-OPERATIONAL):

MIL-STD-810G, Method 514.6, Procedure I category 24 (Minimum Integrity)

### RELATIVE HUMIDITY:

MIL-STD-810G, Method 507.5; 5% to 95% non-condensing, 23°C to 60°C, 5 cycles of 48 hr.

### DRIVING RAIN:

MIL-STD-810G, Method 506.5, Procedure I; 1.8" per hour at 40 mph winds; All directions, All sides; 40 min

### SAND/DUST:

MIL-STD-810G, Method 510.5, Procedure I and II; Blowing dust at 30 mph for 30 min; Blowing sand at 30 mph for 30 min SALT FOG: MIL-STD-810G, Method 509.4; 5% saline for 48 hr. (12 hr. wet, 12 hr. dry, 2 cycles)

**FUNCTIONAL SHOCK:** MIL-STD-810G, Method 516.6

### BENCH HANDLING:

Procedure VI; 40g, 11 ms, Half Sine; Procedure I

### TRANSIT DROP:

MIL-STD-810G, Method 516.6, Procedure I; 3 Drops each face from four feet onto concrete

**FUNGUS:** MIL-STD-810G, Method 508.6, Procedure I

## EMI/ESD/HAEMP:

MIL-STD-461F RE102, RS103, RS105, CS101, CS114, CS115, CS116, CE102; MIL-STD-2169B, MIL-STD-1275D, MIL-STD-1686C Table IV