

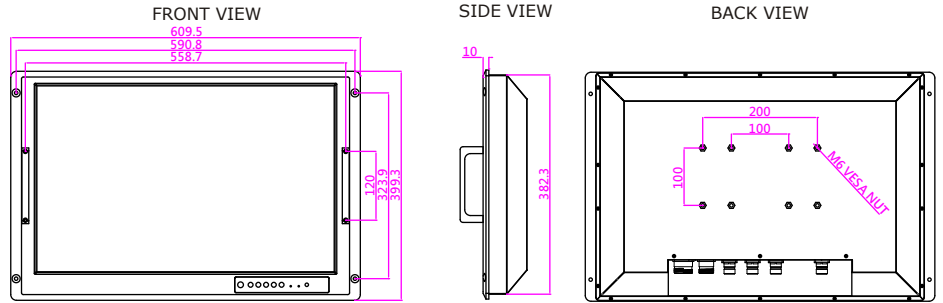
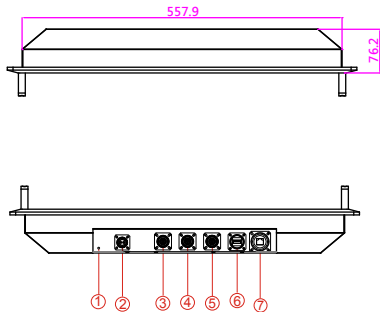
# Military Grade 24" Rack Mount Panel PC (Intel® Core i7 Platform)

MODEL #: W24IH3S-MLS1-89

Mechanical Design



- 24" 1920x1200 High Resolution TFT-LCD
- Intel® Core i7 4650U 3.30GHz Processor
- Anti-Corrosion Housing / Fanless
- Compliant with MIL-STD-810F/G
- Flush Rack / Rack Mount Mechanical Design (9U)
- Convenient On-Screen Display Controls
- AC 110~240V Power input default / Isolation DC 9~36V Power input (Optional)
- Built-in Light Sensor for auto brightness control
- Military Grade Power Connector (MIL-DTL-38999/1 & 38999/3)



CUT OUT 562\*387mm

1. Ground
2. AC Power in (MIL-DTL-38999/1)
3. VGA (MIL-DTL-38999/3)
4. RS-232 (MIL-DTL-38999/3)
5. RS-232 (Optional)
6. USB 2.0 A Type (MIL-DTL-38999/3)
7. LAN (MIL-DTL-38999/3)

Measurements shown in mm.  
 \* Tolerance of all dimensions is shown as follow 0~30 mm ± 0.1 mm, 30~50 mm ± 0.15 mm, 50~120 mm ± 0.2 mm, above 120 mm ± 0.25 mm.  
 \* Note: this is a simplified drawing and some components are not marked in detail. Please contact our sales representative if you need further product information.

Display Specification

Characteristics :	
• Resolutions	: 1920 x 1200
• Brightness	: 300 cd/m <sup>2</sup> (typ.)
• Contrast Ratio	: 1000 : 1(typ.)
• Viewing Angles	: -89~89(H);-89~89(V)
• Max Colors	: 16.7M(Colors)

Environmental (MIL-STD 810F/G Compliance)	
• Vibration	: MIL-STD-810F/G Method 514.5
• Humidity	: MIL-STD-810F/G Method 507.4
• Transit Drop	: MIL-STD-810F/G Method 516.5

System Specifications :	
• Processor	: Intel® Core i7 4650U 3.30GHz
• BIOS	: AMI 16Mbit Flash
• Processor Graphics	: Intel® HD Graphics 5000
• System Memory	: 1 x SO-DIMM DDR3L 1600, Default 4GB
• Lan Controller	: Intel® Ethernet Controller 1211-AT + Intel® Gigabit Etherne PHY 1218-LM
• Storage	: mSATA SSD, Default 64GB
• Expansion Slot	: 1 x Mini PCIe slot (for USB module)

\* A customized housing is needed if you would like to have the PCI expansion.

Environment Considerations :	
• Operating Temperature	: 0°C~50°C
• Storage Temperature	: -10°C~60°C
• Operating Humidity	: 95%RH ±3%

Power Specifications :	
• Power Input	: Default AC 110~240V in Optional isolation DC 9~36V in

Environmental(MIL-STD 461E/F Compliance)	
• RE	: RE101 / RE102
• CE	: CE 101 / CE102
Optional with EMI Glass / Touch	
• RS	: RS101 / RS103
• CS	: CS 101 / CS 106 / CS 109 / CS 114 / CS 115 / CS 116

\* If you require external test report, Winmate will charge NRE fee.

I/O Connectors :	
• Plug & Play	: VESA DDC 1/2B
• Back Panel I/O Port	: 1 x Power Input (MIL-DTL-38999/1) 1 x VGA(MIL-DTL-38999/3) 1 x RS232(MIL-DTL-38999/3) 1 x USB A 2.0Type(MIL-DTL-38999/3) 1 x LAN(MIL-DTL-38999/3)

Order Information (Optional):	
Touch	: 5 Wires Resistive / 5 Wire Resistive with EMI Coating
Glass	: EMI Coating Glass (Default AR Glass)
OS	: Windows Embedded Standard 7 Windows Embedded 8 Standard Windows Embedded 8.1 Industry Windows 10 IoT Enterprise
Storage	: mSATA SSD up to 256GB
RAM	: SO-DIMM DDR3 1666, max up to 8GB
Power	: Optional isolation 9~36V DC in

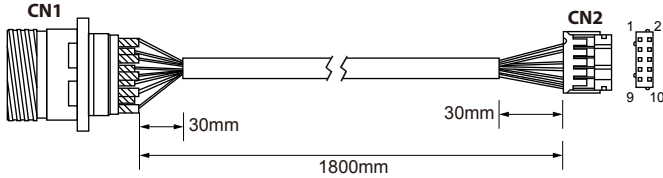
Default Accessories	
• 1 x MIL-DTL-38999/1 Power cord / Cable	
• 1 x MIL-DTL-38999/3 VGA Cable	
• 1 x MIL-DTL-38999/3 RS232 Cable	
• 1 x Driver & Manual CD	



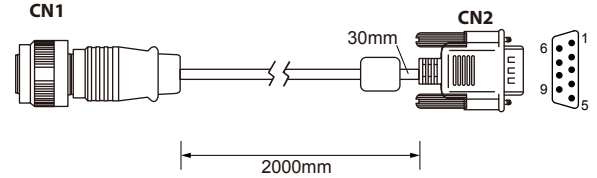
# Military Grade 24" Rack Mount Panel PC (Intel® Core i7 Platform)

MODEL #: W24IH3S-MLS1-89

## MIL-DTL-38999/3 RS232 Cable



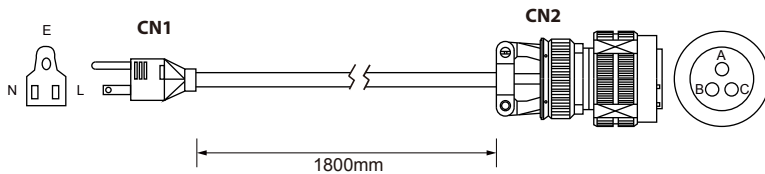
## MIL-DTL-38999/3 VGA Cable



PIN NO.	SYMBOLS	COLOR		PIN NO.	SYMBOLS	COLOR	
CN1-1	R	Red	↔	CN2-4	R	Red	Coaxial cable
CN1-2	R-GND	Black	↔	CN2-9	GND	Black	
CN1-3	G	Green	↔	CN2-6	G	Green	Coaxial cable
CN1-4	G-GND	Black	↔	CN2-9	GND	Black	
CN1-5	B	Blue	↔	CN2-8	B	Blue	Coaxial cable
CN1-6	B-GND	Black	↔	CN2-10	GND	Black	
CN1-7	SDA	Yellow	↔	CN2-1	SDA	Yellow	
CN1-8	HS	Orange	↔	CN2-5	HS	Orange	
CN1-9	VS	White	↔	CN2-7	VS	White	
CN1-10	SCL	Brown	↔	CN2-3	SCL	Brown	

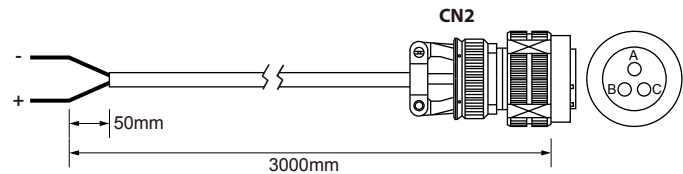
PIN NO.	SYMBOLS	COLOR		PIN NO.	SYMBOLS	COLOR	
CN1-1	DCD	Green	↔	CN2-1	DCD	Green	
CN1-2	DSR	Brown	↔	CN2-6	DSR	Brown	
CN1-3	RXD	Red	↔	CN2-2	RXD	Red	
CN1-4	RTS	Orange	↔	CN2-7	RTS	Orange	
CN1-5	TXD	Blue	↔	CN2-3	TXD	Blue	
CN1-6	CTS	White	↔	CN2-8	CTS	White	
CN1-7	DTR	Purple	↔	CN2-4	DTR	Purple	
CN1-8	RI	Yellow	↔	CN2-9	RI	Yellow	
CN1-9	GND	Black	↔	CN2-5	GND	Black	
Braid			↔	Braid			↔
外殼			↔	外殼			↔

## MIL-DTL-38999/1 AC Power Cable (For US)



PIN NO.	SYMBOLS	COLOR		PIN NO.	SYMBOLS	COLOR	
CN1-1	N	White	↔	CN2-1	A	White	
CN1-2	L	Black	↔	CN2-2	B	Black	
CN1-3	E	Green	↔	CN2-3	C	Green	

## MIL-DTL-38999/1 DC Power cable (optional)



PIN NO.	SYMBOLS	COLO		PIN NO.	SYMBOLS	COLOR	
OPEN	VCC+	White	↔	CN2-A	VCC+	White	
OPEN	VCC-	Black	↔	CN2-B	VCC-	Black	