Specifications   EC520 Controller

General Description

The EC520 Electronic Controller is a rugged platform purpose built for easy integration of machine control and guidance in the factory or aftermarket. It is compact and simple enough to integrate entry level machine control and guidance straight out of the factory with the factory display, but powerful enough to provide a seamless upgrade path to full 3D grade control applications and graphical displays through factory or aftermarket channels.

Key Features & Benefits

• High performance Real-time Linux control platform for Trimble Grade Control Server
• Options available for CAN, Ethernet or Wi-Fi display interfaces to match the UI experience with the desired application level - 1D, 2D or 3D
• Integrated Inertial Measurement Unit (IMU) body sensor with 6 degrees of freedom
• Optional integrated Wi-Fi 802.11b/g/n 2.4 GHz for on machine wireless connectivity to Displays, Laptops, Hot Spots or Mobile devices
• Optional 5dbi antenna for 300m (980ft) range connections to Wi-Fi local base or other machines
• 3 CAN ports for Machine CAN, HMI devices and grade control sensor connectivity
• 2 Ethernet ports for displays and radios
• 1 RS232 port for guidance light-bars and 3rd party radios
• Grade control subsystem power management
• Reliable and rugged for direct chassis mounting

Physical Characteristics
Size

Length:	200mm
Width:	130mm
Depth:	58mm
Weight:	1.05kg
Mounting:	Rigid chassis mount with one axis aligned to direction of travel
	4 x M8 mounting holes on 182 x 120mm hole centres

Environmental Characteristics
Temperature

Operating:	-40°C to +70°C
Storage:	-40°C to +85 °C
Humidity:	90% Relative Humidity
Sealing:	Fully Sealed to 5 PSI / IP67
Vibration:	15Grms
Shock:	40G 10ms Operating
	75G 6ms Surviving
Compliance	
	RoHS, CE and RCM Compliant

Technical Specifications

Electrical Input Voltage:	9 V - 32 V
Supply Power:	20W (typical)
Computing platform:	1GHz CPU, 512MB DDR3 RAM, 4GB non-volatile NAND Flash Memory
IMU:	3 axis high accuracy inclination
	3 axis of shock and vibe tolerant gyro
I/O:	2 x 10Mbps 4 wire Ethernet
	3 x CAN
	1 x RS232
	1 x Switch to ground output
	1 x Key switch input
Radiated Immunity:	ISO 11452-1, -2 and -5
Bulk Current Injection:	ISO 11452-4, SAEJ1113-4
Power Line Transients:	ISO7637-1 and -2
ESD	ISO10650, ISO10605, EN61000-4-2
Conducted and Radiated Emissions:	CISPR 25, ISO 13766

Primary I/O Connector Styles
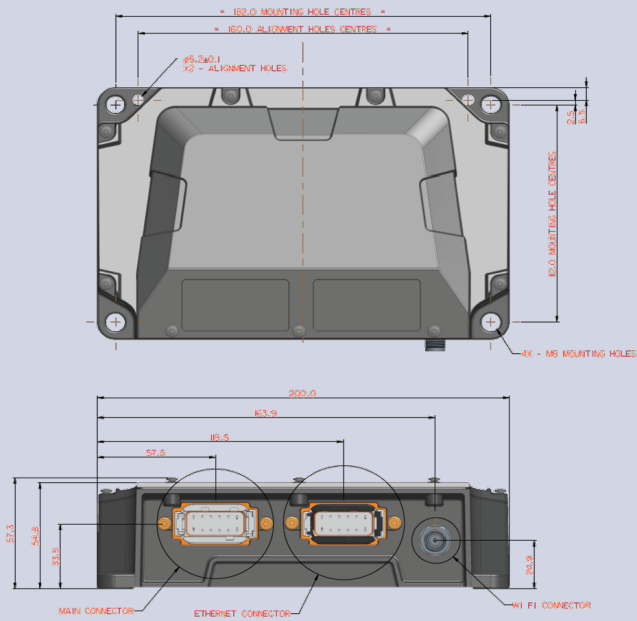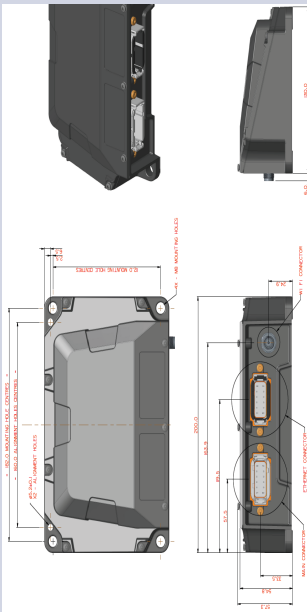
12 Pin Main I/O Connector (DTM06-12SA)

1 - BATT+
2 - BATT -
3 - RS232 -1 TXD
4 - RS232 -1 RXD
5 - CAN 1 HI
6 - CAN 1 LO
7 - CAN 2 LO
8 - CAN 2 HI
9 - CAN 3 LO
10 - CAN 3 HI
11 - IGNITION SWITCH INPUT
12 - SWITCH to GROUND OUTPUT

12 Pin Ethernet I/O Connector (DTM06-12SB)
1 - ETHERNET 1 RX-
2 - ETHERNET 1 RX+
3 -
4 -
5 - ETHERNET 2 TX-
6 - ETHERNET 2 TX+
7 - ETHERNET 2 RX+
8 - ETHERNET 2 RX-
9 -
10 -
11 - ETHERNET 1 TX+

Dimensions (mm)

Specifications subject to change without notice.