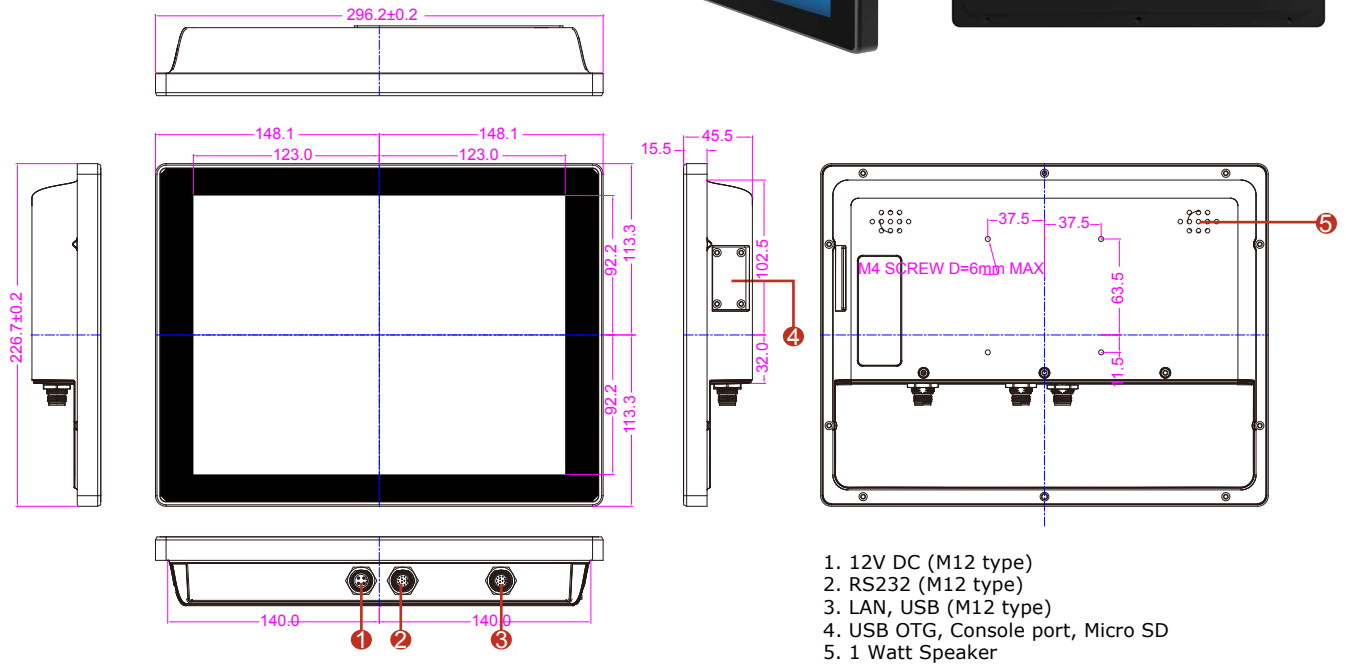


# 12.1" GS65 Panel PC

# R12FA3S-GSM2

## Features

- 12.1" 1024 x 768 Resolution with Projected Capacitive Multi-Touch (P-CAP)
- Freescale Cortex A9 i.MX6 Dual Core 1GHz (Optional Quad Core)
- Fanless cooling system and ultra-low power consumption
- Onboard LPDDR3 1GB
- Onboard 16GB eMMC Flash
- Full IP65
- 1 x LAN, 1 x RS232, 1 x USB, 1 x USB OTG, 1 x Console, 1 x Micro SD



1. 12V DC (M12 type)
2. RS232 (M12 type)
3. LAN, USB (M12 type)
4. USB OTG, Console port, Micro SD
5. 1 Watt Speaker

## Specifications

### System

- Processor : Freescale Cortex A9 i.MX6 Dual Core 1GHz (Optional Quad Core)
- Memory : 1GB LPDDR3 (Optional 2GB)
- Storage : Onboard 16GB eMMC Flash

### Input / Output

- COM port : 1 x RS232 (M12 type)(Optional 422/485)
- USB Ports : 1 X USB 2.0 (M12 type), 1 x USB OTG (On side)
- Ethernet : 1 x 10/100/1000 LAN (M12 type)
- Speaker : 1 x 1 Watt Speaker
- Console : 1 x Console port (Linux Use)
- SD Slot : 1 x Micro SD Card Slot

### OS/BSP Driver Support

- Operation System : Android 6.0 (Default)  
Linux Kernel 4.1.15, QT 5.5 Browser (Optional)  
Ubuntu 16.04 (Optional)

### Mechanical Specifications

- Cooling System : Fanless design
- Mounting : VESA Mount (75x75mm), Panel Mount
- Dimensions(W x H x D) : 226.7 x 296.2 x 45.5 (mm)

### Display

- Size : 12.1" TFT
- Resolution : 1024 x 768
- Brightness : 500nits (typ.) Optional for High Brightness 1000 cd/m (typ.)
- Contrast Ratio : 700:1
- Viewing angle : -80~80(H) ; -70~70(V)
- Max color : 16.2M
- Touch : Projective-Capacitive Touch with optional protection glass

### Power Considerations

- Power Input : 12V DC (M12 type)
- Power Consumption : 15W

### Environment Considerations

- Operating Temperature : -15 deg. C to 55 deg. C
- Operating Humidity : 10% to 95% (non-condensing)
- IP Rating : Full IP65
- Shock Operating : 30g for 18ms, 300m/s<sup>2</sup>
- Vibration Operating : 1.60/1.96/2.18 g rms for XYZ/ 5-500Hz

### Certifications & Standards

- Compliant with MIL-STD-810F/G for vibration / shock, CE, FCC

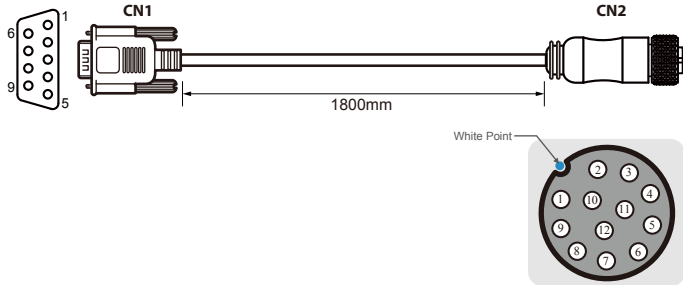


# 12.1" GS65 Panel PC

# R12FA3S-GSM2

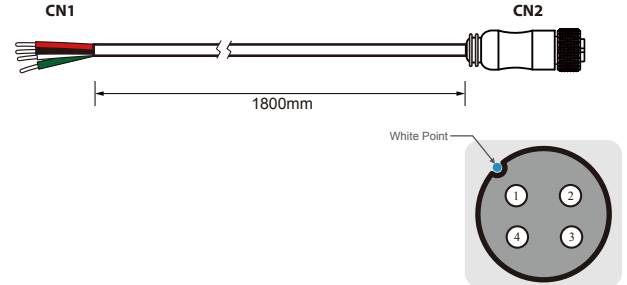
Pin Assignment of cables

## RS-232 to M12 Cable



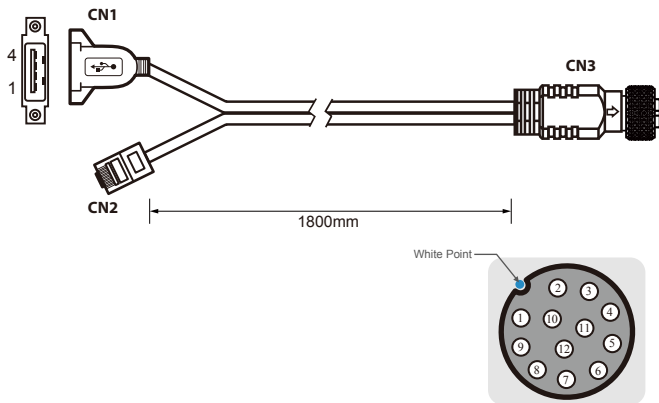
Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	DCD	Green	↔	CN2-1	DCD	Green
CN1-6	DSR	Brown	↔	CN2-2	DSR	Brown
CN1-2	RXD	Red	↔	CN2-3	RXD	Red
CN1-7	RTS	Orange	↔	CN2-4	RTS	Orange
CN1-3	TXD	Blue	↔	CN2-5	TXD	Blue
CN1-8	CTS	White	↔	CN2-6	CTS	White
CN1-4	DTR	Purple	↔	CN2-7	DTR	Purple
CN1-9	RI	Yellow	↔	CN2-8	RI	Yellow
CN1-5	GND	Black	↔	CN2-9	GND	Black

## DC Power to M12 Cable



Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	VIN+	Red	↔	CN2-1	VIN+	Red
CN1-2	VIN-	Black	↔	CN2-2	VIN-	Black
CN1-3	VIN-	White	↔	CN2-3	VIN-	White
CN1-4	IGN_IN	Green	↔	CN2-4	IGN_IN	Green

## USB 2.0 & GIGA LAN to M12 Cable



Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN3-1	VCC	RED	↔	CN1-1	VCC	RED
CN3-2	D-	WHITE	↔	CN1-2	D-	WHITE
CN3-3	D+	GREEN	↔	CN1-3	D+	GREEN
CN3-4	GND	BLACK	↔	CN1-4	GND	BLACK
CN3-5	White/Orange		↔	CN2-1	White/Orange	
CN3-6	Orange		↔	CN2-2	Orange	
CN3-7	White/Green		↔	CN2-3	White/Green	
CN3-8	Blue		↔	CN2-4	Blue	
CN3-9	White/Blue		↔	CN2-5	White/Blue	
CN3-10	Green		↔	CN2-6	Green	
CN3-11	White/Brown		↔	CN2-7	White/Brown	
CN3-12	Brown		↔	CN2-8	Brown	

Twisted pairs