

5G Modems in all systems

Model: Qualcomm Snapdragon (SD) x55 modem, Cat. 20

Coverage: Worldwide 5G coverage with 3G/4G fallback

Power Class 2, max. TX power 400mW

MAXIMUM SPEED per modem:

Download: 2.0 Gbit/s per modem, 7xCA, max. Modulation 256QAM

Upload: 211 Mbit/s per modem, 2xCA, max. Modulation 256QAM

SUPPORTED RF BANDS (Worldwide Coverage)

Technology	Bands	Diversity Connection
3G	B1, B2, B4, B5, B6, B8, B9, B19	YES
4G LTE-A-PRO	B1-B5, B7, B8, B12-B14, B17-B20, B25, B26, B28-B30, B32, B34, B38-B43, B46, B48, B66, B71	YES (4x4 MIMO)
5G	n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79	YES (4x4 MIMO)

INNER CORE

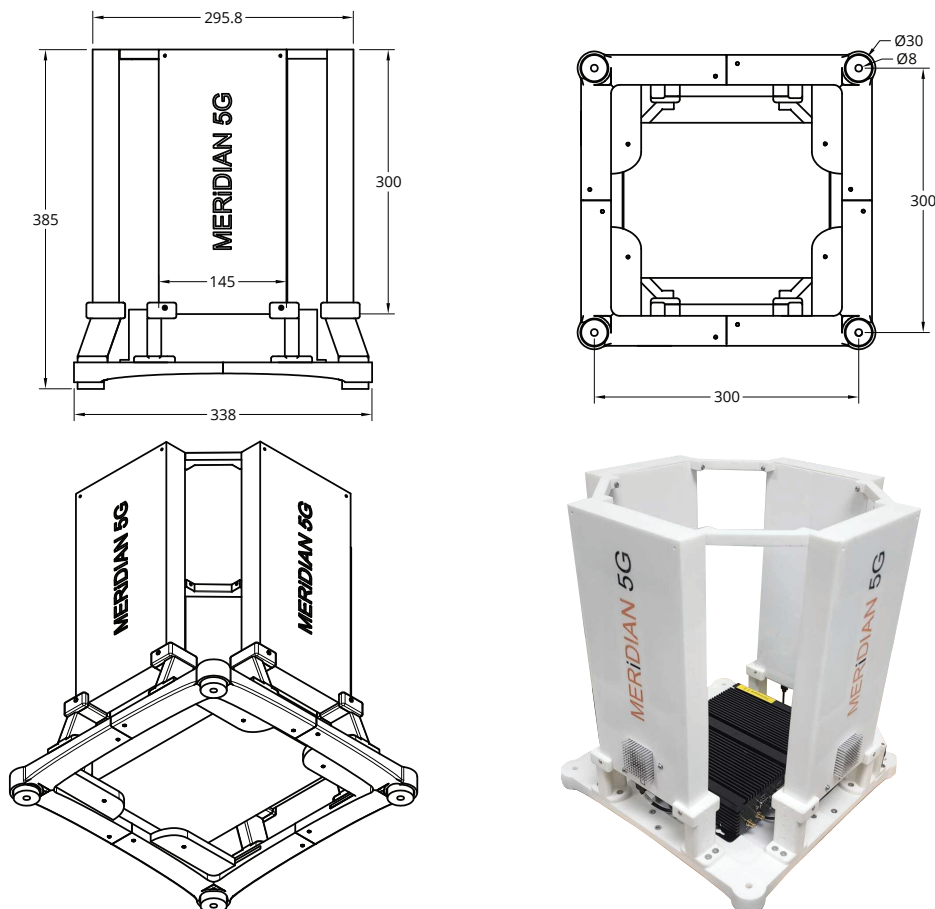
TECHNICAL SPECIFICATIONS

System contains 4 panels with a control router arranged into an inner core to be installed inside a small (~50cm) empty dome.

- 4 panels (four 5G modems and 16 omnidirectional antennas in total, see "Panel" spec page 4 for more info)
- Dual-LEO (e.g. Starlink Maritime) connectivity
- **Weight:** 12kg
- **Mounting:** 4x M8 Bolt
- **Power:** 160W peak load. DC 12V, 12A (3x4sqmm) or AC 100V..240V (3x1.5sqmm)
- **Operating temperature:** -40° to +75°C
- **Cabling required:** Ethernet to the ship's firewall: Cat6A or Cat7 S/FTP (shielded).
- **Connectors:** RJ45 connector (to border router)
- **Dome cover:** recommended model Intellian i4

Remarks: 360° non-blocked horizontal line of sight recommended.

Optional SIM extender is available so SIM cards can be conveniently changed below deck. It does not require any extra cables (uses the same ethernet cable as for the user data).



INNER CORE

TECHNICAL SPECIFICATIONS

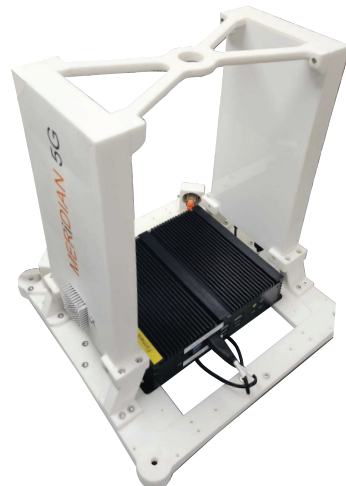
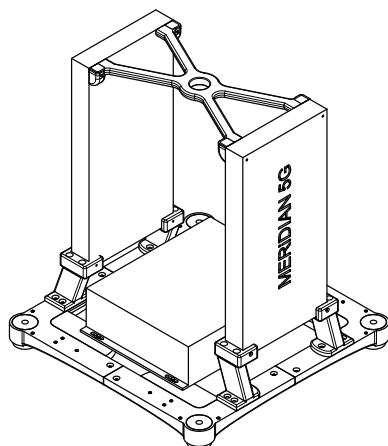
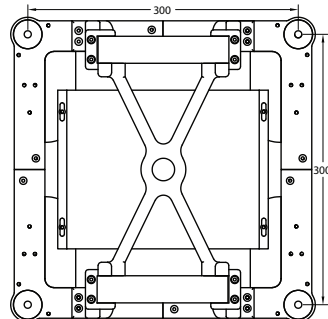
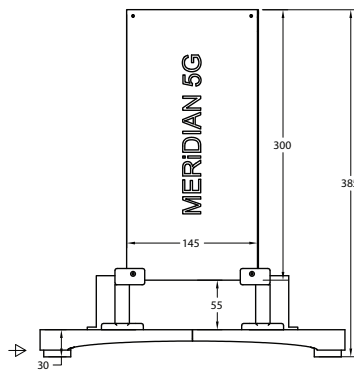
System contains 2 panels with a control router arranged into an inner core to be installed inside a small (~50cm) empty dome.

- 2 panels (two 5G modems and 8 omnidirectional antennas in total, see "Panel" spec page 4 for more info)
- Dual-LEO (e.g. Starlink Maritime) connectivity
- **Weight:** 10.5kg
- **Mounting:** 4x M8 Bolt
- **Power:** 160W peak load. DC 12V, 12A (3x4sqmm) or AC 100V..240V (3x1.5sqmm)
- **Operating temperature:** -40° to +75°C
- **Cabling required:** Ethernet to the ship's firewall: Cat6A or Cat7 S/FTP (shielded).
- **Dome cover:** recommended model Intellian i4

Remarks: 360° non-blocked horizontal line of sight recommended.

X2 model has spare compartments for 2 additional panels and can be upgraded at a later time by purchasing additional panel(s).

Optional SIM extender is available so SIM cards can be conveniently changed below deck. It does not require any extra cables (uses the same ethernet cable as for the user data).



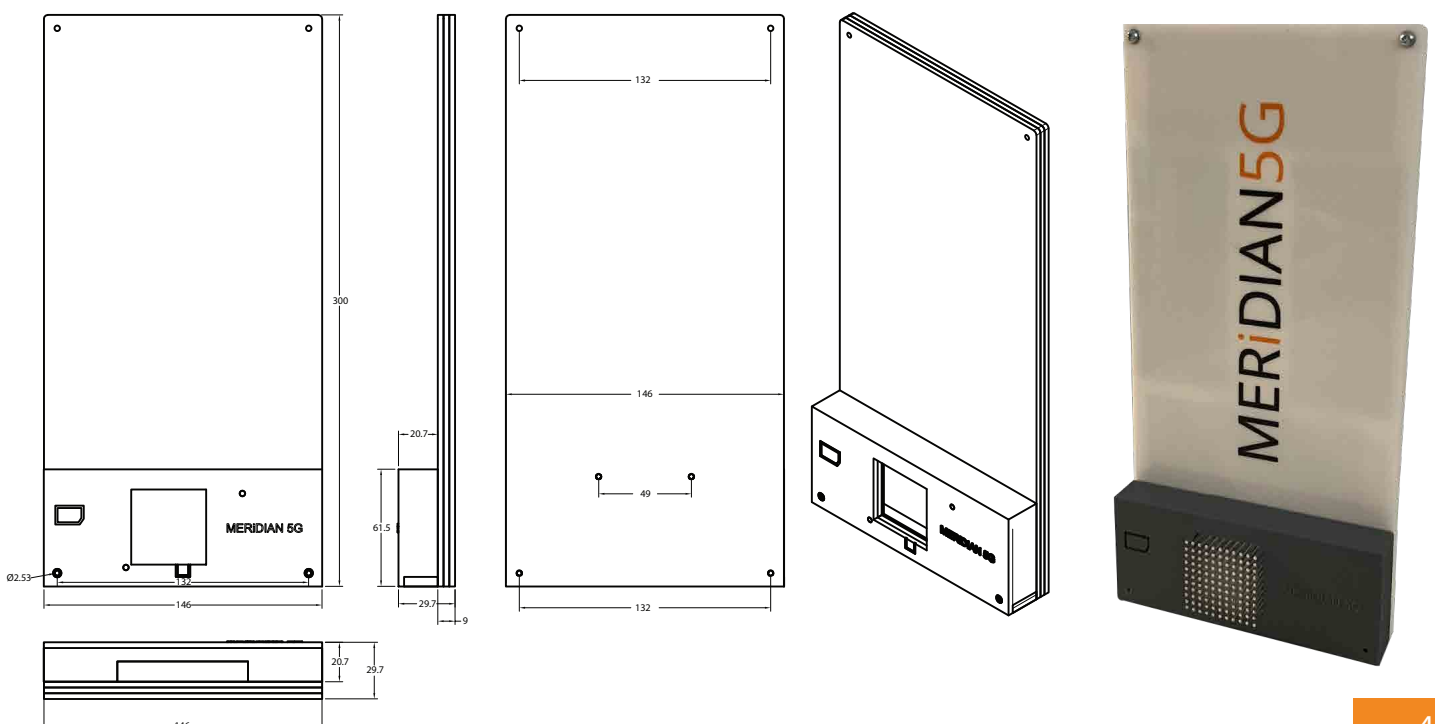
Panel

TECHNICAL SPECIFICATIONS

Panel is a part, not a complete system. A control router is required to operate the panels.

Panels are the main parts in the DOME systems. A panel can also be used to upgrade either a DOME system to include more modems/antennas, or to upgrade M1 or M2 rugged.

- **Modem:** One 5G modem with 1 push-pull SIM slot (Nano, 4FF)
- **Antennas:** 4 omnidirectional wide band antenna modules (600MHz-6Ghz, peak gain 5dBi), arranged orthogonally in pairs to achieve 4x4 MiMo
- **Antenna layout:** Slim design on the antenna section to fit tight VSAT domes as well, e.g. Intellian V60
- **Dimensions in mm:** 300 x 146 x 29.7
- **Weight:** 800g
- **Material:** Polyester resin and ABS plastic
- **Operating temperature:** Heatsink to allow for up to 75°C operations
- **Connectors:** USB-C connector for USB-3.2 data bus and auxiliary power
- **Power:** DC 5V/3A (provided over USB-C from the control router)
- **Mounting:** vertical or horizontal, but not flat



DASHBOARD:**Modem Status**

- SIM card inserted
- Connection status
- Aggregation status
- Temperature
- Error indication

System Status

- Aggregator status
- Current network load (down/up)
- Temperature
- Error indication

System Control

- Power down
- Reset

FURTHER CONTROL:**Modem Status**

- Reset
- Set offline
- Roaming on/off
- Modem Status information (IMEI, Signal level..)

System Status

- PIN/PUK
- C/E Description
- Roaming on/off
- Contract or pay as you go data package

System Control

- Limit for signal Level
- Limit for network technology
- Limit for BER (bit error rate)
- Limit for latency