# Intellian

# X130D PM

## AUTO-SWITCHING
### DUAL-BAND MILITARY MARITIME VSAT



## FEATURES

### KU / KA AUTO-SWITCHING SYSTEM

X130D PM provides seamless connectivity and eliminates manual intervention required by conventional terminals to convert between Ku- and Ka-band. The dual-band antenna automatically changes between Ku-band and Ka-band operation, providing an enhanced user experience and communication redundancy.

### 2.5GHZ WIDE KA-BAND SUPPORT

The X130D PM has a full range-optimized reflector and radome supporting high speed Ka-band services, which covers the entire commercial Ka 2.5GHz wide frequency band range. X130D PM supports dual-polarization and can transmit and receive both LHCP and RHCP of Ka-band circular polarization.

### DESIGNED FOR MILITARY APPLICATION

The X130D PM is specially designed for use in military applications and meets required specifications, including FCC, ETSI, MIL-STD-810H and MIL-STD-461G. Hence, it is able to operate and survive in the harshest sea environment, providing reliable communications during military operations.

### HIGH POWER UPGRADABLE

The X130D PM provides a wide range of options in terms of BUC power. The Ku band supporting up to 40W, the system with XCVR can use dual polarization for both Tx and Rx with several possible topologies.

### GEO/MEO/LEO TRACKING CAPABILITY

Based on proven antenna design and multi-orbit tracking capabilities, the X130D PM is future proof, providing optimal performance on both existing and new NGSO constellations. The X130D PM can operate on both SES Classic O3b constellation and their new mPOWER constellation. The X130D is designed to be ready for all GEO, MEO, and LEO constellations.

### FIBER OPTIC SOLUTION

Fiber optic solution for X130D PM is based on our extensive fiber optic experience, resulting in minimal signal loss regardless of cable length. It enables greater bandwidth capability compared to a coaxial cable connection between the ADU and the BDU. The Fiber optic solution is ideal for high throughput installations and allows for quicker and easier installations.

### ANTENNA MANAGEMENT PLATFORM

Intellian's all new integrated M&C platform, AptusNX provides responsive web user interface to manage and control the antenna system regardless of device types. AptusNX includes an intelligent installation Wizard to simplify system configuration so that users can become connected faster than ever before. The platform also includes diagnosis function which enables accurate and enhanced antenna performance checks both on-board and remotely. This reduces the need for on-board maintenance and improves performance.

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# X130D PM

## TECHNICAL SPECIFICATIONS

### ABOVE DECK UNIT

| | |
|---|---|
| Radome Height x Diameter | 172.4 cm / 67.87" x 168.1 cm / 66.18" |
| Reflector Diameter | 125 cm / 49.21" |
| Weight | 180 kg / 396.83 lbs |
| Azimuth Range | Unlimited |
| Elevation Range | -20° to 115° |
| Cross-level Range | ± 37° |
| Stabilization Accuracy | 0.2° peak mispointing @max ship motion condition |

| | Ku | Ka |
|---|---|---|
| Tx Frequency | 13.75~14.5 GHz | 27.5~30.0 GHz |
| Tx Gain | 42.7 dBi @14.0 GHz | 48.5 dBi @28.8 GHz |
| Rx Frequency | 10.7~12.75 GHz | 17.7~20.2 GHz |
| Rx Gain | 41.7 dBi @11.85 GHz | 45.5 dBi @19.0 GHz |
| G/T | 20.4 dB/K (@11.85 GHz, 30°EL) | 21.0 dB/K (@19.0 GHz, 20°EL) |
| RF Power | 8W/16W/25W/40W BUC | 20W XCVR |
| Polarization | Linear (Cross & Co Pol) | Circular (RHCP & LHCP) |
| Antenna Cable | Dual 50 ohm Coaxial Cable | |

### BELOW DECK TERMINAL

| | | |
|---|---|---|
| Temperature | Operational | -25 °C to +55 °C, Power On (IEC-60945, MIL-STD-810H) |
| | Survival | -40 °C to +80 °C, Powered On and a non-functional state (IEC-60945) |
| Vibration | Operational | IEC-60945, MIL-STD-810H |
| | Survival | IEC-60721-3-6 Class 6M3 DNV Standard No. 2.4, Class C MIL-STD-810H |
| Shock | Operational | IEC-60068-2-27 Method Ea 20 g, 7 ms MIL-STD-810H |
| | Survival (Transient) | IEC-60721-3-6 Class 6M3 type II 30 g, 6 ms MIL-STD-810H |
| | Survival (Bump) | IEC60721-3-6 Class 6M3 25g/6 ms MIL-STD-810H |
| EMI / EMC | | MIL-STD-461G |

### BELOW DECK TERMINAL

| | |
|---|---|
| Dimensions (WxDxH) | 43.1 cm x 39.0 cm x 4.4 cm / 16.97" x 15.35" x 1.73" |
| Weight | 6.0 kg / 13.23 lbs |
| Display | OLED Display |
| Gyrocompass Interface | NMEA 2000, NMEA 0183 |
| Mediator Interface | Ethernet port / RS-232C / I/O Console |
| Remote Management | Yes |
| Wi-Fi Operation | Yes (w/ Wi-Fi dongle) |
| Management Port | Yes |
| Intellian LAN Port | Yes |
| Power Requirement | 100 ~240 VAC, 50~60Hz, 3A |

## SYSTEM DIMENSION

**ADU**



## SYSTEM DIAGRAM



## SYSTEM DIAGRAM (NGSO SOLUTION EX. O3B)



NGSO Modem (Not Supplied by Intellian)

### Global HQ
Innovation Center
Intellian Technologies, Inc.
T +82 31 379 1000

### APAC
Seoul
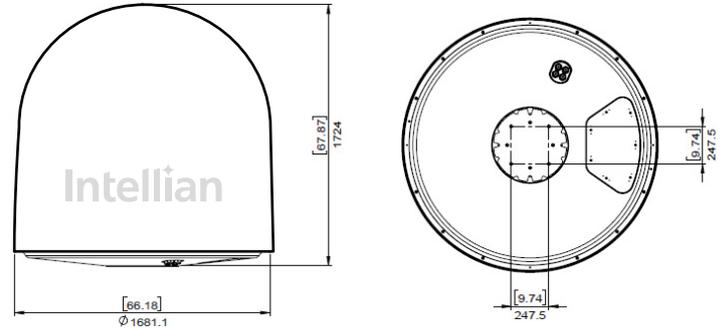Intellian Technologies, Inc.
T +82 2 511 2244

### Americas
Irvine
Intellian Technologies USA, Inc.
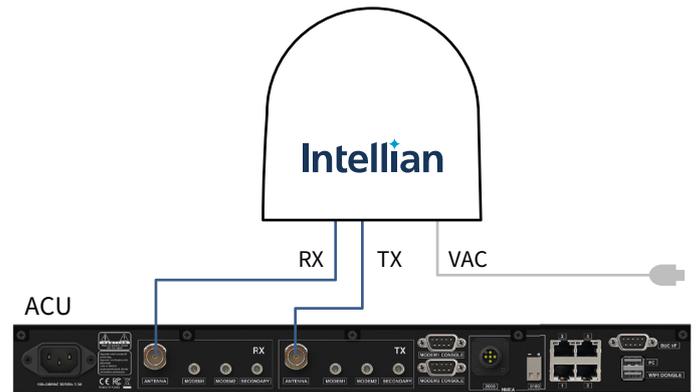T +1 949 727 4498
Toll Free +1 888-201-9223

### EMEA
Rotterdam
Intellian B.V.
T +31 1 0820 8655