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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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

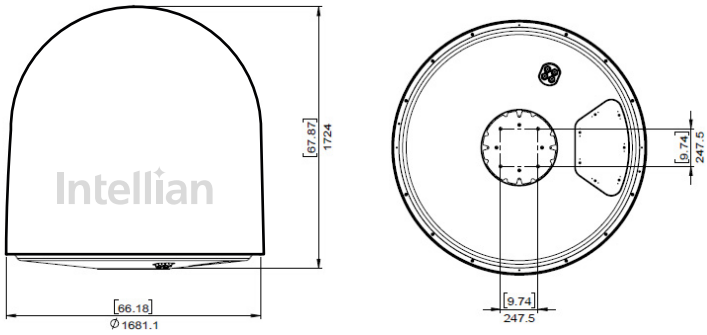
Temperature	Operational	-25 °C to +55 °C, Power On (IEC-60945, MIL-STD-810H)
	Survival	-40 °C to +80 °C, Powered On and a non-functional state (IEC-60945)
Vibration	Operational	IEC-60945, MIL-STD-810H
	Survival	IEC-60721-3-6 Class 6M3 DNV Standard No. 2.4, Class C MIL-STD-810H
Shock	Operational	IEC-60068-2-27 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

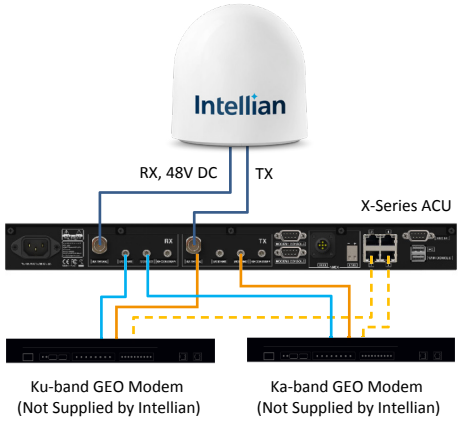
Dimensions (WxDxH)	43.1 cm x 39.0 cm x 4.4 cm / 16.97” x 15.35” x 1.73”
Weight	6.0 kg / 13.23 lbs
Display	OLED Display
Gyrocompass Interface	NMEA 2000, NMEA 0183
Mediator Interface	Ethernet port / RS-232C / I/O Console
Remote Management	Yes
Wi-Fi Operation	Yes (w/ Wi-Fi dongle)
Management Port	Yes
Intellian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

SYSTEM DIMENSION

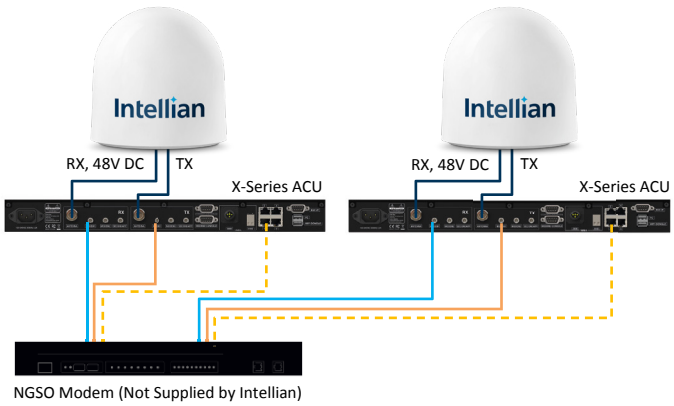
ADU



SYSTEM DIAGRAM



SYSTEM DIAGRAM (NGSO SOLUTION **EX. O3B**)



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