

Intellian

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IRIDIUM CERTUS®
Maritime Terminal



FEATURES

THE MOST POWERFUL IRIDIUM CERTUS TERMINAL AVAILABLE

The Intellian C700 uses the most powerful 12 patch phased-array antenna to deliver the highest performing and most reliable Certus® terminal, especially at low angles of elevation, which is critical in a maritime environment. The C700 provides the highest IP data speeds of up to 704 Kbps, and the H2 class high power amplifier supports uplink data speeds up to 352 Kbps as standard. Customers will gain both scalability and advanced performance over the Certus network whenever needed.

BEST-IN-CLASS FEATURES AND VALUE

The C700 delivers unparalleled features and value to users at both a technology and operational level. The C700 offers a variety of features such as three high-quality voice lines, a built-in firewall, 3G/LET WAN port, and soft PBX. These technical capabilities and GMDSS readiness make it ideal for both vessel operations and crew welfare services. It's easy to install and simple configuration, combined with Intellian's ability to ship from global logistic centers provides a lower cost of shipment and installation for customers and increased flexibility. The industry leading 3 year warranty policy and global service partners provide customers with reassurance and dependable communications wherever they operate.

A PERFECT VSAT COMPANION SOLUTION

Intellian is the No. 1 maritime VSAT manufacturer and global market leader. All Intellian C700 terminals are optimized as VSAT companion devices and can be delivered as a turnkey solution with a rack mount version available. The combination of Intellian's innovative VSAT Ku-band products, including the NX Series and the C700 system provide access to the most advanced and reliable connectivity products available. The C700 capabilities provide a more seamless connection and user experience when switching from VSAT. The Aptus platform provides advanced management and control for remote support and diagnostics, including easy to use API's, making it ideal as a VSAT out-of-band management solution

SYSTEM HIGHLIGHTS

- The Most Powerful 12 Element Patch Phased-Array Antenna
- H2 Antenna Amplifier for 352 kbps uplink service
- Excellent low elevation angle performance handling heavy ship motion
- Easy installation and simple configuration
- Single Coaxial Cable Antenna Connection
- Built-in Firewall and User Threat Management
- GMDSS Ready
- Three simultaneous high quality voice lines
- 4-Port Ethernet (LAN) PoE and WAN
- Connection up to 16 SIP phones with Soft PBX function
- Designed for minimum 10-year operational lifetime
- 3-Year Global Warranty - Parts and Labour

C700

New Iridium Certus® Terminal for Iridium®

IRIDIUM SERVICES

Voice	3 simultaneous HD voice lines
IP Data (Background)	Uplink: up to 352 Kbps Downlink: up to 704 Kbps
IP Streaming	Uplink/Downlink: up to 256 Kbps
Short Burst Data	Yes

PHYSICAL

ADU Dimensions	370 x 270 mm / 14.5" x 11.0"
ADU Weight	7.3 kg / 16 lb
BDU Dimensions	280 x 183.5 x 41 mm / 11" x 7.2" x 1.45"
BDU Weight	1.2 kg (stand-alone type) / 2.6 lb

POWER

DC Input	10.8 ~ 30 V DC
Power (max)	120 W

RF / ANTENNA

Tx Frequency	1616 MHz ~ 1626.0 MHz
Rx Frequency	1616 MHz ~ 1626.5 MHz
Antenna Gain	HGA 2 Class
Antenna Connectors	TNC female (ADU) – TNC female (BDU)
GNSS	GPS, GLONAS, Galileo
Wi-Fi	802.11 b/g

APPROVAL

Type Approval	CE/RED, FCC
Certifications	Iridium

ENVIRONMENTAL CONDITIONS

Operating Temp. range	ADU: -25°C ~ +55°C, BDU: -15°C ~ +55°C
Operating Humidity range	More than 95%
Water Ingress	ADU: IP56, BDU: IP31
Shock & Vibration	Shock: IEC60068-2-27 (operation), IEC60721-3-6 Class 6M3 (survival) Vibration: IEC60945 (operation), IEC60721-3-6 Class 6M3 (survival)

I/O

LAN	3 x RJ45 (2 PoE)
WAN	1 x RJ45
Analog Phone	1 x RJ14 (2 x Analog Phone)
Wireless	1 Wi-Fi (SMA RP)
I/O	10 pin GPIO
Etc.	SIM, Reset, On/Off, Ground

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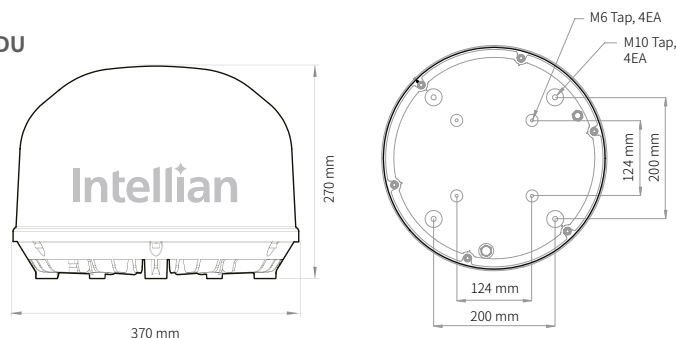
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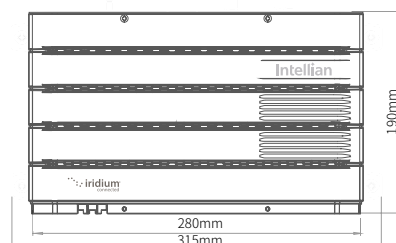
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SYSTEM DIMENSION

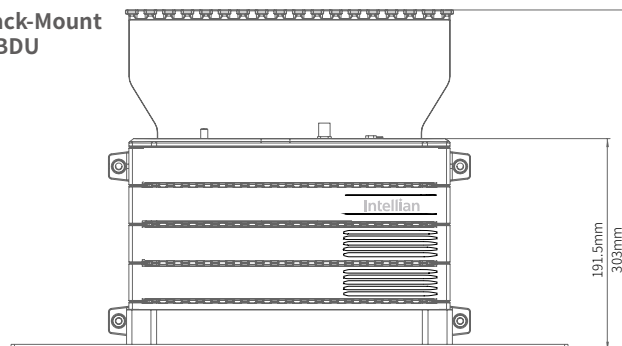
ADU



Stand-Alone Type BDU



19" Rack-Mount Type BDU



SYSTEM DIAGRAM



Certus 700 Hardware Comparison

Intellian C700 vs Cobham 4300 vs Thales VesseLINK

Comparison Table	Intellian C700	Cobham SAILOR 4300	Thales VesseLINK
Standard Data Speed	Up: 352 kbps	Up: 176 kbps	Up: 352 kbps
	Down: 704 kbps	Down: 704 kbps	Down: 704 kbps
Streaming Data Speed <i>(when available - TBC)</i>	Up to 256 kbps	Up to 128 kbps	Up to 256 kbps
Voice Calls	3 x Standard/HQ	3 x Standard/HQ	3 x Standard/HQ
Weight	7.3 kg (ADU) / 1.2 kg (BDU)	8 kg (ADU) / 3.2 kg (BDU)	2.8 kg (ADU) / 3.4 kg (BDU)
Operating Temp. range	-25 to +55°C	-25 to +55°C	-60 to +55°C
IP Rating	IP56 (ADU) / IP31 (BDU)	IPX6 (ADU) / IP31 (BDU)	IP67 (ADU) / IP31 (BDU)
Location tracking (IRIS)	No (No)	No (No)	Yes (Yes)
Firewall	Yes	No	Yes
Analogue Interface	2 (via single RJ14)	None	2 (via single RJ14)
LAN Interfaces	4 RJ45, 2 PoE Class 2.	4 RJ45, No PoE	3 RJ45, Class 2 PoE
WAN Interface	1 RJ45 (1 out of 4 RJ 45, re-configurable)	None	1 RJ45 (fixed port)
GPIO (General-purpose input/output)	10 lines	1 I/O	15 pin (RS-232, +12V out, DISTRESS, Radio Gateway, GPIO)
Power over Ethernet (PoE)	Yes	No	Yes
VoIP Codec support	G711, G722, G723, G729, GSM	G 711	G 711
Soft PBX	16 x SIP + 2 x POTS (18 in total)	No	3 in / 3 out (mix of SIP & POTS); 'unlimited' number of telephone lines (extns)
Wi-Fi built-in	Yes	No	Yes
BCX location	ADU	ADU	BDU
Antenna Class	H2	H1	H2
Antenna Type	Conformal Patch (12 element)	Conformal Patch (7 element)	Planar Helix
ADU BDU Cable	100 m (LMR-400); longer lengths achievable.	100 m (RG214/U)	Up to 100 m (LMR-900)
	NOTE: maximum 13.5 dB loss at 900 MHz and 1.3 Ohm DC loop)	NOTE: maximum 10 dB loss at 80 MHz and 1.8 Ohm DC loop)	NOTE: maximum 10 dB loss at 1625 MHz)
Antenna mount – These mounts can <i>potentially</i> * be re-used	<ul style="list-style-type: none"> FBB 500 versions B and later (outside 4 mounting holes in antenna base) FleetOne, FBB 150, and FBB 250 (inside 4 mounting holes of antenna base) 	<ul style="list-style-type: none"> Not compatible with other bolt patters such as FBB or FleetOne. 	<ul style="list-style-type: none"> FBB 500 versions B and later (outside 4 mounting holes in antenna base) FleetOne, FBB 150, and FBB 250 (inside 4 mounting holes of antenna base)
Antenna cables – These cables can <i>potentially</i> * be re-used	<ul style="list-style-type: none"> FBB Power Cables 	<ul style="list-style-type: none"> FBB Power Cables 	<ul style="list-style-type: none"> FBB Power Cables
<i>* dependant on quality, condition, length and type of existing mounts/cables; no guarantee can be made they are re-useable, and the responsibility would lie with the end user and/or the installer.</i>			
Warranty	<ul style="list-style-type: none"> Standard: 3 years Extended: up to 2 years extended (1-year increments) Combined max.: up to 5 years. 	<ul style="list-style-type: none"> Standard: 3 years Extended: up to 2 years extended (1-year increments) Combined max.: up to 5 years. 	<ul style="list-style-type: none"> Standard: 2 years Extended: up to 3 years extended (1-year increments); Combined max.: up to 5 years.