Starwin 1.2m DBS Band Maritime Antenna Datasheet

Introduction:

Starwin SW12DBS 1.2m DBS band maritime VSAT, uses the combination of high precision navigation sensor and signal intensity tracking, and embedded GPS module, the antenna can automatically search, identify and lock satellite signals. Even if ships cruise in harsh sea conditions, they can also ensure the stability of transmitting and receiving signals. Reliable communication can be established and maintained for vessels on extreme conditions. This system can realize two-way real time transmission of voice, data and image and others.

The system is used the three-axis stabilization method, and it can be applied to offshore and inland ships, or offshore platform.

Features:

- High Precision Stability: Built-in antenna MEMS gyro and accelerometer, through GPS to get location information, MCU calculates the azimuth angle, pitching angle and polarization angle, it can make rapid locking satellite; Processing sensor data using adaptive Kalman filter; High resonant frequency of mechanical frame ensure the controller software frequency.

China Starwin Science&Technology Co., Ltd.
Tel:+8629-88664381,E-mail:sales@starwincom.com,http://www.starwincom.com

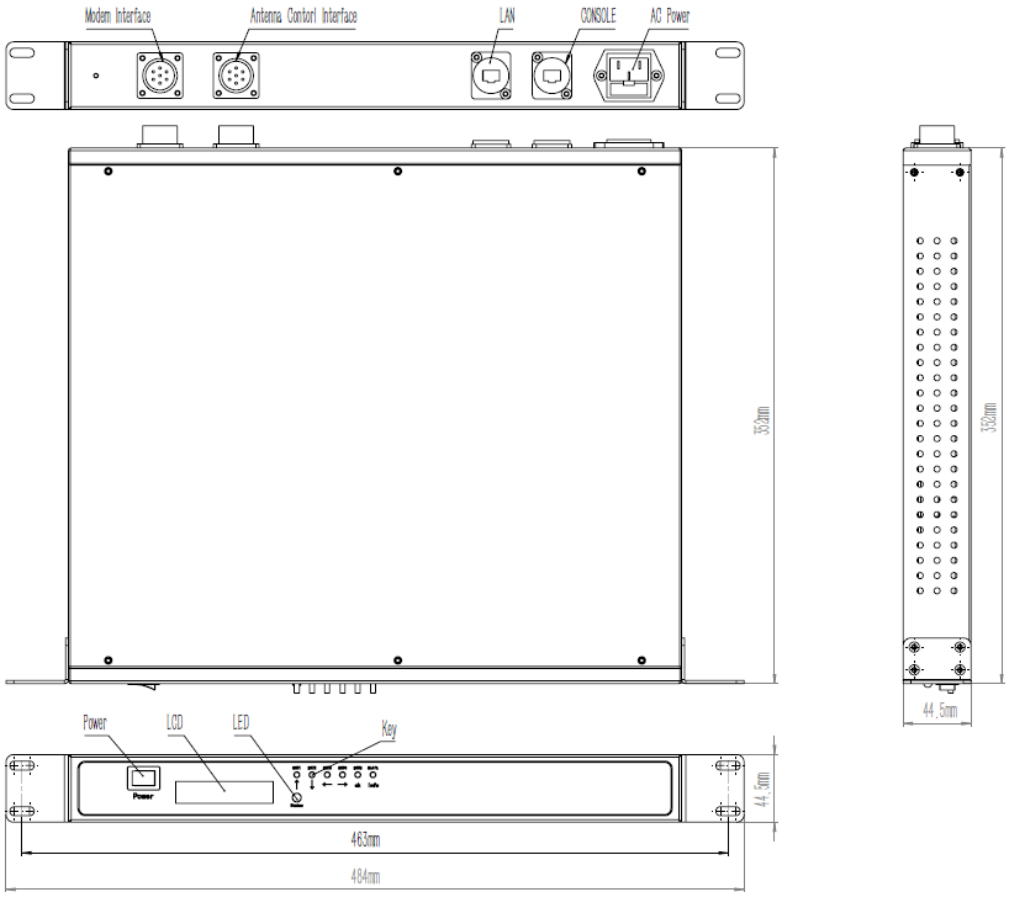
- Automatic Polarization Control: According to the GPS, the controller continuously updates the polarization angle, and completes the optimal control of the polarization angle. This function is ideal for ships with east-west routes.
- Worldwide: In order to adapt to different satellite system, the antenna controller can be adapted to many satellites protocol for worldwide range.
- Reliable Quality: Using industrial grade components, to ensure the reliability of components; Built-in coordinate transformation module, PID module and stable core module, the control software frequency is more than 200Hz; temperature press test within the production process.

Technical Specification：

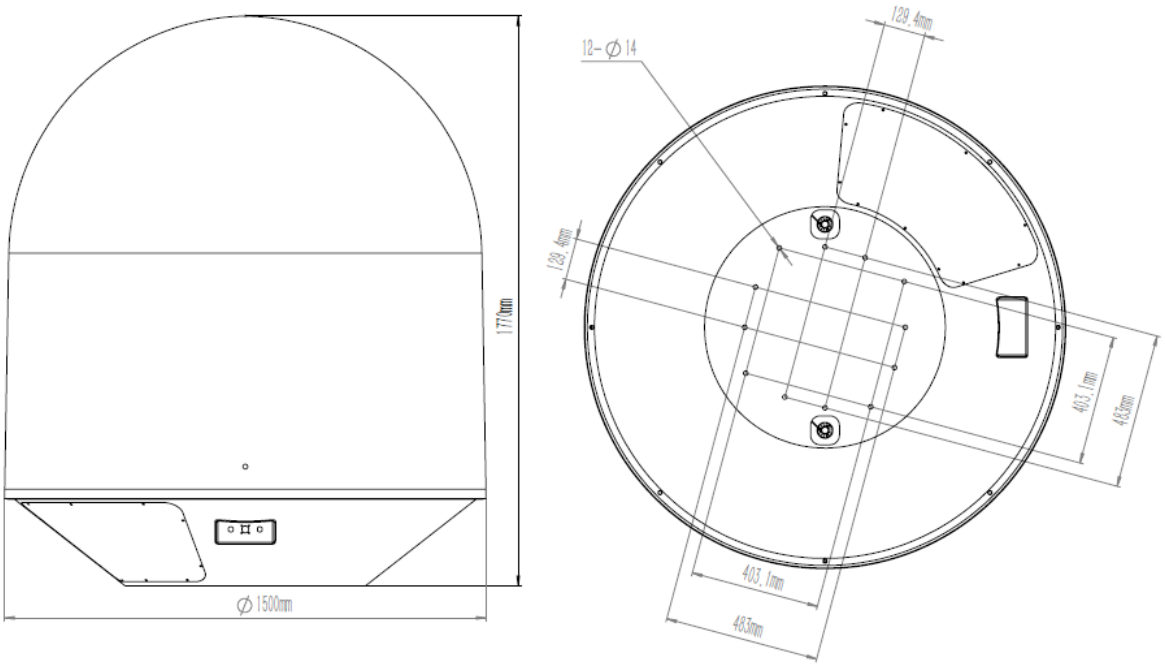
Series	1.2m
Antenna	1.50m×1.50m×1.77m
Radome	98Kg
Weight	38dBW
Frequency Range	Tx: 17.3-18.4GHz Rx: 10.7-12.75GHz
Gain	Rx: 40.5dBi@11.80GHz Tx: 43.7dBi@18.05GHz
Isolation	Tx - Rx: ≥85dB; Polarization: ≥35dB
First Sidelobe	<-14dB
Max Track Speed	60°/s
Antenna Type	Ring Focus
Track Method	3axis+auto skew
Pitch	-15~115°
Roll	-35~35°
Polarization	±90°
Operate Temperature	-40~+85℃
Point Accuracy	±0.1°

*BUC Power	○3W ○6W ○8W ○16W ○25W ●40W
* Polarization	●Line only ○Circular only
*Signal	●Beacon ●DVB
*LNB Lo	○11.3G ○10.75G ○10.5GHz ●10.6/9.75GHz ○5.15GHz ○5.75GHz○Other__
* Radome Material	○Nomal (loss 0.8dB) ●Composite (loss 0.3dB) ○Other__

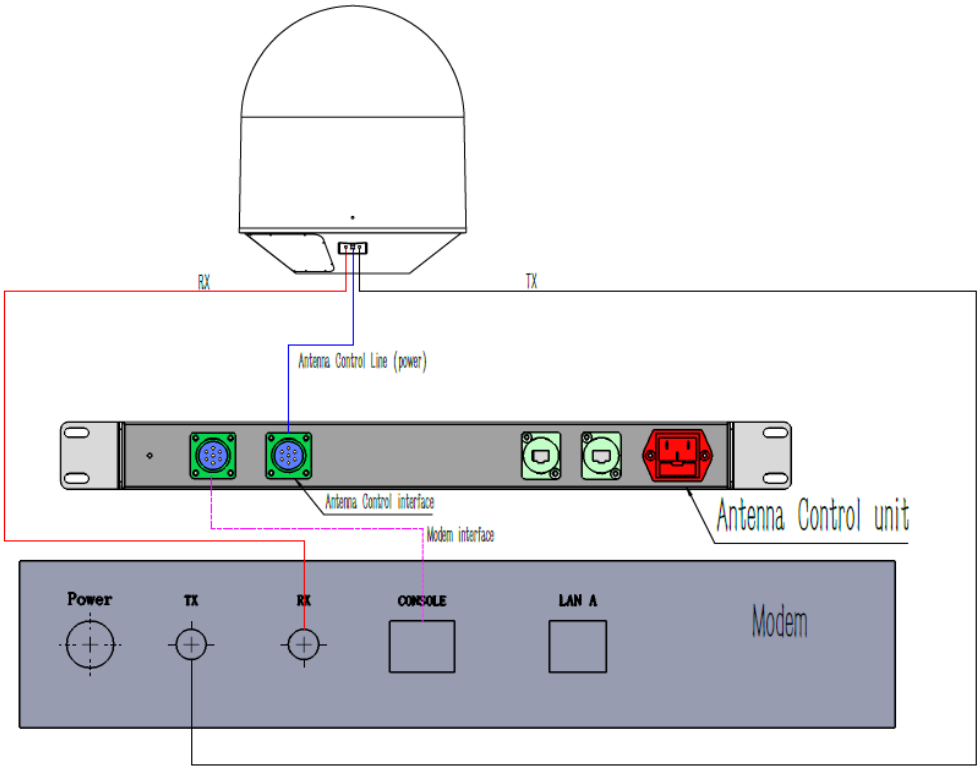
Indoor Unit:



Outdoor Unit:



System connection block diagram:



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