

**Manufacturer:**

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**Antenna model:**

SAILOR 900 VSAT 407009B-00500  
and 407009E-00500

**Antenna aperture dimensions:**

1.03 m

**Standard:**

M

**Characterization date:**

30-04-2013

**Last update:**

19-01-2017

**System Description:**

Stabilised maritime antenna – ring focus Gregorian configuration – Sandwich foam pre-preg layers radome. Three axis stabilization platform with conical RF tracking.

BUC 407009B-0500 NextGenWave 8W rating  
407009E-0500 NextGenWave 20W rating

LNB Philtech  
OMT Thrane & Thrane TT 60-131011

**Models Characterized:**

Standard configuration: linear orthogonal polarization with co-polarized or cross-polarized signal reception option.

**Maximum Allowed EIRP:**

For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):

39.8 dBW / 40 kHz for an orbital separation of the adjacent satellite  $\geq 2.5^\circ$

39.6 dBW / 40 KHz for an orbital separation of the adjacent satellite  $\geq 2.0^\circ$

35.6 dBW / 40 kHz for an orbital separation of the adjacent satellite  $\geq 1.5^\circ$

**Tx Frequency:**

13.75 – 14.50 GHz

**Rx Frequency:**

10.70-12.75 GHz

**Tx Gain:**

41.1 dBi (typical at 14.25 GHz)

**Rx Gain:**

40.2 dBi (typical at 11.7 GHz)

**Tx XPD:**

>30 dB within -1 dB contour

**Rx XPD:**

>30 dB within -1 dB contour

**G/T (measured with radome)**

19.9 dB/K @ 12.75 GHz 30 ° Elevation

**Remarks:**

1-The manufacturer states that the RMS pointing error is less than  $0.20^\circ$  for the following ship motions:

Roll =  $30^\circ$  in a period of 6 sec

Pitch =  $15^\circ$  in a period of 4 sec

Yaw =  $10^\circ$  in a period of 10 sec

2-The RF performance characterization was performed on one antenna unit with radome, at the France Telecom test range of La Turbie, France on the 18-20 April 2013.

3-Thrane & Thrane has inserted in the ACU software a look-up table with the polarization skew of the Eutelsat satellites, to protect against the mishandling of polarization skew values by installers.

4-The characterization's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standards.

**Restrictions:**

The use of Rx band 10.7 to 10.95 GHz may be subject to impairments because the isolation of the sidelobes at  $3^\circ$  from the boresight is less than 20 dB at 10.70 GHz (17.8 dB). Nevertheless these operations may be exceptionally authorized according to a valid Eutelsat transmission plan.