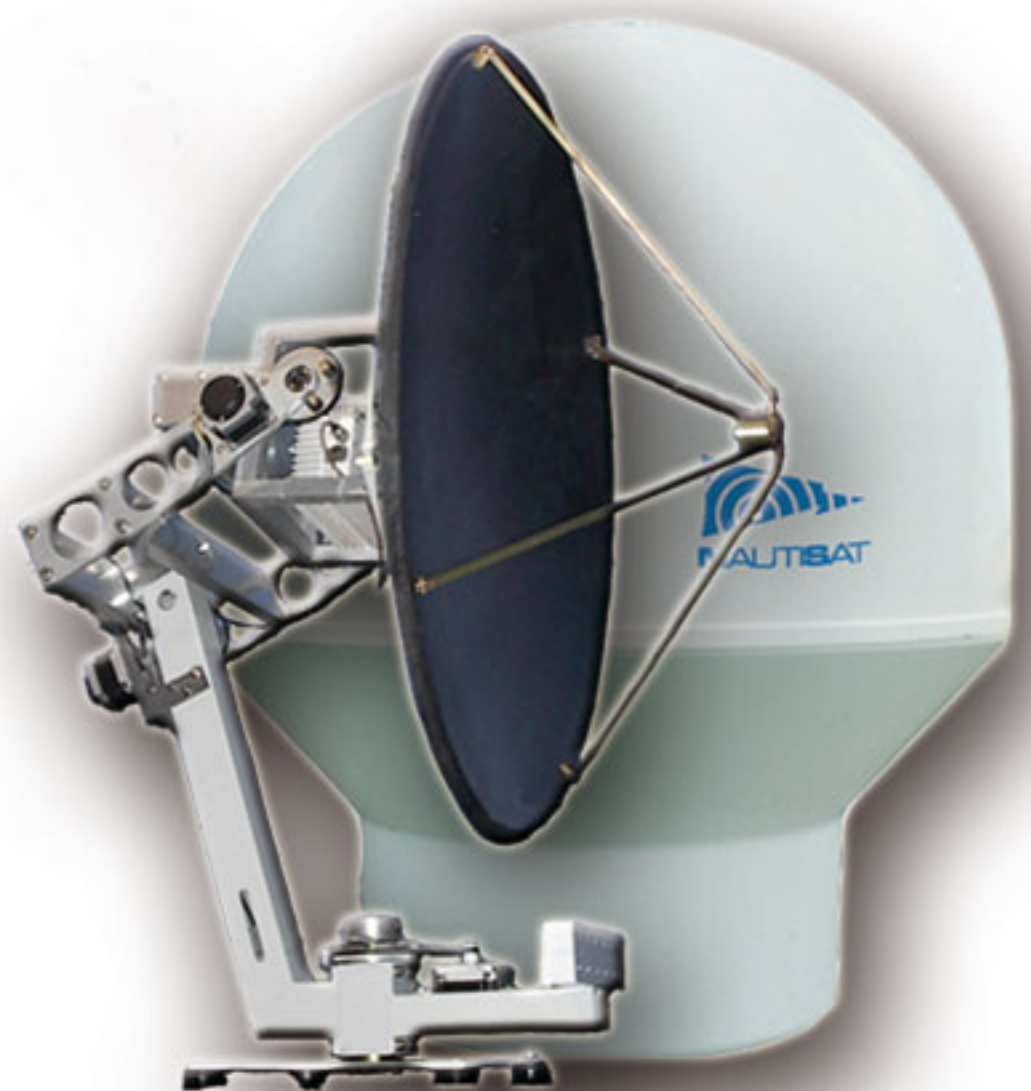


# VSAT 120 - KU

Eutelsat temporary approval for class M for the Type Approval



Vsat models are designed to transmit and receive Internet, Voip, Fax, E-Mail, Weather Info, High Broadband Data, AV conferencing, Virtual Private Networks (VPNs), and database backup.

Nautisat Vsat Models guarantee an excellent tracking performance and allows to use the maximum receive and transmit power.

Vsat is perfect solution for all range of vessel, from ocean going vessels to small yacht, for Oil and Gas platform or Cruise and Cargo Ships, that require "always-on" broadband satellite communications.

The models start from 60 cm of dish to 360 cm, and are configured with Ku-Band only version, in combined Ku-Band/C-Band or in C-Band only.

Nautisat Vsat antenna systems designed specifically for maritime use, and is stabilized to withstand extreme marine environments.

Nautisat - Connecting Fleet

## VSAT 120 STABILIZED TRANSMITTING/RECEIVING KU BAND ANTENNA

### TECHNICAL DETAILS (FOR STANDARD CONFIGURATION RX/TX-120Ku) ANTENNA

#### PARAMETERS:

Dish Diameter 1,20 m  
Radome Diameter 1,40 m  
Parabolic Dish Nautisat single piece 1,2m carbon fiber composite material  
Above deck equipment mass 110 Kg  
Type Prime Focus, front fed configuration and feed with mode generator  
Frequency band Ku  
Transmit frequency 13.75 GHz - 14.50 GHz  
Transmit gain 43 dBi (typical at 14.25 GHz)  
Transmit XPD >30 dB within the mainlobe -1 dB contour  
Transmit beamwidth +/- 0.64°  
Receive frequency 10.70 GHz - 12.75 GHz  
Receive gain 41 dBi (typical at 11.7 GHz)  
G/T 20.0 dB/K (typical at 11.7 GHz)  
Pointing losses < 0.5 dB  
Sidelobe patterns compliant with Eutelsat EESS 502 for standard M  
Polarization error < 0.1°  
Worldwide Feed option Yes

#### STABILIZATION:

Stabilization type Active on three axis, with inertial reference and conical scan tracking  
Motors Type Brushless servomotors

#### Operation angles

Elevation -30° + 120°  
Tilt +/- 30°  
Azimuth unlimited (with slip ring)

#### Ship Movement

RMS pointing error 0.08° for the following ship maximum velocity and acceleration.  
Roll +/- 30° in 6 sec.  
Pitch +/- 30° in 6 sec.  
Turning rate up to 15°/s  
Speed up to 50 knots  
Tracking accuracy +/- 0,1°

#### RADOME

Type two pieces, diam. 1,40m  
Material foam/fiberglass sandwich  
Attenuation No rain 0.2 dB

#### ENVIRONMENT

Above deck  
Temperature -20°C to +55°C  
Humidity up to 100% at +40°C  
Spray and icing Radome protected  
Protection water splash resistant from every direction  
Rain up to 100 mm/h with reduced performance  
Wind 130 Knots  
Corrosion metal part hot dip galvanized; all components selected for marine usage  
Vibration Meets Inmarsat requirements

#### Below deck

Temperature 0°C to + 40°C  
Humidity Up to 100% R.H. at + 40°C

Power Requirement 220V, 50-60 Hz, 30W



**NAUTISAT**  
connecting fleet  
over the seas

### VSAT Models:

- Vsat 60 Ku
- Vsat 90 Ku
- **Vsat 120 - KU**
- Vsat 200 Ku
- Vsat 200 Ku + C
- Vsat 200 C
- Vsat 240 Ku + C
- Vsat 240 C
- Vsat 300 Ku + C
- Vsat 300 C
- Vsat 360 Ku + C
- Vsat 360 C

CNC Machined Aluminium and Stainless Steel modular structure

Maximum transceiver efficiency with the class M Eutelsat certified prime focus RN Feed optics

3 axis stabilization system with independent skew

Extra wide pointing range with elevation spacing from -30 to +120 degrees and tilt from -30 to +30 degrees

Extreme component standardization and maintenance simplicity

Extremely easy to install and operate

Automatic satellite pointing and identification

Rugged, accessible and transparent to radio frequency radomes

Maximum system integrability

Remote control interface through LAN or over internet