



C2SAT 1.2m Ku-4M

Optional: L, S, C, X, Ku & Ka-band

C2SAT introduces a mini VSAT named C2SAT 1.2m Ku-4M, a new low weight 4-axes military and commercial high performance Stabilised Antenna Systems for **Always On – Not Almost Always On** mobile broadband communication.

Smaller meter and sub meter reflectors in all frequency bands can be mounted into the same stabilised robot.

- **Sub meter to 1.2m dishes in one rig**
- **No critical static balancing of axes**
- **Zenith Passage without X-pole losses**
- **Larger coverage at sea at same dish size**



Same excellent performance

C2SAT's four axes mini VSAT model, C2SAT 1.2m Ku-4M, features a less than 100 kg stabilisation robot boasting of the same excellent performance as full size C2SAT 1.2m Ku version.

C2SAT 1.2m Ku-4M still has the patented four axes enabling shorter geometric path and less rotation torque for each axis. The fourth axis also solves the zenith paradox at high reflector elevations during dynamic conditions, i.e. when a vessel rolls back and forth and the satellite is seen alternatively from North and South. C2SAT's patented software servo system and gradient tracking remain the same.

Optimising the mechanics for small sized Block Up Converters enables the low weight design.

All in one system

C2SAT's new worldwide-patented automatic stabilised antenna system provides real two-way broadband satellite communication, making full utilisation of the available bandwidth possible. The system permits always-on-services such as monitoring services, SCADA via web-clients, Wi-Fi, Internet, Voice over IP, GSM on board, ATM, Credit Card Validation and other bank services, video monitoring, video conferences, video telephony and Live Video transmission, E-mail, TV, or customer-tailored services, all simultaneously in one system.

Get the bandwidth paid for

C2SAT's system makes it possible to increase the number of terminals in the off shore network, utilising the same satellite link. Since the traffic fees are based on a maximum bandwidth, it is interesting for every IT manager in any fleet to carefully examine a C2SAT solution. Interactive communication between vessels, oil & gas rigs, LNGs or FPSOs in a fleet, and the office ashore can considerably benefit from C2SAT's system.

C2SAT gradient tracking system identifies and finds any selected satellite within 6 seconds. DVB or DVB-S2 identification is optional.

C2SAT's system is patented.





Technical Specifications

C2SAT 1.2 m Ku-4M (Standard Configuration)

Feature	Specification data
Stabilisation Type	4-axes gimbals servo low inertia belt drive
Reflector Diameter	1.2 m (Optional: Sub meter up to 1.2 m)
Frequencies	Rx : 10.95 – 12.75 GHz (Optional: all frequency bands) Tx : 14.0 – 14.5 GHz (Optional: all frequency bands)
Antenna Type	Prime Focus
Antenna Gain	Rx : 40.7 dBi min Tx : 42.9 dBi min
VSWR	1.3 : 1
Cross Polarisation	Rx : > 35 dB Tx : > 35 dB
Isolation Tx/Rx (without transmit reject filter)	30 dB
Filter Rejection	55 dB
EIRP (U/L typical @ 4W PA)	46 dBW
Signal Polarisation	Linear / Circular
Tracking Accuracy	0.1dB
Antenna Movement, azimuth (z)	Continuous (Slipring)
G/T (@ 20° elevation, typical)	21 dB/K
Ship Motion	± 30° per 8 s in pitch, roll and yaw (Dynamical limit)
Antenna Movement, polarisation (pol)	± 120°
Rotational Speed	100 degrees / s (nominal)
Rotational Acceleration	100 degrees / s ² (nominal)
Sensors Internal Drift	0.001 degrees/s (sample measured per hour)