

C2SAT





About C2SAT

C2SAT, established in 2000 and headquartered in Solna, Stockholm, Sweden, develops, manufactures and supplies innovative stabilised maritime VSAT antenna systems enabling vessels in motion on-line two-way satellite broadband communication. C2SAT is pushing reliability, precision and accuracy one step forward by introducing a series of four axis military and commercial high performance stabilised antenna systems for always on connectivity. By adding the fourth axis the C2SAT system solves high elevation problems and enables accuracy and high speed even during dynamic conditions.

The need for more bandwidth is dramatically increasing on land as well as at sea. C2SAT is aiming to capture and sustain a leading position on the maritime VSAT market by increasing the connectivity of broadband services via satellite.

C2SAT's business objective is to provide reliable high speed maritime VSAT antennas, reduce the cost of ownership and to improve service quality, making the bandwidth you actually pay for available. Our advanced solutions combine high performance with commercial prices.



A master line of production and the development of production technology was inaugurated in 2005 in Söderhamn, Sweden and additional production line were taken into operation in Singapore during 2010.





C2SAT develops innovative Stabilised VSAT Antenna Systems for the global market. Our aim is to reduce costs for maritime VSAT services making it possible to access the bandwidth paid for in dynamic conditions.

Technology

C2SAT leverages on its innovative 4-axes technology to provide the maritime market with high performance stabilised VSAT antennas. Key features of the products are improved tracking accuracy, precision and the inherent solution to “high-elevation problems” experienced with 3-axis systems. The high reliability makes the C2SAT antennas suitable for use as the main communication connection point as the system can carry large volumes of information without interruptions.

Market

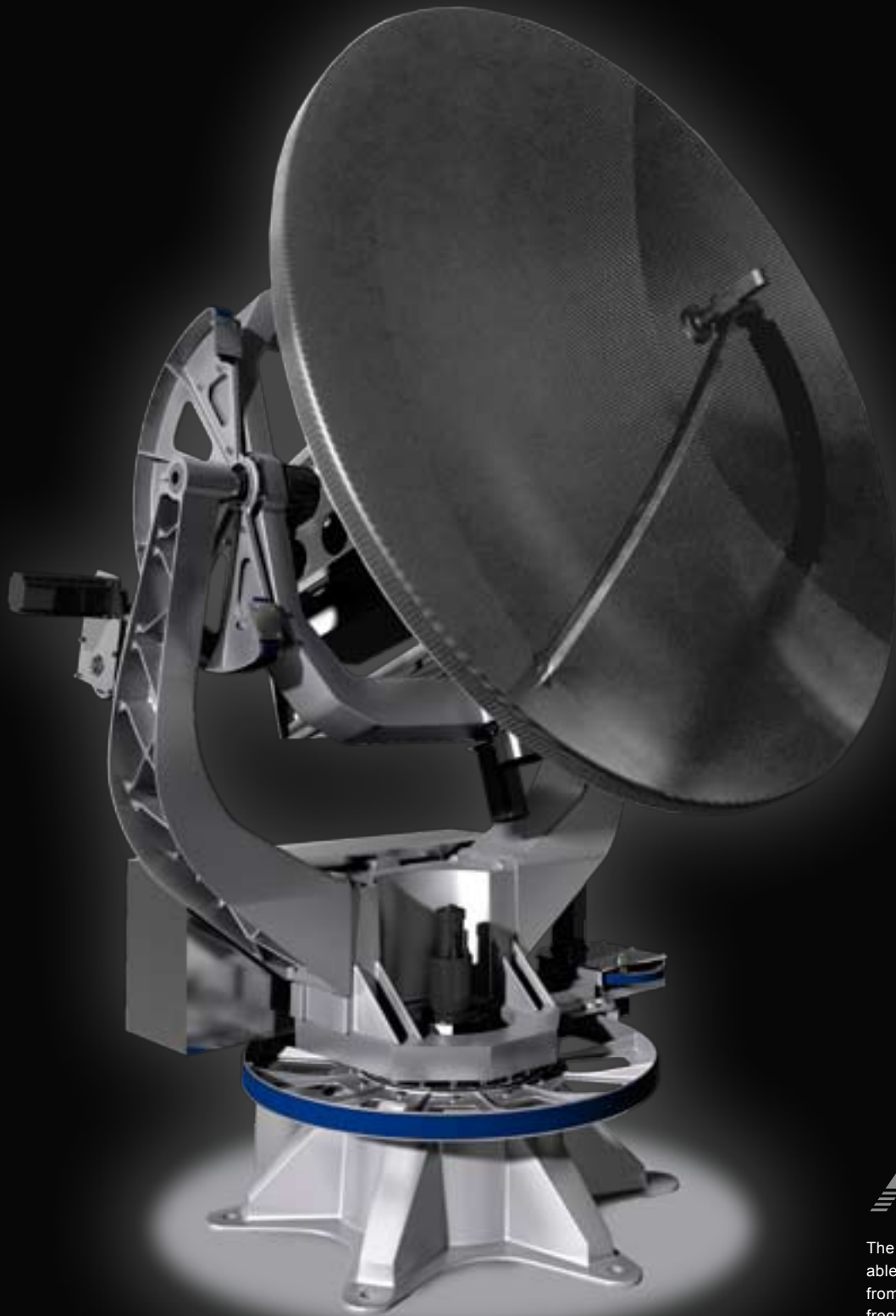
C2SAT distributes its products via a global network of system integrators and service providers. End customers using VSAT antennas range from fishing boats, merchant vessels, seismological marine laboratories, military vessels to yachts. C2SAT set prime focus on the following marine sectors:

- **Oil & Gas, Offshore**
- **Cruise & Ferry**
- **Merchant Vessels**
- **Military applications**
- **Seismological Marine Laboratories**
- **Yachts**

Achievements to date

C2SAT released its first product in line on the market during 2006. The flexibility of the patented 4-axes stabilised mechanical robot made it possible to tailor several solutions on the same basic construction. The 4-axes C2SAT 1.2m Ku-band stabilised antenna has been followed by a C2SAT 2.4m C-band. In June 2010, C2SAT launched C2SAT 1.2 m Ku II, a New Generation Ku-band antenna prepared to handle Automatic Beam Switching (ABS), Remote Monitoring and Remote Maintenance. The new reflector solution is also designed to accommodate both Cross pol and Co pol.





AXTM

The 4 Axes antenna is able to carry reflector sizes from 1,2 m up to 2,4 m, all frequency bands.

Products

C2SAT provides communication solutions based on the patented 4-axes stabilised antenna for reflector sizes up to 2,4m, fitting the same mechanical rig. Simple service and maintenance is inherent to the mechanical design.

Better Accuracy

The system achieves superbly high tracking accuracy only a loss of $\pm 0,1$ dB, comparable to a fixed antenna. The high tracking accuracy, is a result of the systems gradient tracking method, a predetermination tracking parameter and the 4-axes design, where the fourth axis refers to the cross-level elevation.

Faster & Robust System

The system is faster due to the gimbal design with AC motors on each axis, and the gradient satellite tracking method on all 4 axes. This means that it locks on the satellite within 6-8 sec acquisition time, starting from its parking position. Because the gimbal design excludes the balancing counterweight usually necessary in centre pole-based systems, the servomotors on the axes are subjected to less torque. This also leads to lower stress on the mechanical rig plus it makes the installation of our antenna a breeze due to very little balancing needs.

Always On

High elevation problems are experienced with traditional 3-axes systems and occurs in a wide belt around the equator when a vessel rolls back and forth and the satellite is close to zenith. The problem is provoking loss of signal, restarts and down-time. The 4-axes solution designed by C2SAT allows the RF equipment to move freely and to maintain an optimal position towards the satellite without big and sudden movements even during harsh conditions and heavy seas. The 4-axes system does not experience dead angles and does therefore not experience any high-elevation problems.



The C2SAT VSAT antenna provides better pointing accuracy towards the satellite compared to other antennas on the market, resulting in better use of the available bandwidth.



By adding the fourth axis the C2SAT VSAT does not experience any problems with high reflector elevations during dynamic conditions.



C2SAT Radome - designed for extreme environments.

C2SAT Group

Headquartered in Solna, Sweden, with a subsidiary in Singapore, and a Business Support Office in Shanghai, China, C2SAT develops, manufactures and supplies innovated 4-axes maritime stabilised VSAT antenna systems that provide vessels in motion with on-line two-way satellite broadband communication.



C2SAT

Reliable Satellite Communication

4-AXES ENABLES HIGH SPEED AND ACCURACY

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