AAC CLYDE SPACE

PAYLOAD

STS-300

CUBESAT MARITIME AIS RECEIVER

Our next generation AAC SpaceQuest STS-300 AIS Receiver (Ship Tracking System) is a 6-Channel AIS on board processing (OBP) satellite AIS payload capable of receiving more than 1 million AIS messages per day. It's AAC SpaceQuest's 4th generation design leveraging the technical and operational insights gained from developing and flying AIS receivers for the past 7 years. The STS-300 covers all AIS channels in the maritime band, from 156 to 162 MHz. This high performing payload, derived from the flight proven STS-200 is ideal for CubeSat and MicroSat missions with size, weight, and power constraints. This versatile and high-quality AIS Receiver is not only compatible with major AIS-ready navigation systems, but it also comes one easy-to-install package.

KEY HIGHLIGHTS:

- Easy to configure stand-alone AIS receiver
- Low Power S-AIS Receiver
- Derived from High Heritage STS-200
- 6 Independent Frequency Agile Receivers
- Integrated LNA and Bandpass Filters
- Automated Duplicate Message Removal

RELIABILITY

AAC SpaceQuest have flown the AIS receiver's product family for the past 7 years and as such have leveraged the technical and operational insights gained to offer a truly reliable high-performance solution.

PERFORMANCE

This maritime AIS payload is capable of receiving more than 1 million AIS messages per day. This high performance comes with low power requirements.

HERITAGE

The STS-300 has inherited extensive mission knowhow, and innovation accumulated from three previous product generations.

TECHNICAL SPECIFICATIONS

General	
Channel Coverage:	All AIS Channels in Maritime Band (156 to 162 MHz)
Input Voltage:	2.5V – 5.0V DC
Power Consumption:	400mW – 650mW
Data Output:	115 kHz Asynchronous Serial, 3.3 Volt TTL
Mass:	180g (Including Aluminum Enclosure)
Packet Threshold:	-95 dBm at 90% Throughput

RF/IF Characteristics	
Receivers:	6 Independently Tunable FM Receivers
Frequency Range:	156 MHz – 163 MHz Tunable in 1 kHz Steps
IF Bandwidth:	12 kHz or 15 kHz Filter Options
1st IF Image Rejection:	45 dB Minimum @ Frx – 2*18.745 MHz
2nd IF Image Rejection:	43 dB Minimum @ Frx + 2*455kHz
Out of Band Rejection:	> 90 dB Suppression of Signals between 400 and 2500 MHz

Mechanical and Connector Options	
Connector:	104-pin CubeSat Standard or 60-pin Samtec FT5
Enclosure:	Sold With or Without Aluminum Enclosure
Volume:	95.9mm x 90.2mm x 20mm (Cubesat Configuration) 80mm x 85mm x 20mm (Samtec FT5 Configuration)

To make an enquiry, request a quotation or learn about AAC Clyde Space's other products and services, please contact:
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www.aac-clyde.space