

**ANACOM, INC.****AnaSat® - SEC**

SUPER EXTENDED C-BAND VSAT TRANSCEIVER SERIES

125, 150, 180 and 200 WATTS

General Description

AnaCom's series of Super Extended C-band VSAT transceivers are available in transmitter output levels up to 200 Watts, in single or redundant configurations. Output: Waveguide. These transceivers are ruggedly built for continuous outdoor duty in all types of environments. They are especially suitable for SCPC, MCPC, and DAMA applications.

The up converter, down converter, power amplifier, monitor and control and power supply are included in a single enclosure and the only cabling required to the indoor equipment are IF cables. The LNC connects to the transceiver with a single coaxial cable. An ovenized, high stability crystal oscillator is used to lock the TX and RX synthesizers. The onboard microprocessor is used to give additional temperature and aging compensation.

Features

- Built in test facilities for improved maintainability and reduced dependence on external test equipment
- No indoor equipment is needed
- Frequency agile radio equipment. Completely independent TX and RX frequency selection
- Superior phase noise
- Flexible, universal power supply

Flexible Applications

- Rural telecommunications expansion
- Industrial networking
- LAN and WAN extensions
- Data distribution and collection
- Emergency link restoration
- Remote surveillance
- Broadcast
- Conventional voice traffic
- Point-of-Sales systems
- Video teleconferencing

Built in test equipment

To improve and simplify maintenance routines, an external terminal (or computer) can be connected to monitor a number of critical parameters without use of additional test equipment. These include:

- Transmitter power output level
- TX/RX IF input level
- Power supply voltages
- TX/RX synthesizer loop voltages
- Internal Temperature
- Alarm Details

Controllable functions from the terminal include:

- TX frequency and gain (*ON/ODD feature*)
- RX frequency and gain (*independent from TX*)

Comprehensive Monitor & Control

A powerful Monitor & Control feature allows you to monitor and control the transceiver on the same M&C bus with most indoor equipment such as modems and multiplexers. The Monitor & Control system can be used in combination with the unit's internal metering function to monitor operational parameters.

Benefits

- A family of products with significant commonality minimizes demands for spares and training
- "Last Touch" controls allow for remote configuration or local (*manual*) configuration
- Flash memory means that the transceiver always powers up with exactly the same operating conditions as when it lost power (*or was turned off*)
- Comprehensive maintenance features for operational effectiveness and minimum outages.
- Simple installation.

**SATCOM**
SERVICES

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SPECIFICATIONS

TRANSMIT CHARACTERISTICS	125W	150W	180W	200W
1 dB COMPRESSION POINT	+51 dBm	+51.8 dBm	+52.6	+53 dBm
TX GAIN	82 dB	83 dB	83.6	84 dB
TX GAIN ADJUSTMENT RANGE	+6 to -20 dB M&C controlled			
TX LEVEL FLATNESS	± 1.5 dB / 36 MHz			
TX GAIN VARIATION	± 1.5 dB over frequency and temperature			
TX INPUT IF FREQUENCY	52 to 88 MHz			
TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)			
TX INPUT IF LEVEL	-30 dBm ± 10 dB (+20 dBm MAX)			
TX OUTPUT FREQUENCY	5.850 to 6.725 GHz			
TX FREQUENCY STEP SIZE	1 MHz M&C controlled			
TX PHASE NOISE	100 Hz: -60 dBc, 1 KHz: -70 dBc 10 KHz: -80 dBc, 100 KHz: -90 dBc			
TX LINEARITY	-33 dBc (2 carriers @ 9 dB back-off)			
TX INSTANTANEOUS BANDWIDTH	± 18 MHz			
RECEIVER_(w/LNC) CHARACTERISTICS				
RX INPUT FREQUENCY	3.400 - 4.200 GHz			
RX FREQUENCY STEP SIZE	1 MHz M&C controlled			
RX OUTPUT FREQUENCY	52 - 88 MHz			
RX INSTANTANEOUS BANDWIDTH	± 18 MHz			
RX GAIN	85 to 100 dB M&C controlled			
RX GAIN VARIATION	± 1.5 dB over frequency and temperature			
RX NOISE FIGURE	0.88 dB (65) MAX / Optional 0.63 dB (45K) and 0.49 dB (35K)			
RX LINEARITY	-35 dBc intermod, MAX			
RX PHASE NOISE	100 Hz: -60 dBc, 1 KHz: -70 dBc 10 KHz: -80 dBc, 100 KHz: -90 dBc			
RX OUTPUT IMPEDANCE	50 ohms (75 ohms optional)			
SYSTEM				
PORTS	1 RS-232 and 1 RS-485 / RS 232 configurable			
PROTOCOL	RS-232 port supports any "dumb terminal" or ASCII interface RS-485 port supports addressed packetized data per ANACOM Supervisor™ software specifications			
ALARM RELAYS	FORM C for MAJOR and MINOR alarms; isolated			
VISUAL INDICATORS	GREEN LED (flashing) indicates power is active RED LED indicates a summary alarm			
POWER	100 to 242 VAC; 47 - 63 Hz			
ENVIRONMENTAL				
TEMPERATURE	-40 to +50°C operational -60 to +75°C storage			
ALTITUDE	10,000 ft (3,000 meters) MAX			
RAIN	20 inches per hour			
WIND	150 miles per hour			
VIBRATION	1.0 g random operational, 2.5 g random survival			
SHOCK	10 g operational, 40 g survival			
REUSABLE CUSTOM DESIGNED PACKAGING	Exceeds 1 meter 10 point drop method			
POWER & DIMENSIONS				
TYPICAL POWER CONSUMPTION	1088 VA	1088VA	1416VA	1416 VA
PRIME POWER REQUIREMENT	2394 VA	2394VA	3115VA	3115 VA
WEIGHT	102 lbs (47 kg)	102 lbs (47 kg)	136 lbs (62 kg)	136 lbs (62 kg)
TRANSCEIVER SIZE - 125, 150, 180, 200W	38" x 13" x 12.5" (965 x 330 x 318 mm)			
LNC SIZE / WEIGHT	3.7" x 2.8" x 3.9" (91 x 71 x 99 mm) / 0.7 lbs (0.32 kg) max.			

All specifications subject to change