EXTENDED C-BAND VSAT TRANSCEIVER SERIES

0, 2, 5, 10, 20 and 30 Watts



AnaSat® 5EC

GENERAL DESCRIPTION

AnaCom's series of Extended C-band VSAT transceivers are available in transmitter output levels up to 100 Watts, in single or redundant configurations. Type N for 0-20W, Waveguide for 30W. 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
 - Conventional voice traffic
 - Remote surveillance
 - Broadcast
 - 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

- TX frequency and gain (ON / OFF 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



SPECIFICATIONS



		0 dBm	2 Watts	5 Watts	10 Watts	20 WATTS	30 WATTS	
CHARACTERISTICS	1 dB COMPRESSION POINT TX GAIN AD HIGTMENT BANGE	30 dB	64 dB	37 dBm 68 dB		43 dBm 74 dB	44.8 dBm 76 dB	
IST	TX GAIN ADJUSTMENT RANGE	+6 to -20 dB M&C controlled						
띮	TX LEVEL FLATNESS TX GAIN VARIATION	±1.5 dB / 36 MHz ±1.5 dB over frequency and temperature						
٦ ا	TX INPUT IF FREQUENCY	52 to 88 MHz						
AR⁄	TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)						
동	TX INPUT IF LEVEL		-30 dBm ±10 dB (+20 dBm MAX)					
	TX OUTPUT FREQUENCY		5.850 to 6.425 GHz					
SM	TX FREQUENCY STEP SIZE	1 MHz M&	1 MHz M&C controlled					
TRANSMIT	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						
TICS	RX INPUT FREQUENCY	3.625 – 4.20	0 GHz					
RIS	RX FREQUENCY STEP SIZE	1 MHz M&C controlled						
RECEIVER (WING) CHARACTERISTICS	RX OUTPUT FREQUENCY	52 to 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 RX LINEARITY	0.9 dB (65K) MAX / Optional 0.63 dB (45K) and 0.49 dB (35K) -35 dBc intermod, MAX						
	RX PHASE NOISE	100 Hz: -60 dBc, 1 KHz: -70 dBc						
	IX FIIASE NOISE			(Hz: -90 dBc				
	RX OUTPUT IMPEDANCE	50 ohms (75 ohms optional)						
SYSTEM	PORTS	1 RS-232 an	nd 1 RS-485 /	RS 232 confid	nurable			
	PROTOCOL	1 RS-232 and 1 RS-485 / RS 232 configurable 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 to 63 Hz						
ENVIRONMENTAL	TEMPERATURE	-40 to +50°C operational						
	ALTITUDE - Junior	-60 to +75°C storage						
	ALTITUDE	15,000 ft (5,000 meters) MAX						
	RAIN WIND	20 inches per hour						
	VIBRATION	150 miles per hour 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						
OTHER								
	TYPICAL POWER CONSUMPTION PRIME POWER RECOMMENDATION	41VA	73VA	83VA	125VA	229VA 600VA	280VA	
	WEIGHT	100VA 23 lbs	150VA 27 lbs	220VA 29 lbs	340VA 32 lbs	39 lbs	735VA 57 lbs	
	WEIGHT	(10.5 kg)	(12.3 kg)	(13.2 kg)	(14.5 kg)	(17.7 kg)	(25.9 kg)	
	TRANSCEIVER SIZEE — 0 dBm, 2W, 5W	21.6" x 9.0" x	-	9 x 229 x 178 ı	-	((==::2 .1.5)	
	— 10W	21.6" x 9.0" x 11.6" (549 x 229 x 295 mm)						
	— 20W	21.6" x 9.0" x 13.5" (549 x 229 x 343 mm)						
	— 30W		21.6" x 9.0" x 15" (549 x 229 x 381 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.						

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