50, 60, 70 and 80 Watts



AnaSat® 50EC

EC 50-80

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. 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



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

	50 Watts	60 Watts	70 Watts	80 Watts	
1 dp COMPRESSION POINT	47 dBm	47.8 dBm	48.5 dBm	49 dBm	
1 dB COMPRESSION POINT TX GAIN	78 dB	78.8 dB	79.5 dB	80 dB	
TX GAIN TX GAIN ADJUSTMENT RANGE TX LEVEL FLATNESS TX GAIN VARIATION TX INPUT IF FREQUENCY TX INPUT IF IMPEDANCE TX INPUT IF LEVEL	+6 to -20 dB M			20 45	
TX GAIN ADJUSTMENT RANGE TX LEVEL FLATNESS	±1.5 dB / 36 MHz				
TV CAINIVADIATION	±1.5 dB over frequency and temperature				
TX GAIN VARIATION	52 to 88 MHz				
TX INPUT IF FREQUENCY	50 ohms (75 ohms optional)				
TX INPUT IF IMPEDANCE	-30 dBm ±10 dB (+20 dBm MAX)				
	5.850 to 6.425 GHz				
TX OUTPUT FREQUENCY	1 MHz M&C controlled				
TX FREQUENCY STEP SIZE	100 Hz: -60 dBc, 1 KHz: -70 dBc				
TX PHASE NOISE	10 KHz: -80 dBc, 100 KHz: -90 dBc				
TX OUTPUT FREQUENCY TX FREQUENCY STEP SIZE TX PHASE NOISE	-33 dBc (2 carriers @ 9 dB back-off)				
IX LINEARITY	±18 MHz				
TX INSTANTANEOUS BANDWIDTH					
RX INPUT FREQUENCY	3.625 – 4.200 GHz				
RX FREQUENCY STEP SIZE	1 MHz M&C controlled				
RX OUTPUT FREQUENCY	52 to 88 MHz				
RX INSTANTANEOUS BANDWIDTH	±18 MHz				
RX GAIN	85 to 100 dB M&C controlled				
RX INPUT FREQUENCY RX FREQUENCY STEP SIZE RX OUTPUT FREQUENCY RX INSTANTANEOUS BANDWIDTH RX GAIN RX GAIN VARIATION RX NOISE FIGURE RX LINEARITY RX PHASE NOISE RX OUTPUT IMPEDANCE	±1.5 dB over frequency and temperature				
RX NOISE FIGURE	0.9 dB (65K) 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 ohm	s optional)			
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				
ALARM RELAYS	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			
TEMPERATURE	-40 to +50°C operational				
ALTITUDE RAIN WIND VIBRATION SHOCK	-60 to +75°C storage				
ALTITUDE	15,000 ft (5,000 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 1	0 point drop metho	d		
TYPICAL POWER CONSUMPTION	394VA	398VA	570VA	572VA	
PRIME POWER RECOMMENDATION	880VA	890VA	1150VA	1200VA	
WEIGHT TRANSCEIVER SIZE — 50W, 60W, 70W	57 lbs	57 lbs	57 lbs	60 lbs	
	(25.9 kg)	(25.9 kg)	(25.9 kg)	(27.3 kg)	
TRANSCEIVER SIZE — 50W, 60W, 70W	21.6" x 9.0" x 15"	(549 x 229 x 381 m	_	3.	
— 80W	21.6" x 9.0" x 16"	(549 x 229 x 407 m			
	2 711 2 011 2 011 /0	$1 \times 71 \times 00 \text{ mm}$) / (0.7 lbs (0.32 kg) max.		
LNC SIZE / WEIGHT	3./ X 2.8 X 3.9 (9	1 X / 1 X 99 111111) / (7.7 103 (0.32 kg) 111ax.		

