SUPER EXTENDED KU-BAND VSAT TRANSCEIVER SERIES

40 and 50 Watts



AnaSat® 40SEKu

GENERAL DESCRIPTION

AnaCom's Super Extended Ku-Band VSAT transceivers integrate all necessary functions into a small, highly integrated out-door package which provides excellent reliability in a wide range of environments and functions. 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 the 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. These transceivers are ruggedly built for continuous outdoor duty in all types of environments. They are especially suitable for SCPC, MCPC, and DAMA applications.

FEATURES

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

This powerful 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

	40 Watts	50 Watts	
1 dB COMPRESSION POINT	46 dBm	47 dBm	
x TX GAIN	79 dB	80 dB	
TX GAIN ADJUSTMENT RANGE	+6 to -20 dB M&C controlled		
TX LEVEL FLATNESS	±1.5 dB / 36 MHz		
TX GAIN TX GAIN ADJUSTMENT RANGE TX LEVEL FLATNESS TX GAIN STABILITY TX INPUT IF FREQUENCY TX INPUT IF IMPEDANCE TX INPUT IF LEVEL	±1.5 dB over temperature and frequency		
TX INPUT IF FREQUENCY	52 to 88 MHz (optional 140 MHz)		
TX INPUT IF IMPEDANCE	50 ohms (75 ohms optional)		
TX INPUT IF LEVEL	-30 dBm ±10 dB (+20 dBm MAX)		
TV OUTDUT EDECLIENCY	13.75 to 14.50 GHz		
TX FREQUENCY STEP SIZE	1 MHz M&C controlled		
TX FREQUENCY STEP SIZE TX PHASE NOISE	100 Hz: -60 dBc, 1 KHz: -70 dBc 10 KHz: -80 dBc, 100 KHz: -90 dBc		
TX LINEARITY	-30 dBc (2 carriers @ 9 dB back-off)		
TX INSTANTANEOUS BANDWIDTH	±18 MHz		

CS	RX INPUT FREQUENCY	10.95 – 12.75 GHz		
ST	RX FREQUENCY STEP SIZE	1 MHz M & C controlled		
出	RX OUTPUT FREQUENCY	52 to 88 MHz		
ARACTERISTICS	RX INSTANTANEOUS BANDWIDTH	±18 MHz		
AR/	RX GAIN	85 to 100 dB M&C controlled		
占	RX GAIN VARIATION	±1.5 dB over temperature and frequency		
CNC	RX NOISE FIGURE	1.9 dB (160°K), 1.4 dB (110°K) Optional		
VER (W/LNC)	RX LINEARITY	-35 dBc intermod, MAX		
IVE!	RX PHASE NOISE	100 Hz: -60 dBc, 1 KHz: -70 dBc		
CE)		10 KHz: -80 dBc, 100 KHz: -90 dBc		
뿚	RX OUTPUT IMPEDANCE	50 ohms (75 ohms 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 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	

.AL	TEMPERATURE	-40 to +50°C operational -60 to +75°C storage
	ALTITUDE	15,000 ft (5,000 meters) MAX
Ĭ	RAIN	20 inches per hour
NO	WIND	150 miles per hour
I E	VIBRATION	1.0 g random operational, 2.5 g random survival
1 É	SHOCK	10 g operational, 40 g survival
ш,	REUSABLE CUSTOM DESIGNED PACKAGING	Exceeds 1 meter 10 point drop method

OTHER		TYPICAL POWER CONSUMPTION PRIME POWER RECOMMENDATION	767VA 1690VA	910VA 2000VA
		WEIGHT	67 lbs (30.5 kg)	67 lbs (30.5 kg)
	כ	TRANSCEIVER SIZE — 40W, 50W	21.6" x 13" x 13.6" (549 x 330 x 353 mm)	
	LNC SIZE / WEIGHT		8.4" x 2.9" x 1.8" (213 x 74 x 46 mm) / 1.75 lbs (0.80 kg) max.	

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