

AnaCom's series of Ku-band VSAT transceivers are available in transmitter output levels up to 125 Watts, in single or redundant configurations. 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 upconverter, downconverter, 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. Additional temperature and aging compensation are provided by the onboard microprocessor

## 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

## 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 and RX IF level
- ✔ Power supply voltages
- ✔ TX and RX synthesizer loop voltages
- ✔ Internal Temperature
- ✔ Alarm Details

Controllable functions from the terminal include:

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

## Benefits

- ✔ "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.

## 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.

The M&C can be accessed remotely via-

Serial protocols:

- ✔ RS-232
- ✔ RS-485
- ✔ FSK
- ✔ Supervisor 9

Ethernet protocols:

- ✔ HTTP
- ✔ Telnet
- ✔ SNMP
- ✔ Supervisor 9

## Compact, Functional Design

The upconverter, power amplifier, monitor and control and power supply are included in a single enclosure. The only cabling required to the indoor equipment are IF and power. An optional ovenized, high stability crystal oscillator can be used to lock the TX synthesizer. Additional temperature and aging compensation are provided by an onboard microprocessor.



# AnaSat®

## Ku-Band series

### SPECIFICATIONS

	0W	2W	4W	8W	16W	20W	23W	25W	32W	40W	50W	60W	80W	100W	125W		
<b>TRANSMIT CHARACTERISTICS</b>	1 dB COMPRESSION POINT (dBm)	4	33	36	39	42	43	43.6	44	45	46	47	47.8	49	50	51	
	TX GAIN	31	64	67	70	73	74	74.6	75	76	77	78	78.8	80	81	82	
	TX GAIN RANGE	20 dB variable in 1 dB steps via M&C															
	TX LEVEL FLATNESS	+/- 1.5 dBp-p max / 500 MHz															
	TX GAIN OVER TEMPERATURE	+/- 1.5 dB max															
	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 for rated output with nominal gain															
	TX OUTPUT FREQUENCY	Ku = 14.0 to 14.50 GHz					Eku = 13.75 to 14.25 GHz					SEKu = 13.75 to 14.50 GHz					
	TX FREQUENCY STEP SIZE	1 MHz M&C controlled															
TX PHASE NOISE	-60 dBc/Hz max @ 100Hz					-70 dBc/Hz max @ 1KHz					-80 dBc/Hz max @ 10KHz						
	-90 dBc/Hz max @ 100KHz					-100 dBc/Hz max @ 1MHz											
INTERMOD	-33 dBc max (2 carriers, each 9dB backoff from P1dB rating)																
SPURIOUS	-55 dBc max out of band																
<b>RECEIVER CHARACTERISTICS</b>	RX INPUT FREQUENCY	10.95 - 12.75 GHz															
	RX FREQUENCY STEP SIZE	1 MHz M&C controlled															
	RX OUTPUT FREQUENCY	52 to 88 MHz															
	RX GAIN	75 to 100 dB M&C controlled															
	RX NOISE FIGURE	2.0 dB (160K) MAX / Optional 1.4 dB (110K), 1.2 dB (90K), and 1.0 dB (80K)															
	RX LINEARITY	-35 dBc intermod, MAX															
	RX PHASE NOISE	-60 dBc/Hz max @ 100Hz					-70 dBc/Hz max @ 1KHz					-80 dBc/Hz max @ 10KHz					
		-90 dBc/Hz max @ 100KHz					-100 dBc/Hz max @ 1MHz										
RX OUTPUT IMPEDENCE	50 ohms (75 ohms optional)																
<b>SYSTEM</b>	ALARM RELAYS	FORM C for Summary Alarm; Isolated															
	POWER	100 to 250 VAC; 47 to 63 Hz optional 48V DC															
	M&C	SNMP, HTTP, Telnet Ethernet, RS-232, RS-485, FSK															
<b>ENVIRONMENTAL</b>	TEMPERATURE	-50 to +55°C operational -50 to +75°C storage															
	HUMIDITY	95% at 45C															
	ALTITUDE	6500 meters (21,500 ft) 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															
<b>POWER &amp; DIMENSIONS</b>	TYPICAL POWER CONSUMPTION (VA)	40	60	100	160	270	294	300	300	340	770	800	850	1430	1600	1640	
	PRIME POWER RECOMMENDATION	100	170	220	400	690	700	710	720	850	1700	1800	1900	3100	3500	3600	
	WEIGHT	(lbs.)	22	26	27	28	38	44	44	44	41	67	67	67	123	132	145
		(kg.)	10	12	12	13	17	20	20	20	19	30	30	30	56	60	66
	SIZE:	TRANSCEIVER - 0W, 2W, 4W	21.6" x 9.0" x 7"					(549 x 229 x 178 mm)									
		- 8W	21.6" x 9.0" x 9.4"					(549 x 229 x 239 mm)									
		- 16W, 20W, 23W, 25W	21.6" x 9.0" x 10.8"					(549 x 229 x 274 mm)									
- 32W		21.6" x 9.0" x 12.5"					(549 x 229 x 317 mm)										
- 40W, 50W, 60W		21.6" x 13.0" x 11.2"					(549 x 330 x 345 mm)										
- 80W, 100W, 125W		38.0" x 12.75" x 12.4"					(965 x 330 x 318 mm)										

\*all specifications subject to change

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