RUSSIAN C-BAND VSAT TRANSCEIVER SERIES

40, 50, 60, 70, 80 and 100 Watts

AnaSat® 100RC

RC 40-100

GENERAL DESCRIPTION

AnaCom's series of RUSSIAN C-band VSAT transceivers are available in transmitter output levels up to 100 Watts, in single or redundant configurations. Type N for 40W, Waveguide for 50-100W. 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
- Data distribution and collection
- Industrial networking
- LAN and WAN extensions
- 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

- 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

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AnaSat® RC

SPECIFICATIONS

		40 Watts	50 Watts	60 Watts	70 Watts	80 Watts	100 Watts
TRANSMIT CHARACTERISTICS	1 dB COMPRESSION POINT	46 dBm	47 dBm	47.8 dBm	48.5 dBm	49 dBm	50 dbm
	TX GAIN	77 dB	78 dB	78.8 dB	79.5 dB	80 dB	81 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	5.975 to 6.475 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	3.650 – 4.150 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 GAIN VARIATION	±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 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 to 63 Hz					
ENVIRONMENTAL	TEMPERATURE	-40 to +50°C operational -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 10 point drop method					
OTHER	TYPICAL POWER CONSUMPTION	390VA	394VA	398VA	570VA	572VA	762VA
	PRIME POWER RECOMMENDATION	870VA	880VA	890VA	1150VA	1200VA	1620VA
	WEIGHT	45 lbs (20.5 kg)	57 lbs (25.9 kg)	57 lbs (25.9 kg)	57 lbs (25.9 kg)	60 lbs (27.3 kg)	75 lbs (34.1kg)
	TRANSCEIVER SIZE — 40W	21.6" x 9.0" x 14" (549 x 229 x 356 mm)					
	— 50W, 60W, 70W	21.6" x 9.0" x 15" (549 x 229 x 381 mm)					
	— 80W	21.6" x 9.0" x 16" (549 x 229 x 407 mm)					
	— 100W	21.6" x 13.0" x 14" (549 x 330 x 356 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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