

ANACOM'S series of C-Band VSAT transceivers are available in transmitter output levels of 0 dBm, 2, 5, 10, 20, and 40 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.

Features

- Easy to install and operate.
- No indoor equipment is needed.
- Built in test facilities with enhanced Windows[™] based M&C functions.
- Compliant with relevant CCITT and CCIR recommendations as well as Intelsat specifications.
- Frequency agile radio equipment.
- Completely independent TX and RX frequency selection.
- Superior phase noise, compliant to ESS 308 /309.
- Universal power supply.

Flexible Applications

- Rural Telecommunications Expansion
- Industrial Networking
- LAN and WAN extensions
- Emergency link restoration
- Remote Surveillance
- Distance Learning
- Broadcast
- Data distribution and collection
- Point-of-Sales Systems
- Video teleconferencing
- Conventional Voice Traffic

Compact, Functional Design

ANACOM'S C-Band VSAT transceivers integrate all necessary functions into a small, highly integrated out-door package which (*see next page*) provides excellent reliability in a wide range of environments and functions.

The up converter, down converter, power amplifier, monitor and control and power

ANACOM, INC. STANDARD C-BAND VSAT TRANSCEIVER SERIES 0 dBm, 2, 5, 10, 20 AND 40 WATTS

supply are included in the small package. 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.

BITE Facility

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
- Power supply voltages
- TX and RX local oscillator stresses
- Internal temperature
- Alarm details

Controllable functions from the terminal include:

- TX frequency
- RX frequency (independent from TX)
- TX gain (including ON / OFF)
- RX gain

Comprehensive Monitor & Control

A powerful Monitor and 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.

Windows[®]-based Supervisor[™] M & C software is provided for use in combination with a PC for monitoring and controlling all major earth station equipment besides the transceiver.

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.
- Manufactured using state-of-the-art technology.

AnaSat®

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AnaSat [®] - C	SPECIFICATIONS					
TRANSMIT CHARACTERISTICS	0 dBm	2W	5W	10W	20W	40W
1 dB COMPRESSION POINT	8 dBm	33 dBm	37 dBm	40 dBm	43 dBm	46 dBm
TX GAIN	30 dB	64 dB	68 dB	71 dB	74 dB	77 dB
TX GAIN ADJUSTMENT RANGE	+6 to -20 dB	M&C cor	ntrolled			
TX GAIN VARIATION	± 1.5 dB over	er frequen	cv and tem	perature		
TX INPUT IF FREQUENCY	52 to 88 MH	z				
TX INPUT IF IMPEDANCE	50 ohms (7)	5 ohms op	tional)			
TX INPUT IF LEVEL	$-30 \text{ dBm} \pm 10 \text{ dB} (+20 \text{ dBm MAX})$					
TX OUTPUT FREQUENCY	5.925 to 6.425 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 LINFARITY	-33 dBc (2 c	arriers @ 9	$\frac{100 \text{ RH2}}{9 \text{ dB back-o}}$	ff)		
TX INSTANTANEOUS BANDWIDTH	$+ 18 \text{ MH}_{7}$		Duck-0	<u> </u>		
RECEIVER (INC) CHARACTERISTICS	± 10 MHZ					
RX INPLIT FREQUENCY	3 700 - 4 20	0 CHz				
RY FREQUENCY STEP SIZE	1 MH ₇ M &	$\frac{10}{2}$ C control	lled			
DY AUTOUT EDEAUENCY	52 88 MU ₂		lieu			
DV INSTANTANEOUS DANDWIDTH	$\pm 10 \text{ MHz}$					
DV CAIN	± 10 MHZ	MPC aar	trolled			
DV CAIN VADIATION	± 1 E dP or	mac con	arrand tom			
NA GAIN VARIATION	$\pm 1.3 \text{ UB}$ OVE	er frequen	cy and tem	perature		
KA NUISE FIGURE	0.9 dB MAA		v			
KA LINEAKITY	-35 dBC Inte	ermoa, MA	<u>A</u> 1 KH ₋₁ 70	JD -		
KX PHASE NOISE	100 HZ: -60 C	IBC,	I KHZ: -70	abc		
	10 KHZ: -80 0	abc,	<u>100 KHZ: -9</u>	0 dBc		
RX OUTPUT IMPEDANCE	50 onms (73	o onms op	tional)			
SYSIEM DODTC	9 00 999 -		Dered 1 DC	105		
PURIS	Z KS-232, 0	r 1K5-23.	<u>2 and 1 KS-4</u>	185		
PROTOCOL	RS-232 port	supports	any "dumb	terminal		
	KS-485 port	supports	addressed I	Dacketized (lata per	
	ANACOM SUL	Dervisor ^{1M}	software s	pecification	<u>s</u>	
ALAKM RELAYS	FORM C for	MAJOR a	nd MINOR a	larms; iso	lated	
VISUAL INDICATORS	GREEN LED	(flashing)	indicates p	power is act	live	
	RED LED in	idicates a	summary a	larm		
POWER	100 to 242	VAC; 47-0	53 Hz			
ENVIRONMENTAL	10 700	~ .				
TEMPERATURE	-40 to +50°	C operatio	onal			
	<u>-60 to +75°</u>	<u>C</u> storage				
ALITTUDE	<u>15,000 ft (5,</u>	<u>000 meter</u>	s) MAX			
RAIN	20 inches p	er hour				
WIND	150 miles pe	er hour				
VIBRATION	1.0 g rando	m operatio	onal, 2.5 g i	andom sur	vival	
SHOCK	10 g operati	ional, 40 g	survival			
REUSABLE CUSTOM DESIGNED PACKAGING	Exceeds 1 m	ieter 10 pc	oint drop me	ethod		
POWER & DIMENSIONS			-			
POWER CONSUMPTION	23W typ. 4	7W typ. 8	2W typ. 15	50W typ. 22	25W typ. 3	350W typ.
WEIGHT	20 lbs. 2	27 lbs. 2	27 lbs. 3	34 lbs.	34 lbs.	39 lbs.
	(9.1 kg.) (1	1.8 kg.) (11.8 kg.) (1	13.6 kg.) (1	3.6 kg) (15.6 kg.)
TRANSCEIVER SIZE - 0 dBm, 2W, 5W	21.6" x 9.0" z	x 7.0" (54	49 x 229 x	178 mm)		
- 10W, 20W	21.6" x 9.0" z	x 12.1" (54	49 x 229 x 3	807 mm)		
- 40W	21.6" x 9.0" z	x 13.6" (54	<u>49 x 229 x 3</u>	<u>31 mm)</u>		
LNC SIZE / WEIGHT	3.7" x 2.8" x	3.9" (91 x	71 x 99 mm) / 2.0 lb	os. (0.9 kg.)	max.

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