

RADITEK

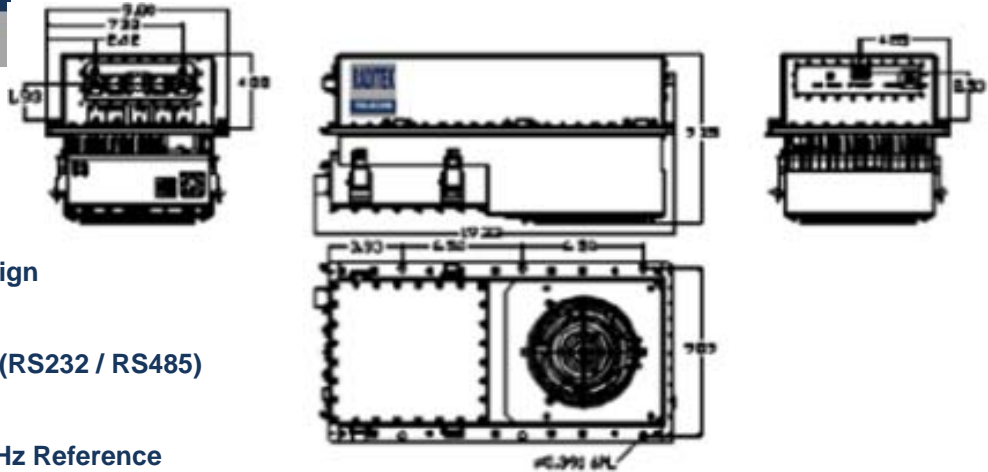
SATCOM Ka Band Transceiver

Ka-BAND Transceiver 30-31GHz, 20Watts



OPTIONS

- ❖ Transmit Reject Filter (External for LNC)
- ❖ Receive Reject Filter (Additional External)
- ❖ Redundant Operation
- ❖ Remote Control Panel or Hand-Held Terminal
- ❖ Ethernet Interface



FEATURES

- ❖ 1 GHz IF Bandwidth
- ❖ Compact Light Weight Design
- ❖ Weatherproof Package
- ❖ Phased-Locked LNC
- ❖ Remote Monitor & Control (RS232 / RS485)
- ❖ Relay Alarm Indicators
- ❖ LED Status Indicators
- ❖ High Stability Internal 10MHz Reference
- ❖ Automatic High Power Reflected Power Protection

RADITEK is proud to announce its range of satellite transceivers for operation in Ka band.

The monitor and control features of the transceiver will fit within any other network management architecture. The very user friendly front panel allows RS485 remote interface for full set up and monitoring functions or via a hand held terminal or Pc/laptop via RS 232 interface, this also allows software downloading/updating.

The LNC is a fully integrated module, designed for the harshest environment. Its microprocessor based controller allows external monitor and control and optional redundancy control. The LNC connects to the transceiver with a single cable. Transceiver optional RF powers of up to 100W are available.

The RTR-Ka-20W-j4 is designed for Ka band operation (30-31GHz transmit and 20.2-21.2GHz receive), with a S band IF operation (1-2GHz). The transceivers can be configured (optionally) with 1:1 Redundancy, with no extra controller necessary.

Accessories include:

Transceiver Mounting kits, Redundancy kits and mounting frame,
Transmit Reject filter and Receive reject filter, Remote control panel,
Hand Held Terminal, PC GUI and RS232/RS485 adapter, Ethernet adapter.

RTR-Ka-S-N-20W-j4

Specifications may be subject to change

04/21/11

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.

Tel: (408) 266-7404

FAX: (408) 266-4483

WEB: www.raditek.com

E-mail: sales@raditek.com

Ka-BAND Transceiver, 30-31GHz, 20Watts RTR-Ka-S-N-20W-j4

Transmit Path		Receive Path	
Power	43 dBm min	RF Input (to LNC)	
P1dB min.	42 dBm	RF Input Frequency	20.2 - 21.2 GHz
IF Input		RF Input Interface	WR42
Frequency range	S-Band (2.0 – 3.0 GHz)	Input VSWR	1.3:1 typical at 50 Ω
Input Level	-30 to -10 dBm	IF Output	
Input Connector	Type N female	Frequency range	1.0-2.0 GHz
Connector Impedance	50 Ω	Output Level	+10 dBm at P1dB
Input VSWR	1.3:1 max	Output Connector	Type N female
RF Output		Connector Impedance	50 Ω
Frequency range	30.00 - 31.00 GHz	Output VSWR	1.3:1 typical at 50 Ω
Output connector	WR28	Gain Specification	
Connector Impedance	50 Ω	Gain (LNC + Receiver)	60 dB min
Output VSWR	1.3:1 max	Gain control range	20 dB (0.1 dB step size)
Gain Specification		Gain flatness	1.0 dB p-p max over 36 MHz
Gain	60 dB @ max. gain setting	Gain stability	±3.0 dB p-p max -30°C to +55°C
Gain control range	20 dB (0.1 dB step size)	Spurious	-55 dBc
Gain flatness	±2.0 dB p-p max over full band	Image Rejection	60 dB
Gain stability	3.0 dB p-p max -30°C to +55°C	LNC Parameters	
Intermodulation Product (IMD3)	-26dBc (2 carriers each at 6 dB back-off from total P1dB)	LNC type	Phase locked LO provided from the Transceiver (via coax. IF cable)
Spurious	-60 dBc max, carrier related	Noise figure	2.5 dB typical
Phase Noise*		L-band Output Interface	Type N female 50 Ω
Offset frequency	Phase noise	Gain	30 dB min
100 Hz	-63 dBc/Hz max	DC power	12-18V DC (via coaxial IF cable)
1000 Hz	-73 dBc/Hz max	Frequency Stability*	
10 KHz	-83 dBc/Hz max	Aging	+/-2 x 10 ⁻³ / day
100 KHz	-93 dBc/Hz max		+/-1 x 10 ⁻⁷ / year
1 MHz	-103 dBc/Hz max	Stability over temp.	+/-2 x 10 ⁻³ / -30°C to +55°C/day
Monitor & Control		Power Requirements	
Serial port (RS-485)	MS3112E10-8P	AC input voltage	120VAC ± 15% / 220 VAC ±15%
Serial port (RS-232)	MS3112E10-8P		47 to 63 Hz
Redundancy Port	MS3112E16-26P	AC Connector	MS3102R16-10P
Discrete Port	MS3112E12-10P	Power consumption	400W nominal
Environmental		Mechanical	
Cooling	Forced Air	Dimensions	19.3" x 9.0" x 9.15"
Operational	-30°C to +55°C standard (-50°C to +55°C option)	(L x W x H)	(49 cm x 23 cm x 23 cm)
	-55°C to +85°C	LNC Dimensions	3.73" x 3.0" x 2.1"
Storage	up to 100% condensing	(L x W x H)	(9.5 cm x 7.6 cm x 5.3 cm)
Humidity	3,000 m A MSL (derated 2°C/300m)	Weight	40 lbs (18 kg)
Altitude		(nominal, without LNC)	
		Packaging	Weatherproof for outdoor use