



# Ku-BAND TRANSCEIVER

## 70MHz, 2-16 Watts



### Product Highlights

Single Package  
Transceiver + LNB

AC Cable comes with  
Transient protection  
Capability

### Options include

- Modem Interface: L band interface. Type N
- Input power options: 48 VDC, 100-120V, 220-240V AC

### Applications

- Video Teleconferencing
- Broadcasting
- Wide area telephony
- Rural Telecommunications Expansion
  - Backhaul Trunking
  - Back Up Network
- Private Data network
- Point of Sales System
- Emergency Link Restoration

### Features

- Low Phase Noise, harmonics
- 70MHz IF interface for Tx/Rx
- High frequency stability
- Excellent Gain Flatness
- Automatic shut down on failure
- Simple installation
- Trouble free maintenance
- Wide operating temperature

RADITEK's state of the art, field proven design, up converts from 70MHz to several Ku band frequency options. IF port interface is via Type N(f) connector. The unit runs off: 48V, 100-120V AC and 220-240V AC.

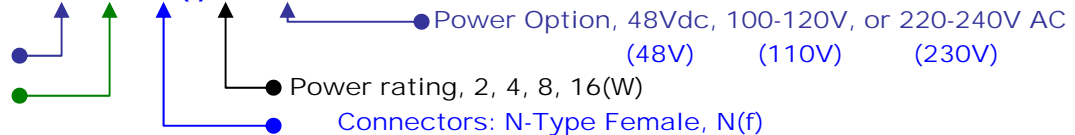
Gain adjustment and Intelligent Monitor and Control capability are accessed, via RS232/RS485. This access is via a hand held terminal, or via the IF cable (to NMS).

All units are built and tested to ISO9001, 14001, and OHSAS1801. Each unit has 3 days burn-in is and thoroughly tested.

### Order Examples:

(TRANSCEIVER:  
Ku-Band Option\_  
(see table below)  
70M (70MHz)

**RTR-Ku2-70M-N(f)-16W-48V-h1**



Our transceiver is enclosed in a single unit housing. This design facilitates quick and easy installation by direct mounting on a wide range of earth station antennas.

For requirements of 100W and above the transceiver is designed to have a low power unit mated with an external high power SSPA in a two housing configuration.

All can be factory configured to work in Ku and Extended Ku Band.

This is an ideal choice for any VSAT application including: wide area telephony, video conferencing and data communication systems using SCPC/MCPC, TDMA and DAMA configuration with different modulation formats such as BPSK, QPSK and QAM

## Ku-BAND TRANSCEIVER, 70 MHz, 2-16 Watts

Receive (Exclude LNB)		Transmit				Power Supply	Mechanical		
I/P Frequency	RF I/P: IF O/P connector	O/P Frequency	Power (Watt)	Power @P1dB (dBm)	Gain (dB)	IF I/p : RF O/p connector	Power Voltage	Dimension LxWxH (mm)	Weight (kg)
10.95-11.7GHz 11.70-12.20GHz 12.25-12.70GHz	N (F) : N (F)	14 to 14.5GHz (Option: 13.75 to 14.5 GHz )	2	33	43 -68	N-type (F) : WR75	200 to 220VAC,	238 x 327 x126	9
			4	36	46 -71				
			8	39	49 -74				
			16	42	52 -77			238 x 327 x 197	15

Transmit	Technical Specification	
Input Frequency	70 +/- 18MHz	
Output Frequency	14 to 14.5 GHz Option ( 13.75 to 14.5)GHz	
IF input VSWR (Interface)	1.4: 1 (Max) ( N (F))	
RF Output VSWR (Interface)	1.8:1 (Max) ( WG-75)	
IF Input Power Range	-30 to -10 dBm	
Gain Flatness	+/- 1.0dB ( over IF BW)	
	+/- 1.5dB ( over RF BW)	
Gain Stability	+/- 2.0dB (-40 to 55 °C)	
Gain Adjustment	20dB @ 0.5dB step	
Inter-modulation Product	-27dBc	
Spurious	-55dBc	
Carrier Mute	<-80dBm	
Phase Noise	@100Hz	-70dBc/Hz (Typ)
	@1kHz	-73dBc/Hz (Typ)
	@10kHz	-75dBc/Hz (Typ)
	@100kHz	-85dBc/Hz (Typ)
Receive (LNB)	Technical Specification	
Input Frequency Option	11.45 to 11.95 GHz 11.70 to 12.20 GHz 12.25 to 12.75 GHz	
Output Frequency	950 to 1450 MHz	
Input VSWR (Interface)	2.0 : 1 (Max) ( WR 75)	
Output VSWR (Interface)	2.0 : 1 (Max) (N)	
Noise Temperature	80 K typ. at 25°C	
Gain	60dB typ	
Gain Flatness	+/- 1.5dB	
Gain Stability	+/- 2.0dB (-40 to 55 °C)	
General Characteristics	Technical Specification	
Temperature (operating)	-40 to 55°C	
Temperature (storage)	-40 to 85°C	
Humidity	0 to 100%	

Receive (Exclude LNB)	Technical Specification	
IF Output Frequency	70MHz +/- 18 MHz	
RF Input Frequency	950 to 1450 MHz	
RF input VSWR (Interface)	1.4 : 1 (Max) (N (F))	
IF output VSWR (Interface)	1.4 : 1 (Max) ( N (F))	
Gain	30dB typ	
Gain Flatness	+/- 1.0dB ( over IF BW)	
Gain Adjustment	30dB @ 0.5dB step	
Gain Stability	+/- 2.0dB (-40 to 55 °C)	
Output Power P-1dB	>0dBm	
Spurious	-50dBc	
Phase Noise	@100Hz	-70dBc/Hz (Typ)
	@1kHz	-75dBc/Hz (Typ)
	@10kHz	-85dBc/Hz (Typ)
	@100kHz	-95dBc/Hz (Typ)
Common	Technical Specification	
Frequency Conversion	No inversion	
Frequency Step Size	1MHz	
Frequency Stability	<+/- 2E-8 (-40 to 55°C)	
Aging	1 ppb/day	
	0.1ppm/year	
M&C	Technical Specification	
Control Function	Channel select	
	Gain Adjustment	
	Carrier Mute	
Monitor Functions	Channel/Gain setting	
	Power amp status	
	LOs status	
	Temperature Monitoring	
Serial Interface Standard	RS-232/RS-485	