

RADITEK

SATCOM C-Band Transceiver

C-Band Transceiver, Outdoor

RTR-C-5.85-6.725-Nf-WR137-48/110/220V-g11

With Optional SSPA Booster

2W, 5W, 10W, 20W
50W, 60W, 100W
125W, 150W, 200W

Also available,
250W and 400W with 1+1
Redundancy



Our C-Band One Housing Transceiver is a low cost RF ODU (Outdoor Unit) transceiver for satellite communication. It is designed for voice and data application operating in different modulation formats including BPSK, QPSK, QAM and FM.

This Transceiver is very compact and comprised of Power Supply, Upconverter, SSPA (Solid State Power Amplifier), Down -Converter and low phase noise synthesizers. It has a built-in M&C for remote and local monitoring and control. In addition, we have a wide range of add on SSPA booster options for higher power applications.

It is suitable for SCPC (Single Channel Per Carrier) or MCPC (Multi-Channel Per Carrier), DAMA (Demand Assigned Multiple Access) and TDMA (Time Division Multiple Access) applications

Features

- Available for all C-Band frequencies
- Broadband data transmission
- Low cost, compact model
- Easy installation & configuration
- Built-in monitor and control
- Higher power options available
- Built-in image rejection filter
- Very stable OCXO reference oscillator
- Output power monitoring
- Electronically tuneable synthesizer
- 1.0 MHz frequency step size
- Redundancy ready
- Surge protection
- 70 or 140 MHz IF interface

Applications

- Hub and VSAT terminals
- Video conferencing
- Broadcast
- Rural telephony
- Emergency link restoration
- Point-of-sales

Enhanced Monitoring and Control

Offers M&C via RS232/485. It features full remote M&C through Windows using PC or WinCE PDA.

These include:

- Tx/Rx level monitoring
- Temperature monitoring
- RF output ON/OFF
- Frequencies selection
- Gain control
- Automatic fault identification & alarm

Reliability

Field proven under harsh environmental conditions. It can withstand temperature ranging from -40°C to +60°C with up to 100% humidity.

Quality Assurance

72 hours burn-in at +60°C with performance being monitored. In addition, all units undergo 100% waterproof test equivalent to IP65 to ensure operation in tropical, cold and harsh environment

C-Band Transceiver

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C-Band Frequency Band (GHz)		
Frequency	Transmit	Receive
Intelsat	5.850 – 6.425	3.625 – 4.225
Gorizont	5.725 – 6.275	3.400 – 3.950
Insat	6.725 – 7.025	4.500 – 4.800
ST-1/ Palapa C	6.425 – 6.725	3.400 – 3.700
JCSAT		6.225 – 6.485

Transmit			
Power	Output @P1dB (dBm)	Min. Gain (dB)	AC power consumption (VA)
1mW	0	28	25
2W	33	58	50
5W	37	62	65
10W*	40	65	70
20W*	43	68	150
50W*	47	72	250
60W*	48	73	350
100W*	50	75	450
125W	51	76	500
150W*	51.7	77	600
200W*	53	78	800

Input Frequency	70±18 MHz (Optional 140±18 or 140 ±36 MHz)
Output Frequency	C-Band
Step Size	1.0 MHz
IF Input Power Range	-30 to -5 dBm
Gain Flatness for Full BW	±2.0 dB
for 36 MHz BW	±1.0 dB
Gain Adjustment	20dB@1dB step
Gain Stability (-40 to 60°C)	1.0 dB max
Spurious (36 MHz BW)	-60 dBc
Intermodulation Product	-30 dBc max at 3dB BO
Phase Noise @ 100Hz offset	-60 dBc/Hz
@ 1kHz offset	-70 dBc/Hz
@ 10kHz offset	-80 dBc/Hz
@ 100kHz offset	-90 dBc/Hz
Input / Output VSWR	1.5 : 1 max
IF Input / RF Output Interface	50/75Ω N-type Female

Environmental	
Operating Temperature	-40 to 60°C
Relative Humidity	up to 100%

Notes:

* Booster with 1mW driver & W229 output port
+ Check Availability

Low Noise Amplifier	
RF Input Frequency	C-Band
Noise temperature at 25°C	35K
Gain	55 dB typ.
Gain Flatness (36 MHz BW)	±0.20 dB max
Input VSWR	1.7 : 1
Output VSWR	1.5 : 1
RF Input Interface	WR229/G
RF Output Interface	50W N-type Female

Receive (exclude LNA)	
RF Input Frequency	C-Band
IF Output Frequency	70±18 MHz (Optional 140±18 or 140±36 MHz)
Step Size	1.0 MHz
Gain	45 dB min
Gain Flatness for Full BW	±2.0 dB
for 36 MHz BW	±1.0 dB
Gain Stability (-40 to 60°C)	±2.0 dB
Spurious (36 MHz BW)	-60 dBc max
Intermodulation Product	-35 dBc
Phase Noise @ 100Hz offset	-60 dBc/Hz
@ 1kHz offset	-70 dBc/Hz
@ 10kHz offset	-80 dBc/Hz
@ 100kHz offset	-90 dBc/Hz
Input / Output VSWR	1.5 : 1 max
RF Input / IF Output Interface	50/75W N-type Female

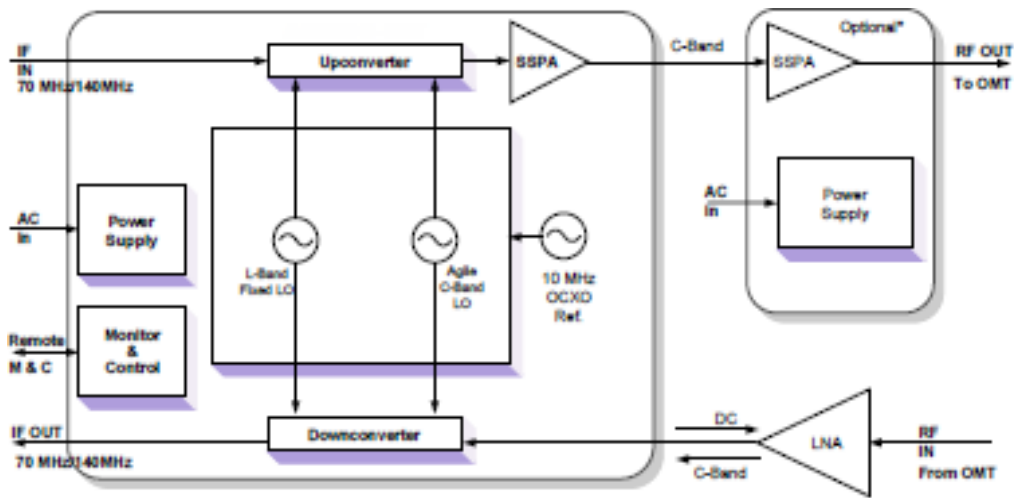
Monitor And Control	
Interface	RS 232/485
Form 'C' Relay Contacts	Optional

Power Supply	
Input Voltage (Factory Preset)	220Vac, 110Vac or 48Vdc
DC Output Voltage to LNA / LNB	12Vdc at RF IN Connector

Mechanical	Weight
Size	
340L x 255W x 70H mm	(1mW, 2W, 5W SPT)
328L x 230W x 200H mm	(10W, 20W, 50W, 80W Booster)
420L x 410W x 210H mm	(100W, 125W, 150W, 200W Booster)
7.0 kg	(1mW, 2W, 5W SPT)
14 kg	(10W, 20W, 50W, 80W Booster)
23.5 kg	(100W, 125W, 150W, 200W Booster)

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60W Outdoor C Band Booster Amp



48V DC Outdoor Power Supply

