



C BAND BUC (Block Up Converter) L Band, 2-250Watts (Low/Medium/High Power), 15- 220 V



Low Power



High Power



Medium Power

Product Highlights:

- Adjustable gain via Dip Switch
- Low Cost, Low Power, Light Weight
- Light and mounts directly to antenna
- Single Package
- Gain adjustment @0.5dB step sizes
- Redundancy ready
- Handheld Optional
- M&C RS232 & 485
- FSK optional for 5W to 60W
- AC Cable c/w Transient protection

RADITEK's state of the art, field proven design, up converts from L Band to several C band frequency options*

- The IF port interfaces via Type "N" female connectors.
- The unit runs off: 48Vdc, 100-120Vac, and 220-240Vac.
- Gain adjustment and intelligent Monitor and control is accessed, via RS232/RS485, 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.

Features:

- L band IF
- Low Phase Noise, harmonics and Spurious
- Automatic shut down alarm

Applications:

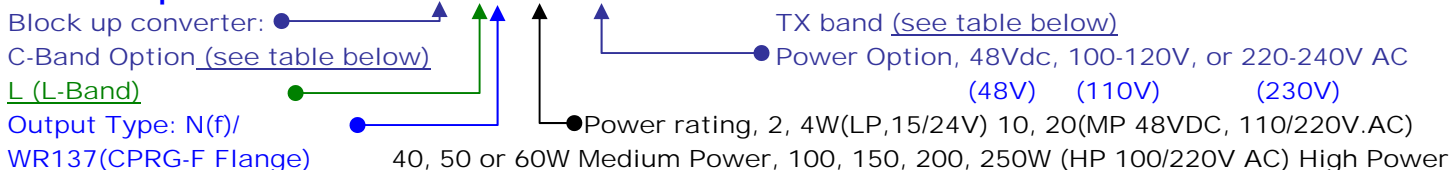
- Private Data Network
- Telephony backhaul for remote access
- Video Teleconferencing
- SCPC, TFMA, etc.

Options include:

- Bands: Standard-C, Intelesat, InSat, Palapa-C, Full-C
- Modem Interface: L
- L band interface. Type N(f)
- Output power options (Watts): 2, 5, 10, 20, 60 100, 150, 200, 250
- Input power options: 48Vdc, 100-120V, or 220-240V AC

See also RADITEK, LNBs and leading IP based Modems, Transceivers with 70 MHz interface, etc

Order Examples:



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| Electrical Specifications | | |
|---------------------------------------|--|--|
| Input Frequency | L Band – See Table | |
| Output Frequency | C-Band – See Table | |
| RF Input VSWR (Interface) | 1.5:1 | |
| Gain Flatness | ±0.75 dB (over IF band, 40 MHz) | |
| | ±1.5 dB (over RF band) | |
| Gain Stability | ±1.5dB (-40 to 55°C) | |
| Frequency Stability | ±0.5 ppb/day | |
| Inter-modulation | -27 dBc max@3dB Output power back off | |
| Second harmonic/Spurious | -55dBc | |
| Phase Noise | @ 100Hz | -63dBc/Hz |
| | @1kHz | -73dBc/Hz |
| | @10kHz | -68dBc/Hz |
| | @100kHz | -93dBc/Hz |
| Internal Reference Option (Extd. Std) | Frequency Reference | 10MHz @ -5 ~+ 5dBm |
| | Frequency Mode | External (Internal Option) |
| | Frequency Stability | Same as External Reference |
| General Characteristics | | |
| Environmental | Temperature (operating) | -40 to 60 |
| | Temperature (storage) | -40 to +85 |
| | Humidity | 0 to 100% |
| Monitor & Control function | Monitor BUC thru PC Terminal (RS232/RS485) | Monitor BUC thru PC Terminal IFL via Modem with FSK Option |
| Monitor | Lock/Unlock | Lock/ Unlock status |
| | Temperature Reading | Temperature Reading |
| | RF output power reading | RF output power reading |
| | | Reading from Modem L Band frequency |
| Control | SSPA On/Off | SSPA On/off |
| | Gain adjustment | |
| Input Connector L Band | N(f) | |
| Size | | |
| Dimensions mm / weight | Low Power 2 - 5 W | 250x150x60mm/ 2.5 kg |
| | Medium Power 5 - 20W | 238x327x160mm / 5 kg |
| | Medium Power 40 - 60 W | 239x327x197mm / 15 kg |
| | High Power 100-150 W | 495x265x215mm / 22 kg |
| | High Power 200-250 W | 600x450x335mm/ 38 kg |

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AC Power

The "Low & Medium Power Series" BUC can be configured to power by the AC supply of 220-240 or 100-120AC via a separate AC connector.

The AC cable comes with the Transient protection capability which protects the BUCs unit directly from high voltage/current transient. They are designed with intelligent M&C capability.

Monitoring & Control

Setup and monitoring & control can be done remotely via RS232/RS485.

The set up of the BUC can also be done with our convenient handheld terminal through RS232 connection.

We also offer an option feature of FSK for the user to monitor and control the units at the Satellite Modem via IFL cable.

IFL Cable

The IFL cable transports the L Band Signal, 10MHz External reference, and FSK signal (optional), M&C signal (optional) as well DC Power (24V). All these signals are multiplexed from the Modem to the BUC via the IFL cable.

| C-Band Option | Satellite | L -Band MHz | TX-RF Output MHz | LO Freq MHz |
|---------------|------------|-------------|------------------|-------------|
| Cs | Standard-C | 950 -1450 | 5925 ~ 6425 | 7375 |
| Ci | Intelesat | 950-1525 | 5850 ~ 6425 | 7375 |
| Cp | Palapa-C | 950-1250 | 6425 ~ 6725 | 7675 |
| Cin | InSat | 965-1265 | 6725 ~ 7025 | 5760 |
| Ce | Extended-C | 950-1625 | 5850 ~ 6725 | 7675 |

| Power @ P1dB (Watt) | Power @ P1dB (Watt) | Gain dB | Power Voltage VDC | Power Consumption Watt | C Band TX RF Output Connector |
|---------------------|---------------------|---------|---------------------------|------------------------|--------------------------------|
| 2 | 33 | 70 | 15/ | 35 | N(f) or WR137 CPRG-F Flange |
| 5 | 37 | 70 | 24V | 40 | |
| 5 | 37.0 | 67 | 110/ 220V AC 48V DC | 100 | N(f) |
| 10 | 40.0 | 70 | | 125 | |
| 20 | 43.0 | 73 | | 200 | |
| 40 | 46.0 | 76 | 110/ 220V AC | 350 | |
| 50 | 47.0 | 77 | | 400 | |
| 60 | 47.8 | 78 | | 450 | |
| 100 | 50.0 | 68 | 110/ 220 VAC | 900 | WR137 CPRG-F Flange |
| 150 | 51.8 | 68 | | 1100 | |
| 200 | 53.0 | 70 | | 1500 | |
| 250 | 54.0 | 70 | | 1700 | |