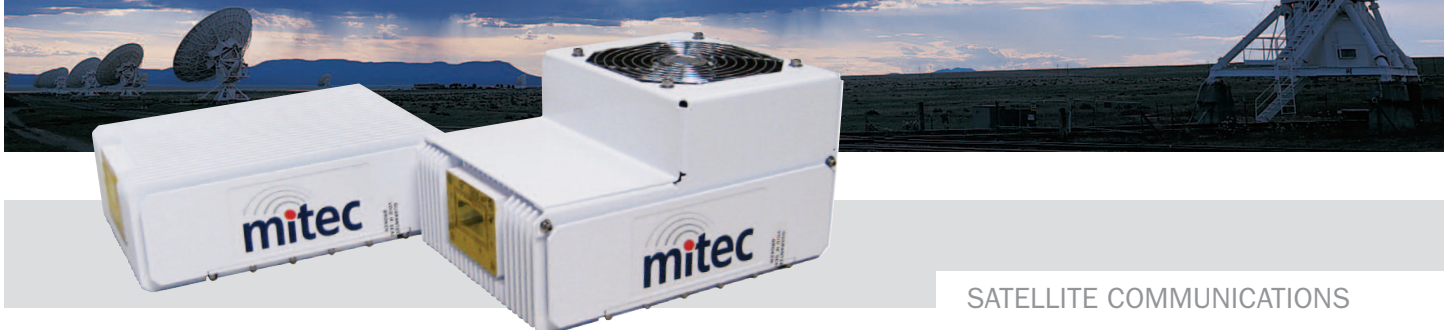


5-40 W C-BAND ONE-BOX DESIGN BUC



SATELLITE COMMUNICATIONS

EVEN MORE POWER FOR YOUR BUC

The new generation of Mitec VSAT medium power Block Up-Converters comes with a super compact form factor and is lightweight, which allows it to be mounted directly on an antenna feed.

This type of installation does not incur any TX loss, enabling the end user to minimize the size and cost of a VSAT station using the smallest antenna and the lowest TX power possible.

KEY FEATURES

- Compact size and light weight (ideal for direct mount on antenna OMT that provides no TX loss)
- Offered in 5 C-bands
 - Band 1: Standard 5.850-6.425 GHz
 - Band 2: Super extended 5.850-6.725 GHz
 - Band 3: Low Extended 5.725-6.425 GHz
 - Band 4: Insat: 6.725-7.025 GHz
 - Band 5: Palapa: 6.425-6.725 GHz
- Best in Class efficiency with a draw of less than 45 W for 5 W RF Output, 70 W for 10 W RF Output, 140 W for 20 W RF Output and 250 W for 40 W RF Output
- Non-standard frequency range options available
- FSK Interface (Mute control, RF power detection, Alarm status, Temperature monitoring, Lock status) via IF cable
- Fanless package for 5 W and 10 W or forced air cooling for 20 W and 40 W
- Both Internal and External 10 MHz reference options available
- Wide range of supply voltage 24-48 VDC for 5 W and 10 W; 48 VDC only for 20 W and 40 W
- Built-in input over current protection will shut down the BUC when 20 W or 40 W is powered from 24 VDC
- Status LED

YOUR DAILY EXPERIENCE POWERED BY MITEC

SALES@MITECTELECOM.COM | WWW.MITECTELECOM.COM | 1-514-694-9000



5-40 W C-BAND BUC

| TRANSMIT CHARACTERISTICS | 5 W | 10 W | 20 W | 40 W |
|--|--|----------------|----------------|----------------|
| Output Frequency Range | Band 1: 5.850-6.425 MHz; Band 2: 5.850-6.725 GHz; Band 3: 5.725-6.425 GHz; Band 4: 6.725-7.025 GHz; Band 5: 6.425-6.725 GHz | | | |
| Input Frequency Range | Band 1: 950-1525 MHz; Band 2: 950-1825 MHz; Band 3: 975-1675 MHz; Band 4: 1275-1575 MHz; Band 5: 975-1275 MHz | | | |
| L.O. Frequency | Bands 1 & 2: 4.9 GHz; Band 3: 4.75 GHz; Bands 4 & 5: 5.45 GHz | | | |
| Conversion Type | Single stage, Non-inverting | | | |
| RF Output at 1 dB GCP | +37.0 dBm min | +40.0 dBm nom | +43.0 dBm min | +46.0 dBm nom |
| Linear Gain | 60 dB min | 63 dB min | 66 dB min | 68 dB min |
| TX Gain Stability over temperature range | +/- 1.5 dB nominal; +/- 2 dB max | | | |
| TX Gain Variation | Over full band: Bands 1, 4 & 5: +/- 2.0 dB ; Band 2: +/- 2.50 dB; Band 3: +/- 2.25 dB Over 40 MHz: +/- 0.5 dB for all bands | | | |
| Intermodulation | -25 dBc, with 2 equal carriers at 3 dB total power backoff from rated power | | | |
| Output Spurious | Bands 1, 3, 4 & 5: -55 dBc; Band 2: -45 dBc | | | |
| 10 MHz Reference (via IF Connector) | 0 dBm +/- 5 dB, (internal reference, optional) | | | |
| L.O. Phase Noise | -65 dBc/Hz max @ 100 Hz, -75 dBc/Hz max @ 1 KHz, -85 dBc/Hz max @ 10 KHz, -95 dBc/Hz max @ 100 KHz, -110 dBc/Hz max @ 1 MHz | | | |
| Input IF Impedance | 50 Ohms (75 Ohms optional for 5 W and 10 W only) | | | |
| DC Power Requirements | +18 to +50 VDC | +18 to +50 VDC | +32 to +50 VDC | +32 to +50 VDC |
| Power Consumption | 45 W max | 70 W max | 140 W max | 250 W max |
| Mute Internally Built | Shut off BUC in case of L.O. unlocked | | | |
| Status LED | Bicolor: RED - Alarm; GREEN - Operational | | | |

MONITOR & CONTROL

| | |
|------------------------|--|
| Interface Type | Standard: FSK; Optional: RS232/RS485/ETHERNET/ANALOGUE via BIAS-TEE module |
| Mute Control | Via M&C Interfaces or disconnecting 10 MHz External Reference |
| Alarms | Via M&C Interfaces: Out of Lock, Temperature & Summary |
| Output Power Detection | Via M&C Interfaces; 15 dB Dynamic Range |

MECHANICAL

| | | | | |
|--------------------------------|--|-----------------------|-----------------------|-----------------------|
| Input Interface | N-type, female (50 Ohm) [IF/10 MHz/DC Power/FSK] | | | |
| Output Interface | Waveguide, WR137-G (Grooved) | | | |
| Cooling | Passive Convection | Passive Convection | Forced Air (Fan) | Forced Air (Fan) |
| Dimensions (L x W x H), inches | 8.98" x 7.04" x 3.00" | 8.98" x 7.04" x 3.00" | 9.04" x 7.04" x 5.28" | 9.04" x 7.04" x 5.28" |
| Weight | 8.8 lbs (4 kg) | 8.8 lbs (4 kg) | 10.0 lbs (4.5 kg) | 10.0 lbs (4.5 kg) |

ENVIRONMENTAL

| | | | | |
|-----------------------------|---|--|--|--|
| Temperature Range (Ambient) | -40° to +55°C (operating); -40° to +75°C (storage) | | | |
| Humidity | 0 to 100% | | | |
| Altitude | 15,000 feet | | | |
| Rain | 20 inches per hour | | | |
| Wind | 150 miles per hour | | | |
| Vibration | 5 G (3 axis, 50 Hz to 2 KHz); 1 mm p-p (3 axis, 5 to 50 Hz) | | | |
| Shock | 30 G (3 axis) | | | |

ORDERING INFORMATION*

| | | | | |
|--|----------------------------------|---------------------|---|----------------------|
| Band 1 Block Upconverter | MTX-596437-60-ES-XX | MTX-596440-60-ES-XX | MTX-596443-60-ES-XX | MTX-596446-60-ES-XX |
| Band 2 Block Upconverter | MTX-596737-60-ES-XX | MTX-596740-60-ES-XX | MTX-596743-60-ES-XX | MTX-596746-60-ES-XX |
| Band 3 Block Upconverter | MTX-576437-60-ES-XX | MTX-576440-60-ES-XX | MTX-576443-60-ES-XX | MTX-576446-60-ES-XX |
| Band 4 Block Upconverter | MTX-677037-60-ES-XX | MTX-677040-60-ES-XX | MTX-677043-60-ES-XX | MTX-677046-60-ES-XX |
| Band 5 Block Upconverter | MTX-646737-60-ES-XX | MTX-646740-60-ES-XX | MTX-646743-60-ES-XX | MTX-646746-60-ES-XX |
| Optional Outdoor Power Supply for all above BUCs | PN: 215560-001MD (With Bias-Tee) | |  | Outdoor Power Supply |
| Optional Indoor Power Supply for 5-10W BUCs | PN: 217537-001MD (With Bias-Tee) | | | |
| Optional Indoor Power Supply for 20-40W BUCs | PN: 215559-001MD (With Bias-Tee) | | | |

*When ordering replace -XX by the following options:

- 20 External Reference, FSK M&C
- 40 External Reference, RS485/RS232/Ethernet M&C
- 27 Internal Reference, FSK M&C
- 47 Internal Reference, RS485/RS232/Ethernet M&C

YOUR DAILY EXPERIENCE POWERED BY MITEC

SALES@MITECTELECOM.COM | WWW.MITECTELECOM.COM | 1-514-694-9000

215843-001PD Rev.1 12/09

