

25-40W KU-BAND ONE-BOX-DESIGN BUC



SATELLITE COMMUNICATIONS

EVEN MORE POWER FOR YOUR BUC

The new generation of Mitec VSAT Block Up-Converters comes with an integrated BUC/Booster package and designed for high efficiency resulting in an optimal compact form factor and lightweight with high performance and reliability. With the advanced customer interface and HTTP embedded web page, the operator is able to monitor and control the BUC and the System Redundancy from a web browser.



KEY FEATURES

- Compact size and light weight
- Best in Class efficiency with less than 300 W draw for 40W Output
- Easy to install
- Available in standard and extended bands
- High thermal dissipation efficiency resulting in "Best in Class" Mean Time Before Failure (MTBF)
- Superior phase noise, compliant with IESS 308 /309
- 1:1 switching logic built into the BUC eliminating expensive external controller
- Built-in facilities for critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- HTTP Hosting
- SNMP
- TELNET through TCP/IP
- RS485, RS232, Ethernet and Dry-Contacts M&C interface

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



25-40 W KU-BAND BUC

TRANSMIT CHARACTERISTICS	25 W	40 W
Output Frequency Range	Standard Band: 14.00-14.50 GHz, Extended Band: 13.75-14.50 GHz	
Input Frequency Range	Standard Band: 950-1450 MHz, Extended Band: 950-1700 MHz	
Conversion Type	Single fixed L.O., 13.05 GHz, 12.8 GHz, Non-inverting	
RF Output at 1 dB GCP	+44.0 dBm min	+46.0 dBm min, Standard Band +45.5 dBm min, Extended Band
Linear Gain	70 dB min	70 dB min
TX Gain Stability over temperature range	3.0 dB p-p nominal	
TX Gain Variation at fixed temperature	0.8 dB p-p max over 36 MHz; +/- 2 dB over full band	
Intermodulation	-25 dBc, with 2 equal carriers at 3 dB total power backoff from rated power	
10 MHz Reference (via IF Connector)	0 dBm +/- 5 dB, (internal reference, optional) Phase Noise Requirement (max): -135 dBc/Hz @100Hz, -140 dBc/Hz @ 1kHz, -143 dBc/Hz @ 10 kHz, -143 dBc/Hz @ 100 kHz	
L.O. Phase Noise	Meets IESS-308/309	
Output Spurious	-55 dBc max -70 dBm max over the receive band 10.95 to 12.75 GHz	
Receive Band Noise Power Density	-150 dBm/Hz max over the receive band 10.95 to 12.75 GHz	
Input IF Impedance	50 Ohms (75 Ohms optional)	
DC Power Requirements	+40 to +50 VDC	
Power Consumption (at rated power)	200W max	300W max, 260 at 3.0 dB back-off
MONITOR & CONTROL		
Interface Type	Dry-Contacts, RS485, RS232, Ethernet	
Mute Control	Via M&C Interfaces or disconnecting 10 MHz External Reference	
Monitoring Parameters	Out-of-lock Alarm, Temperature, Summary Alarm, Output Power	
Mute Internally Built	Shut off BUC in case of L.O. unlocked	
Status LED	Bicolor: RED - Alarm; GREEN - Operational	
Output Power Level Control	Via M&C Interfaces, 15 dB Dynamic Range	
MECHANICAL		
Input Interface	N-type, female (50 Ohm) [IF/10MHz]	
DC Power Connector	MS Connector	
M&C (RS485/RS232/Ethernet)	MS Connector	
Output Interface	Waveguide, WR75-G (Grooved)	
RF Sample Port	N-type, female	
Cooling	Forced Air (Fan)	
Dimensions (L x W x H)	9.0" x 6.0" x 5.5" (228.60mm x 152.40mm x 139.70mm)	
Weight	15 lbs (6.8 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		
Standard Band, Ext. Ref.	MTX-14014544-70-ES-40	MTX-14014546-70-ES-40
Standard Band, Int. Ref.	MTX-14014544-70-ES-47	MTX-14014546-70-ES-47
Extended Band, Ext. Ref.	MTX-13714544-70-ES-40	MTX-13714546-70-ES-40
Extended Band, Int. Ref.	MTX-13714544-70-ES-47	MTX-13714546-70-ES-47