

80-100W KU-BAND 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.

BUC A Status

Output power (dBm)	50.0
Temperature (°C)	52.4
Input voltage (Vdc)	47.8
Gain (dB)	75.0
IF Freq (MHz)	1325
Mute	Unmuted
Summary alarm	OK

Controls

Mute: Mute Unmute

Gain: dB

IF Freq: MHz

Alarm Details

Out of lock	OK
Temperature	OK
Input voltage	OK
Power supply	OK

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KEY FEATURES

- Available in standard and extended bands
- Best in Class efficiency with less than 1 kW draw for 100W RF Output
- High thermal dissipation efficiency resulting in Best-in-Class Mean Time Before Failure (MTBF)
- Superior phase noise , exceeding IESS308/309
- 1:1 switching logic built into the BUC eliminating expensive external controller
- Built-in telemetry facilities for RF power detection, mute control, gain control, over temperature shutdown, summary alarm
- HTTP Hosting
- SNMP
- RS485, RS232, Ethernet, Dry-Contacts M&C interface

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80W-100 W KU-BAND BUC

TRANSMIT CHARACTERISTICS

	80W	100W
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	
Local Oscillator Frequency	Standard Band: 13.05 GHz, Extended Band: 12.80 GHz	
Conversion Type	Single stage, Non-inverting	
RF Output at 1 dB GCP	+49 dBm min.	+50 dBm min., Standard Band +50 dBm typ., +49,5 dBm min., Extended Band
Output VSWR	1.20:1	
Linear Gain	75 dB min.	
User Adjustable Gain	15 dB in 0.1 dB steps	
Gain Stability Over Temperature	± 1.5 dB nominal; ± 2.0 dB max.	
Gain Variation at fixed temperature	Standard Band: ± 0.5 dB over max over 36 MHz; ± 2.0 dB over full band Extended Band: ± 0.75 dB over max over 36 MHz; ± 2.25 dB over full band	
Intermodulation	-25 dBc, with 2 equal carriers at 3 dB total power backoff from rated power	
10 MHz Reference (External via If Connector or Internal)	0 dBm ±0.5 dB, (External via IF Connector or Internal, Auto selection) Phase Noise Requirements: -135 dBc/Hz max @ 100 Hz, -140 dBc/Hz max @ 1 KHz, -143 dBc/Hz max @ 10 KHz; -143 dBc/Hz max @ 100 KHz	
Local Oscillator Phase Noise	-63 dBc/Hz max @ 100 Hz, -73 dBc/Hz max @ 1 KHz, -83 dBc/Hz max @ 10 KHz, -93 dBc/Hz max @ 100 KHz, -103 dBc/Hz max @ 1 MHz	
Output Spurious	-55 dBc max.; -70 dBm max over receive band 10.95-12.75 GHz	
Receive Band Noise Power Density	-150 dBm/Hz max.	
Input Impedance	50 Ohms	
Input VSWR	1:50:1	
Power Requirements	110-220VAC ± 10, 50/60Hz ± 10%	
Power Consumption (at rated power)	950W typ.	1kW typ.

INTERFACE

Output Interface	Waveguide, WR75-G (Grooved)
Input Interface	N-Type Female, 50 Ohms
AC Power Connector	MS Connector
M&C (RS485/RS232/Ethernet)	MS Connector
RF Sample Port	N-Type Female

MECHANICAL

Cooling	Forced Air
Dimensions (L x W x H)	16.25 x 9.75 x 7.9 inches, (419 x 248 x 201 mm)
Weight	44 lbs (20 kg)

ENVIRONMENTAL

Temperature Range (ambient)	-40 °C to + 50 °C (operating); -40 °C to + 75 °C (storage)
Humidity	0 to 100% (condensing)
Altitude	10,000 ft ASL

ORDERING INFORMATION

Standard Band, Ext. Ref.	MTX-14014549-75-ES-50	MTX-14014550-75-ES-50
Standard Band, Int. Ref.	MTX-14014549-75-ES-57	MTX-14014550-75-ES-57
Extended Band, Ext. Ref.	MTX-13714549-75-ES-50	MTX-13714550-75-ES-50
Extended Band, Int. Ref.	MTX-13714549-75-ES-57	MTX-13714550-75-ES-57

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