

# 8-16W KU-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

- Full Ku Uplink Frequency Range: 13.75 to 14.50 GHz
- Compact size and light weight (ideal for direct mount on antenna OMT that provides no TX loss)
- Low power consumption
- 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 8 W or forced air cooling for 16 W unit
- Both Internal and External 10 MHz reference options available
- Wide range of supply voltage 24-48 VDC for 8 W; 48 VDC only for 16 W
- Built-in input over current protection will shut down BUC when 16 W unit is powered from 24 VDC
- Status LED

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# 8-16 W KU-BAND BUC

## TRANSMIT CHARACTERISTICS

### 8 W

### 16 W

Output Frequency Range	Ku Band: 13.75-14.50 GHz	
Input Frequency Range	950-1700 MHz	
Conversion Type	Single fixed, 12.8 GHz, Non-inverting	
RF Output at 1 dB GCP	+39.0 dBm min	+42.0 dBm min
Linear Gain	60 dB min	65 dB min
TX Gain Stability over temperature range	3.0 dB p-p nominal; 4.0 dB max	
TX Gain Variation	1.0 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)	
L.O. Phase Noise	Meets IESS-308	
Output Spurious	-50 dBc	
Input IF Impedance	50 Ohms (75 Ohms optional)	
DC Power Requirements	+18 to +50 VDC	+40 to +50 VDC
Power Consumption	90 W max	180 W max
Mute Internally Built	Shut off BUC in case of L.O. unlocked	
Status LED	Bicolor: RED - Alarm; GREEN - Operational	

## M&C (OPTIONAL)

Interface Type	FSK
Mute Control	Via M&C Interfaces or disconnecting 10 MHz External Reference
Out of Lock Alarm	Via FSK
Temperature	Via FSK
Summary Alarm Status	Via FSK
Output Power Detection	Via FSK; 15 dB Dynamic Range

## MECHANICAL

Input Interface	N-type, female (50 Ohm) [IF/10MHz/DC Power/FSK]	
Output Interface	Waveguide, WR75-G (Grooved)	
Cooling	Passive Convection	Forced Air (Fan)
Dimensions (L x W x H), inches	9.0" x 7.0" x 4.25"	9.0" x 7.0" x 5.3"
Weight	9.9 lbs (4.5 kg)	11 lbs (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

Part Number	MTX-13714539-60-ES-20	MTX-13714542-60-ES-20
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