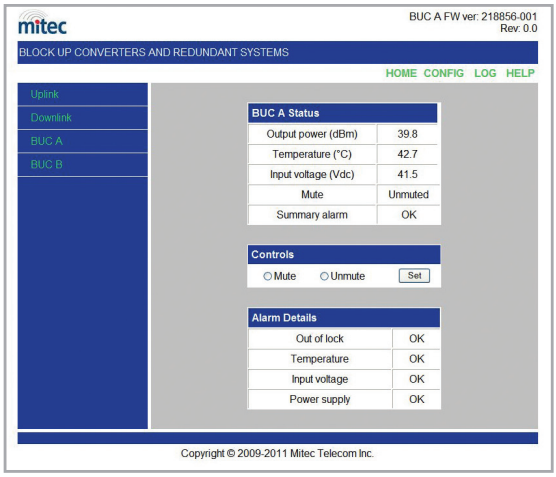
DATASHEET

8-20 W Ku-BAND MTX BUC

SATELLITE COMMUNICATIONS

The new generation of Mitec medium power Ku-band BUCs comes with a super-compact form factor, is light weight and extremely efficient, which allows it to be mounted directly on the antenna feed.



KEY FEATURES

- Compact and Best in class efficiency for 8W to 25 W Range of RF power
- Offered in standard and extended ku-bands
- FSK Interface via IF connector
- Full M&C Option including RS-232, RS-485, Ethernet and SNMP
- Internal reference Option
- Wide range of supply voltage 18 to 55 VDC for 8W and 36 to 55VDC for 16W and 20W BUC.
- Built In low voltage protection will shut down the BUC when 16W or 20W BUC is powered from 24VDC
- Status LED.

8-20 W Ku-BAND BUC

ELECTRICAL CHARACTERISTICS

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
Output VSWR	1.20:1
Linear Gain	Refer to Table “Specifications by BUC Power”
Gain Stability Over Temperature	± 1.5 dB nominal; ± 2.0 dB max.
Gain Variation at fixed temperature	Standard Band: ± 0.5 dB max over 36 MHz; ± 2.0 dB over full band Extended Band: ± 0.75 dB max over 36 MHz; ± 2.25 dB over full band
Intermodulation	-25 dBc, with 2 equal carriers at 3 dB total power back off from rated power
10 MHz Reference	0 dBm ±5.0 dB, (External via IF Connector or Internal)
Local Oscillator Phase Noise	-63 dBc/Hz max @ 100 Hz, -73 dBc/Hz max @ 1 KHz, -85 dBc/Hz max @ 10 KHz, -95 dBc/Hz max @ 100 KHz, -110 dBc/Hz max @ 1 MHz
Output Spurious	-55 dBc max.
Receive Band Noise Power Density	-150 dBm/Hz max.
Input Impedance	50 Ohms (75 Ohms Optional)
Input VSWR	1.50:1

INTERFACE

RF Output	Waveguide, CPR75G (Grooved)
IF Input	N-Type Female, 50 Ohms
Power Supply	Standard: DC Via Coaxial Connector; Optional: DC or AC via MS Connector
M&C	Standard: FSK via Coaxial Connector; RS485/RS232/Ethernet optional via MS Connector

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

SPECIFICATIONS BY BUC POWER

BUC POWER (*)	RF POWER @ P1DB (DBM)	GAIN MIN. (DB)	POWER DRAW (W)	COOLING	POWER REQUIREMENT	DIMENSIONS INCHES	WEIGHT (LBS/KG
8W	+39	63	85	Convection	+18 to +55 VDC (Coax Feed)	9.0 x 7.0 x 4.25	15.0/6.8
16W	+42	65	210	Fan	+18 to +55 VDC (Coax Feed) +48 VDC (non-isolated)	9.0 x 7.0 x 4.65	11.0/5.0
					48 VDC (isolated), 110/220 VAC	9.0 x 7.0 x 4.65	14.7/6.7
20W	+43	65	225	Fan	+36 to +55 VDC (Coax Feed) +48 VDC (non-isolated)	9.0 x 7.0 x 4.65	11.0/5.0
					48 VDC (isolated), 110/220 VAC	9.0 x 7.0 x 6.40	14.7/6.7

* 12W and 25 W units are also available in this package. For these powers please consult factory

ORDERING INFORMATION

To place an order, build your specific Ku-BAND BUC by specifying the following in your ordering number:

Ordering Number: MTX-FFFFFFPP-EN-2010

- Redundancy: 0: none; 1: Redundant Ready
- M&C: 0:none; 1: FSK; 5: RS232/RS485/Ethernet
- 10MHz Reference: 0: External; 1:internal
- Main Feed: 2: DC Coax; Feed 3:+48VDC (non-insolated); 4: 48VDC (insolated); 7: 110-220VAC
- Input Connector: N: N-Type F: F-Type
- Power in dBm @ P1dB
- Frequency: 140145: 14.00-14.50 GHz; 137145: 13.75-14.50 GHz