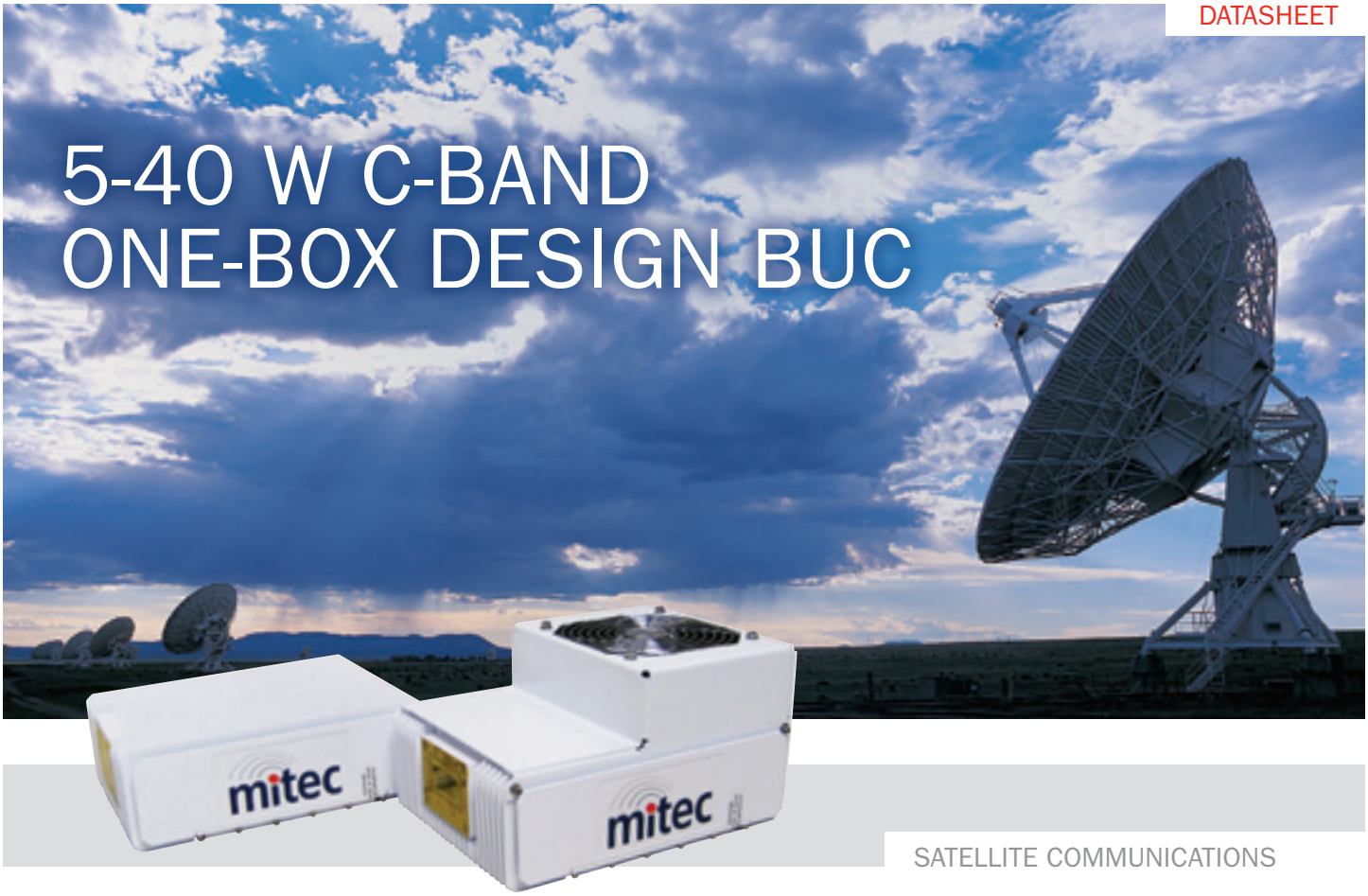
DATASHEET

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)
- 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 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

5-40 W C-BAND BUC

TRANSMIT CHARACTERISTICS	5 W	10 W	20 W	40 W
Output Frequency Range	5.850 to 6.425 GHz (other frequency range options available)			
Input Frequency Range	950 to 1525 MHz (other frequency range options available)			
Conversion Type	Single, fixed L.O. 4.9 GHz, Non-inverting			
RF Output at 1 dB GCP	+37.0 dBm min	+40.0 dBm nom	+43.0 dBm min	+46.0 dBm min
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	+/- 0.5 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			
Output Spurious	-55 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	135 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			
Out of Lock Alarm	Via M&C Interfaces			
Temperature	Via M&C Interfaces			
Summary Alarm	Via M&C Interfaces			
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, WR135-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				
Standard Band, Ext. Ref.	MTX-596437-60-ES-20	MTX-596440-60-ES-20	MTX-596443-60-ES-20	MTX-596446–60-ES-20
Standard Band, Int. Ref.	MTX-596437-60-ES-27	MTX-596440-60-ES-27	MTX-596443-60-ES-27	MTX-596446–60-ES-27

For other C Bands please consult Mitec Telecom