

8-250 W Ku-BAND BUC



SATELLITE COMMUNICATIONS

THE NEW GENERATION OF MITECVSAT HIGH POWER Ku-BAND BUC

An ideal solution for both mobile and fixed VSAT terminals. It is designed for high efficiency resulting in an optimal compact form factor 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 via a PC, Ipad or Iphone.

The screenshot displays the Mitec VSAT web interface. At the top, it shows the Mitec logo and version information: "BUC A FW ver: 216142-001 Rev: 6.0". Below this is a navigation bar with "BLOCK UP CONVERTERS AND REDUNDANT SYSTEMS" and links for "HOME CONFIG LOG HELP". A sidebar on the left contains links for "Uplink", "Downlink", "BUC A", and "BUC B". The main content area is divided into three sections:

BUC A Status	
Output power (dBm)	40.0
Temperature (°C)	52.1
Input voltage (Vdc)	47.8
Gain (dB)	60.0
IF Freq (MHz)	1400
Mute	Unmuted
Summary alarm	OK

Below the status table is the "Controls" section:

Mute: ☐ Mute ☒ Unmute

Gain: dB

IF Freq: MHz

At the bottom is the "Alarm Details" section:

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

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KEY FEATURES

- Available in both standard and extended Bands
- High thermal dissipation efficiency resulting in Extremely compact size
- Superior phase noise exceeding IESS308/309
- 1:1 switching logic built into the BUC eliminating expensive external controller
- Built-in Telemetry facilities for critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- HTTP Hosting
- SNMP allowing M&C functions via a PC, Iphone or Ipad
- RS485, RS232, Ethernet and dry-contacts M&C Interface

YOUR DAILY EXPERIENCE POWERED BY MITECVSAT

HIGH POWER Ku-BAND BUC SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Output Frequency Range	Standard Band: 14.00-14.50 GHz; Extended Band: 13.75-14.50 GHz (Other options available)
Input Frequency Range	Standard Band: 950-1450 MHz; Extended Band: 950-1700 MHz (Other options available)
Local Oscillator Frequency	Standard Band: 13.05 GHz; Extended Band: 12.80 GHz (Other options available)
Output VSWR	1.20:1
Linear Gain	70 dB nominal for 25-40W BUC, 75 dB nominal for 60-200W BUC
User Adjustable Gain	20 dB in 0. dB steps
Gain Stability over temperature range	± 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 (External via If Connector or Internal)	0 dBm ±5.0 dB, (External via IF Connector or Internal) 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; -100 dBc/Hz max @ 100 KHz; -110 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

INTERFACE

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

MECHANICAL

Cooling	Forced Air
Dimensions (L x W x H)	Refer to table below
Weight	Refer to table below

ENVIRONMENTAL

Temperature Range (ambient)	-40°C to + 55°C (operating); -40°C to + 75°C (storage)
Humidity	0 to 100% (condensing)
Altitude	10,000 ft. ASL

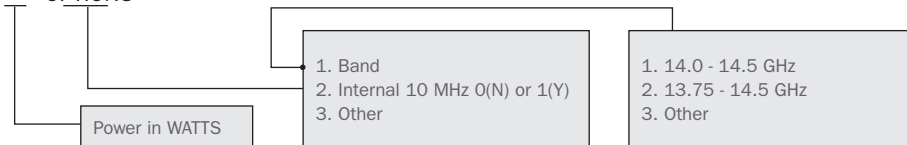
SPECIFICATIONS BY BUC POWER

BUC POWER PSAT (TYPICAL) WATTS	OUTPUT POWER @ P1DB (dBm)	POWER REQUIREMENT	POWER CONSUMPTION (W)	WEIGHT (LBS/KG)
8W	+39	110-220VAC / 48 VDC isolated	90	15.6 / 7.0
12W	+41	110-220VAC / 48 VDC Isolated	140	15.6 / 7.0
16W	+42	110-220VAC / 48 VDC Isolated	150	15.6 / 7.0
20W	+43	110-220VAC / 48 VDC Isolated	240	15.6 / 7.0
25W	+44	110-220VAC / 48 VDC isolated	270	15.6 / 7.0
40W	+45	110-220VAC / 48 VDC Isolated	300	27.8 / 12.5
50W	+46	110-220VAC / 48 VDC Isolated	450	27.8 / 12.5
60W	+47	110-220VAC / 48 VDC Isolated	500	27.8 / 12.5
80W	+48	220VAC	850	47.5 / 21.6
100W	+49	220VAC	1000	47.5 / 21.6
125W	+50	220VAC	1200	47.5 / 21.6
200W	+52	220VAC	2500	94.1 / 42.8
250W	+53	220VAC	2600	94.1 / 42.8

ORDERING INFORMATION

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

Ordering Number: ALTX - KU - - OPTIONS



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