

## ALGA high powered X-Band BUC

An ideal solution for both mobile and fixed Satellite Communication 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



### WEB INTERFACE

BLOCK UP CONVERTERS AND REDUNDANT SYSTEMS

HOME CONFIG LOG HELP

Uplink	
Downlink	
BUC A	
BUC B	

BUC A Status	
Output power (dBm)	44.2
Temperature (°C)	52.0
Input voltage (Vdc)	N/A
Gain (dB)	77.0
IF Freq (MHz)	1200
Mute	Unmuted
Summary alarm	OK

Controls	
Mute	<input type="radio"/> Mute <input type="radio"/> Unmute <input type="button" value="Set"/>
Gain	<input type="text" value="Fixed"/> dB <input type="button" value="N/A"/>
IF Freq	<input type="text" value=""/> MHz <input type="button" value="Set"/>

Alarm Details	
Out of lock	OK
RF over power	OK
Temperature	OK
Input voltage	N/A

### KEY FEATURES

- Extremely compact size
- 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
- WEB interface and SNMP monitoring
- RS 485, RS232, Ethernet and dry-contacts M&C Interface

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# HIGH POWER X-BAND BUC Specifications

## ELECTRICAL CHARACTERISTICS

Standard Band	
Output Frequency Range	7.9 - 8.4 GHz
Input Frequency Range	950 – 1450 MHz
Local Oscillator Frequency	6.95 GHz
Gain Stability Over Temperature	± 1.5 dB nominal
Gain Variation at fixed temperature	± 0.5 dB over max over 36 MHz; ± 2.0 dB over full band
Linear Gain	70 dB min.
User Adjustable Gain	20 dB in 0.5 dB steps
Intermodulation	-25 dBc, with 2 equal carriers at 3dB total power back off from rated power (PSAT -3dB)
10MHz Reference	0dBm ± 5.0 dB - External via IF / (Internal 10MHz reference optional)
	<b>@ 100 Hz</b> <b>@ 1 KHz</b> <b>@ 10 KHz</b> <b>@ 100 KHz</b> <b>@ 1 MHz</b>
Ref Phase Noise Requirement	-140 dBc/Hz max      -143 dBc/Hz max      143 dBc/Hz max
Local Oscillator Phase Noise	-62 dBc/Hz max      -72 dBc/Hz max      -82 dBc/Hz max      -92 dBc/Hz max      -102 dBc/Hz max
Output Spurious	-60dBc @ P1dB
Harmonics	-60dBc @ P1dB with output filter
VSWR	Input (1.50:1)      Output (1.30:1)

## INTERFACE

Connectors	Power	M&C (RS232/485/Ethernet)	RF Sample	Redundancy
	MS Connector	MS Connector	N-Type Female (optional)	MS Connector (optional)
Output Interface	Waveguide, WR112G (Grooved)			
Input Interface	N-Type Female, 50 Ohms			

## ENVIRONMENTAL

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

## SPECIFICATION BY BUC POWER

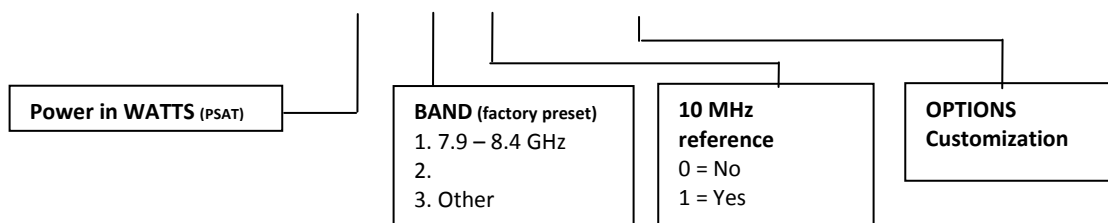
BUC POWER PSAT (TYPICAL) /dBm (WATTS/dBm)	OUTPUT POWER @P1dB (WATTS/dBm)	POWER REQUIREMENT	POWER CONSUMPTION (Watts)	DIMENSIONS (in)	WEIGHT (LBS/KG)
10W / 40	10W / 40	110-220VAC (*1)	185	9.5 x 6 x 6	14.7 / 6.7
20W / 43	20W / 43	110-220VAC (*1)	325	9.5 x 6 x 6	14.7 / 6.7
40W / 46	40W / 46	110-220VAC (*1)	495	9.5 x 6 x 6	14.7 / 6.7
50W / 47	50W / 47	110-220VAC (*1)	525	9.5 x 6 x 6	14.7 / 6.7
80W / 49	60W / 48	110-220VAC (*1)	850	13 x 8.2 x 6.3 (*2)	27.8 / 12.5
100W / 50	80W / 49	110-220VAC (*1)	975	13 x 8.2 x 6.3 (*2)	27.8 / 12.5
125W / 51	100W / 50	110-220VAC (*1)	1100	13 x 8.2 x 6.3 (*2)	27.8 / 12.5
200W / 53	150W / 52	220VAC	2400	15.4 x 16 x 6	48 / 21.8
250W / 54	200W / 53	220VAC	2750	15.4 x 16 x 6	48 / 21.8
400W / 56	300W / 55	220VAC	5200	18 x 24 x 9.6	99 / 45
500W / 57	400W / 56	220VAC	5900	18 x 24 x 9.6	99 / 45

(\*1) 48 VDC isolated optional on 10W – 125W units

(\*2) without circulator

**ORDERING INFORMATION** To place an order, build your specific X-BAND BUC by specifying the following in your ordering number:

Ordering Number: ALTX - X - \_\_\_ - \_\_\_ - \_\_\_ - OPTIONS



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