

8-16 W Ka-BAND BUC

DATASHEET

The new generation of ALGA high powered Ka-Band BUC's

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 Mute Unmute

Gain dB

IF Freq MHz

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

KEY FEATURES

- DUAL LO = same unit covers both Commercial and Military Ka Band
- Internal 10 MHz ref built in with Auto-sensing of External 10 MHz ref
- 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 232, RS485, Ethernet and dry-contacts M&C Interface
- Convection Cooling....NO FAN...No maintenance

COST EFFECTIVE SOLUTION FOR THE FUTURE
SALES@ALGA.CA | WWW.ALGA.CA | 1-514-694-8666



HIGH POWER Ka-BAND BUC Specifications

ELECTRICAL CHARACTERISTICS

	Commercial Band		Military Band		
Output Frequency Range	29.5 - 30 GHz		30 - 31 GHz		
Input Frequency Range	1000 – 1500 MHz		1000 – 2000 MHz		
Local Oscillator Frequency	28.5 GHz		29 GHz		
Gain Stability Over Temperature	± 1.5 dB nominal; ± 2.0 dB max		± 1.5 dB nominal; ± 2.25 dB max		
Gain Variation at fixed temperature	± 0.5 dB over max over 36 MHz; ± 2.0 dB over full band		± 0.75 dB over max over 36 MHz; ± 2.25 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)				
	@ 100 Hz	@ 1 KHz	@ 10 KHz	@ 100 KHz	@ 1 MHz
Phase Noise Requirement		-140 dBc/Hz max	-143 dBc/Hz max	143 dBc/Hz max	
Local Oscillator Phase Noise	-60 dBc/Hz max	-70 dBc/Hz max	-80 dBc/Hz max	-90 dBc/Hz max	-100 dBc/Hz max
Output Spurious	-55 dBc max @PLinear				
Harmonics	-50 dBc max @PLinear				
VSWR	Input (1:50:1)		Output (1:30:1)		

INTERFACE

Connectors	Power	M&C (RS232/485/Ethernet)	RF Sample	Redundancy
	via IF Connector (options available)	MS Connector	(optional)	MS Connector
Output Interface	Waveguide, WR28G (Grooved)			
Input Interface	N-Type Female, 50 Ohms,		F-Type Female, 75 Ohms (optional)	

MECHANICAL

See table

ENVIRONMENTAL

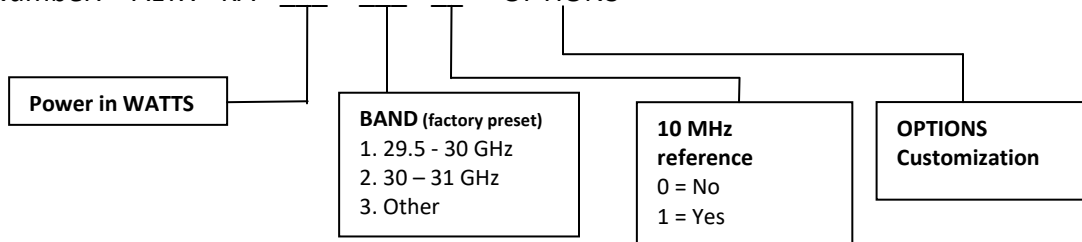
Temperature Range (ambient)	Humidity	Altitude
-40°C to + 55°C (operating); -40°C to + 75°C (storage)	0 to 100% (condensing)	10,000 ft ASL

SPECIFICATION BY BUC POWER

BUC POWER PSAT (TYPICAL) WATTS PSAT /dBm	OUTPUT POWER @PLINEAR (PSAT – 3Db) (WATTS/dBm)	POWER REQUIREMENT	POWER CONSUMPTION PSAT/PLINEAR (Watts)	DIMENSIONS (in/cm)	WEIGHT (LBS/KG)
8W / 39	4 / +36	48 VDC	100 / 80		11.8 / 5.4
10W / 40	5 / +37	48 VDC	100 / 90		11.8 / 5.4
12W / 41	6 / +38	48 VDC	110 / 100		11.8 / 5.4
16W / 42	8 / +39	48 VDC	120 / 110		11.8 / 5.4

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

Ordering Number: ALTX - KA - - - - OPTIONS



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