

High Performance X-Band SSPA/Block Upconverter

General Information

Intended for either indoor or outdoor environments, Locus Microwave, Inc.'s UB61000 Block Upconverter is designed for use in professional and military systems. This compact unit can be mounted on the antenna for maximum efficiency of operation.

Features:

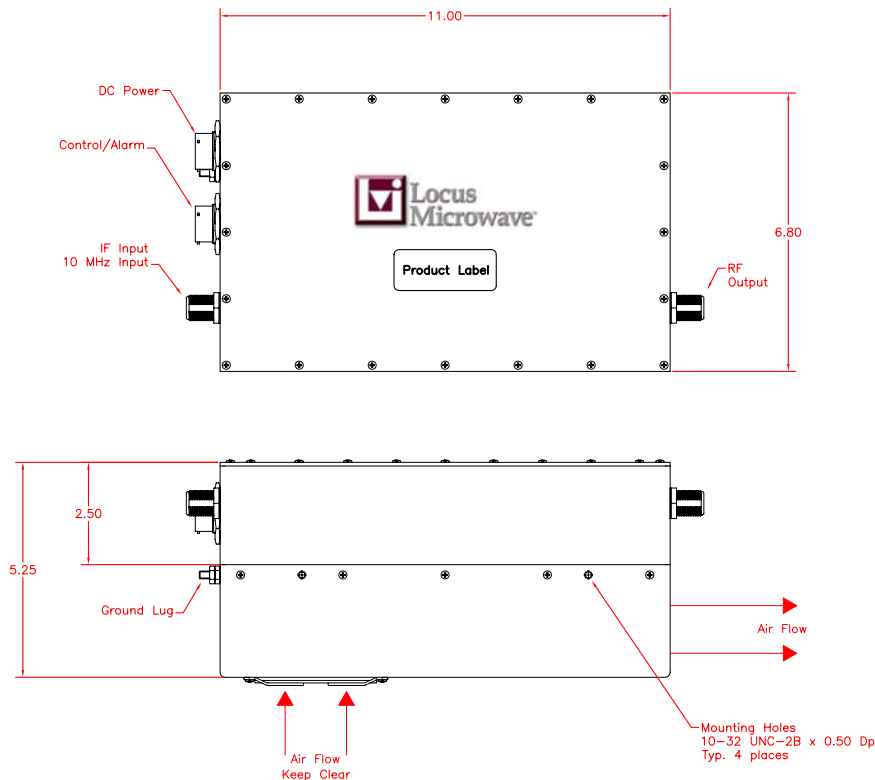
- 30 or 50 watt Output Power
- L Band IF Input
- Outdoor packaging
- Internal image filtering included
- Integral Monitor/Alarm



Options:

- 48 VDC or AC Power
- Internal Reference
- Serial I/O Package
- Waveguide Output
- Sample Port

Outline Drawing



PIN ASSIGNMENT; J3

PIN	FUNCTION	DESCRIPTION
A	+24/48 vdc	DC MAINS IN
B	+24/48 vdc	DC MAINS IN
C	+24/48 vdc rtn	DC MAINS RTN
D	+24/48 vdc rtn	DC MAINS RTN

PIN ASSIGNMENT; J4

PIN	FUNCTION	DESCRIPTION
A	MUTE IN	active high, +5 vdc @ 20mA, opto-isol.
B	TEMP OUT	analog output, 0.67 vdc @ +25 °C, Tc = +6.45 mV/°C; into 10k ? load
C	LOCK DET OUT	active high, +5vdc (TTL)
D	GND	Chassis
E	SUMMARY FAULT	active high, +5vdc (TTL)
F	SSPA FAULT	active high, +5vdc (TTL)
G	GND	Chassis
ALL OTHERS	UNUSED	NC



	Range	Units	Notes
Electrical Specifications			
Input Frequency	950-1450	MHz	
Output Frequency	7.90-8.40	GHz	
Local Oscillator Frequency	6.95	GHz	Phase Locked
External Reference			
Frequency	10	MHz	
Level	0 dBm +/-5 dB		
Phase Noise (SSB)			per MIL-STD-188-164A
@ 1 kHz offset	-73 max., -76 typ.	dBc/Hz	
@ 10 kHz offset	-83 max., -95 typ.	dBc/Hz	
@ 100 kHz offset	-95 max., -110 typ.	dBc/Hz	
Gain	57 min., 60 typ.	dB	
Gain Flatness	+/-1.25 max.	dB	per full band
Gain Slope	+/-0.4 max.	dB	per 40 MHz
Stability over temperature	+/- 2.0	dB	
P _{1dB} (-045/-047)	+44.0 min./46.0 typ.	dBm	
P _{sat} (-045/-047)	45.5 typ./47.2 typ.	dBm	
Third Order Intermodulation Distortion	-25 max.	dB	@ 3 dB backoff relative to rated P _{1dB}
Noise Figure	12 nom.	dB	
Input VSWR	1.70 typ., 2.00 max.	:1	
Output VSWR	1.25 typ., 1.40 max.	:1	Isolator Included
Overdrive	+0 max.	dBm	non-damaging
Spurious, Signal Related (@ rated output)	-60 max.	dBc	within rated output band
Spurious, Signal Independent (@ rated output)	-60 max.	dBc	outside of band
M&C Function	Mute, Temp. Monitor, Fault		
Power Requirement			
Input Voltage	+18 to +36	vdc	+48 vdc and AC optional
Power (-045/-047)	235 nom./290 nom.	watts	
Mechanical Specifications			
Size (approximate)	11.0 x 6.80 x 5.25	inches	L x W x H
Weight	13 nom.	lbs.	
Finish	epoxy paint		specify: white, green or tan
Connectors			
IF Input/Ext. Reference	Type N	Female	
RF Output, Sample Port (optional)	Type N	Female	WG optional for RF Output
Power	MS3474W14-4P		
Control/Alarm	MS3114E14-18S		
Environmental			
Operating Temperature	-40 to +60	°C	
Humidity	100	%	with condensation

Specifications are subject to change at the discretion of Locus Microwave, Inc.

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