

## High Performance 5/10/16 watt X-Band Split BUCs

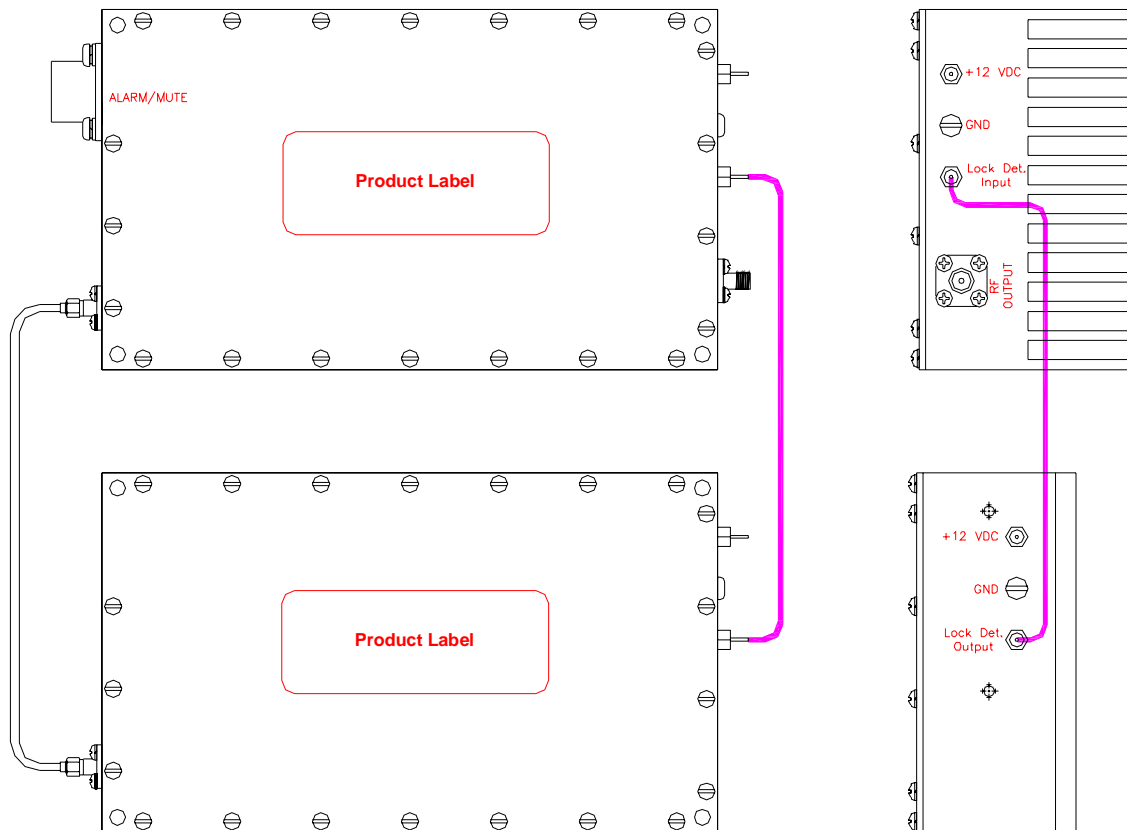
### General Information

Intended for Manpack applications, Locus Microwave, Inc.'s UB61003 Block Upconverters are designed for use in commercial, military and military Manpack miniature satcom systems. This compact split unit can be mounted for maximum efficiency of operation in a customer supplied package with the finned SSPA being cooled with customer supplied moving air.

### Features:

- Split configuration
- Light Weight (~3.9 pounds)
- Finned SSPA Package
- MIL-STD-188-164A Phase Noise
- 5/10/16 watt Output Power choices
- L Band IF Input
- Internal image filtering included
- Integral Monitor/Alarm

### Typical Configuration





	Range	Units	Notes
<b>Electrical Specifications</b>			
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., -94 typ.	dBc/Hz	
@ 100 kHz offset	-95 max., -105 typ.	dBc/Hz	
Gain	50 min., 55 typ.	dB	consult factory for other gain levels
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 <sub>1dB</sub> (-037/-040/-042)	+36.5/+39.5/+41.0 min.	dBm	
P <sub>sat</sub> (-037/-040/-042)	+38.0/+40.5/+42.0 typ.	dBm	
Third Order Intermodulation Distortion	-25 max.	dB	@ 3 dB backoff relative to rated P <sub>1dB</sub>
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 (optional)	Mute, Temp. Monitor, Fault		optional
Power Requirement			
Input Voltage	+12.0 nom.	vdc	
Input Current (-037/-040/-042)	3.8/5.6/6.8 nom.	amps	
<b>Mechanical Specifications</b>			
Size, SSPA Module	6.00 x 3.50 x 2.06	inches	L x W x H
Size, BUC Module	6.00 x 3.50 x 1.55	inches	L x W x H
Weight	3.9 nom.	lbs.	
Finish	passivated aluminum		
Connectors			
IF Input/Ext. Reference, RF Output	Type SMA	Female	
+12 VDC Input	RFI Solder Pin		SSPA & Converter Modules
M&C I/O	MS3112E10-6P		
<b>Environmental</b>			
Operating Case Temperature	-40 to +60	°C	Forced air cooling required
Humidity	100	%	with condensation

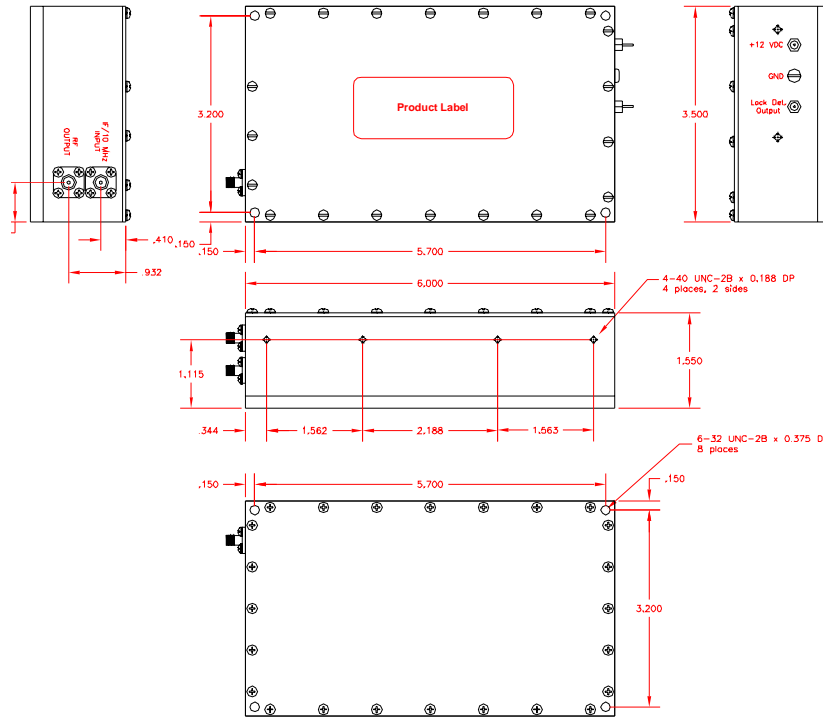
Specifications are subject to change at the discretion of Locus Microwave, Inc.

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**Outline Drawing, BUC Module**



**Outline Drawing, SSPA Module**

