
UB61006-037/-040/-042 X-Band 5/10/16 Watt Split Block Up Converter (BUC)/SSPA

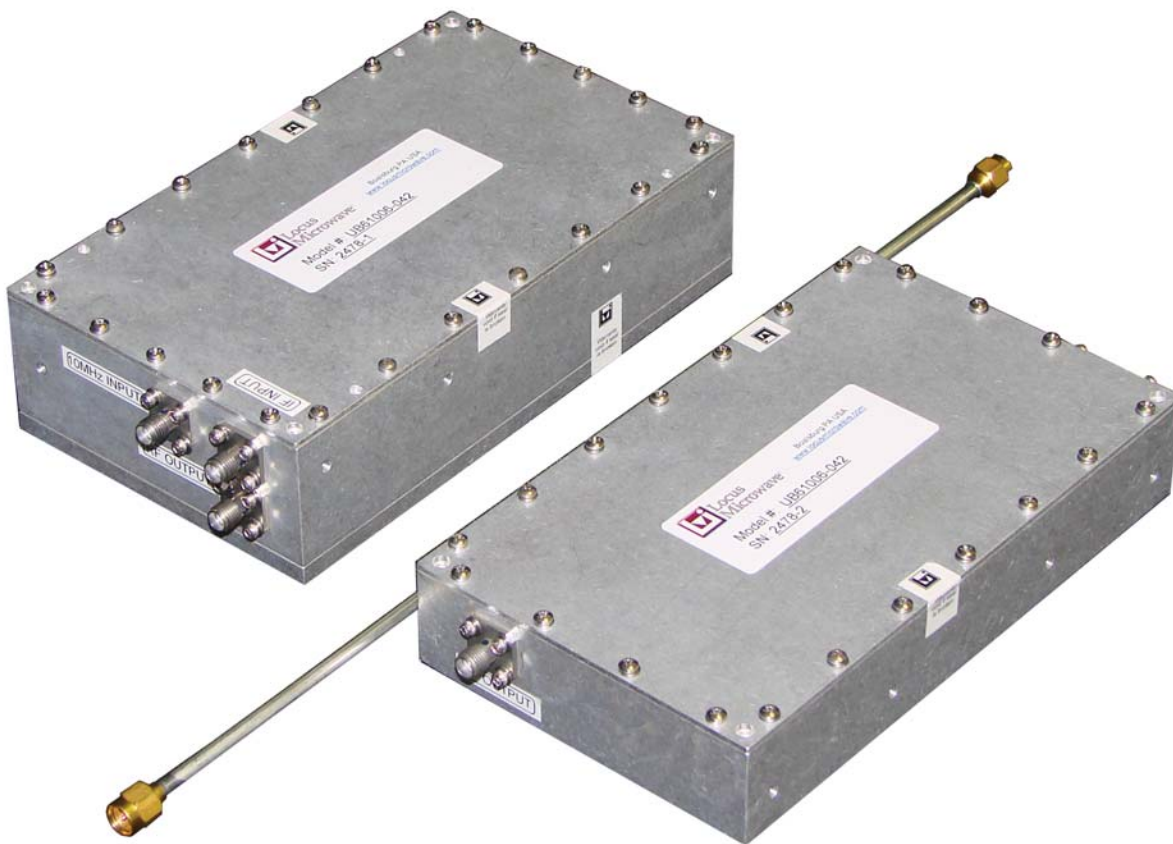
General Information

Locus Microwave, Inc., designed the UB61000 BUC for use in commercial, military and military miniature SATCOM systems. Intended for Manpack applications, this compact split unit can be mounted for maximum efficiency of operation in a customer supplied package with the finned SSPA being cooled by customer supplied moving air.

Features:

- Split configuration
- High P_{Linear}
- Light Weight (~3.5 pounds)
- Planar SSPA Package
- MIL-STD-188-164A Phase Noise
- 5/10/16 Watt Output Power choices
- Separate 10 MHz input
- Internal image filtering included
- Integral Monitor/Alarm

Typical Configuration



This item is subject to International Traffic in Arms Regulations (ITAR) and is classified as 22 CFR, Part 121, Category XI (a) (5) per United States Munitions List (USML). Compliance with the Department of State ITAR is required for export of this item.

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	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., -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 _{1dB} (-037/-040/-042)	+36.5/+39.5/+41.0 min.	dBm	
P _{sat} (-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 _{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		Serial I/O RS232, RS485
Power Requirement			
Input Voltage	+12.0 nom.	vdc	
Input Current (-037/-040/-042)	3.8/5.6/6.8 nom.	amps	
Mechanical Specifications			
Size, SSPA Module	6.00 x 3.50 x 1.06	inches	L x W x H
Size, BUC Module	6.00 x 3.50 x 1.55	inches	L x W xH
Weight	3.5 nom.	lbs.	
Finish	passivated aluminum		
Connectors			
IF Input/RF Output	Type SMA	Female	J1
+12 VDC Input, M&C I/O	DB 9-F		SSPA & Converter Modules
External Reference	Type SMA	Female	
Environmental			
Operating Temperature	-40 to +50	°C	Heatsink & forced air cooling required
Humidity	100	%	with condensation