

Ku Band Block Upconverter (BUC) 13.75 - 14.5GHz

LW30-797803

TYPICAL APPLICATIONS

- SSPA/TWTA Power Amplifier systems
- Can be used in conjunction with Linwave power amplifiers

PRODUCT FEATURES

- IESS 308 compliant
- Adjustable gain
- Temperature compensated
- Lock detect output
- Automatic internal/external reference detection and switching
- Integral high performance output filtering

GENERAL DESCRIPTION

The LW30-797803 is a high performance BUC designed for use with external power amplifiers or integration into customers' systems. The design allows for flexibility in the customers' requirements with a number additional features being available.

Extended temperature range and harsh environment models are also available. Please contact factory for alternative connector and frequency options.



ELECTRICAL CHARACTERISTICS - Operational $T_A = 25\text{ }^\circ\text{C}$, 50 Ω System (unless otherwise noted)

PARAMETER	MIN	TYP	MAX	UNITS
RF Output Frequency	13.75		14.5	GHz
IF Input frequency	950		1700	MHz
Small signal gain	-2	0	+2	dB
Output power (P_{1dB})	0			dBm
Third Order Intercept Point	+10			dBm
Input Return Loss		13		dB
Output Return Loss		14		dB
Noise Figure			18	dB
Gain Flatness (full band)	-1		+1	dB
Spurious Outputs (Signal related in band)		-60		dBc
Spurious Outputs (LO leakage)		-45		dBm
Frequency reference (internal or external on L band input)		10		MHz

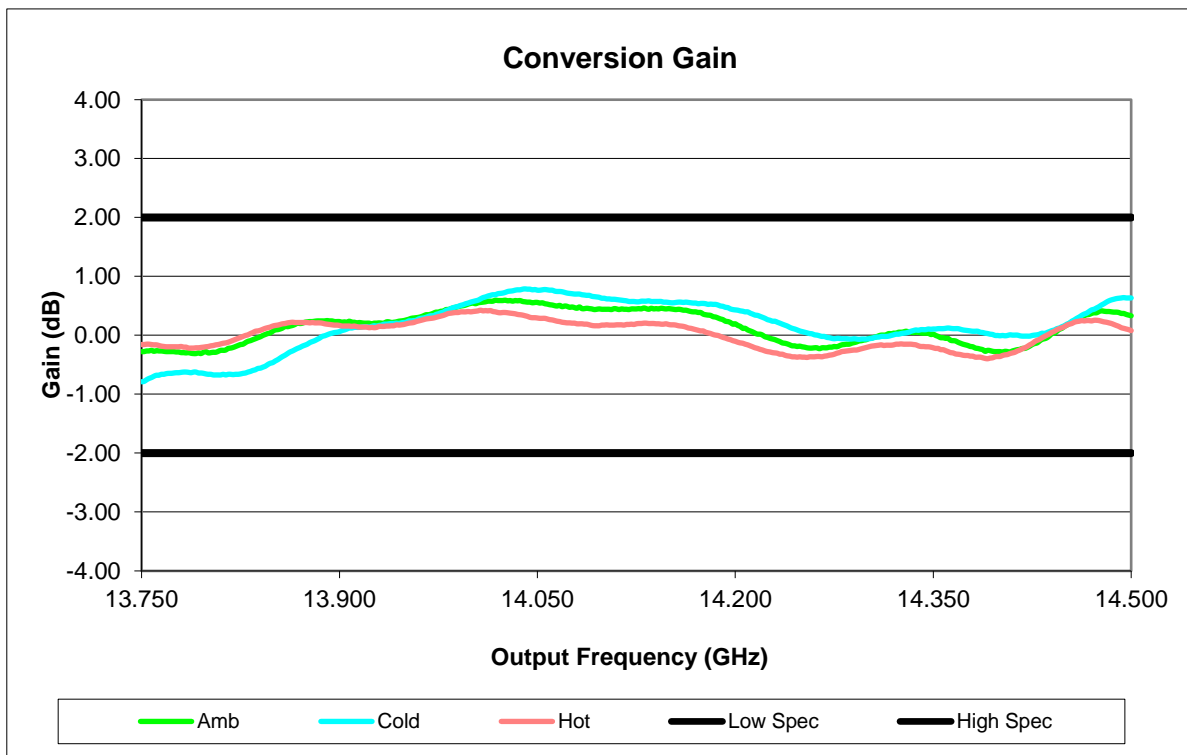
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PARAMETER	MIN	TYP	MAX	UNITS
Phase Noise 100Hz offset from carrier			-61	dBc/Hz
1kHz offset from carrier			-71	dBc/Hz
10kHz offset from carrier			-81	dBc/Hz
100kHz offset from carrier			-91	dBc/Hz
1MHz offset from carrier			-91	dBc/Hz
Power Consumption +15V			1000	mA
Operating temperature range	-20		60	°C
Storage temperature range	-40		85	°C

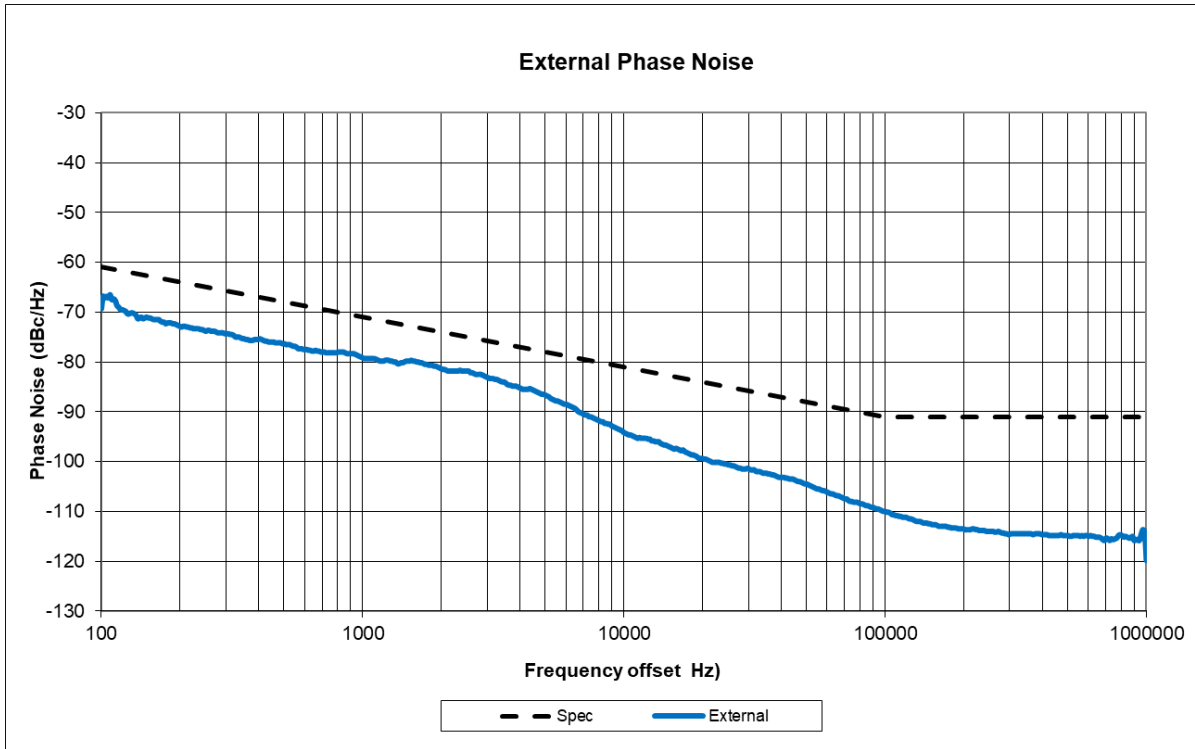
MECHANICAL CHARACTERISTICS

PARAMETER	VALUE	UNITS
Dimensions (max)	135 x 82.5 x 27 (L x W x H) Mounting holes, 4 x \varnothing 3.2mm through	mm
Weight (max)	700	g
IF/RF connectors	SMA female	-
Control/Power connector	9 pin D plug (male)	-
Cooling	Conduction cooled	-

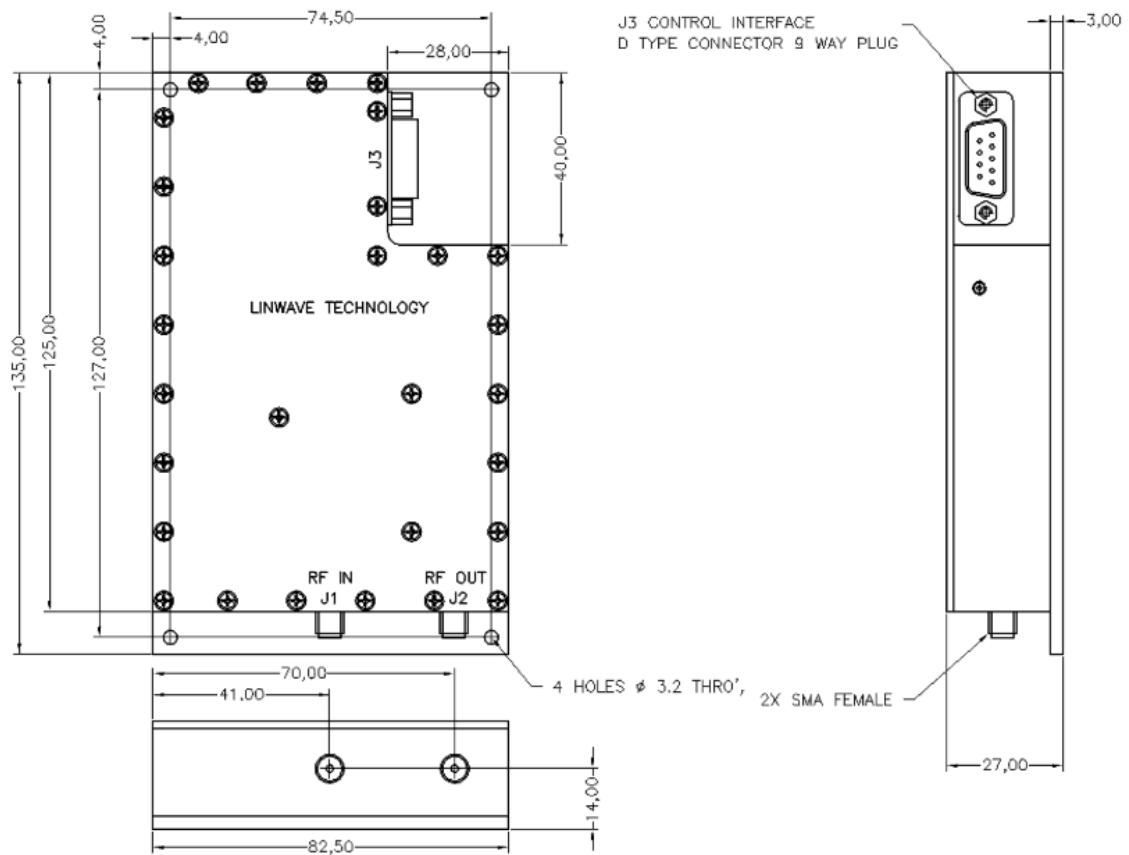
PERFORMANCE DATA



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MECHANICAL OUTLINE



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Data sheet v1