

Ka Band Block Upconverter (BUC) 27.5 to 31GHz

LW30-797778

TYPICAL APPLICATIONS

- Next generation Sat Comm Systems
- Airborne, Man pack, Flyaway applications
- Can be used in conjunction with Linwave or third party power amplifiers

PRODUCT FEATURES

- IESS 308/309 compliant
- Adjustable gain
- Temperature compensated
- GUI controlled
- iDirect OpenBMIP™ Standard compatible
- Integral high performance output filtering

GENERAL DESCRIPTION

The LW30-797778 is a high performance low power 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 $T_A = 25^\circ\text{C}$, 50 Ω System (unless otherwise noted)

PARAMETER	MIN	TYP	MAX	UNITS
IF Input frequency	950		1950	MHz
Output Frequency Band 0	27.5		28.5	GHz
Output Frequency Band 1	28.25		29.25	GHz
Output Frequency Band 2	29.0		30.0	GHz
Output Frequency Band 3	30.0		31.0	GHz
Small signal gain		30		dB
Output power (P1dB)	+8			dBm
Third Order Intercept Point		+18		dBm
Input Return Loss		14		dB
Output Return Loss		10		dB
Noise Figure (maximum gain)		8		dB

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PARAMETER	MIN	TYP	MAX	UNITS
Gain ripple over frequency (1GHz band, fixed temperature)			3	dB p-p
Gain ripple over temperature (fixed frequency)			3	dB p-p
Gain Control range		20		dB
Spurious Outputs (Signal related in band)		-60		dBc
Spurious Outputs (LO leakage)		-45		dBc
Frequency reference (external on L band input)		50		MHz
Phase Noise 100Hz offset from carrier			-50	dBc/Hz
1kHz offset from carrier			-75	dBc/Hz
10kHz offset from carrier			-85	dBc/Hz
100kHz offset from carrier			-95	dBc/Hz
1MHz offset from carrier			-105	dBc/Hz
10MHz offset from carrier			-112	dBc/Hz
Power Consumption (+12V)			14	W
Operating temperature range	-40		70	°C
Storage temperature range	-40		85	°C

MECHANICAL CHARACTERISTICS

PARAMETER	VALUE	UNITS
Dimensions excluding connectors (typ)	130 x 112 x 34 (L x W x H)	mm
Weight (max)	550	g
IF/RF connectors	IF - SMA female, RF - K Type female	-
Control/Power connector	15 pin Micro D socket	-
Cooling	Conduction cooled	-

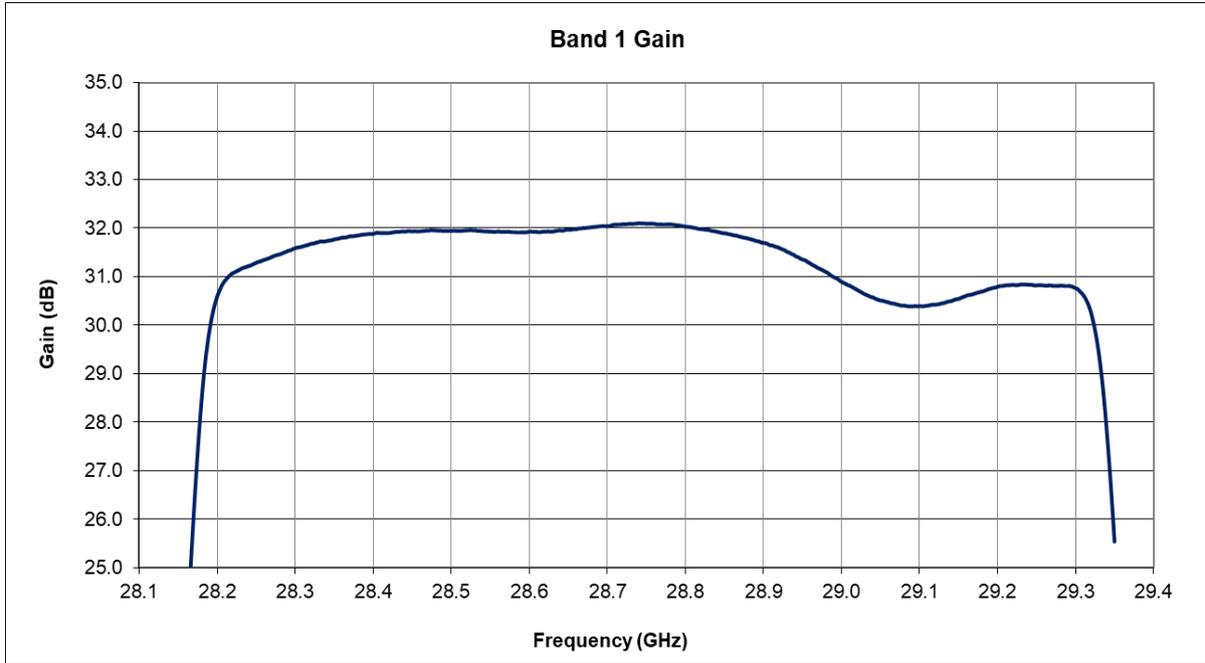
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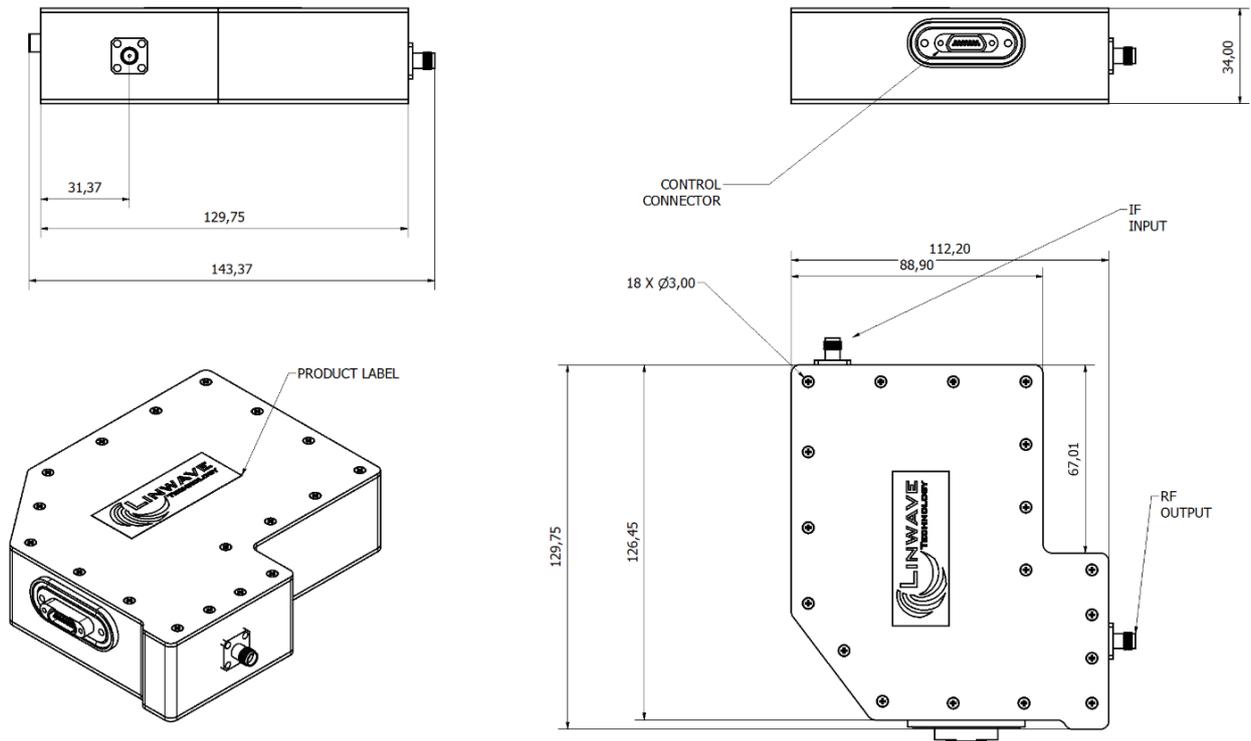
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PERFORMANCE DATA



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MECHANICAL OUTLINE



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