

## Ka Band Block Upconverter (BUC) 29.0 to 30.0GHz, 2W

**LW30-797782**

### TYPICAL APPLICATIONS

- Next generation Sat Comm Systems
- Airborne applications
- Man pack/Flyaway applications

### PRODUCT FEATURES

- IESS 308/309 compliant
- Adjustable gain
- Temperature compensated
- GUI controlled (RS-422 protocol)
- iDirect OpenBMIP™ Standard compatible
- Integral high performance output filtering

### GENERAL DESCRIPTION

The LW30-797782 is a high performance power BUC with an integral GaN power amplifier. 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 $\Omega$ System (unless otherwise noted)

PARAMETER	MIN	TYP	MAX	UNITS
IF Input frequency	950		1950	MHz
Output Frequency	29.0		30.0	GHz
Maximum Operating Power (MOP)		33		dBm
Conversion gain at MOP		60		dB
ACPR at MOP (BPSK, 1Msps, $\alpha=0.2$ , 1.2MHz integration bandwidth, 1.2MHz offset from centre frequency)			-20	dBc
Input Return Loss		14		dB
Output Return Loss (Integrated Isolator)		14		dB
Noise Figure (maximum gain)		8		dB
Gain ripple over frequency (1GHz band, fixed temp at MOP)			3	dB p-p
Gain ripple over temperature (fixed frequency at MOP)			3	dB p-p

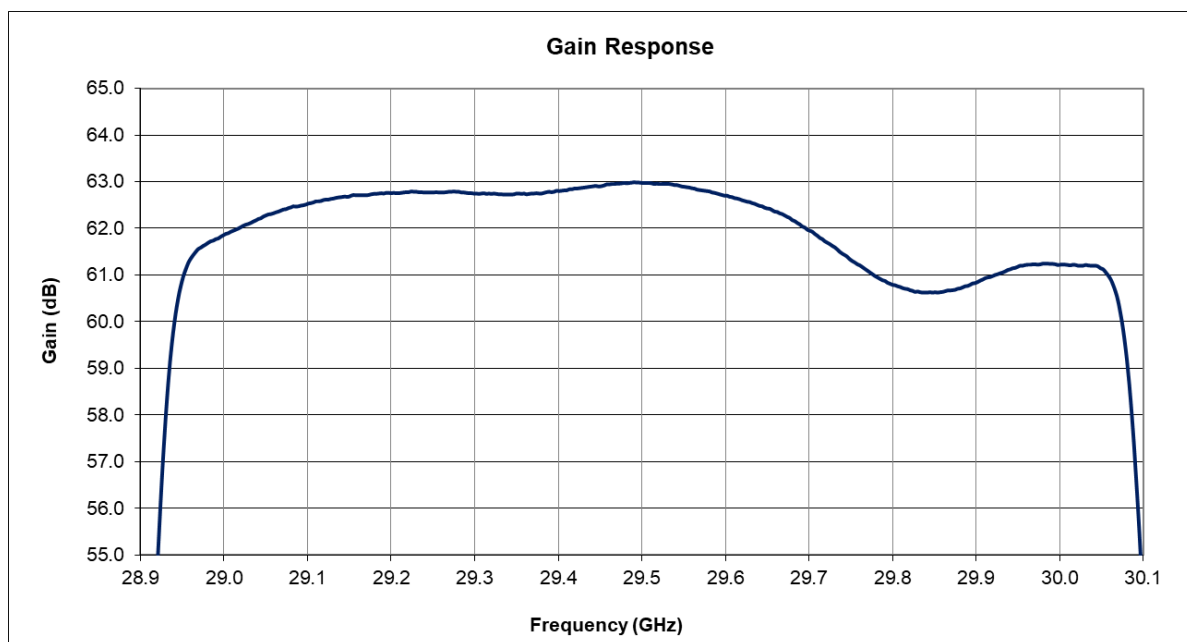
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PARAMETER	MIN	TYP	MAX	UNITS
Gain Control range (IF input attenuator)		20		dB
Spurious Outputs (Signal related in band)		-60		dBc
Spurious Outputs (LO leakage)		-45		dBc
Frequency reference (external on L band input)		50		MHz
Phase Noise 100Hz offset 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 at MOP (+24V supply)			38	W
Operating temperature range	-40		70	°C
Storage temperature range	-40		85	°C

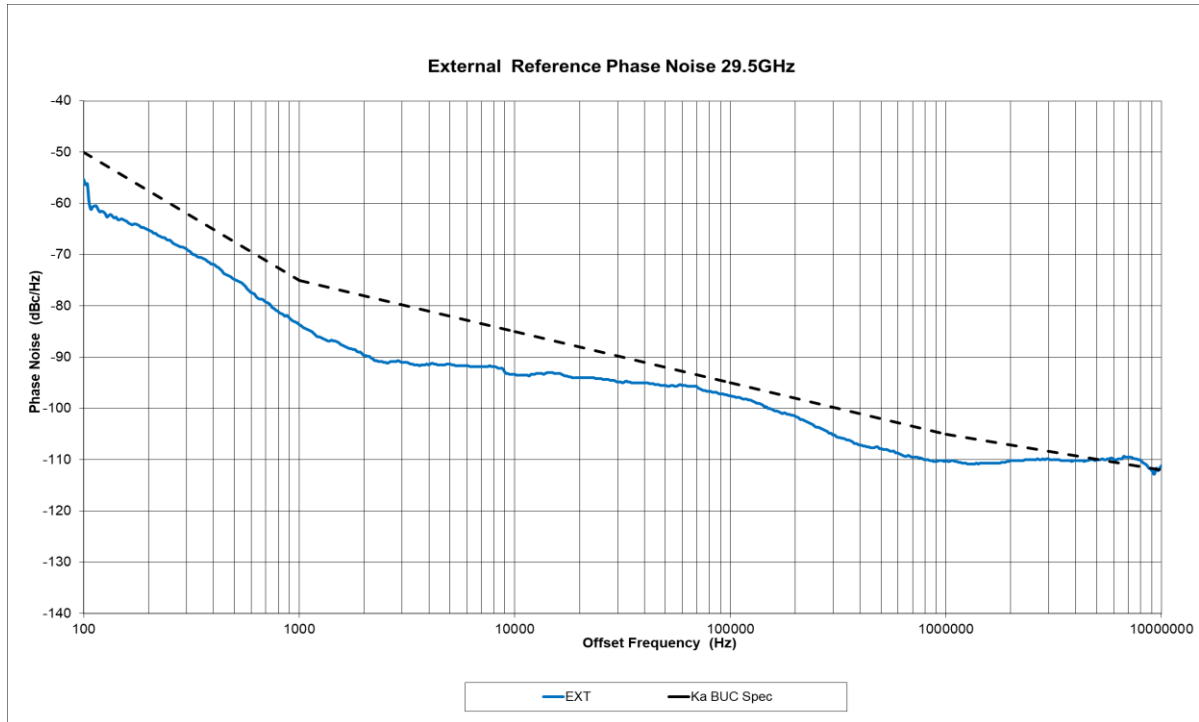
## MECHANICAL CHARACTERISTICS

PARAMETER	VALUE	UNITS
Dimensions excluding connectors (typ)	130 x 102 x 25 (L x W x H)	mm
Weight (max)	650	g
IF/RF connectors	IF - SMA female, RF - K Type female	-
Control/Power connector	15 pin Micro D socket	-
Cooling	Conduction cooled through the baseplate	-

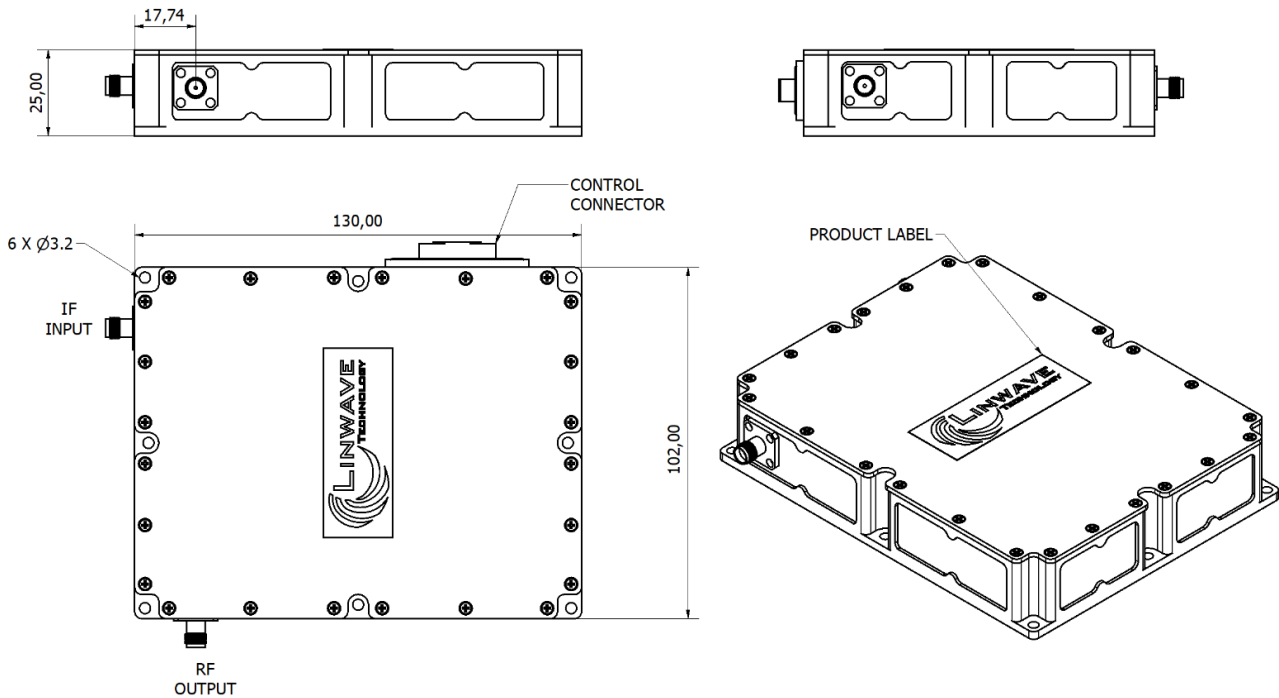
## PERFORMANCE DATA



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## MECHANICAL OUTLINE



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