

Ku Band Block Upconverter (BUC) 13.75 to 14.5GHz, 2W

LW30-797807

TYPICAL APPLICATIONS

- Airborne applications
- Mobile, Fixed or Fly-away applications
- Common footprint for C band, X band and Ku band variants

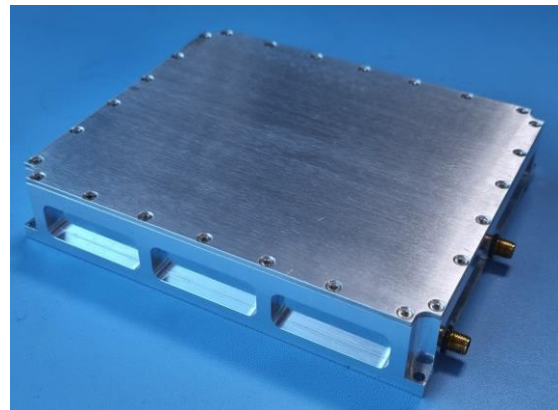
PRODUCT FEATURES

- IESS 308 compliant
- Adjustable gain
- Temperature compensated
- GUI controlled (RS-422 protocol)
- Lock detect output
- Integrated output isolator

GENERAL DESCRIPTION

The LW30-797807 BUC integrates Linwave's upconverter and SSPA technologies into a small compact module. The BUC utilises an integral GaN output 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 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	50			dB
Output power (P_{sat})		37		dBm
Output power (P_{lin})		33		dBm
Input Return Loss		13		dB
Output Return Loss (Integrated Isolator)		14		dB
Noise Figure (Maximum gain)			10	dB
Gain Flatness (full band)	-2		+2	dB
Spurious Outputs (Signal related in band)		-60		dBc
Spurious Outputs (LO leakage)		-45		dBc
Frequency reference (internal or external on L band input)		10		MHz

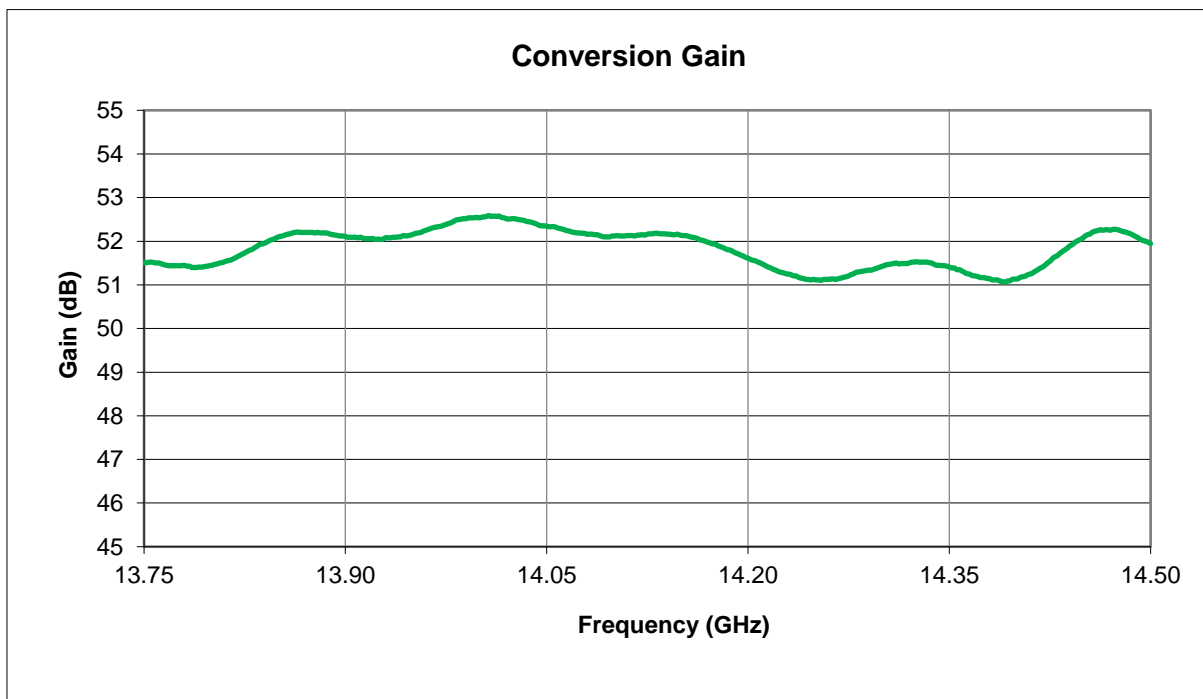
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PARAMETER		MIN	TYP	MAX	UNITS
Phase Noise	100Hz offset from carrier			-61	dBc/Hz
	1kHz offset from carrier			-71	dBc/Hz
	10kHz offset from carrier			-81	dBc/Hz
	100kHz offset from carrier			-91	dBc/Hz
	1MHz offset from carrier			-91	dBc/Hz
Power Consumption +28V at P _{lin}			1000		mA
Operating temperature range		-20		60	°C
Storage temperature range		-40		85	°C

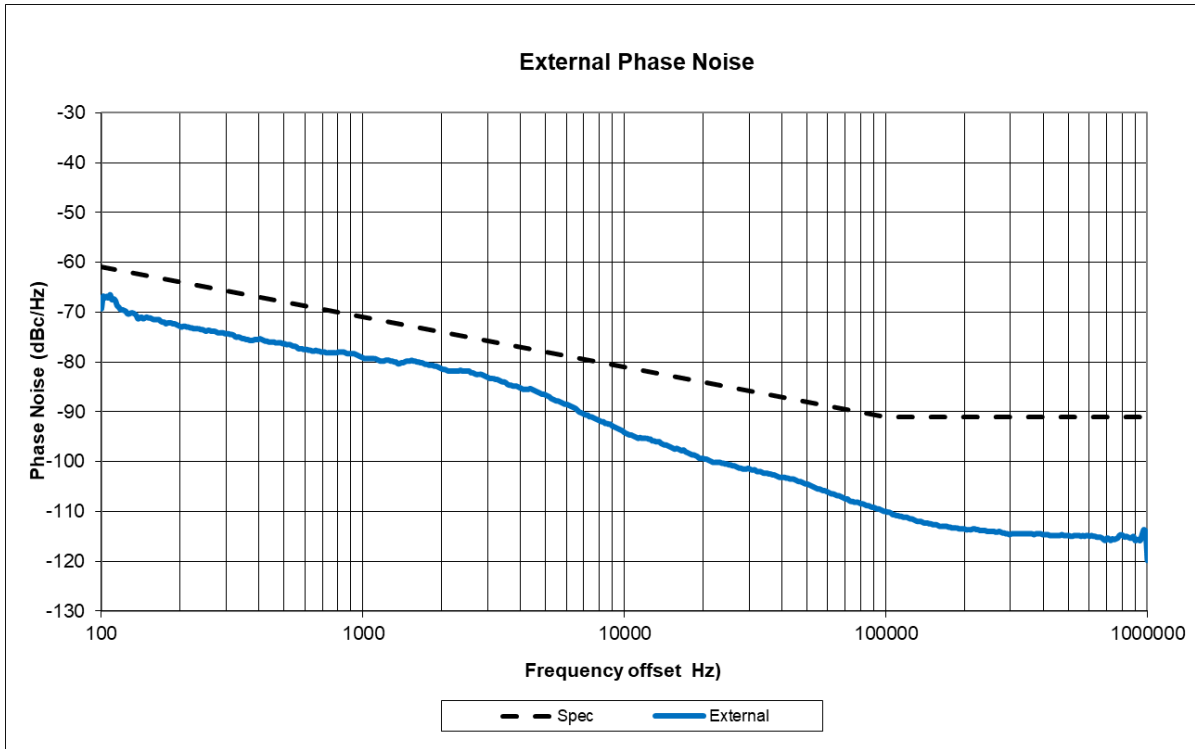
MECHANICAL CHARACTERISTICS

PARAMETER	VALUE	UNITS
Dimensions (max)	143.5 x 120 x 27 (L x W x H)	mm
Weight (typ)	0.9	kg
IF/RF connectors	SMA female	-
Control/Power connector	15 pin D plug (male)	-
Cooling	Conduction cooled	-

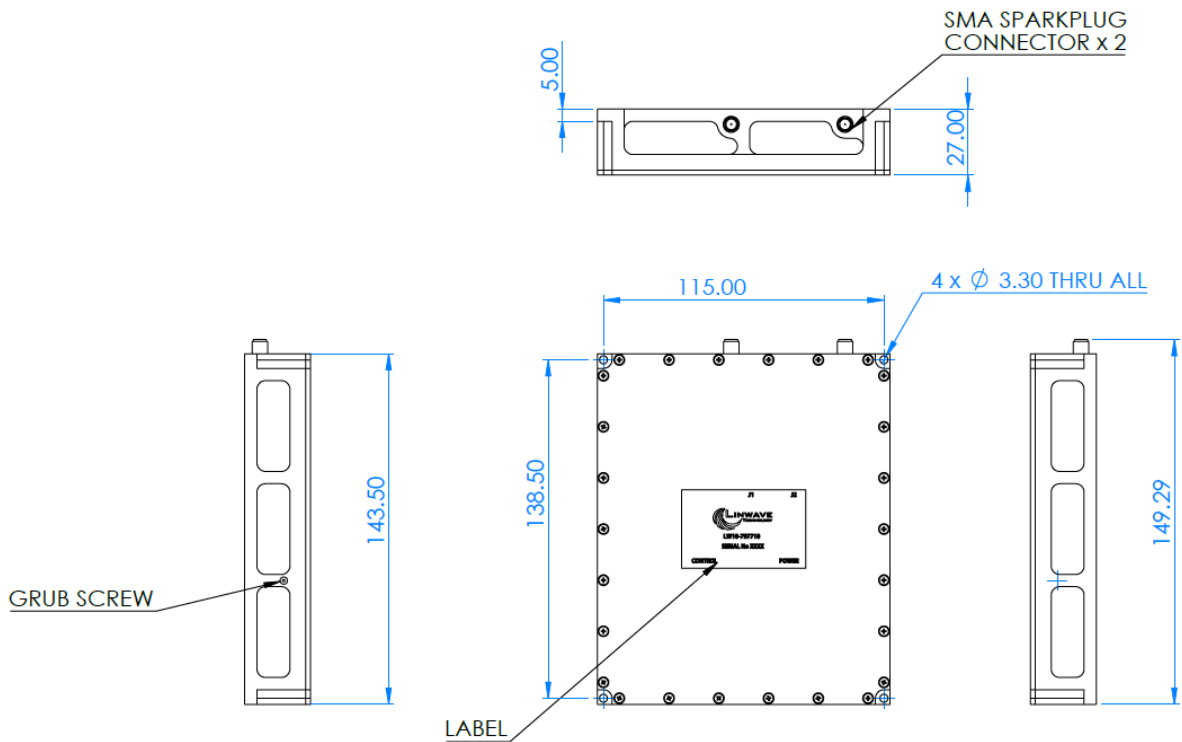
PERFORMANCE DATA



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MECHANICAL OUTLINE



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