



Block Up-Converter

Model: BUC-14G-14G5-20-IP65

14-14.5GHz 20W CW, Output Power

Low power consumption, low phase noise and small size

Features:

- IF Frequency: 950~1450MHz.
- RF Frequency: 14-14.5GHz.
- Saturated output power: 20W.
- External/Internal Reference Adaptive.

Applications:

- Communication/Radar Systems
- Test Labs

Product Overview:

The BUC-14G-14G5-20-IP65 is a block up-converter operating in the Ku-band. It features an integrated local oscillator, with input IF frequency of 950-1450 MHz and output RF frequency of 14-14.5 GHz. Providing up to 20W of saturated output power, it also supports switchable functionality between internal and external references.



Electrical Specifications at 25°C:

Parameter		Min	Typ	Max	Units
IF Frequency Range @LO=13.05GHz		950		1450	GHz
Gain		65			dB
RF Output Frequency Range		14		14.5	GHz
Output Power Psat		43			dBm
Gain Flatness				±2	dB
Spurious	In band			-60	dBc
	Out of band			-50	
Reference Mode		External/Internal Reference Adaptive (External reference with fallback to Internal reference)			
Phase Noise	@1KHz			-75	dBc
	@10KHz			-85	
	@100KHz			-95	
	@1MHz			-110	
VSWR				2	:1
External Reference Level(Sine wave, 100MHz)		5			dBm
DC Supply Voltage @single-phase (50-60Hz)		18		24	V DC

Mechanical Specifications:

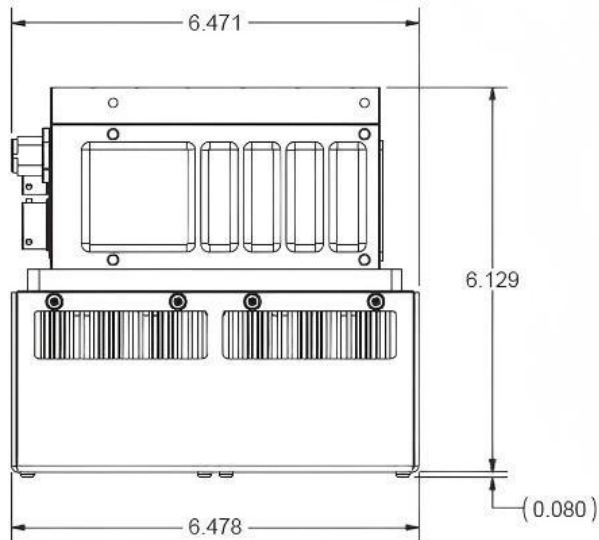
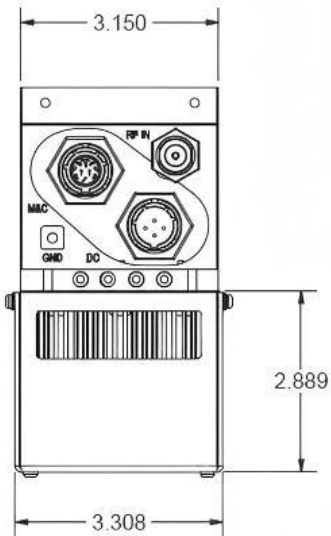
Parameter	Value	Notes
Operating Temperature	-30°C to +65°C	
IF Input Connector	N Female	
RF Output Connector	WR75	
M&C connectors	M8 Female, 4 pin (Pin1 = DC Input; Pin2 = A pos+ RS485; Pin3 = B neg- RS485; Pin4 = Common GND)	1、 LO Frequency Setting 2、 Digital Attenuator Setting 3、 Internal/External Reference Status Query 4、 PLL Lock Status Monitoring 5、 DC Power Supply Status Monitoring
External Reference Input Interface	SMA Female	10MHz
Ingress Protection Grade	IP-65	
Dimensions W x H x D	6.478*6.129*3.15	Inch

Note: The PLL frequency and the Digital Attenuator attenuation will be done by writing a number in the relevant register as per the communication protocol.



Outline Drawing:

Unit:Inch



Notes:

The dimensions of the module is yet to be determined.

Ordering Information:

Base Number	Description
BUC-14G-14G5-20-IP65	Block Up-Converter, IF frequency range:950-1450MHz; RF output frequency range: 14-14.5GHz; 20W output power

Notes:

- 1、 Dimensions and specifications may be changed without prior notice.
- 2、 Standard Warranty: three years.