

Block Up-Converter (BUC)

Ku-Band 6/8W

Company Overview

The Global Skyware BUC is a cutting edge Ku-Band product for VSAT applications. A BUC suitable for GEO/MEO/LEO constellations and design ready for standard and extended Ku band satellite frequencies.

- Block upconverter (BUC)
- Low noise block (LNB)
- Transceiver (Tx/Rx/OMT/filters)
- C-, Ku-, DBS-, Ka-bands
- 2 to 300W output power

Reliability

- Highly integrated RF technologies (RFIC and GaN)
- Designed for high volume production
- Linearity optimized for high order modulation and high data rate
- Strict quality control processes resulting in <0.25% field failure rates

Product Features

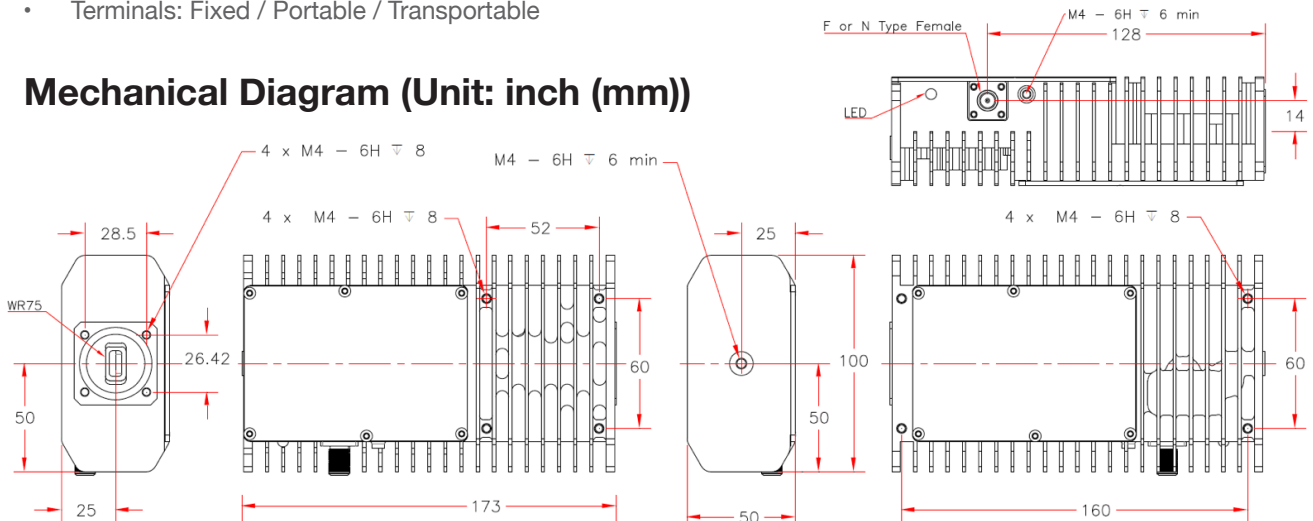
- Low power consumption; **6W**: 48W (@38dBm) **8W**: 60W (@39dBm)
- Compact and light weight (2.6lbs / 1.2kg)
- Fanless
- IFL input power
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

Typical VSAT Applications

- Maritime
- 5G Backhaul
- SNG Vehicle
- Terminals: Fixed / Portable / Transportable



Mechanical Diagram (Unit: inch (mm))



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RF Specifications

	Standard	Extended
RF Frequency	14-14.50 MHz	13.75-14.50 GHz
IF Frequency	950-1450 MHz	950-1700 MHz
External Reference	10 MHz, 0 ± 5 dBm	
Output Power	6W	8W
Saturated	38 dBm	39 dBm
IMD3 (33dBm)	-25 dBc	
Small Signal Gain	60 dB	
Gain Variation	1 dB p-p / 36 MHz	
	4 dB p-p / 500 MHz	
	5 dB p-p / 750 MHz	
Gain stability	4 dB p-p	
Rx Noise Density	-144 dBm/Hz (10.7-12.75 GHz)	
Phase Noise	-60 dBc / Hz @ 100 Hz	
	-70 dBc / Hz @ 1 KHz	
	-80 dBc / Hz @ 10 KHz	
	-90 dBc / Hz @ 100 KHz	
Output Spurious	-55 dBc	

Power Supply

Input Power	+18 to +36 vDC	
Power Consumption @ Rated Output	6W	8W
	48W	60W

Interfaces

RF Output Connector	WR75-G (Grooved)
IF Connector	N-Type Female
	F-Type Female (optional)
RF Output VSWR	2:1
Power	IFL
Alarm Status Indicator	LED (green/red)

Physical Parameters

Size	(Inches)	6.8*4.0*2.0
	(mm)	173*100*50
Weight	(lbs)	2.6
	(kg)	1.2
Operating Temperature	-40 to +60°C	
Humidity	0-100% (condensing)	
Altitude	0-10,000 feet ASL	