

Block Up-Converter (BUC)

Ku-Band 16/30W

Company Overview

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

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

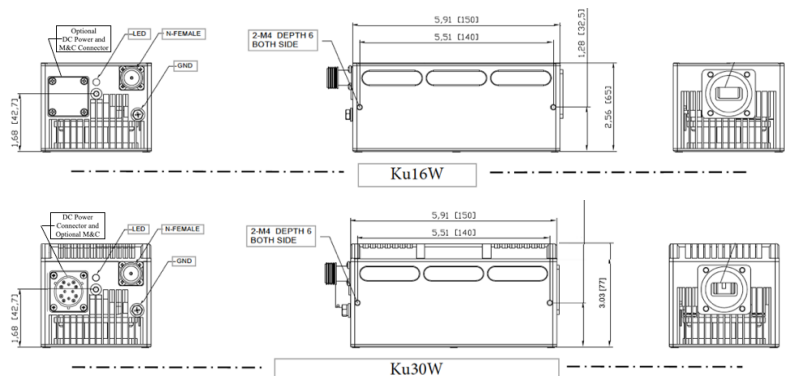
Product Features

	16W	30W
• Variable power consumption	70W (@43dBm) 65W (@42dBm)	135W (@45dBm) 110W (@44dBm)
• Compact and light weight	45W @39dBm 2.9lbs / 1.3kg	105W (@43dBm) 85W (@42dBm)
• Operates without fan when output power set to 8W output		
• IFL input power or separate DC connector		
• Low phase noise (exceeds IESS308/309)		
• Stable linearity to 500 MHz bandwidth (Multi-Transponders)		
• Rugged design for extreme environments (-40 to +60°C)		
• Optional: 1 RU Indoor AC power supply L-Band DC injector		

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	16W	30W
Saturated	42+dBM	45+dBM
PLin ¹	42 dBm	45 dBm
PLin ²	41 dBm	44 dBm
PLin ³	40 dBm	43 dBm
IMD3 (33dBm)	-25 dBc	
Small Signal Gain	70 dB	
	1 dB p-p / 36 MHz	
Gain Variation	3 dB p-p / 500 MHz	
	4 dB p-p / 750 MHz	
Gain stability	3 dB p-p	
Gain Adjustment	20 dB (Step: 0.1 dB)	
Noise Power Density (Rx Band 10.7-12.75 GHz)	150 dBm/Hz	
	-65 dBc / Hz @ 100 Hz	
	-75 dBc / Hz @ 1 KHz	
Phase Noise	-85 dBc / Hz @ 10 KHz	
	-95 dBc / Hz @ 100 KHz	
Output Spurious	-55 dBc	

Notes:

PLin¹: -26 dBc regrowth, 1.5 SR

PLin²: -30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)

PLin³: <-25 dBc IMD3 (MIL-STD-188-164B, two-carrier)

Power Supply

	16W	30W
Input Power	+18 to +56	+36 to +56 vDC
Power Consumption @ PLin ¹ Output	65W	135W

Interfaces

RF Output Connector	WR75-G (Grooved)
IF Connector	N-Type Female F-Type Female
RF Output VSWR	1.5:1
Power	IFL or Separate Connector
Alarm Status Indicator	LED (green/red)

Physical Parameters

	16W	30W
Size (Inches)	5.9*3.15*2.56	5.9*3.03*2.99
(mm)	150*80*65	150*80*76
Weight (lbs)	2.2	2.9
(kg)	1.0	1.3
Operating Temperature	-40 to +60°C	
Humidity	0-100% (condensing)	
Altitude	0-10,000 feet ASL	