

Block Up-Converter (BUC)

Ka-Band 6/10W

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

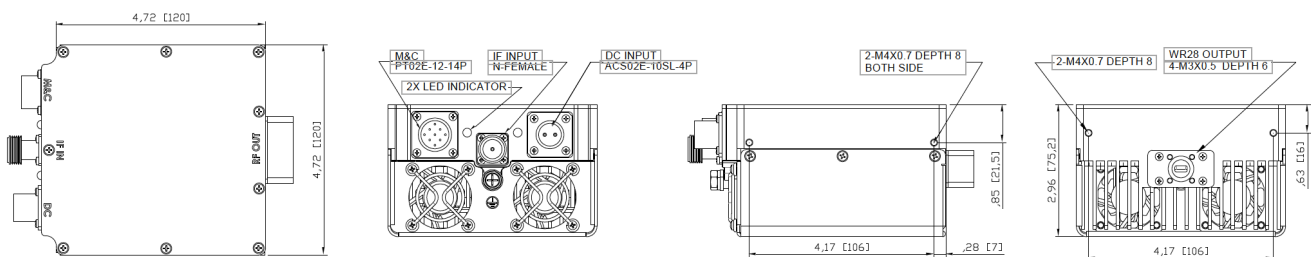
- Variable power consumption 60W @36dBm, 80W @40dBm
- Compact and light weight, 6W: 3.3 lbs / 1.5kg, 10W: 6.6 lbs / 3.0kg
- Single-, dual-, tri-band options (27.5-31GHz)
- Band selection from remote interface (SNMP)
- IFL input power or option for separate DC connector
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)



Typical VSAT Applications

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

Mechanical Diagram – Dual Band (Unit: inch (mm))



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RF Specifications

RF Frequency	27.5-31 GHz	
	29.5-30 GHz	
IF Frequency	950-1950 MHz	
	950-1450 MHz	
	1000-2000 MHz	
External Reference	10MHz, 0±5dBm	
Output Power (dBm)	6W	10W
Rated/Saturated	38	40
PLin ¹	36	38
PLin ²	35	37
PLin ³	34	36
IMD3 (@3dB from rated power)	-25dBc	
Small Signal Gain	6W	10W
	38	40
Gain Variation	1dB p-p max./36 MHz	
	3dB p-p max. /500 MHz	
	4dB p-p max./1000 MHz	
Gain stability	3dB p-p	
Gain Adjustment Range	20dB (Step: 0.1 dB)	
Phase Noise	-63dBc/Hz max.@100Hz	
	-73dBc/Hz max.@1KHz	
	-83dBc/Hz max.@10KHz	
	-93dBc/Hz max.@100KHz	
Output Spurious	-55dBc max	

Notes:

PLin1: -26 dBc regrowth, 1.5 SR (commercial satellite)
 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

Input Power	+18 to +56 vDC	
Power Consumption	6W	10W
@ PLin1 Output	45W	65W
@ Rated Output	45W	65W

Interfaces

RF Output Connector	WR28-G (Grooved)
RF Output VSWR	1.25:1
IF Input Connector	N-Type or F-Type
IF Input VSWR	1.5:1
Power Connector	ACS02E10SL-4P
M&C Connector	PT02E-12-14P
	RS485, RS232 & Ethernet
Alarm Status Indicators	LED

Physical Parameters

		Dual Band	Tri Band
Size	(Inches)	4.7*4.7*3.0	8.1*5.3*3.5
	(mm)	120*120*75	206*136*88
Weight	(lbs)	3.3	6.6
	(kg)	1.5	3.0
Operating Temperature	-40 to +60°C		
Humidity	0-100% (condensing)		
Altitude	0-40,000 feet ASL		