

Block Up-Converter (BUC)

Ku-Band 80/100W

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

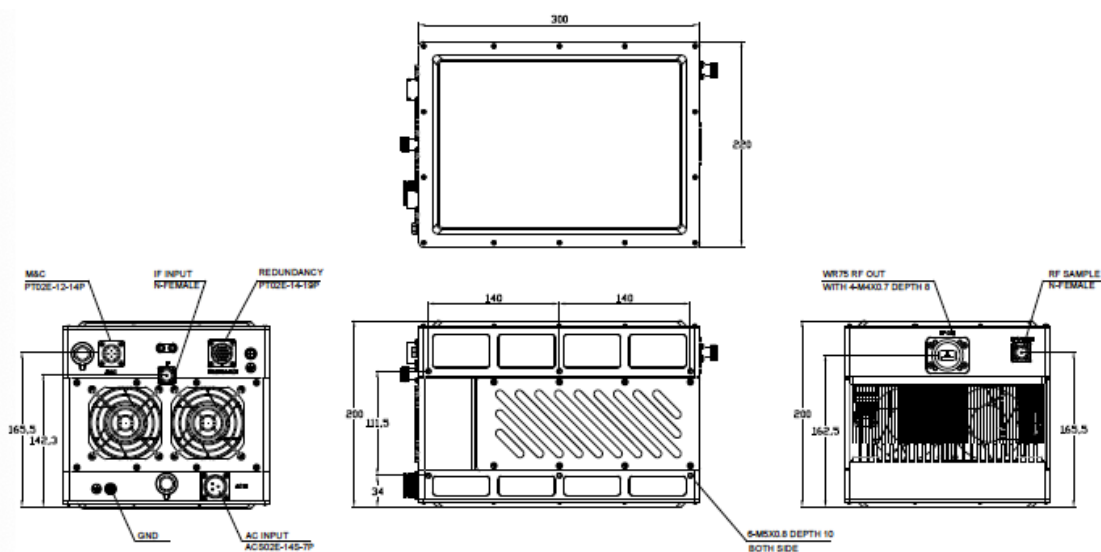
- Variable power consumption; **80W**: 650W (@49dBm) **100W**: 750W (@50wdBm)
- Optional equipment redundancy configurations
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +65°C)



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	80W	100W
Saturated	49 dBm	50 dBm
PLin ¹	48 dBm	49 dBm
PLin ²	47 dBm	48 dBm
PLin ³	46 dBm	47 dBm
IMD3 (33dBm)	-25 dBc	
Small Signal Gain	-70 dBc	
	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)	
Phase Noise	-63 dBc / Hz @ 100 Hz	
	-73 dBc / Hz @ 1 KHz	
	-83 dBc / Hz @ 10 KHz	
	-93 dBc / Hz @ 100 KHz	
Output Spurious	-55 dBc	

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	85 to 265 VAC (47-63 Hz)	
Power Consumption	80W	100W
@ PLin ¹ Output	600W	700W
@ Rated Output	650W	750W

Interfaces

RF Output Connector	WR75-G (Grooved)
RF Output VSWR	1.25:1
IF Connector	N-Type Female
IF Input VSWR	1.5:1
Power Connector	ACS02E-14S-7P
M&C Connector	PT02E-12-14P (RS485/ RS232/Eth) SNMPv2
Redundancy Connector	PT02E-14-19P
Alarm Status Indicator	LED (green/red)

Physical Parameters

Size	(Inches)	1.8*8.7*7.9
	(mm)	300*220*200
Weight	(lbs)	26.5
	(kg)	12.0
Operating Temperature		-40 to +60°C (guarantee)
Humidity		0-100% (condensing)
Altitude		0-10,000 feet ASL

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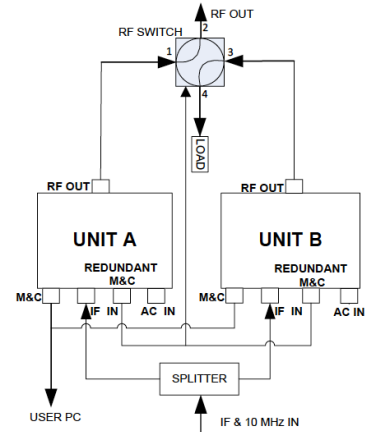
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Optional 1:1 Redundancy Configuration

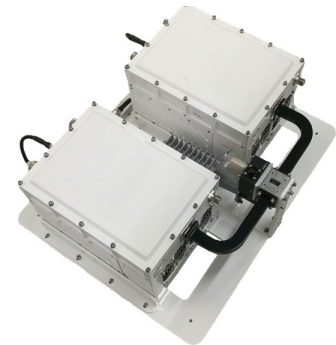
In the event of an equipment failure, the optional 1:1 redundancy kit switches traffic from the primary BUC to the standby BUC.

- Compatibility: **80, 100, BUCs**
- Switching Function: **Auto or Manual**
- Type of Standby: **Cold-backup**
- Rugged design for extreme environments



Items Included in Kit

- WR-75 waveguide switch
- WR-75 Hi Power Load
- Splitter
- Interconnection cabling
- Mounting Frame x1



Mechanical Diagram (Unit: inch (mm))

