

# Block Up-Converter (BUC)

## Ku-Band 50W

### 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

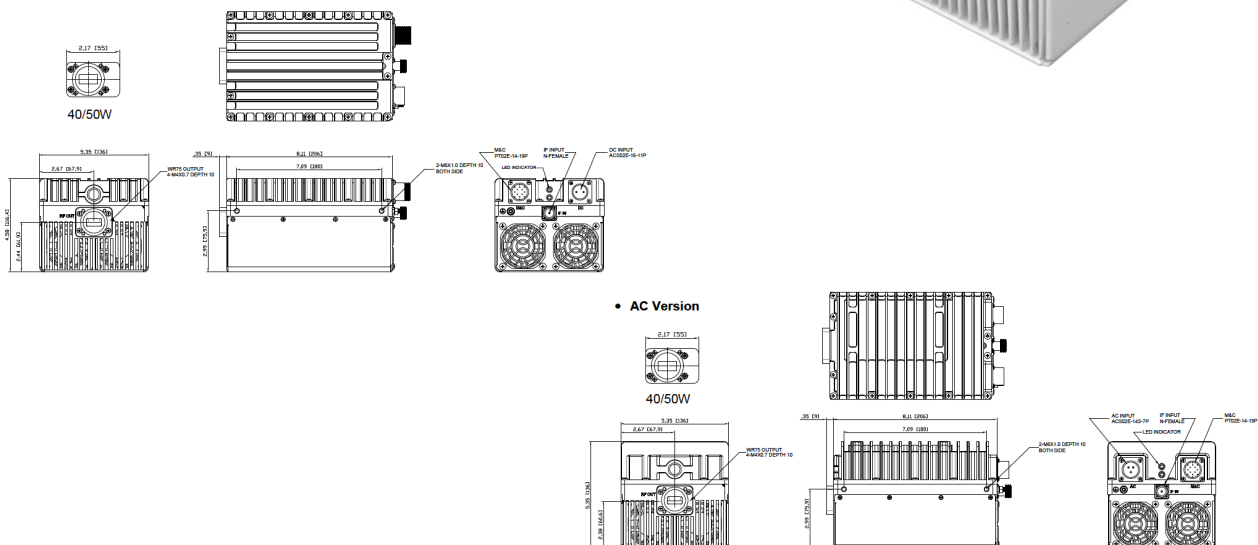
- Variable power consumption 350W (@47.5dBm) 300W (@46dBm)
- Optional equipment redundancy configurations
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +65°C)

### Typical VSAT Applications

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



### Mechanical Diagram



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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	
<b>Output Power</b>		
Saturated	47.5 dBm	
PLin <sup>1</sup>	46 dBm	
PLin <sup>2</sup>	45 dBm	
PLin <sup>3</sup>	44 dBm	
IMD3 (33dBm)	-25 dBc	
<b>Small Signal Gain</b>	70 dB	
	1 dB p-p / 36 MHz	
Gain Variation	3 dB p-p / 500 MHz	
	4 dB p-p / 750 MHz	
<b>Gain stability</b>	3 dB p-p	
<b>Gain Adjustment</b>	20 dB (Step: 0.1 dB)	
	-63 dBc / Hz @ 100 Hz	
Phase Noise	-73 dBc / Hz @ 1 KHz	
	-83 dBc / Hz @ 10 KHz	
	-93 dBc / Hz @ 100 KHz	
<b>Output Spurious</b>	-55 dBc	
<b>Notes:</b>		
PLin <sup>1</sup> :	-26 dBc regrowth, 1.5 SR (commercial satellite)	
PLin <sup>2</sup> :	-30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)	
PLin <sup>3</sup> :	<-25 dBc IMD3 (MIL-STD-188-164B, two-carrier)	

### Power Supply

Input Power	+36 to +72 vDC or 85 to 265 VAC (47-63 Hz)
<b>Power Consumption</b>	
@ PLin1 Output	300W
@ Rated Output	350W

### 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	ACS02E16-11P (DC) ACS02E-14S-7P (AC)
M&C Connector	PT02E-14-19P (RS485/ RS232/Eth) SNMPv2
Alarm Status Indicator	LED (green/red)

### Physical Parameters

Size	(Inches)	5.79*5.12*3.86
	(mm)	147*130*98
Weight	(lbs)	4.85
	(kg)	2.2
Operating Temperature		-40 to +60°C (guarantee)
Humidity		0-100% (condensing)
Altitude		0-10,000 feet ASL