

Block Up-Converter (BUC)

C-Band 5/8W

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

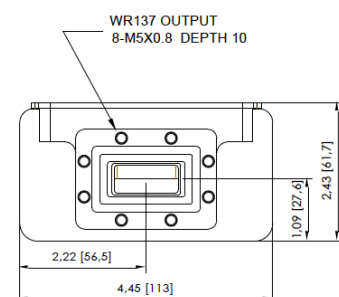
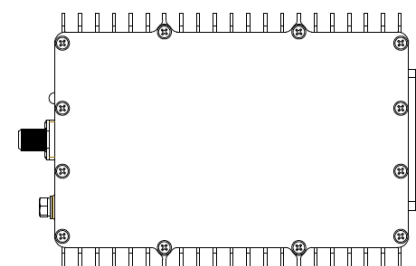
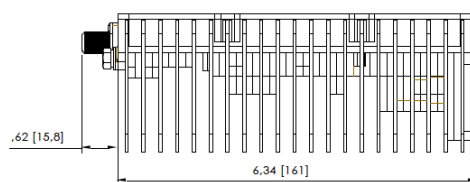
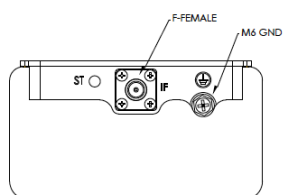
- Low power consumption 40W (@ 37 dBm) 50W (@ 39 dBm)
- Compact and light weight (3.3lbs / 1.5kg)
- Fanless
- IFL input power
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

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 | 5.850-6.425 MHz | 5.850-6.725 GHz |
| IF Frequency | 950-1525 MHz | 950-1825 MHz |
| External Reference | 10 MHz, 0 ± 5 dBm | |
| Output Power | 5W | 8W |
| Rated/Saturated | 37 dBm | 39 dBm |
| PLin ¹ | 36 dBm | 38 dBm |
| PLin ² | 35 dBm | 37 dBm |
| PLin ³ | 34 dBm | 36 dBm |
| IMD3 (33dBm) | -26 dBc | |
| Small Signal Gain | 60 dB | |
| Gain Variation | 1 dB p-p / 36 MHz | |
| | 4 dB p-p / 575 MHz | |
| | 5 dB p-p / 875 MHz | |
| Gain stability | 4 dB p-p | |
| Phase Noise | -65 dBc / Hz @ 100 Hz | |
| | -75 dBc / Hz @ 1 KHz | |
| | -85 dBc / Hz @ 10 KHz | |
| | -95 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 +18 to +36 vDC via IFL

| Power Consumption @ Rated Output | 5W | 8W |
|----------------------------------|-----|-----|
| | 40W | 50W |

Interfaces

RF Output Connector WR137-G (Grooved)

IF Connector F-Type Female

RF Output VSWR 2:1

IF Output VSWR 2:1

Power/M&C Connector IFL (no M&C)

Alarm Status Indicator LED (green/red)

Physical Parameters

Size (Inches) 6.9*4.4*2.5
 (mm) 177*113*62

Weight (lbs) 3.3
 (kg) 1.5

Operating Temperature -40 to +60°C (guarantee)

Humidity 0-100% (condensing)

Altitude 0-10,000 feet ASL