

Block Up-Converter (BUC)

Ku-Band 6W IFL



◆ Company Overview

RevGo designs and manufactures satellite earth station RF from low to medium power. RevGo was founded in 2002 with its headquarters in the Washington DC corridor. RevGo's broad VSAT product line is produced to stringent quality standards using an ISO9001:2015 quality system:

- Block upconverter (BUC)
- Low noise block (LNB)
- Transceiver (Tx/Rx/OMT/filters)
- C-, Ku-, DBS-, Ka-bands
- 2 to 300W output power

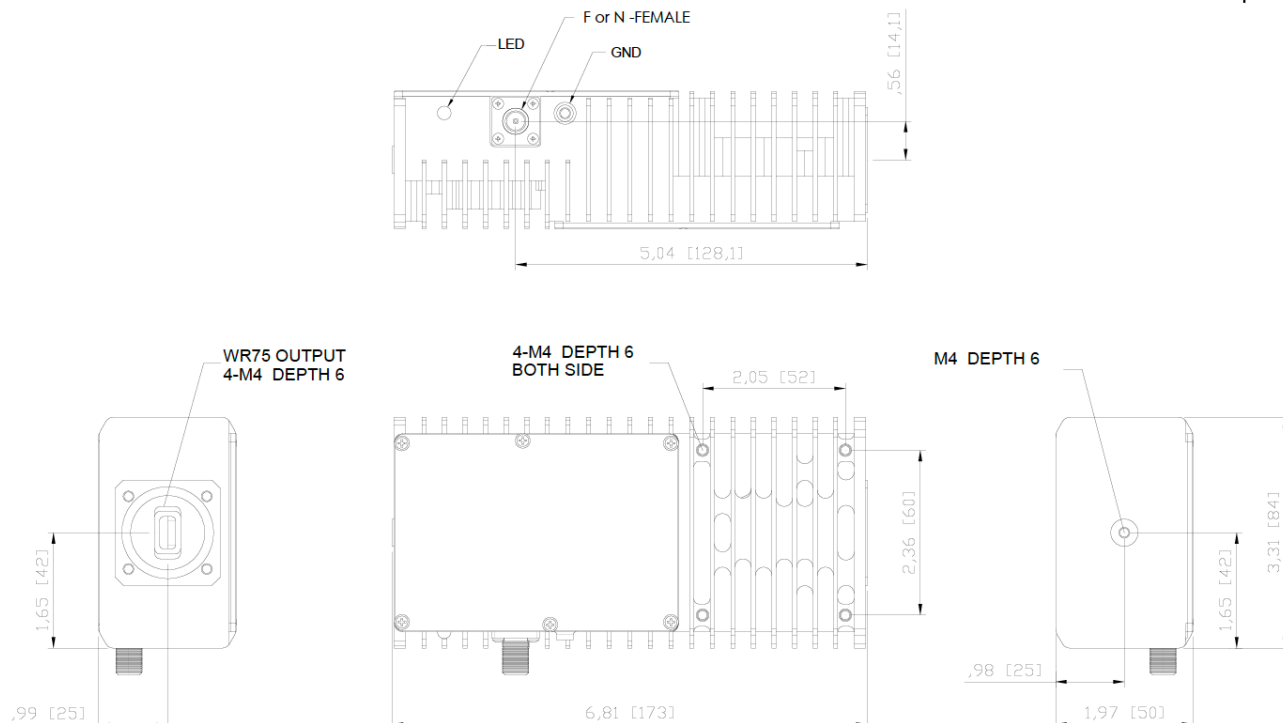
◆ Reliability

- 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 (@38.3dBm)
- Compact and light weight (2.4lbs / 1.1kg)
- Fanless
- IFL input power
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

◆ Mechanical Diagram (Unit: inch (mm))



◆ Typical VSAT Applications

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

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SPECIFICATIONS

◆ RF Specifications

| | | |
|----------------------|--|------------------------------------|
| RF Frequency | <u>Standard</u> 14-14.50 MHz | <u>Extended</u> 13.75-14.50 GHz |
| IF Frequency | 950-1450 MHz | 950-1700 MHz |
| External Ref | 10 MHz, 0 ± 5 dBm | |
| Output Power | | |
| Saturated | 38.3 dBm | |
| PLIN ¹ | 37.3 dBm | |
| PLIN ² | 36.3 dBm | |
| PLIN ³ | 35.3 dBm | |
| IMD3 (3dB from Psat) | - 24 dBc | |
| Small Signal Gain | 64 dB | |
| Gain Variation | 1 dB p-p / 36 MHz 3 dB p-p / 500 MHz 4 dB p-p / 750 MHz | |
| Gain stability | 3 dB p-p | |
| Phase Noise | -60 dBc / Hz @ 100 Hz -70 dBc / Hz @ 1 KHz -80 dBc / Hz @ 10 KHz -90 dBc / Hz @ 100 KHz | |
| Output Spurious | -50 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

| | |
|----------------------------------|----------------|
| Input Power | +18 to +36 vDC |
| Power Consumption @ Rated Output | 40W |

◆ Interfaces

| | |
|------------------------|---|
| RF Output Connector | WR75-G (Grooved) |
| IF Connector | N-Type Female F-Type Female (optional) |
| RF Output VSWR | 2:1 |
| Power | IFL |
| Alarm Status Indicator | LED (green/red) |

◆ Physical Parameters

| | |
|-----------------------|---------------------|
| Size (inches) | 6.8*3.3*1.9 |
| Size (mm) | 173*84*50 |
| Weight (lbs) | 2.4 |
| Weight (kg) | 1.1 |
| Operating Temperature | -40 to +60°C |
| Humidity | 0-100% (condensing) |
| Altitude | 0-10,000 feet ASL |

◆ Part Number / Ordering Information

| | |
|---|---|
| RGUC – U <u>a</u> 0 6 – 24NA - <u>b</u> | |
| <u>U</u> : Frequency Band U = Ku-Band | <u>b</u> : IF Connector N = N-Type Female F = F-Type Female |
| <u>a</u> : Frequency Range 1 = 14.0-14.5 GHz 2 = 13.75-14.5 GHz | |

◆ Contact Information

| | | |
|------------|--|--|
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