

Block Up-Converter (BUC)

Ku-Band 6/8W



◆ 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
- Compact and light weight
- Fanless
- IFL input power
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

6W BUC

- 48W (@38dBm)
- 2.6lbs / 1.2kg

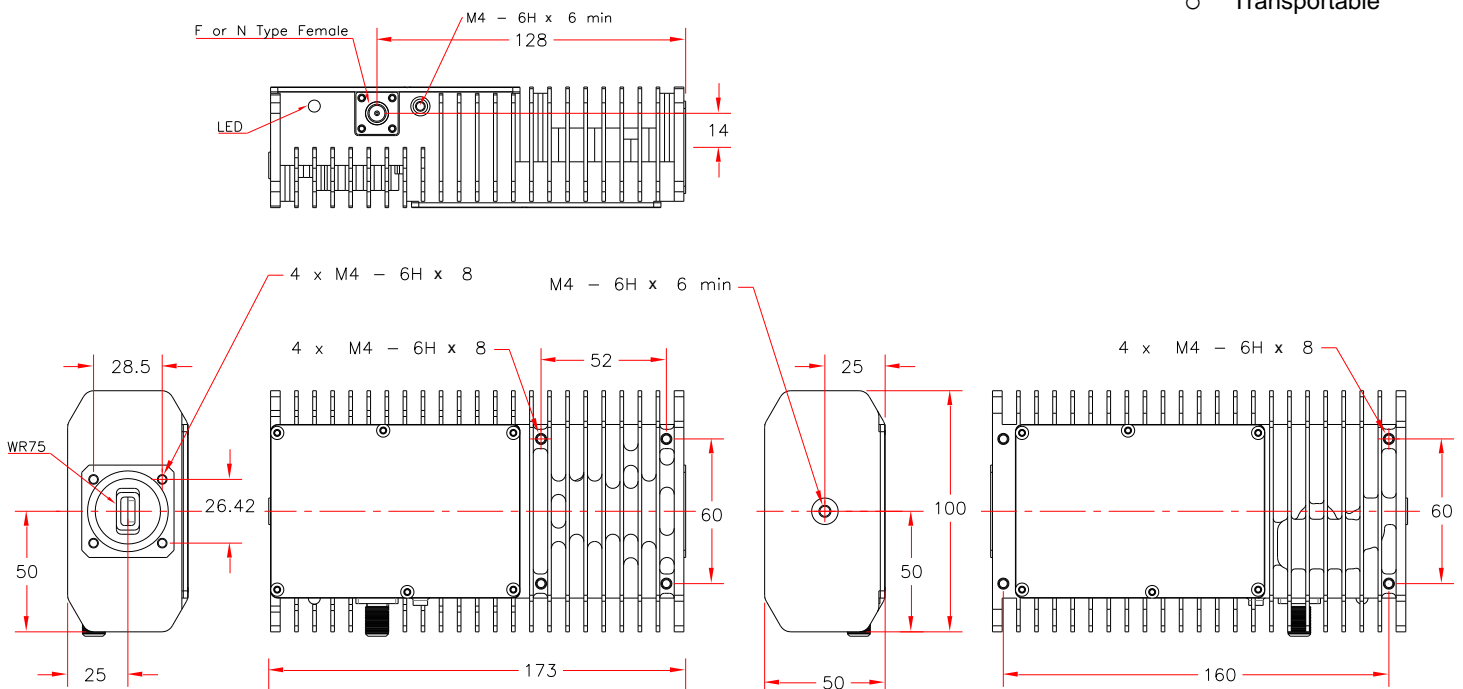
8W BUC

- 60W (@39dBm)

◆ Typical VSAT Applications

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

◆ Mechanical Diagram (Unit: inch (mm))



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SPECIFICATIONS

◆ RF Specifications

| | <u>Standard</u> | <u>Extended</u> |
|----------------------------------------|-------------------------------|-----------------|
| RF Frequency | 14.00-14.50 GHz | 13.75-14.50 GHz |
| IF Frequency | 950-1450 MHz | 950-1700 MHz |
| External Ref | 10 MHz, 0 ± 5 dBm | |
| Output Power | <u>6W BUC</u> | <u>8W BUC</u> |
| Saturated | 37.8 dBm | 39 dBm |
| Plin ¹ | 36.8 dBm | 38 dBm |
| Plin ² | 36 dBm | 37 dBm |
| Plin | 35.5 dBm | 36 dBm |
| IMD ₃ (3dB back off Prated) | - 25 dBc | |
| Small Signal Gain | 60 dB | |
| Gain Variation | 1 dB p-p / 36 MHz | |
| | 4 dB p-p / 500 MHz | |
| | 5 dB p-p / 750 MHz | |
| Gain stability | 4 dB p-p | |
| Rx Noise Density | -144 dBm/Hz (10.70-12.75 GHz) | |
| 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 (commercial satellite)
Plin²: -30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)
Plin: <-25 dBc IMD₃

◆ Power Supply

| | | |
|-------------------|----------------|---------------|
| Input Power | +18 to +36 VDC | |
| Power Consumption | <u>6W BUC</u> | <u>8W BUC</u> |
| @ Rated Output | 48W | 60W |

◆ 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 | Green | Red |
| | LED*1 | Normal |
| | | PLL alarm |

◆ Physical Parameters

| | | |
|-----------------------|---------------------|-------------|
| Size | (inches) | 6.8*4.0*2.0 |
| | (mm) | 173*100*50 |
| Weight | (lbs) | 2.6 |
| | (kg) | 1.2 |
| Operating Temperature | -40 to +60°C | |
| Humidity | 0-100% (condensing) | |
| Altitude | 0-10,000 feet ASL | |

◆ Part Number / Ordering Information

| RGUC-U abbb -24NA c -A0 | |
|---------------------------------------|-------------------------|
| a: Frequency Range | bb: Output Power |
| 1 = 14.00-14.50 GHz | 006 = 6W |
| 2 = 13.75-14.50 GHz | 008 = 8W |
| c: IF Connector | |
| N = N-Type Female | |
| F = F-Type Female | |

◆ Contact Information

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