

# Block Up-Converter (BUC)

## Ku-Band 40W



### ◆ 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

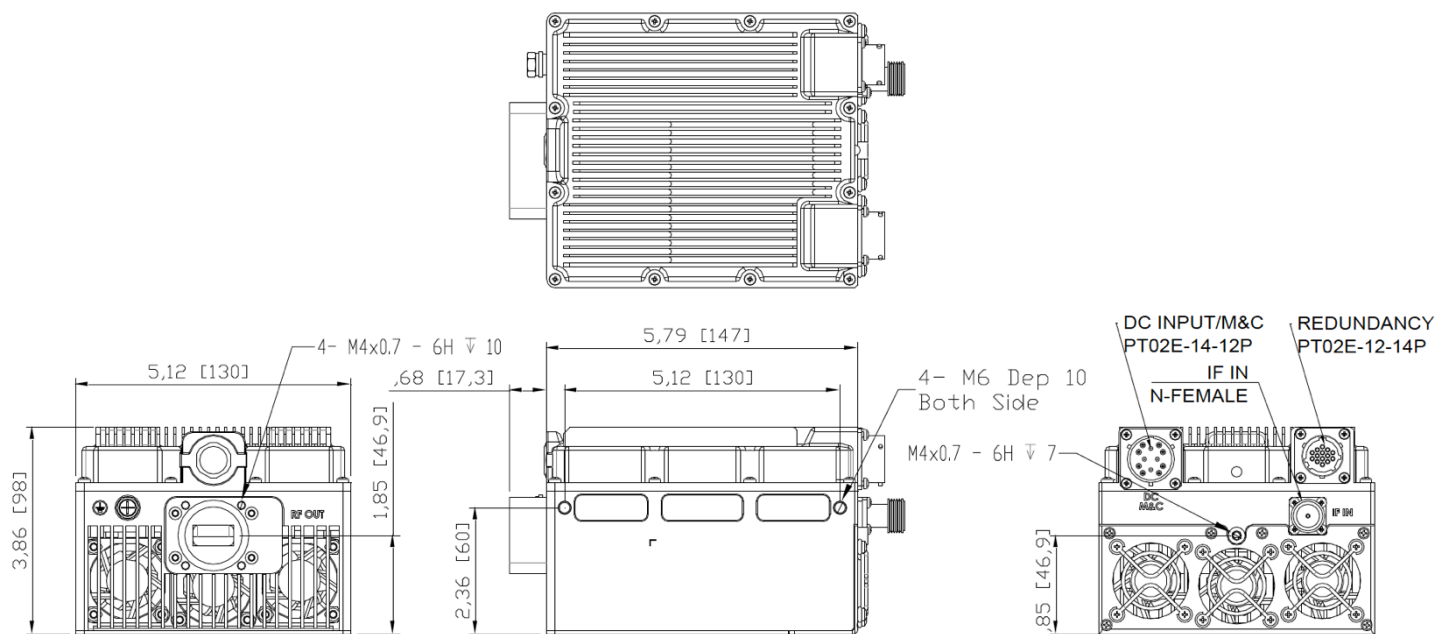
### ◆ Reliability

- 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

- Variable power consumption 250W (@46dBm) 200W (@45dBm)
- Equipment redundancy port and logic integrated
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +65°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		
Rated/Saturated	46 dBm	
PLin <sup>1</sup>	45 dBm	
PLin <sup>2</sup>	44 dBm	
PLin <sup>3</sup>	43 dBm	
IMD3 (3dB from rated)	- 25 dBc	
Small Signal Gain	70 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	
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:

- 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
Power Consumption	
@ PLin <sup>1</sup> Output	200W
@ Rated Output	250W

#### ◆ Interfaces

RF Output Connector	WR75-G (Grooved)
RF Output VSWR	1.25:1
IF Connector	N-Type or F-Type
IF Input VSWR	1.5:1
Power and M&C Connector	PT02E-14-12P 4 pins for power supply
M&C Connector	8 pins for M&C (RS485/Eth) SNMPv2
Alarm Status Indicator	LED (green/red)

#### ◆ Physical Parameters

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

#### ◆ Part Number / Ordering Information

RGUC – U <u>a</u> 40 - 484E - C - <u>b</u>	
<u>U</u> : Frequency Band U = Ku-Band	<u>b</u> : IF Connector N = N-type connector F = F-type connector
<u>a</u> : Frequency Range 1 = 14.0-14.5 GHz 2 = 13.75-14.5 GHz	