

# Block Up-Converter (BUC)

## Ku-Band 8/16/25W



### ◆ 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 400W output power

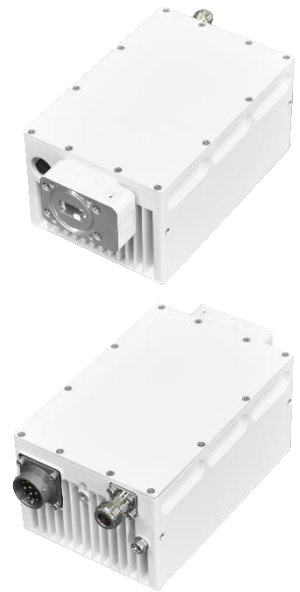
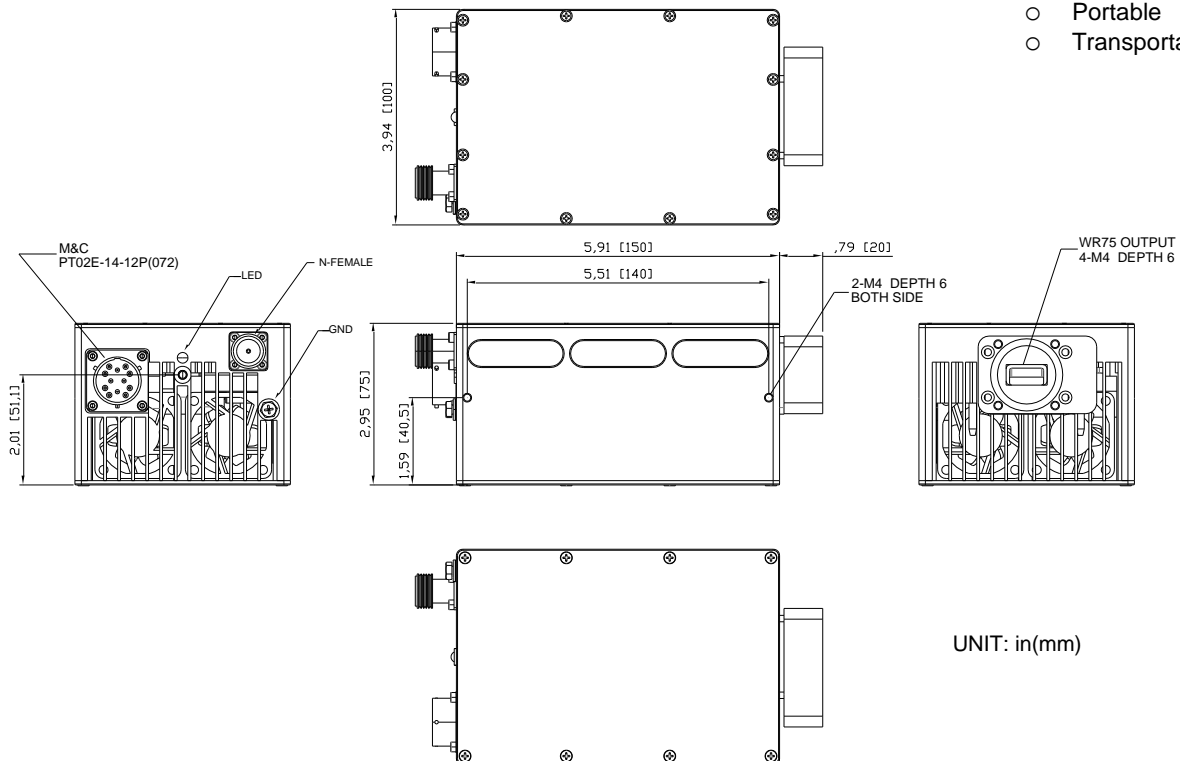
### ◆ Reliability

- 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 55W (@39 dBm), 90W (@42 dBm), 150W (@44 dBm)
- Equipment redundancy port and logic integrated
- 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
  - Portable
  - Transportable

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### SPECIFICATIONS

#### RF Specifications

RF Frequency	<u>Band-1</u>	<u>Band-2</u>
	12.75-13.25 GHz	13.75-14.50 GHz
	(Switch by M&C)	
IF Frequency	950-1450 MHz	950-1700 MHz
External Ref	10 MHz, 0 ± 5 dBm	
Output Power	<u>8W BUC</u>	<u>16W BUC</u> <u>25W BUC</u>
Saturated	39.5 dBm	42.5 dBm   44.5 dBm
Rated	39.0 dBm	42.0 dBm   44.0 dBm
PLin <sup>1</sup>	38.0 dBm	41.0 dBm   43.0 dBm
PLin <sup>2</sup>	37.0 dBm	40.0 dBm   42.0 dBm
PLin	36.0 dBm	39.0 dBm   41.0 dBm
IMD3 (@P <sub>rated-3dB</sub> )	- 25 dBc	
Small Signal Gain	55-70 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 / band	
Gain Adjustment	15 dB (Step: 1 dB)	
Rx Noise Power Density	≤ -140 dBm/Hz @ 10.7~11.7 GHz	
	≤ -135 dBm/Hz @ 11.7~12.75 GHz	
Phase Noise	-60 dBc / Hz @ 100 Hz	
	-75 dBc / Hz @ 1 KHz	
	-85 dBc / Hz @ 10 KHz	
	-95 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)

**PLin:** <-25 dBc IMD3 (MIL-STD-188-164B, two-carrier)

#### Power Supply

Input Power @8/16W	+18 to +56 VDC	via MS connector
Input Power @25W	+24 to +56 VDC	via MS connector
Power Consumption	<u>8W BUC</u>	<u>16W BUC</u> <u>25W BUC</u>
@ Psat Output	55W typ.	90W typ.   150 W typ.
@ Plin Output	40W typ.	50W typ.   80 W typ.

#### Interfaces

RF Output Connector	WR75-G (Grooved)
RF Output VSWR	1.25 : 1
IF Connector	N-Type
IF Input VSWR	1.5 : 1
Power supply	PT02E-14-12P 4 pins for Power supply
M&C Connector	PT02E-14-12P 8 pins for M&C (RS485/Eth)
Alarm Status Indicator	LED (green/red) Green LED on: work normally Red LED on: PLL unlock alarm

#### Physical Parameters

Size (inch)	5.91*3.94*2.95
(mm)	150*100*75
Weight (lbs)	2.97
(kg)	1.35
Operating Temperature	-40 to +60 °C (guarantee)
Humidity	0-100 % (condensing)
Altitude	0-10,000 feet ASL

#### Part Number / Ordering Information

RGU-UD~~aaa~~-DC4EN-C0

#### aaa: Output Power

008 = 8W

016 = 16W

025 = 25W

#### Contact Information

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