

# Block Up-Converter (BUC)

## Ku-Band 200W/250W



### ◆ 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

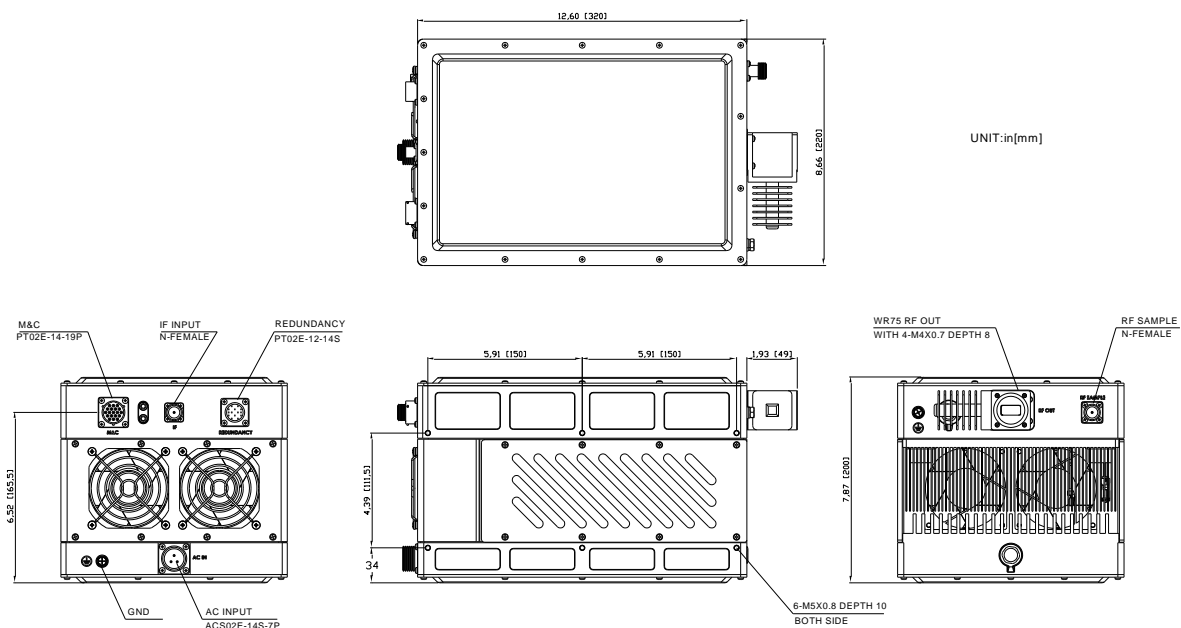
### ◆ Reliability

- 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

- Wide channel separation capable for multi-carriers and multi-transponders
- Variable power consumption 1300W @ 54dBm / 250W  
1100W @ 53dBm / 200W
- Integrated equipment failure switching (1:1 redundancy ready)
- Optional equipment redundancy configurations
- 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>	<u>Extended</u>
	14.00-14.50 MHz	13.75-14.50 GHz
IF Frequency	950-1450 MHz	950-1700 MHz
Reference		
External	10 MHz, 0 ± 5 dBm	
Internal (optional)	LO stability: ±8 ppb Freq. accuracy: ±300ppb	
Output Power	<u>200W BUC</u>	<u>250W BUC</u>
Rated/Saturated	53 dBm	54 dBm
PLin <sup>1</sup>	52 dBm	53 dBm
PLin <sup>2</sup>	51 dBm	52 dBm
PLin <sup>3</sup>	50 dBm	51dBm
IMD3 (3dB from rated)	- 25 dBc	
Small Signal Gain	75 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)	
TX noise density	-76 dBm/Hz @max gain	
RX noise density	-156 dBm/Hz	
Phase Noise	-65 dBc / Hz @ 100 Hz -75 dBc / Hz @ 1 KHz -85 dBc / Hz @ 10 KHz -95 dBc / Hz @ 100 KHz	
Output Spurious	-60 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)

#### Part Number / Ordering Information

RGUC – U <u>a</u> <u>b</u> <u>b</u> <u>b</u> - A C R <u>c</u> N – C <u>d</u>	
<u>a</u> : Frequency Range	<u>c</u> : Reference
1 = 14.0-14.5 GHz	E = External reference 10MHz
2 = 13.75-14.5 GHz	L = Internal reference (Local)
<u>b</u> <u>b</u> <u>b</u> : Output Power	<u>d</u> : openBmip
200 = 200W	0 = without openBmip tables
250 = 250W	p = with openBmip tables

#### Power Supply

Input Power	85 to 265 VAC (47-63 Hz)	
Power Consumption	<u>200W BUC</u>	<u>250W BUC</u>
@ PLin <sup>3</sup> Output	750 W	950 W
@ Rated Output	1100 W	1300 W

#### Interfaces

RF Output Connector	WR75-G (Grooved)
RF Output VSWR	1.25:1
IF Connector	N-Type Female
IF Input VSWR	1.5:1
Power Connector	ACS02E-14S-7P
M&C Connector	PT02E-14-19P (RS232/485/Eth) SNMPv2
Redundancy Connector	PT02E-12-14S
Alarm Status Indicator	LED (green/red)

#### Physical Parameters

Size (inches)	12.59*8.66*7.87
(mm)	320*220*200
Weight (lbs)	30.86
(kg)	14
Operating Temperature	-40 to +60°C
Humidity	0-100% (condensing)
Altitude	0-10,000 feet ASL

#### Contact Information

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E-mail:	Sales@RevGoGroup.com	
Address:	12007 Sunrise Valley Dr., #450 Reston, VA 20191 USA	

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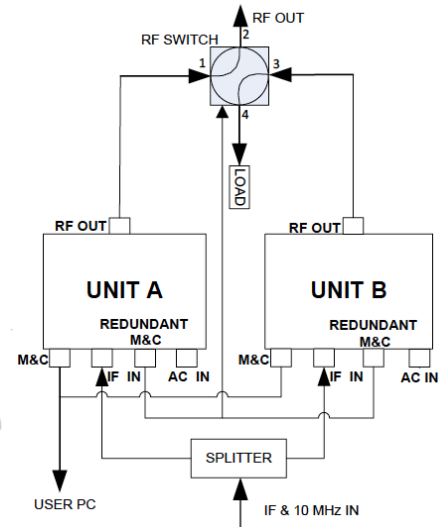
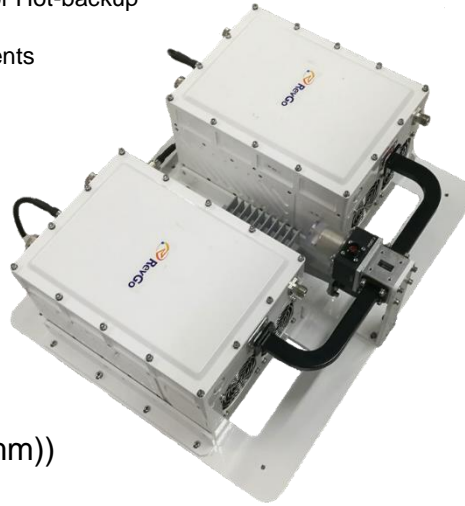
## Optional 1:1 Redundancy Configuration

In the event of an equipment failure, the optional 1:1 redundancy kit switches traffic from the primary BUC to the standby BUC.

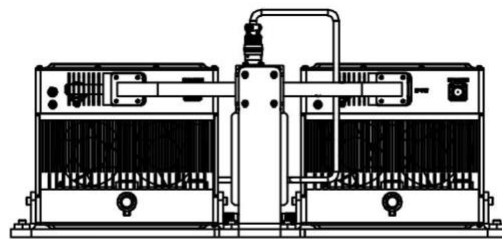
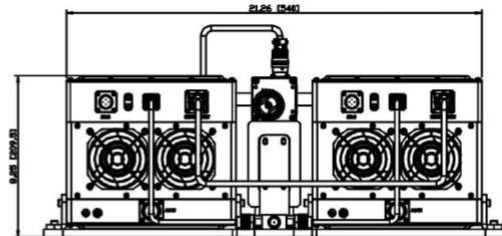
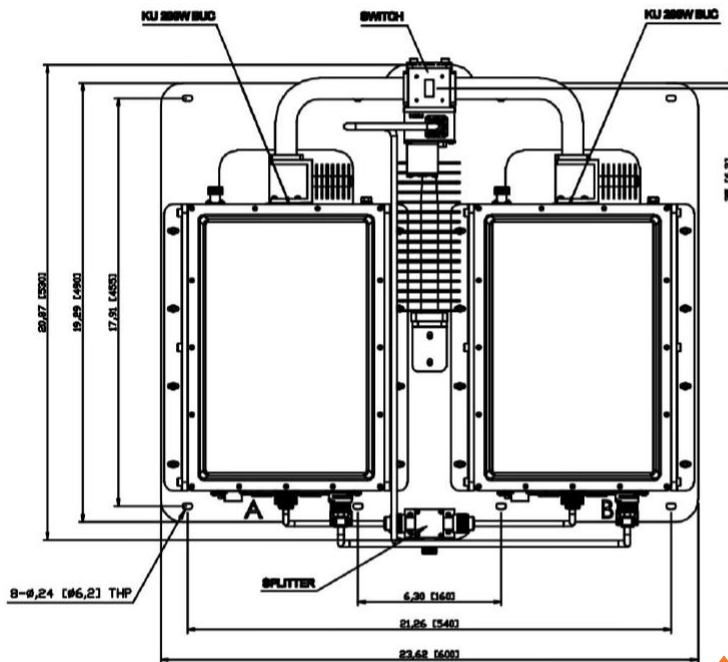
- Compatibility: 200W & 250W BUCs
- Switching Function: Auto or Manual
- Type of Standby: Cold-backup or Hot-backup
- Rugged design for extreme environments

### ◆ Items Included in Kit

- WR-75 waveguide switch \*1
- WR-75 Hi Power Load \*1
- Waveguide \*2
- Splitter \*1
- Interconnection cabling
- Mounting Frame x1



### ◆ Mechanical Diagram (Unit: inch (mm))



UNIT: in(mm)

### ◆ Part Number / Ordering Information

<b>RGXA - U200RK - A0</b>
<b>Optional 1:1 Redundancy Kit</b>

### ◆ Contact Information

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