

Block Up-Converter (BUC)

Ku-Band 40/50/60W



◆ 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 up converter (BUC)
- Low noise block (LNB)
- Transceiver (Tx/Rx/OMT/filters)
- C-, Ku-, DBS-, Ka-bands
- 3 to 400W output power

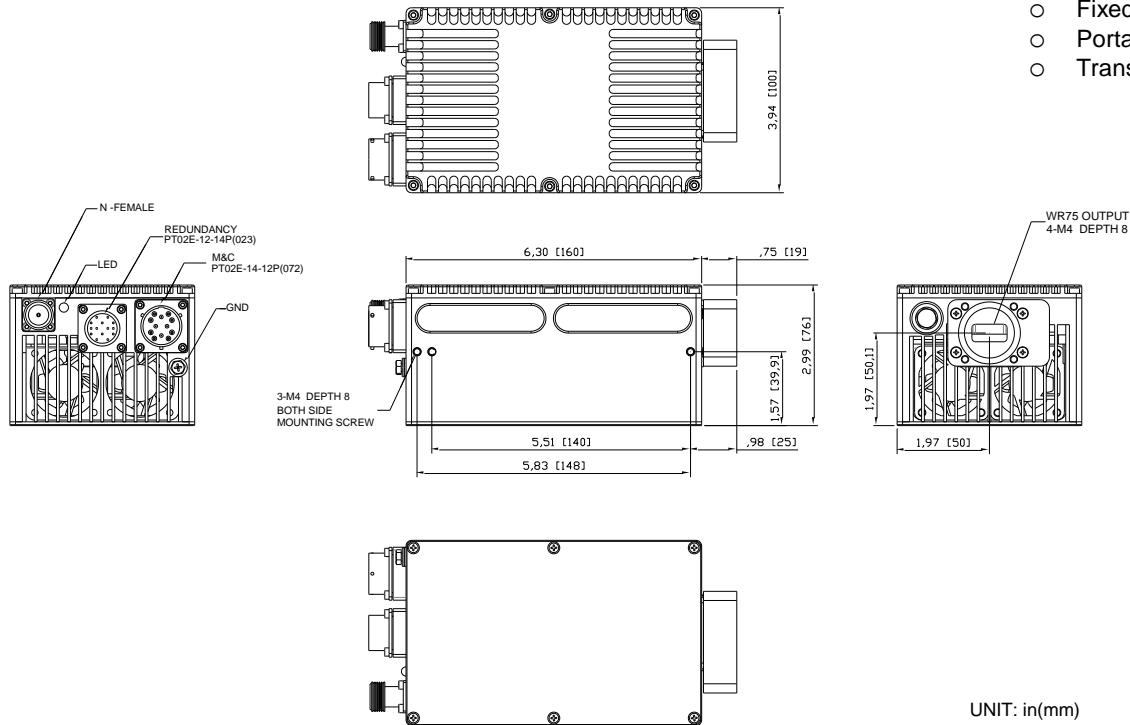
◆ Reliability

- 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

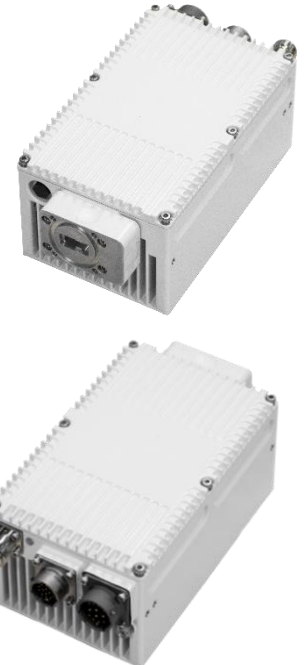
- Variable power consumption 180W (@46 dBm), 210W (@47 dBm), 260W (@47.8 dBm)
- Compact and light weight 3.3 lbs / 1.5 kg
- Equipment redundancy port and logic integrated
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

◆ Mechanical Diagram (Unit: inch [mm])



◆ Typical VSAT Applications

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



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SPECIFICATIONS

◆ RF Specifications

RF Frequency	Standard	Extended	
	14-14.50 GHz	13.75-14.50 GHz	
IF Frequency	950-1450 MHz	950-1700 MHz	
External Ref	10 MHz, 0 ± 5 dBm		
Output Power	40W BUC	50W BUC	60WBUC
Saturated	46.5 dBm	47 dBm	47.8 dBm
Rated	46 dBm	47 dBm	47.5 dBm
PLin ¹	45 dBm	46 dBm	46.5 dBm
PLin ²	44 dBm	45 dBm	45.5 dBm
PLin	43 dBm	44 dBm	44.5 dBm
IMD3 (3dB back off Prated)	-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 (50-70 dB, Step: 0.1 dB)		
Tx Noise Power Density	≤ -76 dBm/Hz		
Rx Noise Power Density	≤ -156 dBm/Hz		
Phase Noise	-75 dBc/Hz @ 1 KHz		
	-85 dBc/Hz @ 10 KHz		
	-95 dBc/Hz @ 100 KHz		
Output Spurious	-55 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 (MIL-STD-188-164B, two-carriers)

◆ Power Supply

Input Power			
@40W	+18 to +55 VDC		
@50W & 60W	+22 to +55 VDC		
Power Consumption	40W BUC	50W BUC	60W BUC
@ Rated Output	180 W	210 W	240 W
@ PLin Output	120 W	150 W	170 W

◆ Interfaces

RF Output Connector	WR75-G (Grooved)
RF Output VSWR	1.25:1
IF Connector	N-Type
IF Input VSWR	2:1
Connector	PT02E-14-12P
Power	4 pins for power supply
M&C	8 pins for M&C (RS485/Eth)
Redundancy Connector	PT02E-12-14P
Alarm Status Indicator	Green ON Red ON
LED*1 (green/red)	Normal PLL unlocked

◆ Physical Parameters

Size	(inches)	6.29*3.93*2.99
	(mm)	160*100*76
Weight	(lbs)	3.3
	(kg)	1.5
Operating Temperature		-40 to +60°C (guaranteed)
Humidity		0-100% (condensing)
Altitude		0-10,000 feet ASL
IP		IP67

◆ Part Number / Ordering Information

RGUC-U abbb -DC4EN-D0	
a: Frequency Range	bbb: Output Power
1 = 14.00-14.50 GHz	040 = 40 W
2 = 13.75-14.50 GHz	050 = 50 W
3 = 13.75-14.50 GHz & 14.00-14.50 GHz	060 = 60 W

◆ Contact Information

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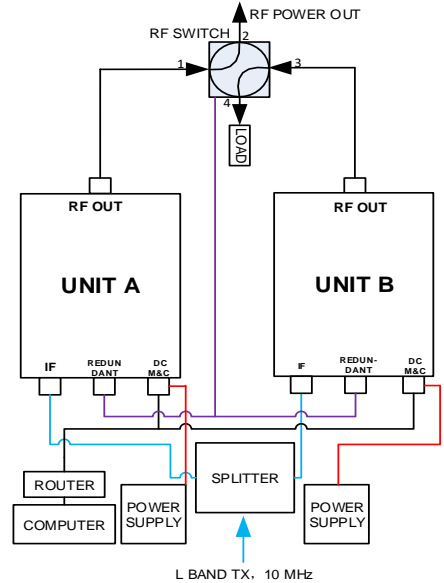
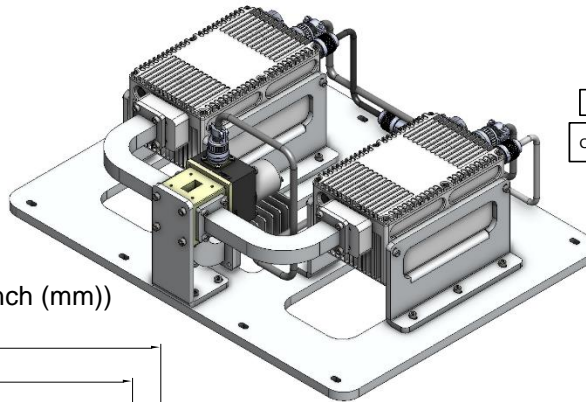
◆ Optional 1:1 Redundancy Configuration

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

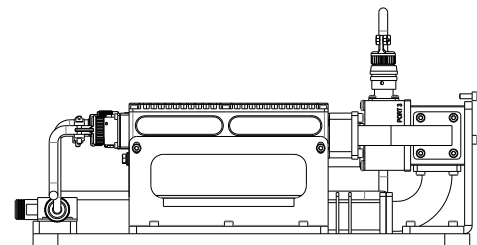
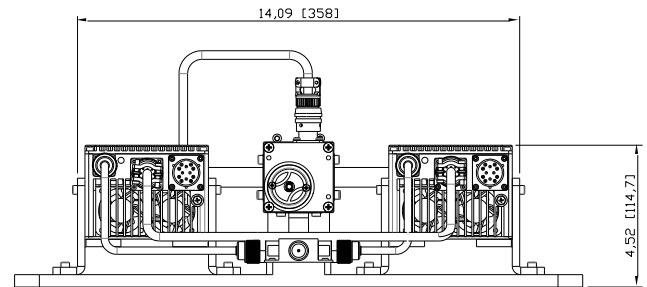
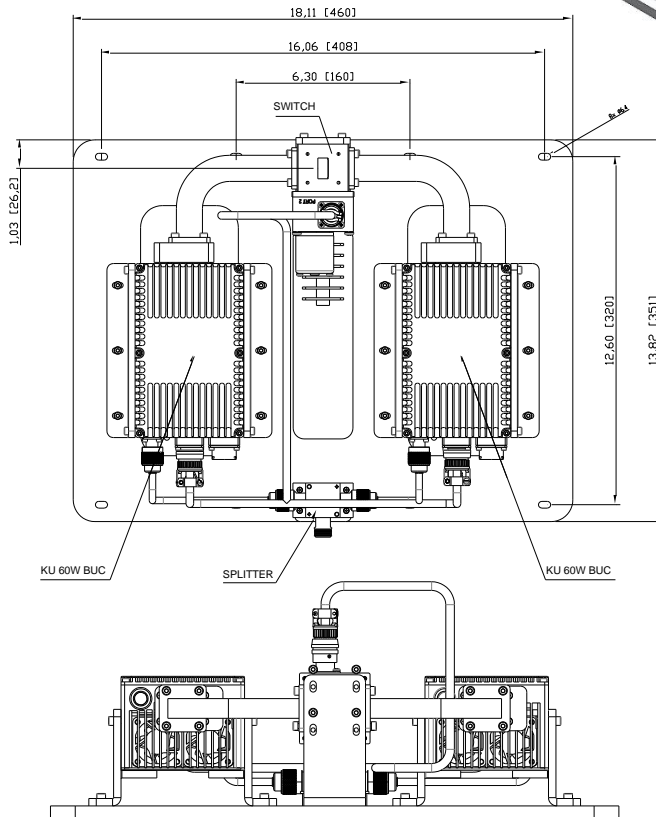
- Compatibility: 40W & 50W & 60W BUCs
- Switching Function: Auto or Manual
- Type of Standby: Cold-backup or Hot-backup
- Rugged design for extreme environments

◆ 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))



◆ Part Number / Ordering Information

RGXA – KU060RK - D0
Optional 1:1 Redundancy Kit

◆ Contact Information

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