

Block Up-Converter (BUC)

Ku-Band 100/120W



◆ 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

100W BUC

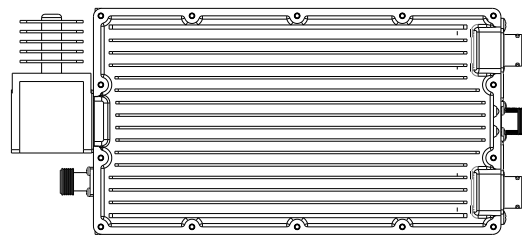
120W BUC

- Variable power consumption 550W (@49dBm) 620W (@50dBm)
- Optional equipment redundancy configurations
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)

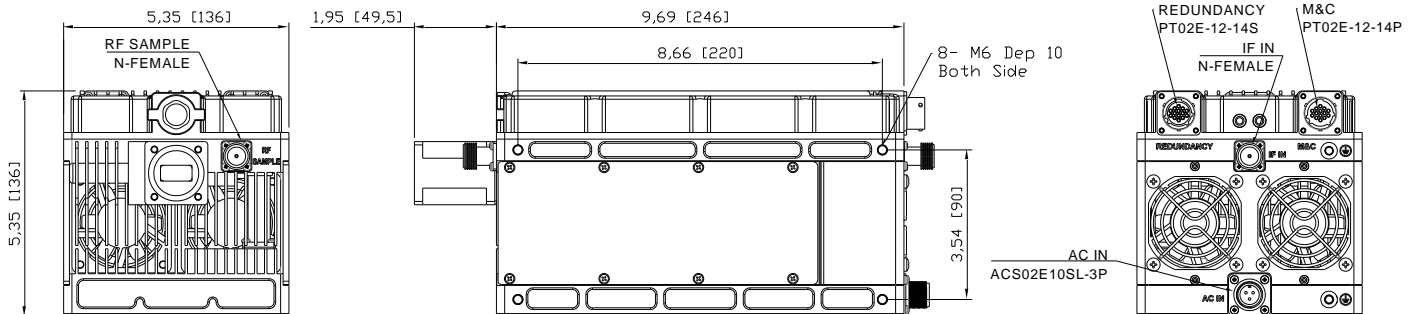
◆ Typical VSAT Applications

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

◆ Mechanical Diagram (Unit: inch [mm])



UNIT: in(mm)



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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	100W BUC	120W BUC
Rated/Saturated	50 dBm	50.8 dBm
PLin ¹	49 dBm	49.8 dBm
PLin ²	48 dBm	48.8 dBm
PLin	47 dBm	47.8 dBm
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	55-75 dB (Step: 0.1 dB)	
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:

- 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-carrier)

Power Supply

Input Power	85 to 265 VAC (47-63 Hz)	
Power Consumption	100W BUC	120W BUC
@ PLin Output	500W	570W
@ Prated Output	550W	620W

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-12-14P (RS485/232/Eth)
	SNMPv2
Redundancy Connector	PT02E-12-14S
Alarm Status Indicator	LED (green/red)

Physical Parameters

Size (inches)	9.7*5.3*5.3
(mm)	246*136*136
Weight (lbs)	12.5
(kg)	5.7
Operating Temperature	-40 to +60°C (guarantee)
Humidity	0-100% (condensing)
Altitude	0-10,000 feet ASL

Part Number / Ordering Information

RGUC-U abbb -ACR c N-C0	
a: Frequency range	bbb: Output power
1 = 14.00-14.50 GHz	100 = 100W
2 = 13.75-14.50 GHz	120 = 120W
c: Reference type	
E = External reference 10MHz	
L = Internal reference 10MHz	

Contact Information

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◆ Mechanical Diagram (Unit: inch (mm))

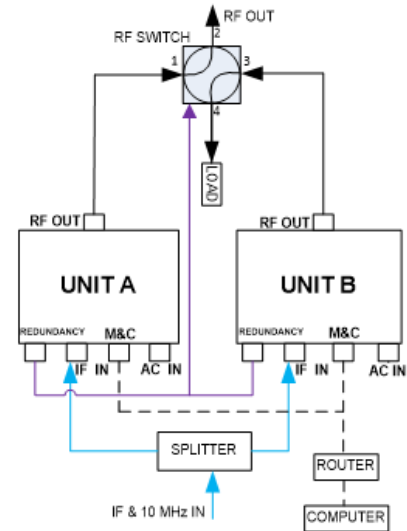
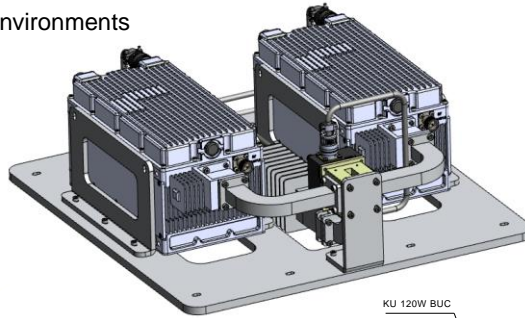
Optional 1:1 Redundancy Configuration

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

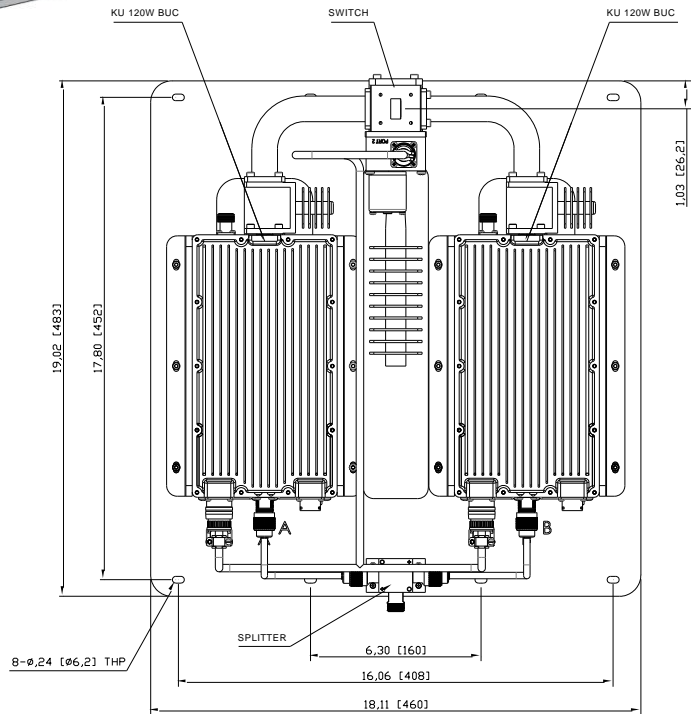
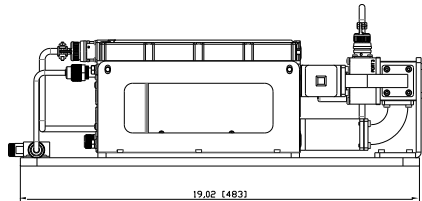
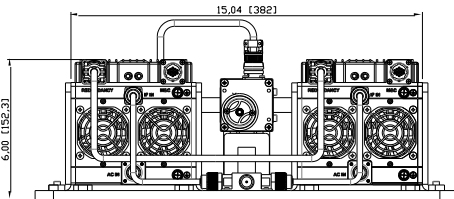
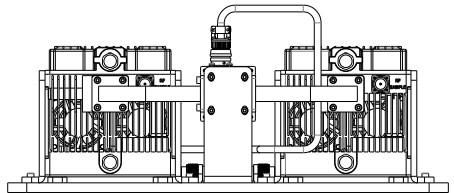
- Compatibility: 60, 80, 100, and 120W BUCs
- Switching Function: Auto or Manual
- Type of Standby: Cold-backup
- Rugged design for extreme environments

◆ Items Included in Kit

- WR-75 waveguide switch
- WR-75 Hi Power Load
- Splitter
- Interconnection cabling
- Mounting Frame x1



◆ Mechanical Diagram (Unit: inch [mm])



◆ Part Number / Ordering Information

RGXA -U120RK - C0
Optional 1:1 Redundancy Kit

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