

Block Up-Converter (BUC) Ka-Band 160W - Gateway



◆ Company Overview

RevGo designs and manufactures satellite earth station RF from low to high 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
- 3 to 1000W 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 rate

◆ Product Features

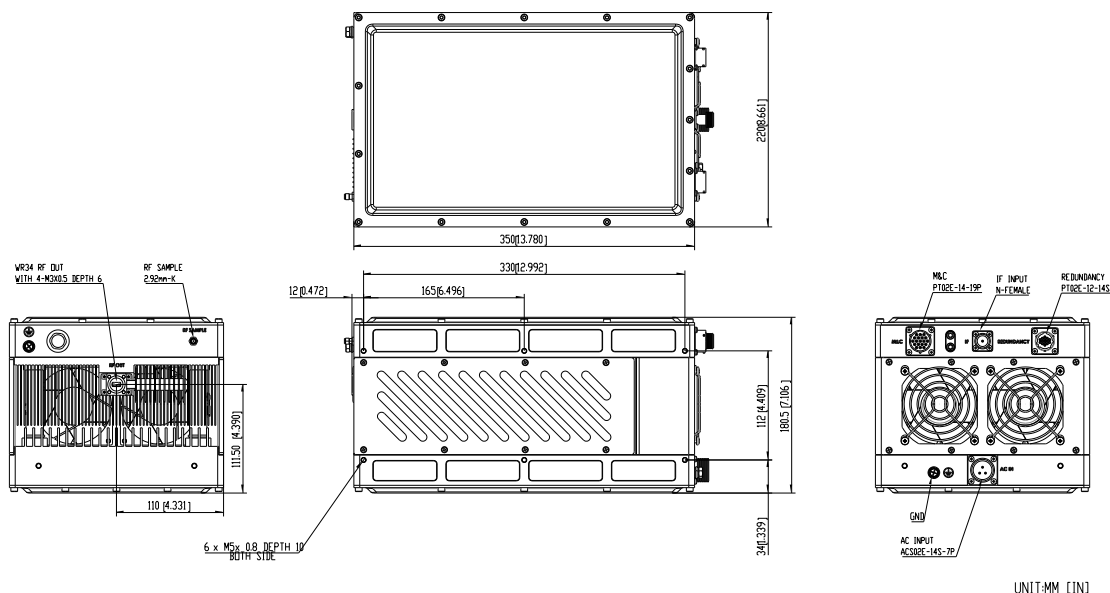
- Software selectable sub-band 27.5-31 GHz (Single-, Dual-, Tri-, Quad-band)
- Full band performance with narrow band affordability
- Independently replaceable fans without causing the service interruption
- Variable power consumption 650W @48dBm
- Compact and light weight 33 lbs / 15 kg
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)
- M&C with real-time clock, event log, web interface, SNMP, and Open-BMIP
- Built-in 1+1 Redundancy for all BUCs without External Logic Controller

◆ Typical Applications

- Gateway
- Maritime
- Cellular Backhaul
- SNG Vehicle
- Terminals
 - Fixed
 - Portable
 - Transportable



◆ Mechanical Diagram (Unit: inch [mm])



Block Up-Converter (BUC)

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SPECIFICATIONS

RF Specifications

RF Frequency	General
	27.5 -31 GHz*
	* Bandwidth Options: - Single band (1x 1 GHz) - Dual band (2x 1 GHz) - Tri band (3x 1 GHz) - Quad band (4x 1 GHz)
IF Frequency	950-1950 MHz
External Ref	10 MHz, 0 ± 5 dBm
Output Power	
Saturated	52 dBm (Peak to Peak)
Rated	51 dBm (CW Power)
Plin¹	50 dBm
Plin²	49 dBm
Plin³	48 dBm
Noise Power Ratio (NPR)	-19 dBc @48.3dBm or 68W
IMD3 (@Plin³)	-25dBc
Small Signal Gain	55-75 dB
Gain Variation	1 dB p-p / 36 MHz 3 dB p-p / 500 MHz 4 dB p-p / 1000 MHz
Gain stability	± 1.5 dB p-p
Gain Adjustment	20 dB (Step: 0.1 dB)
Phase Noise	-63 dBc / Hz @ 100 Hz -81 dBc / Hz @ 1 KHz -83 dBc / Hz @ 10 KHz -93 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)
- Plin³:** <-25 dBc IMD3

Power Supply

Input Power	100 to 240 VAC (50-60Hz)
Power Consumption	
@ PLin ³ Output	650W
@ Rated Output	1000W

Interfaces

RF Output Connector	WR28-G/ WR34-G (optional)
RF Output VSWR	1.3:1
IF Connector	N-Type Female
IF Input VSWR	1.5:1
Power Connector	ACS02E14S-7P
M&C Connector	PT02E-12-19P (RS485/232, Eth)
Redundancy Connector	PT02E-12-14P
Alarm Status Indicator	LED (Green & Red)

Physical Parameters

Size (inches)	13.7*8.66*7.87
(mm)	350*220*200
Weight (lbs)	33 lbs
(kg)	15 kg
Operating Temperature	-40 to +60°C
Humidity	0-100% (condensing)
Altitude	0-10,000 feet ASL

Part Number / Ordering Information

RGUC-Aa160-ACREN-A0
a: Frequency Range
1 = 29.00-30.00 GHz (Single band)
3 = 30.00-31.00 GHz (Single band)
4 = 29-30 & 30-31 GHz (Dual-band Software Selectable)
T = 27.50-30.00 GHz (Tri-band Software Selectable)
Q = 27.50-31.00 GHz (Quad-band Software Selectable)

Contact Information

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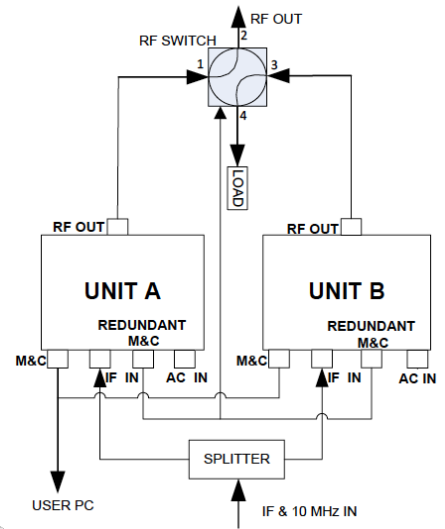
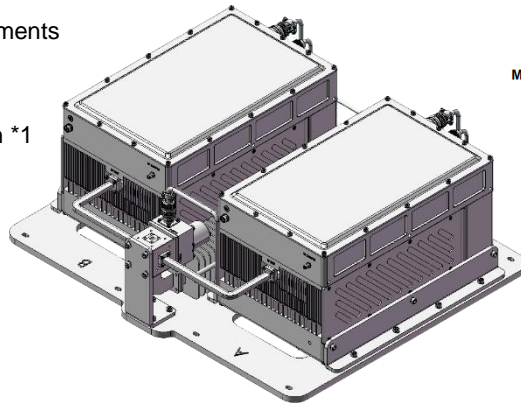
Optional 1:1 Redundancy Configuration

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

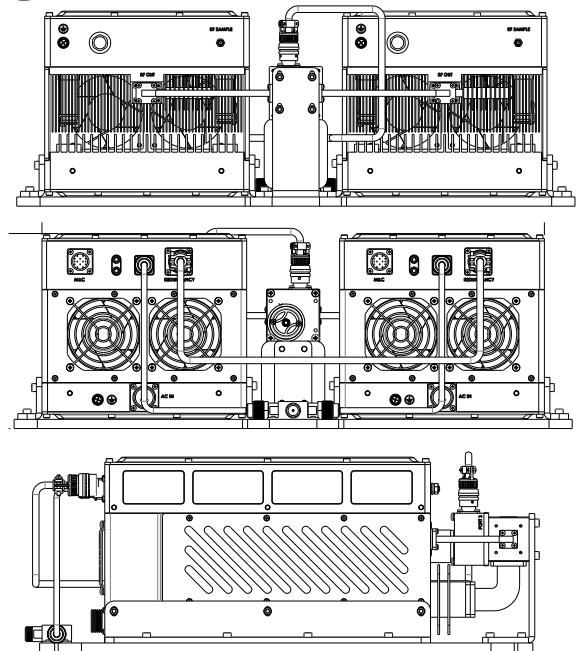
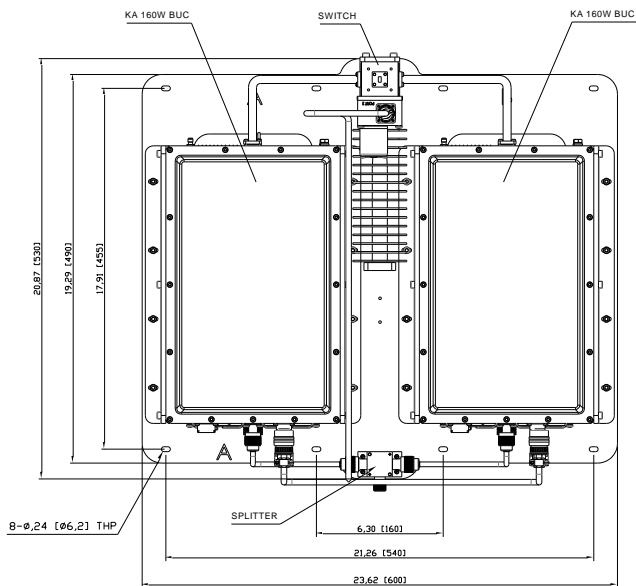
- Compatibility: 160W BUCs
- Switching Function: Auto or Manual
- Type of Standby: Cold-backup or Hot-backup
- Rugged design for extreme environments

◆ Items Included in Kit

- WR-34 or WR-28 Waveguide switch *1
- WR-34 or WR-28 Hi Power Load *1
- WR-34 or WR-28 Waveguide *2
- Splitter *1
- Interconnection cabling
- Mounting Frame x1



◆ Mechanical Diagram (Unit: inch [mm])



◆ Part Number / Ordering Information

RGXA – KA160RK - A0
Optional 1:1 Redundancy Kit

◆ Contact Information

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