

# Block Up-Converter (BUC)

## Ku-Band 30 / 16 / 8W



### ◆ 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:

- Low noise block (LNB)
- 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



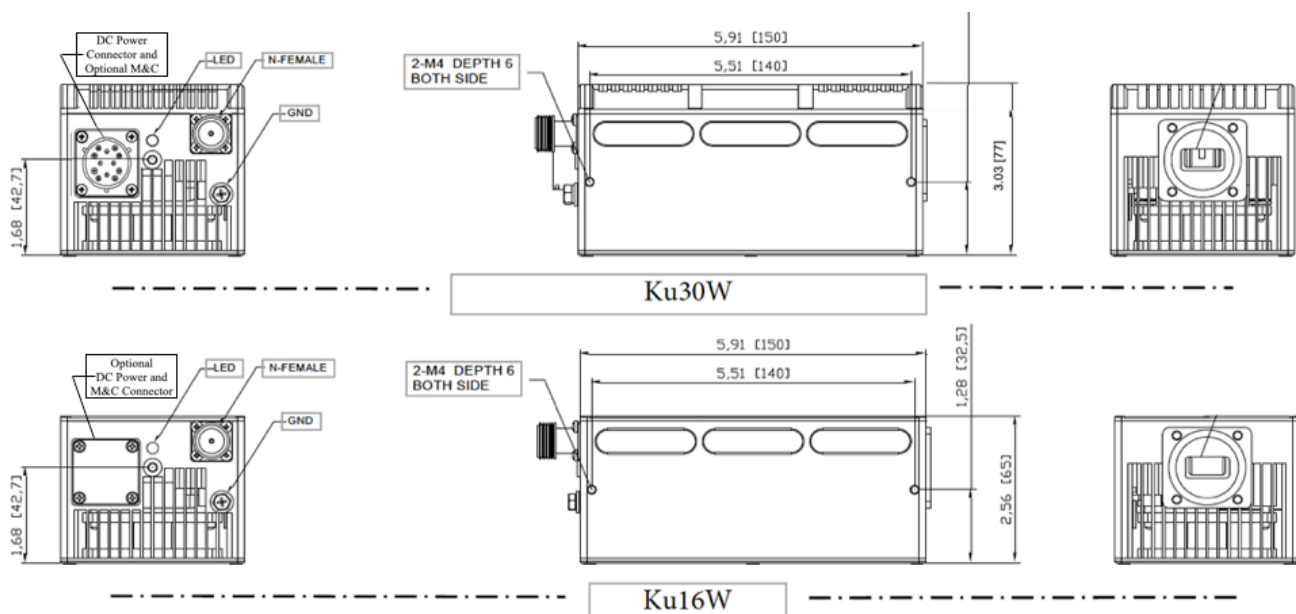
### ◆ Product Features

	<u>16W</u>	<u>30W</u>
• Variable power consumption	70W (@43dBm) <b>65W (@42dBm)</b> 45W @39dBm 35W (@36dBm)	135W (@45dBm) <b>110W (@44dBm)</b> 105W (@43dBm) 85W (@42dBm)
• Compact and light weight	2.2lbs / 1.0kg	2.9lbs / 1.3kg
• Operates without fan when output power set to 8W output		
• IFL input power or separate DC connector		
• Low phase noise (exceeds IESS308/309)		
• Stable linearity to 500 MHz bandwidth (Multi-Transponders)		
• Rugged design for extreme environments (-40 to +60°C)		
• Optional: 1 RU Indoor AC power supply L-Band DC injector		

### ◆ Typical VSAT Applications

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

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



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### SPECIFICATIONS

#### ◆ RF Specifications

RF Frequency	<u>Standard</u> 14-14.50GHz	<u>Extended</u> 13.75-14.50GHz	
IF Frequency	950-1450MHz	950-1700MHz	
External Ref	10 MHz, 0 ± 5 dBm		
Output Power Saturated	<u>8W</u> +39	<u>16W</u> +43	<u>30W</u> +46dBm
PLin <sup>1</sup>	38	42	45dBm
PLin <sup>2</sup>	37	41	44dBm
PLin <sup>3</sup>	36	40	43dBm
IMD3 (3dB from rated)	-25dBc		
Small Signal Gain			
No M&C (fixed)	65	70	70dB
With M&C (1dB steps)	50-65	50-70	50-70dB
Gain Variation	1 dB p-p / 36MHz		
	3 dB p-p / 500MHz		
	4 dB p-p / 750MHz		
Gain stability	3 dB p-p		
Phase Noise	-60 dBc / Hz @ 100Hz		
	-75 dBc / Hz @ 1KHz		
	-85 dBc / Hz @ 10KHz		
	-95 dBc / Hz @ 100KHz		
Output Spurious	-55dBc		

#### Notes:

PLin<sup>1</sup>: -26 dBc regrowth, 1.5 SR

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)

#### ◆ Power Supply

	<u>8/16W</u>	<u>30W</u>
Input Power	+18 to +56	+36 to +56VDC
Power Consumption @ PLin <sup>1</sup> Output	45/65W	135W

#### ◆ Interfaces

RF Output Connector	WR75-G (Grooved)
IF Connector	N-Type Female or F-Type Female
IF Input VSWR	1.5:1
Power	IFL or Separate DC Connector
LED Alarm Indicator	Green = normal Red on = PLL alarm Red flashing = Temp alarm

#### ◆ Physical Parameters

	<u>8/16W</u>	<u>30W</u>
Size (inches)	5.9*3.15*2.56	5.9*3.03*2.99
Size (mm)	150*80*65	150*80*76
Weight (lbs)	2.2	2.9
Weight (kg)	1.0	1.3
Operating Temperature	-40 to +60°C	
Humidity	0-100% (condensing)	
Altitude	0-10,000 feet ASL	

#### ◆ Part Number / Ordering Information

RGUC – <u>a</u> <u>b</u> <u>c</u> <u>c</u> - <u>d</u> <u>d</u> <u>e</u> <u>e</u> - <u>f</u>			
<b>a: Frequency Band</b>	<b>d d e e: Input Power and M&amp;C</b>		
U = Ku-Band		<u>8/16W</u>	<u>30W</u>
<b>b: Frequency Range</b>	IFL	DCNA	48NA
1 = 14.0-14.5 GHz	DC Conn. and M&C	DC4E	484E
2 = 13.75-14.5 GHz	(M&C not available with IFL power)		
<b>c c: Output Power</b>	<b>f: IF Connector</b>		
08 = 8W	N = N-Type Female		
16 = 16W	F = F-Type Female		
30 = 30W			
<b>RGAC-48-NA</b>			
1 RU Indoor AC power supply L-Band DC Injector			

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