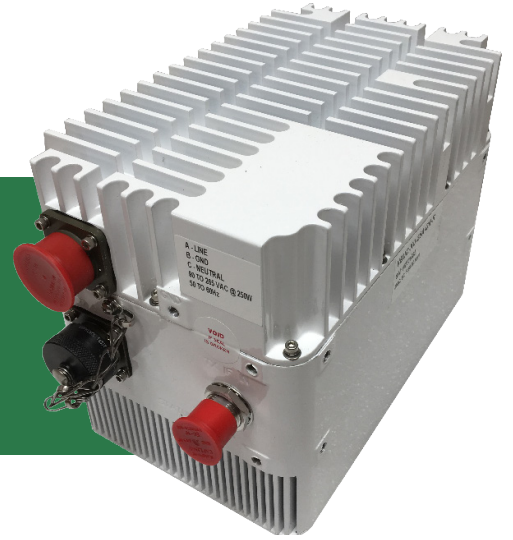


# V2 Microwave

## Vali Series BUC's

Ku-band GaN BUC's  
25W - 400W



## Vali BUC Superiority

The V2 Microwave Series of BUCs are designed for fixed, mobile and flyaway applications. They consist of outdoor power amplifiers with built-in upconverters using GaAs/GaN technologies. The lightweight, compact design allows for portability as well as various mounting configurations.

Each model has full monitoring and control capabilities to allow the operator the peace of mind that the unit is fully operational. For added protection, each BUC has built-in redundancy to allow the optional upgrade to a 1:1 or 1:2 system in the field.

## Features

- High efficiency and low power consumption
- Switchable LO to cover full Ku-band 13.75 - 14.5 GHz
- Monitor and Control
- Redundancy Ready
- Lightweight, compact design
- Rugged, weatherproof outdoor housing
- M&C Mil-Spec connector to allow for RS485, RS242 and Ethernet
- Protection against frequency sync failure and parameter drift due to temperature change
- Gain Control in 0.1 dB steps
- Quick Delivery

## Options

- Various frequency bands
- Output power options from 25 to 400 watts
- Built-in 10 MHz reference signal generator
- 48 VDC (low power) or 110/220 VAC power
- Redundancy - 1:1 or 1:2
- Mounting Brackets

## GaN Advantages

- Low Power Consumption
- Higher Power in smaller/lighter package
- Linear Power Output

## SPECIFICATIONS

<b>Linear Gain</b>	70 dB Nominal	<b>Output Spurious</b>	-55 dBc max
<b>Gain Control</b>	20 dB nominal in 0.1 dB steps	<b>Spectral Re-growth</b>	-30dBc @Plinear
<b>Gain Stability Over Temp</b>	± 2.0 dB max	<b>Third order IMD (2 equal tones 5MHz apart)</b>	-25 dBc, with 2 equal carriers at 3dB total power back off from rated power (PSat -3dB)
<b>Gain Variation at Fixed Temp</b>	Over Full Band ± 2.0 dB	<b>10MHz Reference</b>	0 dBm ± 5.0 dB
	Over 40 MHz ± 0.5 dB		
<b>Input Impedance</b>	50 Ohms		
<b>Output VSWR</b>	1.50:1		

## RF OUTPUT

	PSat	PLin *
<b>25 W</b>	44 dBm	41 dBm
<b>40 W</b>	46 dBm	43 dBm
<b>50 W</b>	47 dBm	44 dBm
<b>80 W</b>	49 dBm	46 dBm
<b>100 W</b>	50 dBm	47 dBm
<b>125 W</b>	51 dBm	48 dBm
<b>200 W</b>	53 dBm	50 dBm
<b>250 W</b>	54 dBm	51 dBm
<b>400 W</b>	56 dBm	53 dBm

## POWER CONSUMPTION

(at rated power)

175 W
300 W
350 W
750 W
780 W
800 W
1200 W
1300 W
2500 W

## POWER REQUIREMENT OPTIONS

110 / 220 VAC	or	+36 to +72 VDC
110 / 220 VAC	or	+36 to +72 VDC
110 / 220 VAC	or	+36 to +72 VDC
110 / 220 VAC		
110 / 220 VAC		
110 / 220 VAC		
220 VAC		
220 VAC		
220 VAC		

\* PLin = max linear power as defined by MIL-STD-188-164C

## PHASE NOISE

@ 100 Hz	-63 dBc/Hz
@ 1 KHz	-73 dBc/Hz
@ 10 KHz	-83 dBc/Hz
@ 100 KHz	-93 dBc/Hz
@ 1 MHz	-103 dBc/Hz
@ 10 MHz	-113 dBc/Hz

## INTERFACE

<b>RF Output</b>	Waveguide, WR75G (Grooved)
<b>IF Input</b>	N-Type Female, 50 Ohms
<b>Connectors</b>	DC : MS3102R14S-9P AC : MS3102R14S-7P - 25w to 50w AC : MS3102R16S-10P - 80w to 400w
	M&C: MS3112E1419P
	Redundancy: MS3112E14-15P (Optional)

## FREQUENCY BANDS

	Output Frequency	Input Frequency	LO Frequency
<b>Low Ku</b>	12.75 – 13.25 GHz	950 – 1450 MHz	11.80 GHz
<b>Standard Ku</b>	14.00 – 14.50 GHz	950 – 1450 MHz	13.05 GHz
<b>Extended Ku</b>	13.75 – 14.50 GHz	950 – 1700 MHz	12.80 GHz

## MECHANICAL

COOLING	FORCED AIR
<b>25W-50W</b>	8.0 x 5.0 x 6.0 in (203 x 127 x 152 mm) 8 lbs (3.65 kg)
<b>80W-125W</b>	7.36 x 7.75 x 12.5 in (187 x 197 x 318 mm) 30 lbs (13.61 kg)
<b>200W-250W</b>	5.48 x 11.75 x 19.25 in (139 x 299 x 489 mm) 58 lbs (26.31 kg)
<b>400W</b>	7.68 x 16.00 x 22.25 in (195 x 406 x 565 mm) 110 lbs (50.90 kg)

## ENVIRONMENTAL

<b>Temperature Range (ambient)</b>	<b>Operating</b> -40 deg C to + 55 deg C	<b>Storage</b> -40 deg C to + 75 deg C
<b>Humidity</b>	0 to 100% (condensing)	
<b>Altitude</b>	10,000 ft ASL	



3 Year Warranty

KU-BAND\_GaN  
Specifications are subject to change without notice