



Pamir-Line

Ku, C, X Band SSPA BUC - GaN Technology

Overview

The Pamir-Line are hub-mount up-converter transmitters, using GaN Technology, operating in the C, Ku, and X-Band. The Pamir-Line Compact BUC is built for stabilized platforms and mobile stations, while also offering benefits for fixed site and offshore applications. Weighing less than 8 lbs., makes it ideal for feed mounting.

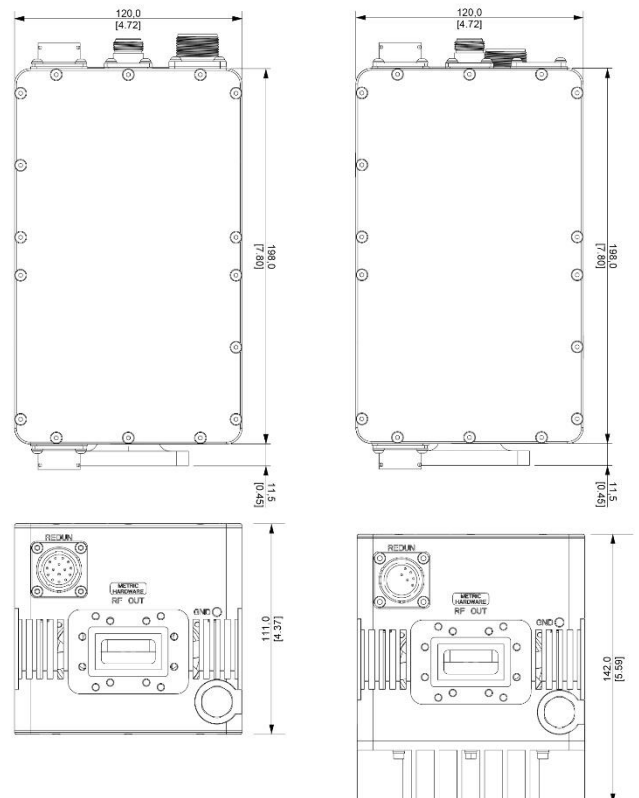
- Ku-Band: 25W / 40W / 50W
- C-Band: 40W / 50W / 60W / 80W / 100W
- X-Band: 40W / 50W / 60W / 80W / 100W



With AC module

Features

- Extremely compact size
- Available in AC or DC
- Up to 100W of RF Output Power
- Up to 50W of Linear power
- Built-in monitoring of critical parameters such as: RF power detection, mute control, over temperature shutdown, summary alarm
- IP67 rated housing and fan (weather proof construction)
- M&C Interfaces included: RS485, RS232, Ethernet and dry-contacts
- WEB interface and SNMP monitoring
- Optional 1:1 and 1:2 built into the BUC eliminating external controller
- Other frequency ranges available
- Optional Remote control unit



With AC module



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Technical Specifications					
Ku-Band					
Electrical Characteristics	25W	40W	50W		
RF Output at P Sat	44 dBm	46 dBm	47 dBm		
RF Output at P Lin	41 dBm	43 dBm	44 dBm		
Output Frequency Range	Lower Ku: 12.75 – 13.25 GHz	Standard Ku: 14.00 – 14.50 GHz	Extended Ku: 13.75 – 14.50 GHz		
Input Frequency Range	Lower Ku: 950 – 1450 MHz	Standard Ku: 950 – 1450 MHz	Extended Ku: 950 – 1700 MHz		
Local Oscillator Frequency	Lower Ku: 11.80 GHz	Standard Ku: 13.05 GHz	Extended Ku: 12.80 GHz		
C-Band					
Electrical Characteristics	40W	50W	60W	80W	100W
RF Output at P Sat	46 dBm	47 dBm	48 dBm	49 dBm	50 dBm
RF Output at P Lin	43 dBm	44 dBm	45 dBm	46 dBm	47 dBm
Output Frequency Range	Lower C: 5.725 – 6.425 GHz	Standard C: 5.85 – 6.425 GHz	Extended C: 5.85 – 6.725 GHz	Insat C: 6.725 – 7.025 GHz	
Input Frequency Range	Lower C: 975 – 1675 MHz	Standard C: 950 – 1525 MHz	Extended C: 950 – 1825 MHz	Insat C: 1275 – 1575 MHz	
Local Oscillator Frequency	Lower C: 4.75 GHz	Standard C: 4.9 GHz	Extended C: 4.9 GHz	Insat C: 5.45 GHz	
X-Band					
Electrical Characteristics	40W	50W	60W	80W	100W
RF Output at P Sat	46 dBm	47 dBm	48 dBm	49 dBm	50 dBm
RF Output at P Lin	43 dBm	44 dBm	45 dBm	46 dBm	47 dBm
Output Frequency Range	7.9 – 8.4 GHz				
Input Frequency Range	950 – 1450 MHz				
Local Oscillator Frequency	6.95 GHz				
Ku, C-Band					
Gain Stability Over Temp.	± 2.0 dB max				
Gain Variation at fixed temp	± 2.0 dB over full band; ± 0.5 dB over 40 MHz				
Linear Gain	60 dB nominal				
Gain Control	20 dB nominal in 0.5 dB steps				
Output VSWR	1.50:1				
Spectral Re-growth	-30dBc @PLinear				
Third order IMD (2 equal tones 5MHz apart)	-25 dBc, with 2 equal carriers at 3dB total power back off from rated power (P Sat -3dB)				
10MHz Reference	0 dBm ± 5.0 dB				
	@ 100 Hz	@ 1 KHz	@ 10 KHz	@ 100 KHz	@ 1 MHz
10 MHz Phase Noise Requirement	-130 dBc/Hz max	-140 dBc/Hz max	-150 dBc/Hz max	-155 dBc/Hz max	
Local Oscillator Phase Noise	-63 dBc/Hz max	-73 dBc/Hz max	-83 dBc/Hz max	-93 dBc/Hz max	-103 dBc/Hz max
Output Spurious	-55 dBc max				
Input Impedance	50 Ohms				
Input VSWR	1.50:1				
Power consumption (at rated power) AC version					
	Ku-Band	175W	300W	350W	
	C-Band	275W	300W	425W	450W
	X-Band	280W	300W	450W	480W
Power requirement	120/220 AC or +36 to +72 VDC				
Interface					
Output Interface	Ku: Waveguide, WR75G (Grooved) / C: Waveguide, CPR 137G (Grooved) / X: Waveguide, CPR 112G (Grooved)				
Input Interface	N-Type Female, 50 Ohms				
Connectors	DC Connector: MS3102R14S-9P AC Connector: MS3102R14S-7P	M&C: MS3112E1419P		Redundancy: MS3112E14-15P (Optional)	
Mechanical					
Cooling	Forced Air				
Dimensions (L x W x H)	DC Model: 7.8 x 4.72 x 4.37 in (198 x 120 x 111 mm)		AC Model: 7.8 x 4.72 x 5.59 in (198 x 120 x 142 mm)		
Weight	DC Model: 8 lbs (3.65 kg)		AC Model: 9 lbs (4.1 kg)		
Environmental					
Temperature Range (ambient)		Humidity		Altitude	
40°C to + 55°C (operating) -40°C to + 75°C (storage)		0 to 100% (condensing)		10,000 ft ASL	

Ref.: PB-ALTX-PLg-20337