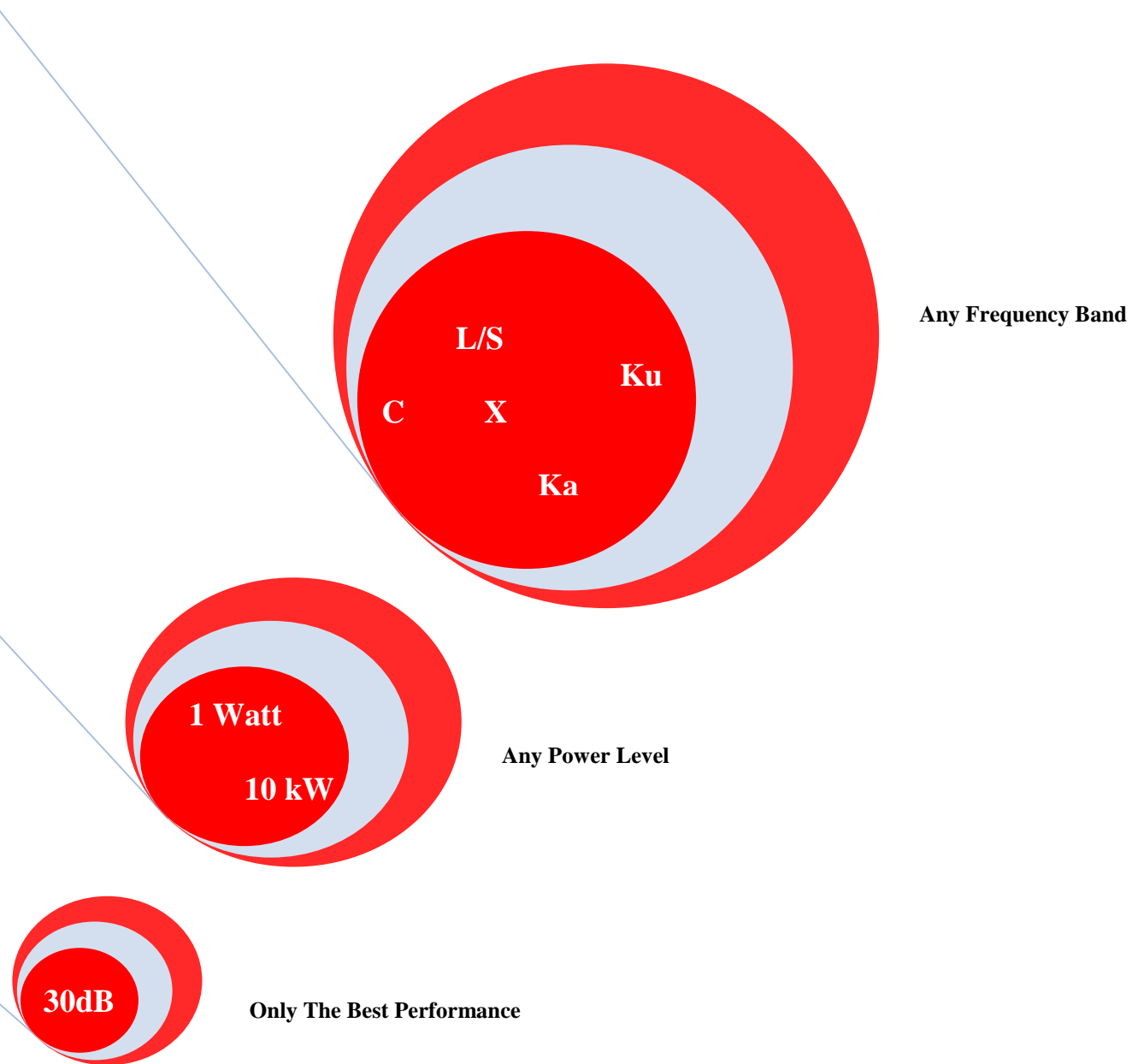




25-400 Watt, Ku-Band Outdoor SSPB

Unique Broadband Systems Ltd.



Product Features

- Solid State Linear Design
- Excellent output VSWR protection
- Local & Remote Gain Adjustment
- Temperature Gain Compensation
- RF Overdrive Protection
- Status LED
- Redundancy Ready – No External Controller Required
- High Linearity



Frequency Band

14-14.5GHz / 13.75-14.5GHz

Product Description

Unique Broadband Systems' is happy to offer you our state-of-the-art Ku-band product line of Solid State Power BUC (SSPB) built using GaN technology with power levels ranging from 25 to 400W. This ultra compact amplifier includes a forced air cooling system and a built-in system controller, which provides you with an ability of serial interfacing using RS 485 and TCP/IP for remote monitoring and control.

An internal voltage variable attenuator allows 20 dB of continuous gain adjustment. A digital temperature compensation system regulates the RF signal level within a +/-1.0 dB window over the entire operating temperature range. The optional built in voltage controlled phase shifter enables the user to combine a number of amplifiers to achieve a variety of output power levels. Every GaN output transistor is fully protected against potentially harmful reflected power due to antenna mismatches.

This amplifier is designed for rack mounting in protected environment. Excellent performance, high efficiency and long term MTBF are achieved through using superior mechanical and thermal designs. Our matured manufacturing process ensures the highest quality of all physical components and optimized performance to meet the most rigorous industry standards and clients' demands. At the same time, our ISO 9001 Quality assurance program leads to the superior performance and reliability in the long-run.

(Specifications are subject to change without notice)



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Ku-Band BUC, 25-400 Watts

Product Specifications

Output Power				
Output Power (W)	Prated (dBm/W)	Plinear (dBm/W)	P Cons at Prated	P Cons at Plin
25W	44/25	43/20		
60W	48/60	45/30	450W	380W
80W	49/80	46/40	550W	470W
100W	50/100	47/50	600W	520W
150W	52/150	49/80	900W	600W
200W	53/200	50/100	1100W	800W
300W	55/300	52/150	2700W	2200W
400W	56/400	52.5/180	3000W	2400W
Electrical Specifications				
RF Frequency Range-Available in/switched:			14-14.5GHz / 13.75-14.5GHz	
IF Frequency Range			950-1450MHz / 950-1700MHz	
LO Frequency			13.05GHz / 12.8GHz	
Conversion			Single Conversion; non-inverting	
Conversion Gain			75dB min, 77dB typ	
Gain Parameters	Full Band Flatness		+/-1dB typ +/-1.5dB max over full band	
	Over 40 MHz		+/-0.5dB max over any 40MHz	
	Over Temperature (0°C to+55°C)		± 1.5 dB typ	
	Over input power		2dB typ 3dB max from 10dB back off to rated power	
	Gain Control		20dB min dynamic range	
External Reference Frequency			10MHz 0dBm+/-5dB multiplexed with IF In	
External Reference Required Phase Noise			-130dBc/Hz @ 100Hz ; -140dBc/Hz @ 1kHz; -150dBc/Hz @ 10kHz; - 155dBc/Hz @ 100 kHz	
Up-Converter Phase Noise			-68dBc/Hz@100Hz; -80dBc/Hz@1kHz; -90dBc/Hz @ 10kHz; -95dBc/Hz @ 100kHz; -115dBc/Hz @ 1MHz	
Linearity: 2 tone IMD Spectral Re-growth	@ rated P-Linear		-24dBc at P linear; -30dBc for QPSK at 1.5xsymbol rate at Plin	
Noise Power Density:	Transmit Band		-85dBm/Hz max	
	Receive Band		-148dBm/Hz max	
Output Spurious:	Non-signal related		-60dBc	
	Signal related		-55dBc	
Mechanical Parameters				
Size	25W		6.5"x6.5"x3.9"	
	60W		12 "x7.7"x4.5"	
	80W		12 "x7.7"x4.5"	
	100W		12 "x7.7"x4.5"	
	150W		15.5 "x10"x6.3"	
	200W		15.5 "x10"x6.3"	
	300W		22 "x15.2"x9.3"	
	400W		15.5 "x10"x6.3"	
Weight	25W		5.5lbs/2.5kg	
	60W		16lbs/7.5kg	
	80W		16lbs/7.5kg	
	100W		16lbs/7.5kg	
	150W		31lbs/13kg	

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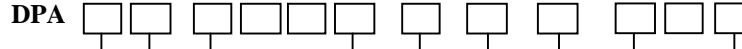
	150W 200W 300W 400W	31lbs/13kg 92lbs/42kg 92lbs/42kg
Power Requirements		
AC Voltage Range		90-265VAC 50-60Hz auto-ranging PFC
Environmental Specifications		
Operating temperature		-40°C to +55°C
Storage Temperature		-40°C to +85°C
Cooling		Built-in forced-air cooling
Altitude		3000M above sea level
Interfaces		
IF Input Connector		N-type female
RF Output Connector		WR75 grooved
AC Power In		MS3112E12-3P
M&C Interface-Serial, Analog and Ethernet		MS3112E14-19S
Redundant Interface		MS3112E14-19P

(Specifications are subject to change without notice)



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Part Number Configuration



Band
 YS – S-Band
 YC – C-Band
 YX – X-Band
 KU – Ku-Band
 KA – Ka-Band

Output Power
S-Band
 0150W, 0300W
C-Band
 0325W, 0650W
X-Band
 0275W, 0550W
Ku-Band
 0200W, 0400W
Ka-Band
 0050W, 0100W

Sub Band
S-Band
 A (2.02-2.12 GHz)
 B (2.20-2.30 GHz)
C-Band
 A (5.850-6.425 GHz)
 B (5.750-6.475 GHz)
 C (5.750-6.670 GHz)
 D (5.850-6.725 GHz)
 E (6.425-6.725 GHz)
 F (6.725-7.025 GHz)
X-Band
 A (7.70-8.40 GHz)
 B (7.90-8.40 GHz)
 C (7.50-8.50 GHz)
 D (9.50-10.50 GHz)
Ku-Band
 A (14.00-14.50 GHz)
 B (13.75-14.50 GHz)
Ka-Band

Configuration/Options
 STD – Standard
 ISP – Input Sample Port
 WGF* – 90° Output W/G Flange
 WSP* – 90° Output W/G Flange with Input Sample Port
 FPS** – Front Panel Power Switch
 RPM – Reflected Power Monitor
 FRM** – Front Panel Power Switch and Reflected Power Monitor
 EPS – External, Redundant Power Supply, 1RU N+1
 EPE – External Power Supply, 1RU N+1 and Rear Panel
 * Available in all but S-Band
 ** Not Available with External 1RU N+1 Redundant Power Supply

Block Up Converter
 B - BUC
 X – Not Available

Enclosure
 I - Indoor
 O - Outdoor

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