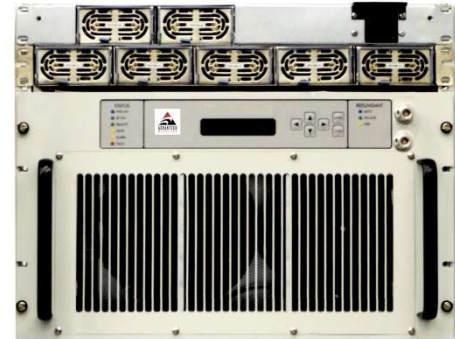


800W Ku-Band Indoor BUC/SSPB/SSPA Second Generation GaN Technology

SSPA	ARMAg-K	5200-SapphireBlu™ series
SSPB (BUC)	ARMUg-K	5200-SapphireBlu™ series

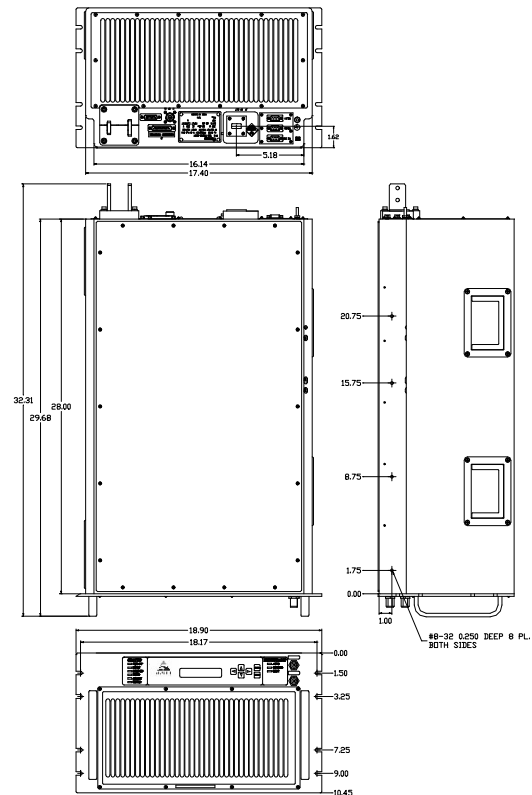
SapphireBlu™ Super Compact

- High power density in a compact indoor package
- UltraLinear™, designed for Multi Carrier Operations
- High Performance GaN Technology SSPA Indoor design concept
- High Reliability, High Linearity, Low Energy Consumption



The Ultimate Solution for Direct to Home TV

- We can now saturate all transponders of an entire satellite and obtain maximum bandwidth/power efficiency! (using modular RF concept)
- 2 years warranty, due to increased GaN Technology reliability
- Backed by over 25 years of Indoor SSPA design and manufacturing



- Exceeds all barriers between Klystrons, TWTs and SSPAs
- Save Millions of dollars in Energy Cost, Satellite Bandwidth, CAPEX
- Can cover multiple transponders, full DVB-S2 enabled
- Indoor Package, MIL-STD-188-164A Compliant
- Redundant Ready, Power Expandable to
- 3kW by phase combining

800W Ku-Band Indoor BUC/SSPB/SSPA Second Generation GaN Technology

Technical Specifications				
Output Power		800W		
	P _{SAT}	+59.0 dBm typ.		
	P _{LINEAR}	+55.5 dBm minimum		
		P _{LINEAR} is the power at which the IMD specs are met and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for QPSK/OQPSK/8PSK modulation		
Operating Frequency	KS	14.0 – 14.500 GHz	KX	13.75 –14.5 GHz
L-Band input (BUC)	KS	950 – 1450 MHz	KX	950 – 1700 MHz
Gain	SSPA	68 ± 3 dB	SSPB (BUC)	78 ± 3 dB
Gain adjustment range	20 dB in 1.0 dB steps			
Gain flatness over full band	SSPA	2dB p-p max	SSPB (BUC)	4 dB p-p max (KS); 4dB p-p (KX)
Gain slope over 40 MHz	± 0.3 dB max		SSPB (BUC) ± 0.5 dB max	
Gain variation over temperature	± 1.5 dB max			
Input Impedance and VSWR	50 Ω	SSPA 1.3:1	SSPB (BUC) 1.4:1	
Output VSWR	1.3:1			
Noise power density	-70 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (10.95 GHz – 12.75 GHz)			
Spurious at P _{LINEAR}	SSPA:	-65 dBc max	SSPB (BUC):	-55 dBc max
Harmonics	-50 dBc @ P _{LINEAR}			
AM/PM conversion	<1.0°/dB P _{LINEAR}			
Third order intermod (two tones)	-25 dBc two signals 5 MHz apart versus total +55 dBm P _{LINEAR}			
Group delay	Ripple	1 nsec p-p max over any 40 MHz band		
Residual AM Noise	0 – 10 kHz	-45 dBc		
	10 kHz – 500 kHz	-20 (1.25 + log F) dBc		F = Frequency in kHz
	500 kHz – 1 MHz	-80 dBc		
Local Oscillator freq.	KS –13.050 GHz		KX – 12.800 GHz	
Internal Reference frequency (optional)	10 MHz			
	Aging/day	±2 × 10 ⁻¹⁰	Aging/year	±5 × 10 ⁻⁸ Stability ±2 × 10 ⁻⁸ over temp range
Phase Noise	-53 dBc/Hz at 10 kHz		-73 dBc/Hz at 1000Hz	
	-63 dBc/Hz at 100Hz		-83 dBc/Hz at 10 KHz	
External Reference	10 MHz			
Frequency phase noise (max)	-120 dBc/Hz at 10Hz		-150 dBc/Hz at 1000Hz	
	-135 dBc/Hz at 100Hz		-160 dBc/Hz at 100 kHz	
			-155 dBc/Hz at 10 kHz	
Weight & Dimensions				
Dimensions (L x W x H)	19" Rackmount 6 RU + 2 RU Power supply 28" deep			
Weight	198 lbs (90 kg)			
AC input voltage	190 – 265 VAC (47-63 Hz)			
Power consumption (nominal)	3.5kW at 53 dBm	4.8 kW at P _{LINEAR}	6.0kW at P _{SAT}	
Interfaces	Input (RF or L-Band): N type female		AC line: IEC 320 Inlet	
	Output Sample Port: N type female		RF output: WR75 Cover	
	RS485/ Ethernet: DB9/RJ45			
Environmental	Temperature	Operating 0°C to +50 °C		
		Storage -55°C to +85 °C		
	Humidity	5% to 95% non condensing		
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

Ref.: PB-SSPBg-2G-Ku-Rack-800W-001-23129

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