



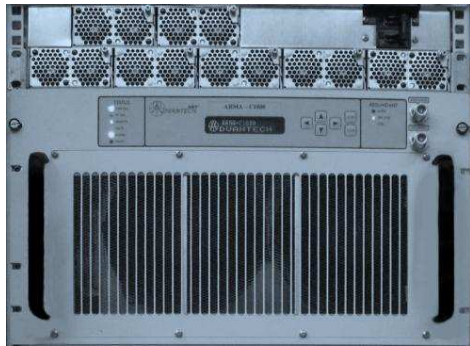
Advantech
Wireless



SapphireBlu™ Class GaN Technology

1,250W Ku-Band Rackmount
UltraLinear™ SSPA/ SSPB

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

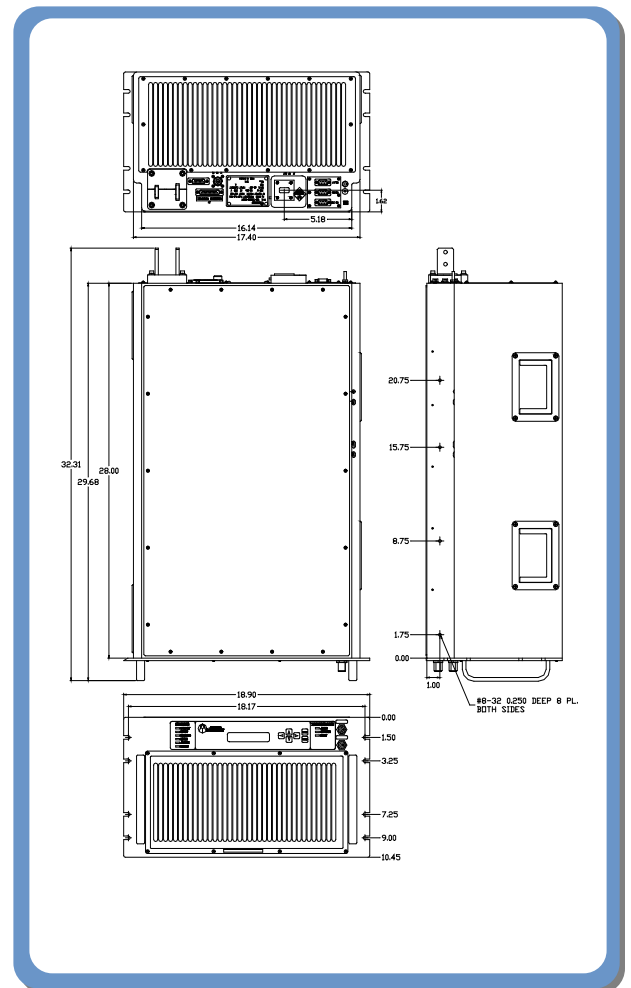


- High power density in a compact, indoor package
- UltraLinear™, designed for Multi Carrier Operations
- High Performance GaN Technology SSPA Indoor design concept
- High Reliability, High Linearity, Low Energy Consumption

THE ULTIMATE SOLUTION FOR DIRECT TO HOME TV

- 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 188 Compliant
- Redundant Ready, Power Expandable to 3 KW by phase combining

- ⇒ We can now saturate all transponders of an entire satellite and obtain maximum bandwidth/power efficiency! (using modular RF concept)
- ⇒ 3 years warranty, due to increased GaN Technology reliability
- ⇒ Backed by over 25 years of Indoor SSPA design and manufacturing.



Please call or visit our site for more information >>>

www.AdvantechWireless.com

Specifications	KS	/	KX
Operating Frequency	14.0 – 14.5 GHz / 13.75 – 14.5 GHz		
L-Band input (BUC)	950 – 1450 MHz / 950 – 1700 MHz		
Output Power	1250W		
PSAT, PA Module	+60.7 dBm nominal		
P _{SAT} , at Flange	+59.5 dBm nominal		
PLINEAR	+56.0 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 QPSK/OQPSK/8PSK modulation		
Gain SSPA	68 ± 3 dB		
SSPB (BUC)	78 ± 3 dB		
Gain adjustment range	20 dB in 0.1 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 at total +56 dBm Plinear		
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		
SSPB (BUC)	500 kHz – 1 MHz -80 dBc		
Local Oscillator freq.	13.05 GHz		12.8 GHz
Internal Reference frequency (optional)	10 MHz		
	Aging/day ±2 ⁻¹⁰		
	Aging/year ±5 ⁻⁸		
Phase Noise	Stability ±2 ⁻⁸ over temp range		
	-53 dBc/Hz at 10Hz		-83 dBc/Hz at 10 kHz
	-63 dBc/Hz at 100Hz		-93 dBc/Hz at 100 kHz
External Reference Frequency phase noise (max)	-73 dBc/Hz at 1000Hz		
	10 MHz		
	-120 dBc/Hz at 10Hz		-155 dBc/Hz at 10 kHz
	-135 dBc/Hz at 100Hz		-160 dBc/Hz at 100 kHz
-150 dBc/Hz at 1000Hz			
Weight & Dimensions			
Dimensions	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	3000W at P _{LINEAR} 3800W 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		
Environmental	RS485/Ethernet DB9 / RJ45		
	Temperature Operating 0°C to +50 °C		
	Storage -55°C to +85 °C		
	Humidity 5% to 95% non condensing		
Altitude 10,000' AMSL, derated by 2 °C/1000' from AMSL			

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Specifications are subject to change without notice