



**Advantech
Wireless**



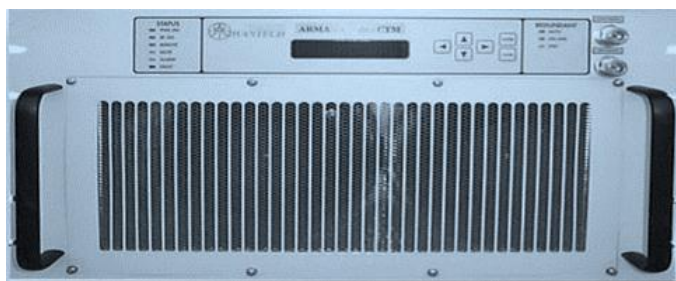
SapphireBlu™ Class GaN Technology

600W Ku-Band Rackmount
UltraLinear™ SSPA/ SSPB

SSPA
SSPB (BUC)

ARMAg-K
ARMUg-K

SapphireBlu™ series
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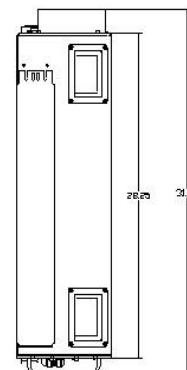
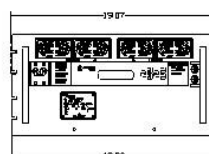
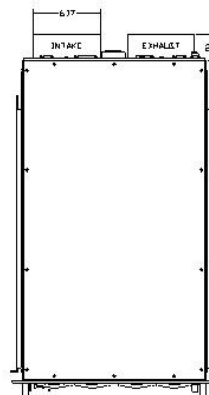
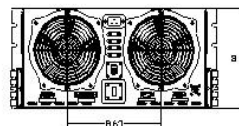


- High power density in a compact, indoor package
- UltraLinear™, designed for Multi Carrier Operations
- High Performance GaN Technology SSPA Indoor design concept
- High Reliability, High Linearity, Low Energy Consumption

THE ULTIMATE SOLUTION FOR DIRECT TO HOME TV

- Exceeds all barriers between Klystrons, TWTs and SSPAs
- Can cover multiple transponders, full DVB-S2 enabled
- Indoor Package
- MIL-STD-188-164A 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	600W					
PSAT, PA Module	+57.7 dBm nominal					
P _{SAT} , at Flange	+56.5 dBm nominal					
PLINEAR	+53.0 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)	73 ± 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	1.25:1					
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	<1.0º/dB P _{LINEAR}					
Third order intermod (two tones)	-25 dBc two signals 5 MHz apart versus total +53 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				
	500 kHz – 1 MHz	-80 dBc				
SSPB (BUC)						
Local Oscillator freq.	13.05 GHz			12.8 GHz		
Internal Reference frequency (optional)	10 MHz	Aging/day	±2 ⁻¹⁰			
		Aging/year	±5 ⁻⁸			
		Stability	±2 ⁻⁸ over temp range			
Phase Noise	-53 dBc/Hz at 10Hz		-83 dBc/Hz at 10 kHz			
	-63 dBc/Hz at 100Hz		-93 dBc/Hz at 100 kHz			
	-73 dBc/Hz at 1000Hz					
External Reference Frequency phase noise (max)	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 5RU, 28” deep					
Weight	99 lbs (44 kg)					
AC input voltage	190 – 265 VAC (47-63 Hz)					
Power consumption	2500W at P _{LINEAR} 3300W 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 0ºC to +50 ºC				
		Storage -55ºC to +85 ºC				
	Humidity	5% to 95% non condensing				
	Altitude	10,000’ AMSL, derated by 2 ºC/1000’ from AMSL				

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An ISO 9001: 2008 Company



Ref.: PB-SAPPH-Ku-Rack-600-01-13325

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Specifications are subject to change without notice