

DeepBlu Series - Advanced Solid State Technology for High EIRP Teleports

8.5kW Wideband C-Band Modular SSPA System

SSPA AWMA-WB-C8500

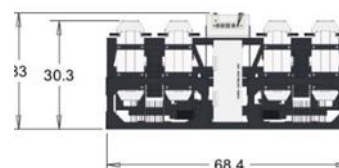
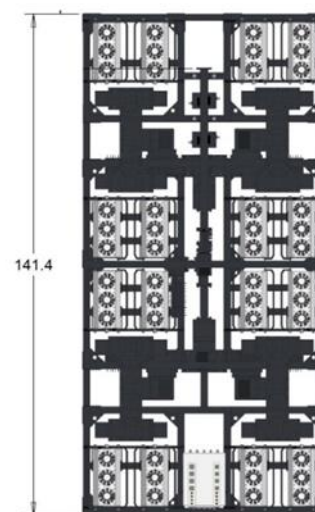
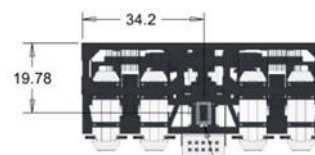
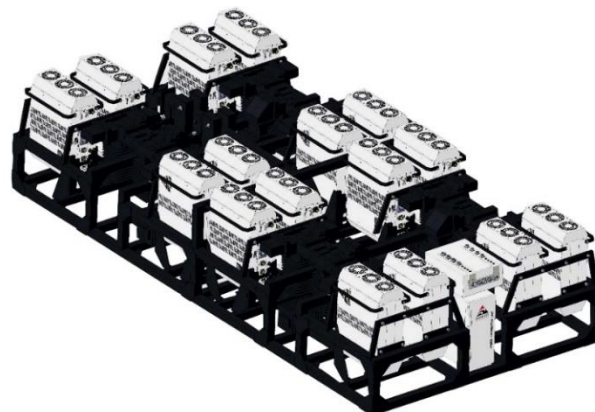
DeepBlu™ Series 5.725 – 6.725 GHz

UltraLinear™ DeepBlu™ Series Solid State Technology for High EIRP Teleports, Satellite TT&C and Deep Space Communication

- High power density in a compact, rugged, weatherproof package
- Designed for Multi Carrier Operations
- High Reliability, and Availability, delivers 3.75kW of Linear Power
- High Performance Modular, Built In Redundancy Outdoor design concept

The Ultimate Solution for very high Effective Isotropic Radiated Power (EIRP) Teleports designed for High Order Modulation Schemes, Deep Space Communication and Sophisticated TT&C applications for LEO/MEO/GEO Satellites

- Covers Wideband C-Band, from 5.725 – 6.725 GHz
- Achieves 3.75kW of Linear RF power even with one integrated amplifier failed
- Rugged, Weatherproof Outdoor Package, very high availability
- 1:N Built in Redundancy, Field replaceable integrated amplifier
- Reduced OPEX cost due to less spare parts required
- Backed by over 25 years of Outdoor SSPA design and manufacturing



8.5kW Wideband C-Band Modular SSPA System

Advanced Solid State Technology

Specifications	C
Operating Frequency	5.725 – 6.725 GHz
Peak Power *	8.5 kW *
P _{SAT} , at Flange * (CW)	+66.7 dBm nominal
P _{LINEAR}	+65.7 dBm minimum
	P _{LINEAR} is the power at which the IMD=-25 dBc for two CW signals 5 MHz apart
Gain	SSPA 70dB Min
Gain adjustment range	20 dB in 0.1 dB steps
Gain flatness over full band	SSPA 3 dB p-p max
Gain slope over 40 MHz	± 0.3 dB max
Gain variation over temperature	± 1.5 dB max
Input Impedance and VSWR	50 Ω 1.5:1
Output VSWR	1.3:1
Noise power density	-70 dBm/Hz in Transmit Band -150 dBm/Hz in RX band (3.4 – 4.2GHz)
Spurious at P _{LINEAR}	-60 dBc max In Band
Harmonics	-60 dBc @ P _{LINEAR}
AM/PM conversion	<1.0°/dB P _{LINEAR}
Third order IMD (two tones)	-25 dBc two signals 5 MHz apart at Plin
Group delay	Ripple 1 nsec p-p max over any 40MHz band
Residual Phase Noise, Continuous	-60 dBc/Hz at 10Hz -90 dBc/Hz at 100Hz -100 dBc/Hz at 1000Hz -110 dBc/Hz at 10 kHz -115 dBc/Hz at 100 KHz -125 dBc/Hz at 1 MHz -130 dBc/Hz at 10 MHz -130 dBc/Hz at 100 MHz
Weight & Dimensions	
Dimensions (L x W x H)	79 x 70 x 34.5
Weight	1850 kg
AC input voltage	400/230 VAC, three-phase (47-63 Hz)
Power consumption	40 kVA (at Plin)
Interfaces	Input N-type female Output Sample Port - N type female RS485/Ethernet MS3112 type RF output - WR137G
Environmental	Temperature Operating -30°C to +55 °C Option 1 -40°C to +55 °C Storage -55°C to +85 °C Humidity 100% condensing Altitude 10,000' AMSL, derated by 2 °C/1000' from AMSL

*Note: The unit is designed to transmit at 3.75kW Linear Power. Internal Overdrive Protection will not allow to exceed Psat, and will limit the total power to Linear Power +1dB.

Ref.: PB-AWMA-WB-C-8500W-DB-20307

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