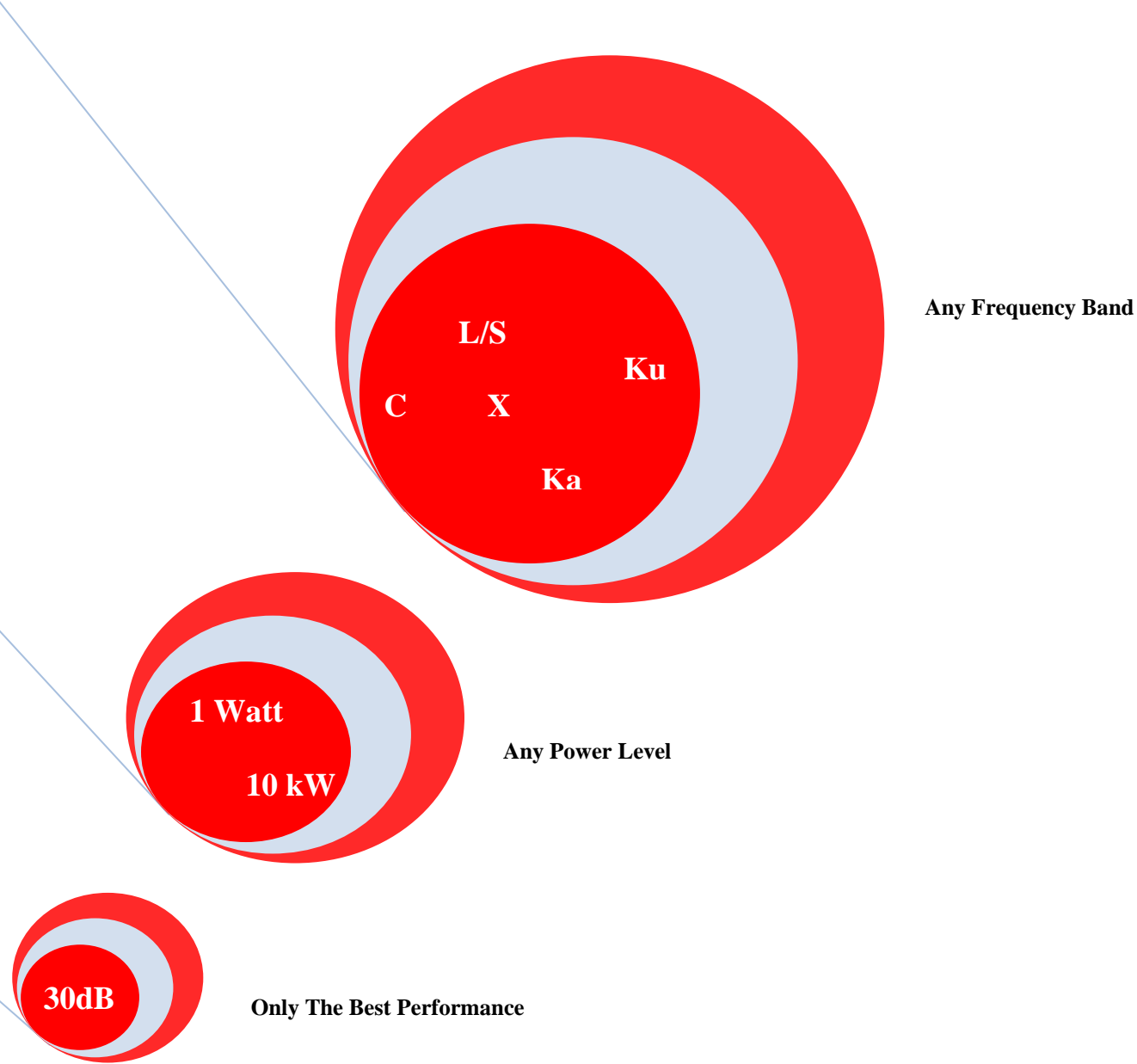




Made in Canada

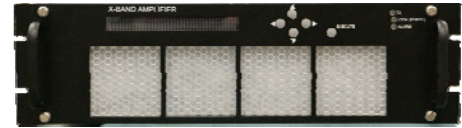
Unique Broadband Systems Ltd.

600 Watt, C-Band, Indoor Power Amplifier



Product Features

- Solid State Linear Design
- Excellent output VSWR protection
- Local & Remote Gain Adjustment
- ALC Mode of Operation
- Direct Power Settings in dBm/watts
- Temperature Gain Compensation
- Sample monitoring port (front or rear)
- Built-in HPA controller with POE interface for controller independent power



C-Band HPA: Front View



C-Band HPA: Rear View

Frequency Bands

Regular Band of operation: 5.85 – 6.75 GHz

Product Description

Unique Broadband Systems' DPAYC0600DIXSTD is an indoor 600W Solid State Power Amplifier (SSPA) built using GaN technology. This ultra compact 3RU amplifier is composed of three (3) SSPA pallets, a forced air cooling system and a local front panel control with user friendly interface. In addition, the built-in system controller provides the ability of serial interfacing using RS485, and Ethernet for remote monitoring and control as well as amplifier combining.

An internal voltage variable attenuator allows 15 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. Every GaN output transistor is fully protected against potentially harmful reflected power due to antenna mismatches.

This amplifier is designed for rack mounting in a protected environment. Excellent performance, high efficiency and long term MTBF are achieved through 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 superior performance and reliability in the long-run.

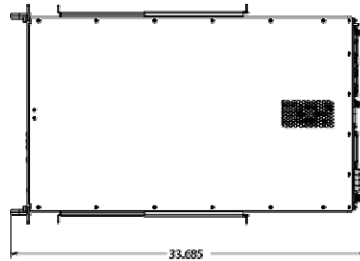
600 Watt, C-Band, Indoor Power Amplifier

Product Specifications

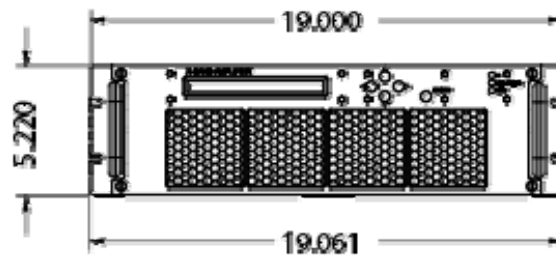
Electrical Specifications		
Operating Frequency		5.85 – 6.75 GHz
Output Power	P, Saturated	58 dBm (600W), Max
	Linear Power	56 dBm (400W), Max
Gain Parameters	Full Band Flatness (power gain)	± 1.0 dB
	Linear Gain	70 dB, Min
	Power Gain	64 dB, Min
	Gain Slop	± 0.3 dB Max
	Gain Stability @ Fixed Temperature	± 0.1 dB Max
	Over Temperature (0°C to +50°C)	± 1.0 dB
Internal Attenuator	Gain Adjustment Range	15 to 30 dB, in 0.1 dB steps
3rd Order Intermodulation (IM3)	Two tone, 5 MHz apart, @ rated P-Linear	-25 dBc max @ linear power (56 dBm)
AM/PM Conversion	@ rated P-Linear	1.0 ° / dB @ linear power 3.5 ° / dB @ operating power
Spurious	@ rated P-Linear	-65 dBc Max. @ operating power
2nd Order Harmonics	@ rated P-Linear	-50 dBc Max. @ operating power -60 dBc Max (with harmonic filter)
Group Delay (per 40 MHz segments)	Linear	0.1 ns / MHz Max.
	Parabolic	0.003 ns / MHz
	Ripple	1.0 ns P-P
Noise Figure:		12 dB Max. @ maximum Gain
VSWR	Input	1.4:1 Max.
	Output	1.4:1 Max.
Mechanical Parameters		
Size		17" x 31", 3 RU
Input RF Connector		N-type Female
Output RF Connector		WR112 / WR137
RS 485		D-Sub 9S
Ethernet		RJ45
Cooling		Integrated Forced Air
Environmental Specifications		
Operating Temperature		0°C to +50°C
Storage Temperature		-40°C to +85°C
Humidity		+5% to 95% non-Condensing
Altitude		3000M above sea level
Power Requirements		
Power Supply		DC Power: 44 Volt, 80 A @ P-Max
AC Power Consumption @ 600 W		3500 W

Outline Drawings

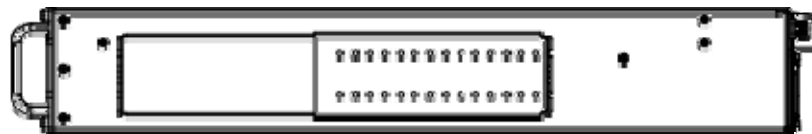
Picture 1: C-Band 600W Indoor Amplifier Top View



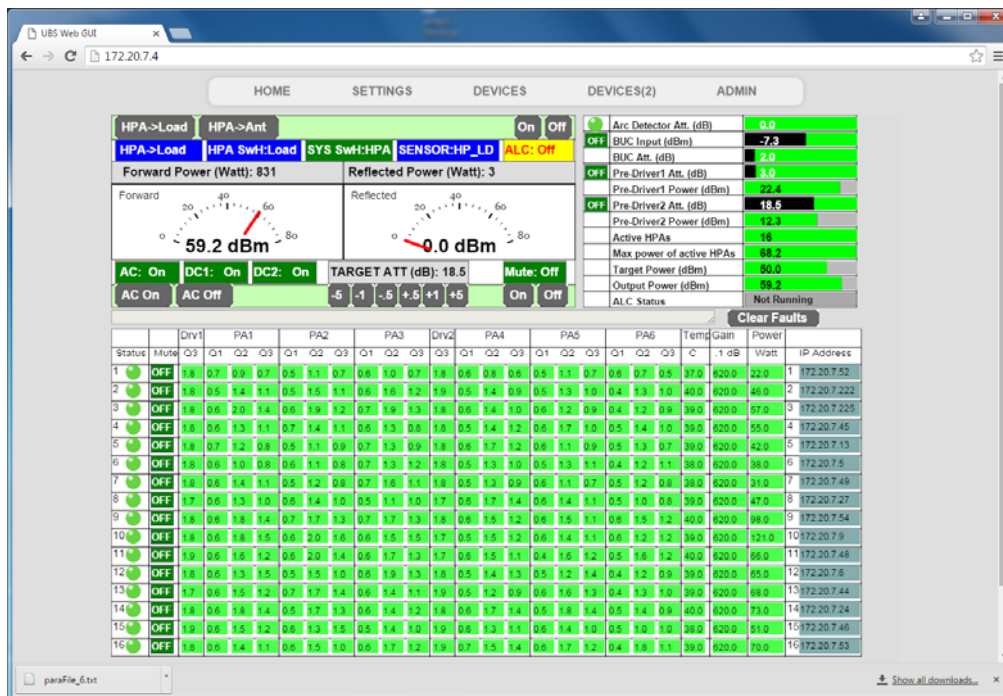
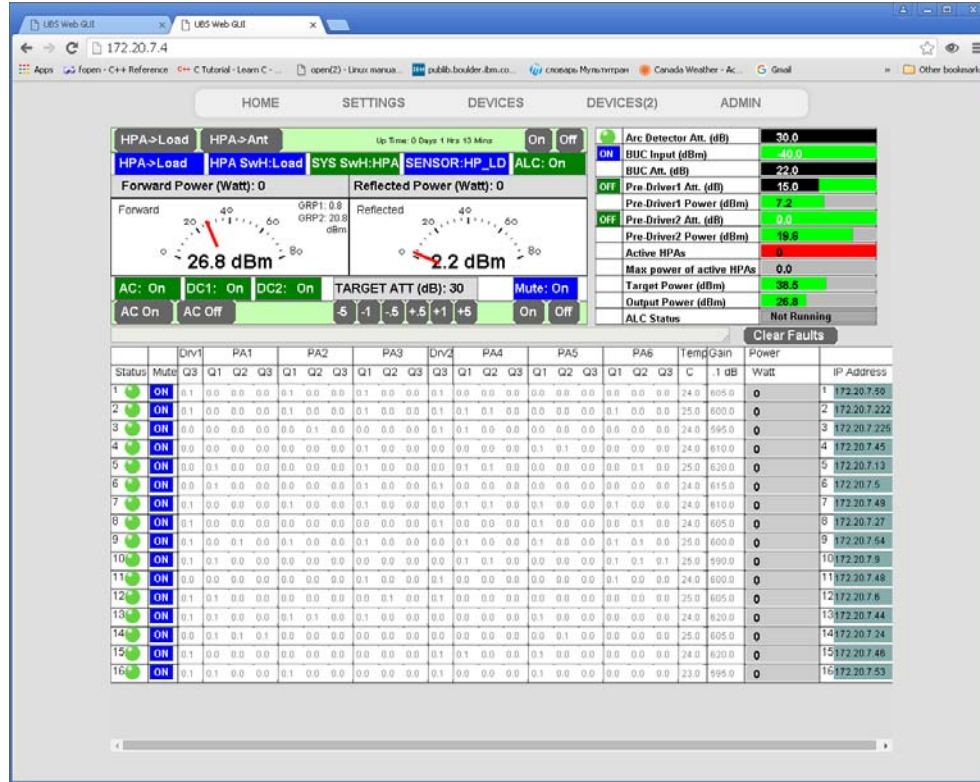
Picture 2: C-Band 600W Indoor Amplifier Front View

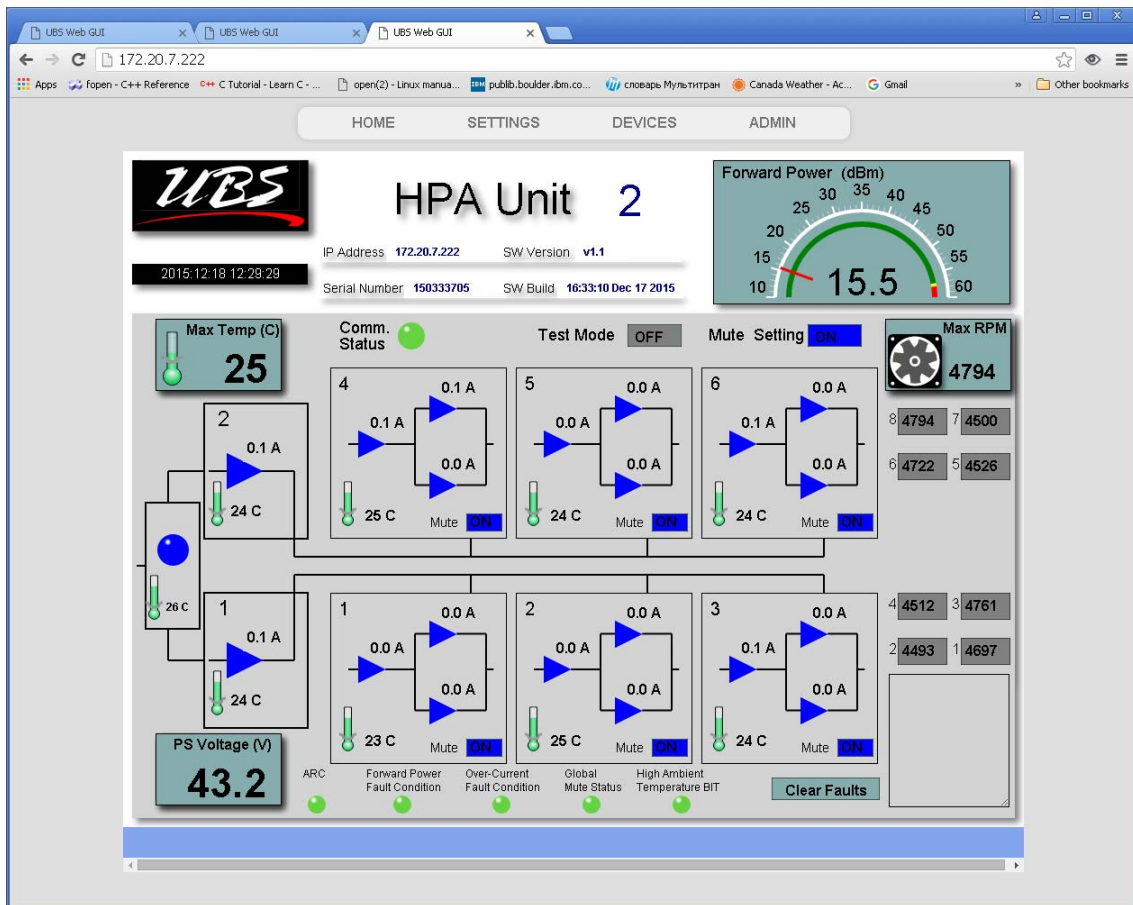


Picture 3: C-Band 600W Indoor Amplifier Side View



Examples of Monitoring and Control GUI







Unique Broadband Systems
a DSI, Technologies Inc. Company

Part Number Configuration



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

Output Power
L-Band
 0250W,0500W
S-Band
 0150W, 0300W
C-Band
 0010W, 0020W, 0040W,
 0080W,0100W, 0150W,0200W,
 0250W,0300W, 0325W,0400W,
 0650W,0800W
X-Band
 0275W, 0550W
Ku-Band
 0060W,
 0080W,0100W, 0150W,0200W,
 0300W,0400W, 0800W,
Ka-Band
 TWTA, UP TO 1.5KW
 AVAILABLE PLEASE CALL FOR INQUIRY
FOR HIGH POWER 1KW AND ABOVE PLEASE CONTACT OUR SALES DEPARTMENT

Sub Band
L-Band
 A (1.0-2.0 GHz)
 B (1.5-3.0 GHz)
 C (1.0- 2.5 GHz)
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)
 C (12.75-13.25 GHz)
 D (13.00-14.50 GHz)
 E (13.25-13.75 GHz)
Ka-Band
 A (27.5-31.0 GHz)

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-and L-Bands
 ** Not Available with External 1RU N+1 Redundant Power Supply

Block Up Converter
 B - BUC
 X – Not Available

Enclosure
 I - Indoor
 O - Outdoor