

**TECHNICAL DATASHEET**

**AVBR1060U53**

The AVBR1060U53 is a 200W high gain Solid State Broadband High Power Amplifier System. This amplifier utilizes the latest high power RF GaN transistors and also features built in control and monitoring, with protection functions to ensure high availability. This amplifier is suitable for high power CW or Pulse Radar system applications, or EMC testing situation.

**Features**

- |  |                                       |
|--|---------------------------------------|
| 1GHz-6GHz frequency range                            | Solid-state Class AB Broadband design |
| Psat 53dBm type                                      | Instantaneous ultra-broadband         |
| Power gain 53 dB                                     | Suitable for pulse or CW applications |
| 50 ohm input/output impedance                        | Flat Power Gain                       |
| Built-in control, monitoring and protection circuits | High reliability and ruggedness       |

**ELECTRICAL SPECIFICATIONS (T=25°C, VAC =220V, CW, Load VSWR<1.2)**

Description	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1		6	GHz
Output Power-CW	Psat	150	200		W
Power Gain@ Rated P <sub>SAT</sub>	Gp		53		
Power Gain Flatness@ Rated P <sub>SAT</sub>	ΔGp		± 1.5	± 2.5	dB
Input Power for Rated PSAT	P <sub>IN</sub>		0		dBm
RF Input Range	P <sub>IN</sub>	-10		5	dBm
Harmonics @ Pout =150W	2 <sup>nd</sup> /3 <sup>rd</sup>		-15		dBc
Spurious Signals@ Pout =150W	Spur		-60		dBc
Input Return Loss	S11			-10	dB
Supply Voltage (47~61Hz) /Single-Phase	VAC	180	220/50Hz	260	V
Peak Power Consumption @ Pout =150~200W-CW	PPC		2800	3200	W
System Turn-On Time	Ton		5		S

**MECHANICAL SPECIFICATIONS**

- |                           |   |
|---------------------------|---|
| Cooling                   | Built-in internal forced air cooling system |
| Length*Width*Height[ mm ] | 483 x 221 x 560 ( 5U )                      |
| Weight[ Kg ]              | 40  |
| RF Connector Input        | Type N, Female                              |
| RF Connector Output       | Type N, Female                              |
| DC Connector RS-232       | Dsub-9, Male                                |
| AC Connector              | 3 WIRE A/C Power Entry                      |

Datasheet: REV A.2/06.04.2020

*Unique Amplifier With Innovation*

## ENVIRONMENTAL SPECIFICATIONS (Design to Meet)

Module Operation Temperature	-10	45	°C
Storage Temperature Range	-20	55	°C
Relative-Humidity	N/A		
Altitude	N/A		
Vibration/Shock	N/A		

## LIMITS

Input RF drive level without damage	$Pin \leq 10$	dBm
Load VSWR @ POUT =150W	$VSWR \leq 5:1$	N/A
Thermal Degradation	50	°C

## DC INTERFACE CONNECTOR –RS-232 [D-Sub 9-Pin, Male]

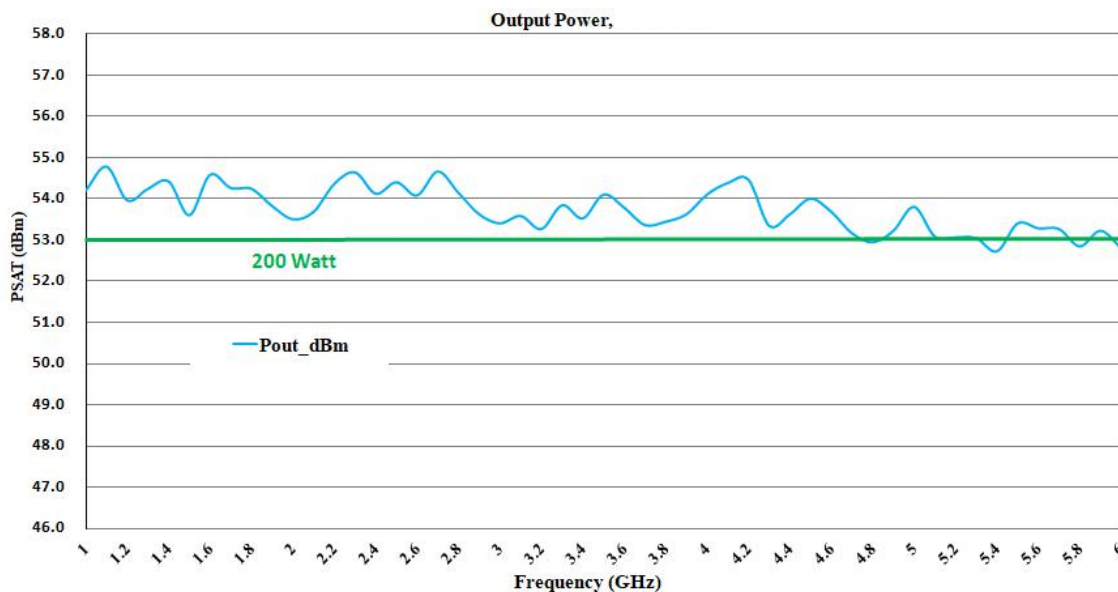
Pin #	Description	Specifications
1	GND	Ground
2	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
3	Alarm	Abnormal: Logic High (3.3V) (Internally Pulled-Low)
4~7	N/C	No electrical connected, Reserved

## PLOTTED AND OTHER DATA

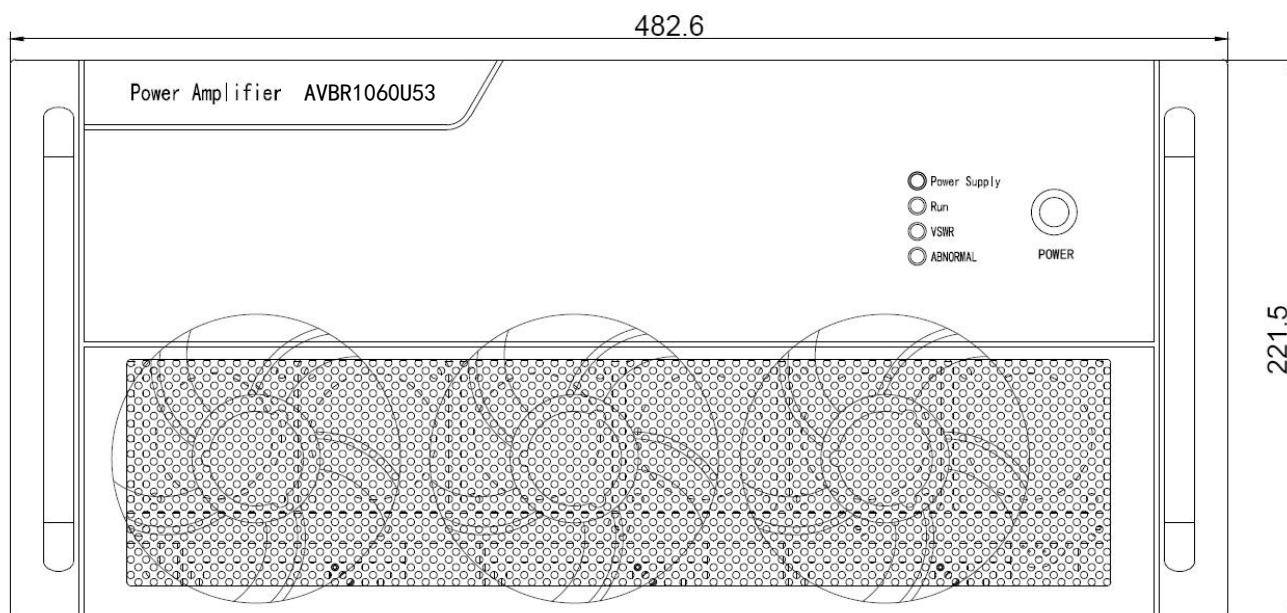
Notes:

1. Values at +25°C, sea level.
2. ESD Sensitive Material, Handle only in approved ESD Workstation.

**TYPICAL PERFORMANCE DATA [Ambient Temp:25°C, Load VSWR<1.2, Pin=0dBm]**



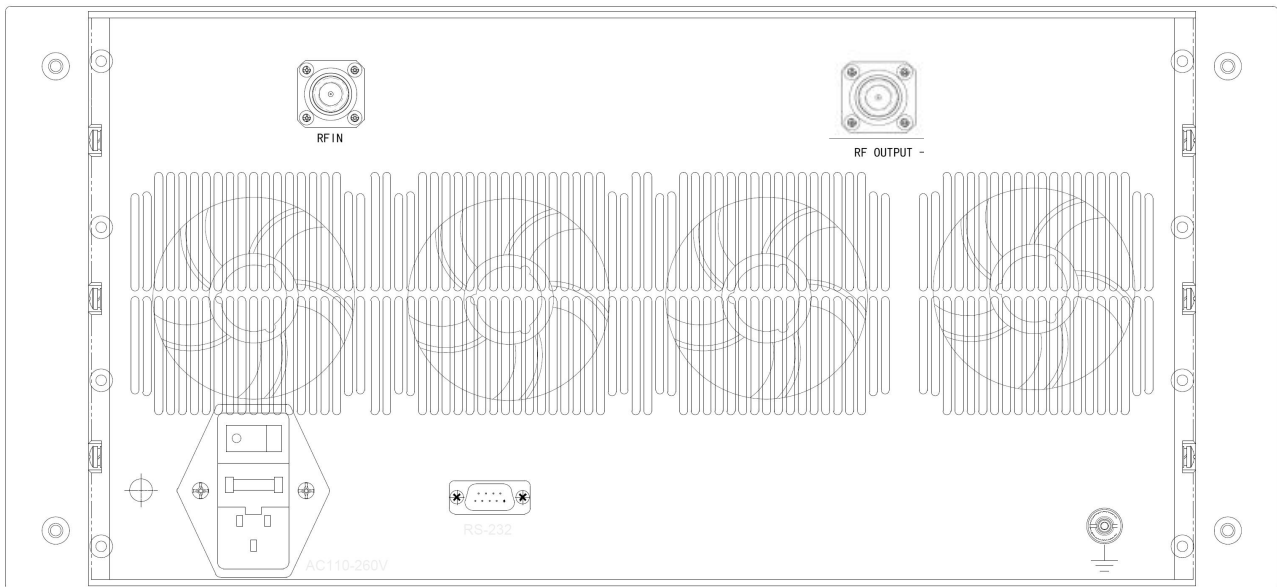
**Rack Mounted System -OUTLINE DRAWING (mm)-Standard Case Style-A5U1**



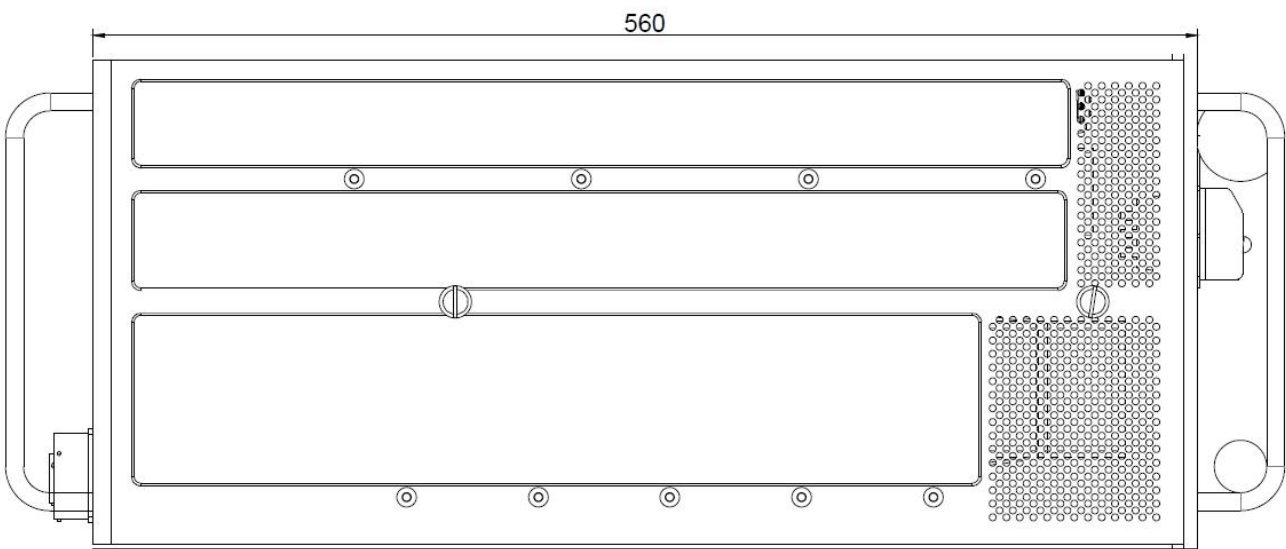
**Front View**

Datasheet: REV A.2/06.04.2020

*Unique Amplifier With Innovation*



Rear  
View



Side View

Datasheet: REV A.2/06.04.2020

Unique Amplifier With Innovation

Chengdu **AmpliVisionS** Technology Co., Ltd.\*  
Advanced Wireless Communication Crowd-Innovation Space  
High-Tech(West) Zone, Chengdu, P. R. China

Phone: +86(28)61892455  
Email: [sales@amplivisions.com](mailto:sales@amplivisions.com)  
[www.amplivisions.com](http://www.amplivisions.com)