GPA-10M100M-1000 RF Power Amplifier

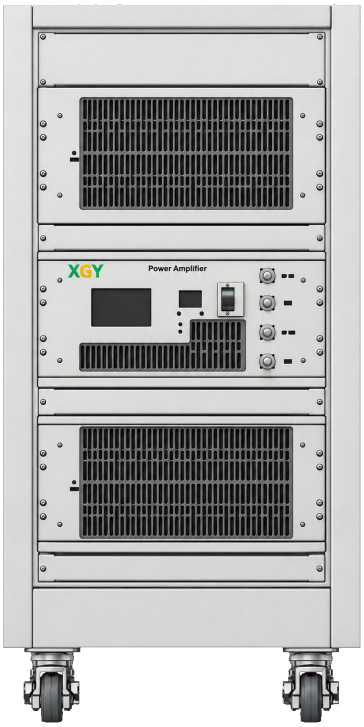
10-100 MHz | 1000 W (60 dBm)

Datasheet

At a Glance

The GPA-10M100M-1000 is a solid-state RF power amplifier operating from 10 MHz to 100 MHz. It provides a minimum saturated output power of 1000 W (60 dBm) and a minimum small-signal gain of 60 dB.

The amplifier incorporates a built-in 380 V AC power supply and forced-air cooling, with thermal, input-overdrive and output-VSWR protection. Its input and output are matched to 50 ohms.



Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	10		100	MHz
Small Signal Gain	SSG	60			dB
Gain flatness	Δ GL		±3		dB
Noise Figure	NF		6		dB
Output P1dB	P1dB	600			W
Output Psat	Psat	1000			W
Spurious	Spur		-50		dBc
Harmonics	HAM		-15		dBc
Input VSWR	VSWRin		2		:1
Output VSWR Alarm	/		5		:1
AC Voltage	Vac	340		530	V AC
Power Consumption	Pdiss			4500	W
Impedance	I/O-IMP		50		Ohms

1000 W corresponds to 60 dBm.

Key Features

Parameter	Value
Control functions	Power setting on/off
Protection functions	Input overdrive: ≤10 dBm; Over TEM: ≤+85 °C; VSWR protection: ≤5:1
Cooling system	Built-in cooling system, forced-air cooling

Mechanical Specifications

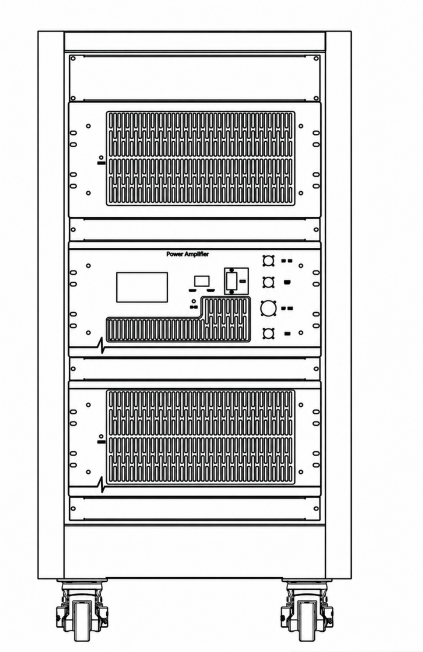
Parameter	Value
Input / Output Connector	N Female / 7/16 Female
Forward / Reverse Coupling	N Female / N Female
Size	19 Inch 20U with 1.4 m Cabinet

Absolute Maximum Ratings

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150 V

Outline Drawing

Unit: mm; Tolerance: ±0.1 mm



Environmental Conditions

Parameter	Min	Typ	Max	Units
Operating Temperature	0		+40	°C
Non-operating Temperature	-20		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration (MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock (non operating)	20G for 11msc half sin wave, 3 axis both directions			

For a wider temperature range, please consult the manufacturer.

Optional items

Number	Items	Payment
1	The input/output interfaces are located on the front panel.	STD(Optional)
2	The input and output interfaces are on the rear panel.	STD(Optional)
3	Safety lock (DB9)	STD(Optional)
4	Provides forward and reverse coupling ports	STD(Optional)
5	Gain and output power adjustment	PD

The default input and output interface is in the back panel.

Ordering Information

Model	Description
GPA-10M100M-1000	Solid State RF Power Amplifier, 10 MHz-100 MHz, Gain: 60 dB min., Psat: 1000 W min. (60 dBm), 380 V AC, built-in fan cooling

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