

**RACK MOUNT MS1020P55A**  
**1000~2000MHz**  
**300 WATTS**  
**WIDE BAND POWER AMPLIFIER SUBSYSTEM**

**Advantages:**

- Operating Frequency :1000~2000MHz
- Power Gain:55dB Typical
- Psat:300W Typical
- Supply Voltage:+220VAC
- 50 Ohms Input and Output Matched

**ELECTRICAL SPECIFICATIONS @ +220VAC, 25°C, 50Ω**

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1000		2000	MHz
RF Output Power @Pin=0dBm	P <sub>SAT</sub>		300		Watt
Power Gain	G <sub>p</sub>		55		dB
Input Return Loss	S <sub>11</sub>			-10	dB
Harmonics @Pout=300W	H		-10		dBc
Spurious Signals	Spur		-55		dBc
In/Output Impedance	Impedance		50		Ω
Operating Voltage (Single-phase)	V <sub>AC</sub>		220		Volt
Power Consumption @P <sub>OUT</sub> =300W CW	P <sub>D</sub>		2000		Watt

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Notes
Dimensions (W x H x D) – Bench Top/Rack Mount	483 x 177 x 444 mm [19x6.97x17.48 inch] 4U)	Maximum
Weight	20kg [44lbs]	Maximum
RF Connectors Input	Type-N, Female	
RF Connectors Output	Type-N, Female	
Cooling	Built-in internal forced air-cooling system	

**ENVIRONMENTAL CHARACTERISTICS (Design to Meet)**

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Ambient Temperature	-20		50	°C	
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

**ABSOLUTE MAXIMUM RATING**

Input RF drive level without damage	+5 dBm (Max)
VSWR Protection@100W	3:1 @ PA output power will degrade to a safe operation level, and system will still work. >3:1 @ protection will make system shutdown.
Thermal Overload	Power will Gracefully Degrade, when Ambient Temp >85°C

**AVAILABLE OPTIONS** (Selected options refer to the factory)

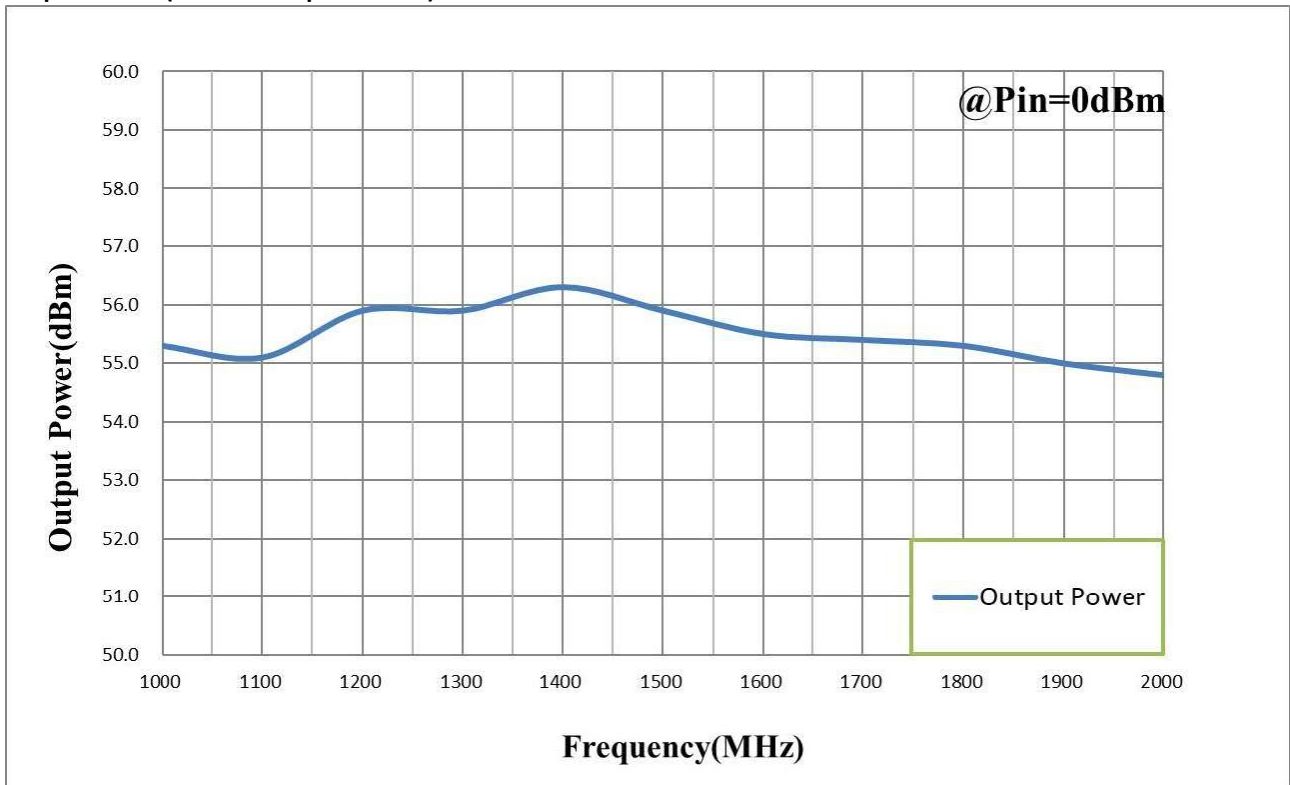
Name	Description	LCD
RS422	Serial management of device /local operator access	D-Sub 9-Pin, Male
Status Monitor	LCD Controller	Digital Display, including FWD/REV Power indication (dBm or Watt scale), Standby mode, Fault indication
WAN	Serial management of device /local operator access	Internet access

**I/O CONNECTOR-Monitor Display or RS422**

Pin #	Description	Specifications
1	ENABLE	Amplifier Enable: TTL Logic High (3.3V-5V) (Internally Pulled-Low)
2	TEMP SENSE	Analog voltage relative to temperature@0.5+10mV /°C
3	ALARM	Amplifier Alarm indicator: Normally TTL Low
4	Reserved	Reserved
5	RS422-T+	Transmit data-TxD
6	RS422-T-	Transmit data-TxD
7	RS422-R+	Transmit data-RxD
8	RS422-R-	Transmit data-RxD
9	GND	GND

**TYPICAL PERFORMANCE PLOTS (FOR REFERENCE ONLY)**

**Output Power (Normal temp. +25±3°C)**



**Note:**Air-cooled heat dissipation.

Version. 1.0\_2024.10.23