



Solid State Power Amplifier, 1-4GHz
 57dB Gain, Connectors N Input / 7/8 Output
 Output Power 500Watts @ P2dB Class AB
 Output Power 500Watts @ P1dB Class A



Monitor and Control Unit

Features:

- ▶ 3 year Warranty.
- ▶ Saved data can be viewed by LCD.
- ▶ Easy to read bright colored display.
- ▶ The GPIB/ RS232 Interface allow On/Off, and Band Switching by command input though the computer.
- ▶ Available for Pulse Operation (Pulse Width: 50nS/ Rise & Fall Time; 30nS).
- ▶ Monitored data can be saved for over 10 years on a SD card: Data including voltages, temperatures, each device current, forward and reverse power, alarms etc.

Order Examples: RAMP-1-4-57d-Nf-7/8f-500W-P1-k5

Description: (Amplifier, 1-4GHz, 57dB Gain, Connectors N Input / 7/8 Output, 500 Watts Output Power @P1dB) Class-A)

Additional Options: **500 Watts Output Power @P2dB) Class-AB**

Specifications		P1dB Class A	P2dB Class AB	Units
Frequency Range		1 to 4	1 to 4	GHz
Input/Output Impedance		50	50	Ω (nominal)
Output Power (@P2dB)		500	500	Watts (min)
Duty cycle		0.001 to 100	0.001 to 100	%
In-band Gain		+57.0	+57.0	dB (min)
In-band Gain Deviation		± 3.0	± 3.0	dB (max)
Maximum Input Level		+2	+3	dBm (max.)
Operation Mode		Class-A	Class-AB	
Input Level		0	0	dBm @standard input
Harmonics	@Po=500W	-18	-18	dBc (max)
Spurious	@Po=500W	-60	-60	dBc (max)
Input VSWR		2.0:1	2.0:1	(max)
Output VSWR		3.0:1	3.0:1	(max)
2 tone 3 rd Order ICP		+67.0	+65.0	dBm (typ.)
Connectors	RF Input RF Output	N Female 7/8" Flange	N Female 7/8" Flange	
Connectors – EM Input		BNC-Female	BNC-Female	See EM Input section below
Connectors – GP-IB		57-20240-D35	57-20240-D35	

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Specifications	P1dB Class A	P2dB Class AB	Units
Connectors-Power Supply	M5 Terminal Block	M5 Terminal Block	
Power Supply Voltage	AC220V±15%	AC220V±15%	50/60Hz Single Phase
Consumption Current	45	45	A (max.)
Operation Temperature	0 to +40	0 to +40	°C
Storage Temperature	-15 to +65	-15 to +65	°C
Humidity@+25°C (non Condensing)	15 to 85	15 to 85	%
Cooling Method	Forced Air Cooling	Forced Air Cooling	
Weight	400	350	kg (max)
Dimensions	560(W) x 2048(H) x 853(D)	560(W) x 1515(H) x 853(D)	mm
Protection Circuit	Fwd Over Power Protection, Circuit Temperature Protection Circuit, Voltage Abnormality Protection Circuit, Over Power Protection Circuit		

Protection Circuit

(1) Temperature Protection Circuit/Alarm:

If an out of spec. temperature (caused by cooling fan failure or too much increase of operating ambient temperature) is detected inside the Power Amplifier Unit, the amplifier Power Supply is automatically turned off.

The shutdown will be shown on front panel LCD.

(2) Power Supply Protection Circuit/Alarm:

If the power supply voltage into Power Amplifier Unit runs off the rated value, the Power Supply Switch is automatically turned off. The shutdown will be shown on front panel LCD.

(3) Over Output Power Protection Alarm/Circuit:

If Forward Power exceeds 550W of the rated output, RF Switch is automatically turned off. The shutdown will be shown on front panel LCD

(4) Output VSWR Power Protection Alarm/Circuit:

If the Reflected output Power exceeds 300W at the output port, the Power Supply is automatically turned off. The shutdown will be shown on front panel. LCD

EM Input Used to shut down power amplifier system

(Main Power Supply Switch is turned off at TTL= Hi or OPEN)

When Power Supply Switch turns off - LCD on the front panel lights up

When Shut Down - Main power Supply Switch must be manually turned on to restart.

Control Method

Manual Control by Front Panel on Control Unit or by External Control Connector.

*Switching of Remote/Local is available by illuminated push-button switch on the front panel.

External Control

- (1) ON / OFF Control of RF SW
- (2) Alarm Reset
- (3) ON / OFF Information on RF SW
- (4) Information on FWD Alarm
- (5) Information on REF Alarm
- (6) Information on TEMP Alarm
- (7) Information on PS Alarm
- (8) Information on EM

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Alarm

- (1) Temperature Alarm (TEMP. ALM)
- (2) Power Supply Alarm (P.S. ALM)
- (3) Over Output Power Alarm (FWD ALM)
- (4) Over Reflection Power Alarm (REF ALM)
- (5) Emergency (EM)

Warranty Period 3 Years after Delivery

Note

System Rack is included.
Output Circulator is NOT built-in.

Alarm Criteria

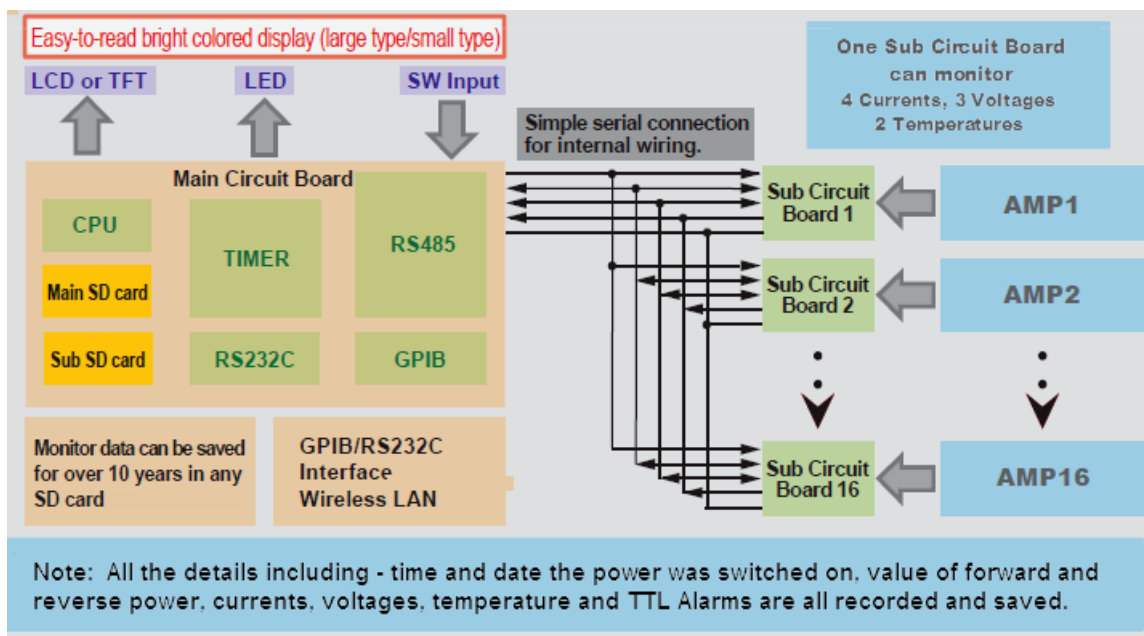
If Output Amplifier Circuit System fails, Self-Diagnosis Function activates and outputs the status as follows:

- (1) Display Output to Alarm Circuit on the front panel
- (2) All data recorded in "Past Operation Record and (1)above are available for output from a SD card installed in an internal control board.

Reading record is available only by opening the cover of Power Amplifier Unit.

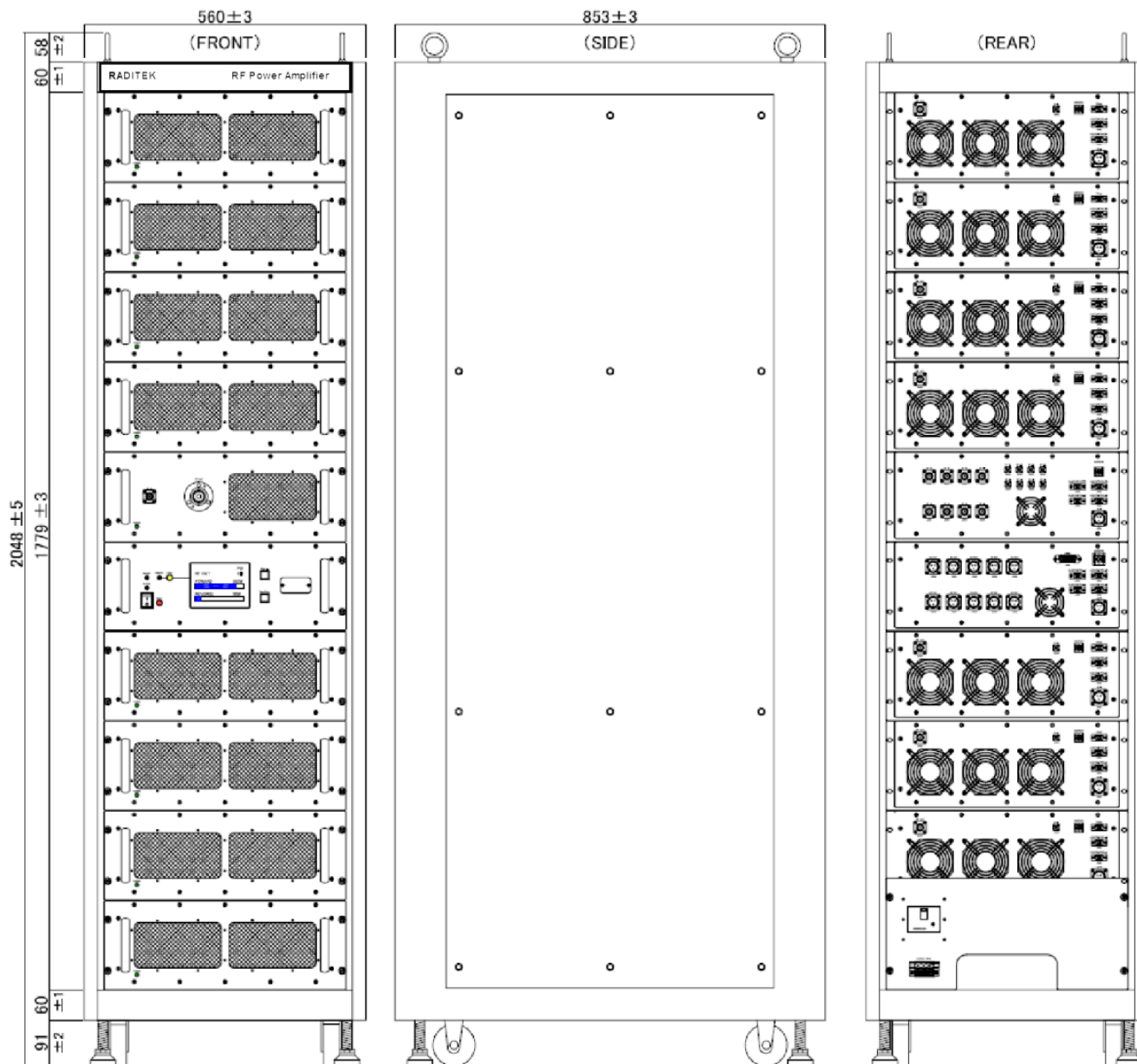
Product Components

- RF Power Amplifier (Rack) 1 unit
- AC Power Supply Cable 1 piece
- Attached Documents Operational Manual/Test Report 1 copy ea



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Output Power 500Watts @ P1dB Class A



Solid State Power Amplifier, 1-4GHz 57dB Gain, Connectors N Input / 7/8 Output Output Power 500Watts (@ P1dB Or @ P2dB)

Output Power 500Watts @ P2dB Class AB

