RF Power Amplifier Model RF5048

Solid State - High Power - Broadband - 0.15MHz – 230MHz

The RF5048 is a 75 Watt broadband amplifier that covers the 150KHz to 230MHz frequency range. This amplifier utilizes Class A linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range. This amplifier can be fitted with a front panel controller feature that adds many facilities and additional protections. See overleaf.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability.

Like all Laplace RF series amplifiers, the RF5048 comes with an extended multiyear warranty backed by commitment to total customer satisfaction.

Specifications @ 25ºC

Electrical		
1	Frequency Range	0.15 – 230MHz
2	Saturated Output Power	75 Watts typical
3	Power at P1dB	45 W atts Min.
4	Small Signal Gain	+50 dB Minimum
5	Gain Flatness	±1.5 dB Maximum
6	IP_3	+54 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-15 dBc min, -20dBc Typ. @ 45 Watts
9	Spurious Signals	< -60 dBc typical @ 45 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	400 Watts Maximum
12	AC Input	100 – 240 VAC, single phase
13	RF Input	0 dBm max
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	Class A
Mechanical		
16	Dimensions	19” x 5.25” x 21” 3RU
17	Weight	35 kg.
18	RF Connectors	Type-N
19	Grounding	Chassis
20	Cooling	Internal Forced Air
Environmental		
21	Operating Temperature	0º C to +50º C
22	Operating Humidity	95% Non-condensing
23	Operating Altitude	Up to 10,000’ Above Sea Level

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FRONT PANEL CONTROLLER FEATURES

Forward Power Monitoring (dBm or Watts)
Reflected Power Monitoring (dBm or Watts)
Gain Control (20 dB dynamic range of adjustment)
Fault Status◊-Full Protection Of any VSWR Condition, Open or Short, into any Phase Angle
Remote Control Access via the Ethernet, RS-232, or IEEE-488 Communications ports
Integrated Automatic Leveling Control to allow end-user to maintain output even with variances in temperature, or input RF level
Standby/Enable Control
Front Panel Display for easy viewing of System Status Locally
Keypad buttons for full local control

CIRCUIT PROTECTIONS

Thermal Overload
Over Current
Over Voltage
Open or Short VSWR Conditions (With Front Panel Controller)

CIRCUIT CONTROL (WITH FRONT PANEL CONTROLLER)

Standby (amplifier disable)
Gain/power setting with 20dB range
VSWR protection Rese
-ALC On/ Off

CIRCUIT INDICATIONS (WITH FRONT PANEL CONTROLLER)

Forward Power
Reflected power
VSWR Fault
Temp Fault
Gain Setting (VVA) percentage

RFPA SYSTEM OPTIONS

Switched Filter Bank
Input Power Requirements
Ruggedized Version
Cabinet Requirements
Outdoor Version
Sample Ports
Racking Options
Many More!

Photo shows FE version

Ordering information:

RF5048F	RF connections on front panel
RF5048R	RF connections on rear panel
RF5048FE	RF connections on front panel with front panel control option.
RF5048RE	RF connections on rear panel with front panel control option.

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