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MODEL 5232
140 - 1000 MHz
5000 WATTS
LINEAR POWER RF AMPLIFIER

**Solid State
 Broadband High
 Power RF Amplifier**

The 5232 is a 5000 Watt broadband amplifier that covers the 140 - 1000 MHz frequency range. This amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range.

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

Specifications subject to change without notice.



	<u>Parameter</u>	<u>Specification @ 25° C</u>
<u>Electrical</u>		
1	Frequency Range	140 - 1000 MHz
2	Saturated Output Power	5000 Watts Peak Minimum
3	Small Signal Gain	+67dB min
4	Input VSWR	2:1 max
5	Harmonics	-15 dBc typical
6	Spurious Signals	< -60 dBc Minimum
7	Input/Output Impedance	50 Ohms nominal
8	AC Input Power	12,000 Watts
9	AC Input	208VAC, 3Ø Phase, 60Hz
10	RF Input	0 dBm nominal, +3dBm max.
11	Class of Operation	AB
12	RF Input Signal Format	Pulse
13	Pulse Width	Variable, 1 to 250 µs
14	Repetition Frequency	Variable, 1 to 1000 Hz
15	Duty Cycle	2 % Max.
16	Amplitude Droop	5% maximum over 250 µs
17	RF Rise and Fall Time	200 nS max, 10-90%
18	Overshoot	10% maximum
19	Gain Stability	**+/-0.25 dB variation over 1 hour
<u>Mechanical</u>		
20	Dimensions (H x W x D)	78.6" x 22.1" x 36" (Cabinet)
21	Weight	1,500 lb. max
22	Connectors	Type-N: RF Input 7/16 DIN: RF Output D-sub 15 (Female)
23	Grounding	Chassis
24	Cooling	Liquid cooling for RF Forced Air for Power Supply
<u>Environmental</u>		
25	Operating Temperature	5° C to +40° C
26	Storage Temperature	-35° C to +60° C
27	Operating Humidity	90% Non-condensing
28	Operating Altitude	Up to 10,000' Above Sea Level
29	Shock and Vibration	Normal Truck Transport

** = After 15 minute warm-up, and at room temperature and not to exceed +/- 10°C



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CIRCUIT CONTROL

◇ Enable/Disable with Fault Reset (High, Low)

LOGIC DEFINITION

Rising Edge: Low to High to clear faults or enable

Forward Power, RF Sample Port

Forward Sample port, TBD +/- 1.0 dB
 (N-type connector on Rear)

CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ VSWR protection (shutdown @ ≥ 2.5 KW Peak)
- ◇ RF Output overdrive
- ◇ High Duty Cycle
- ◇ Power Supply Fault



CIRCUIT INDICATIONS

- ◇ Forward Power (Analog Voltage out)
- ◇ Reflected power (Analog Voltage out)
- ◇ VSWR Fault (High, Low)
- ◇ Temp Fault (High, Low)
- ◇ Duty Cycle Fault (High, Low)
- ◇ Power Supply Fault (High, Low)
- ◇ Power on Indicator (High, Low)
- ◇ RF Overpower Fault (High, Low)
- ◇ Enable/Disable Indicator (High, Low)

LOGIC DEFINITION

High = Normal Operation
 Low = Fault

D-SUB 15 PIN-OUT

- P1: Forward Power Out
- P2: Reverse Power Out
- P3: Open
- P4: VSWR Fault Out
- P5: Temperature Fault Out
- P6: Duty Cycle Fault Out
- P7: Power Supply Fault Out
- P8: Power On Indicator Out
- P9: Forward Power Out Return (GND)
- P10: Reverse Power Out Return (GND)
- P11: Enable/Disable Indication Out
- P12: Chassis Ground
- P13: Chassis Ground
- P14: RF Overpower Fault Out
- P15: Enable/Disable with Fault Reset Input