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## MODEL 7022

**10KHz - 2 GHz**  
**100 WATTS**  
**BANDED POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 7022 is a multi channel broadband system that covers the 10KHz – 2GHz frequency range.

This integrated system provides 100W linear power as specified in the spec for any selected frequency range.

The system includes RF high power switches controlled by the system controller. The IEEE-488.2 and/or Front panel key-pad provides full control of the Amplifier and reduces the power consumption to the minimum by shutting down the un-selected channels.

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	10KHz – 2GHz
2	Output Power @ P1dB	100W min
3	Nominal RF drive for rated power	0 dB typ.
4	Signal Format	CW, AM, FM, Pulse Modulation
5	Input VSWR	2:1 max
6	Harmonics	≤ -15 dBc @ 100W
7	Spurious Signals	≤ -50 dBc @ 100 W
8	Gain	50dB minimum
9	Gain Flatness with no ALC	+/- 2 dB max over 10KHz to 20MHz, 20MHz to 1GHz, 1GHz to 2GHz
10	Gain/power control range	25dB gain control via an internal VVA. This will allow the user to control the output power from 1W to 100W with a fixed input power
11	Gain/Power control method	Set via the IEEE-488.2 and/or via the front panel display
12	Power Stability	< +/- 0.1 dB per 5 minutes @ 100 W after 15 minutes warm-up or no warm-up using internal automatic leveling control (ALC)
13	Load Output VSWR handling	Up to 2.5:1 HPA may shut down when load VSWR is greater than 2.5:1
14	Maximum RF Input	10 dBm max
15	Antenna Switching time	50mS max
16	AC Input	single phase ,50/60 Hz, 120 VAC +/-10%, < 10 Amp circuit
17	AC Power Consumption	1000 Watt max @ 100W





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	<u>Parameter</u>	<u>Specification @ 25° C</u>
<b><u>Mechanical</u></b>		
18	Dimensions	19"W x 10.5"H x 24"D max
19	Weight	120 lb. max
20	RF Connectors	Type-N Female for RF
21	AC Connector	6 ft UL 3 conductor power cord with NEMA type 5-15P vinyl plug
22	Grounding	Chassis
23	Cooling	Internal Forced Air
24	Fans Noise Level	≤ 75 dBA @ operator positions & limited to 70 dBA at distances greater than 7 meters from unit
25	Front Connection	RF connectors Font panel display and key pad AC Switch (circuit breaker)
26	Rear Connection	AC plug IEEE-488.2 connector
<b><u>Environmental</u></b>		
27	Operating Temperature	4° C to +40° C
28	Operating Humidity	95% Non-condensing
29	Operating Altitude	Up to 10,000' Above Sea Level
30	Shock and Vibration	Normal Truck transport

### CIRCUIT PROTECTIONS

- ◇ VSWR at load >2.5:1, latched and resettable
- ◇ Thermal Overload @ baseplate > 80 deg C
- ◇ Over Current
- ◇ Over Voltage
- ◇ Input RF overdrive - up to +10dBm

### CIRCUIT CONTROL

- ◇ Gain Control
- ◇ VSWR Reset
- ◇ Standby (60dB minimum RF isolation)
- ◇ ALC On/Off based on average power reading
- ◇ Channel Select, Ch1 10KHz to 20MHz, Ch2 20MHz to 1GHz, Ch3 1GHz to 2GHz

### CIRCUIT INDICATIONS

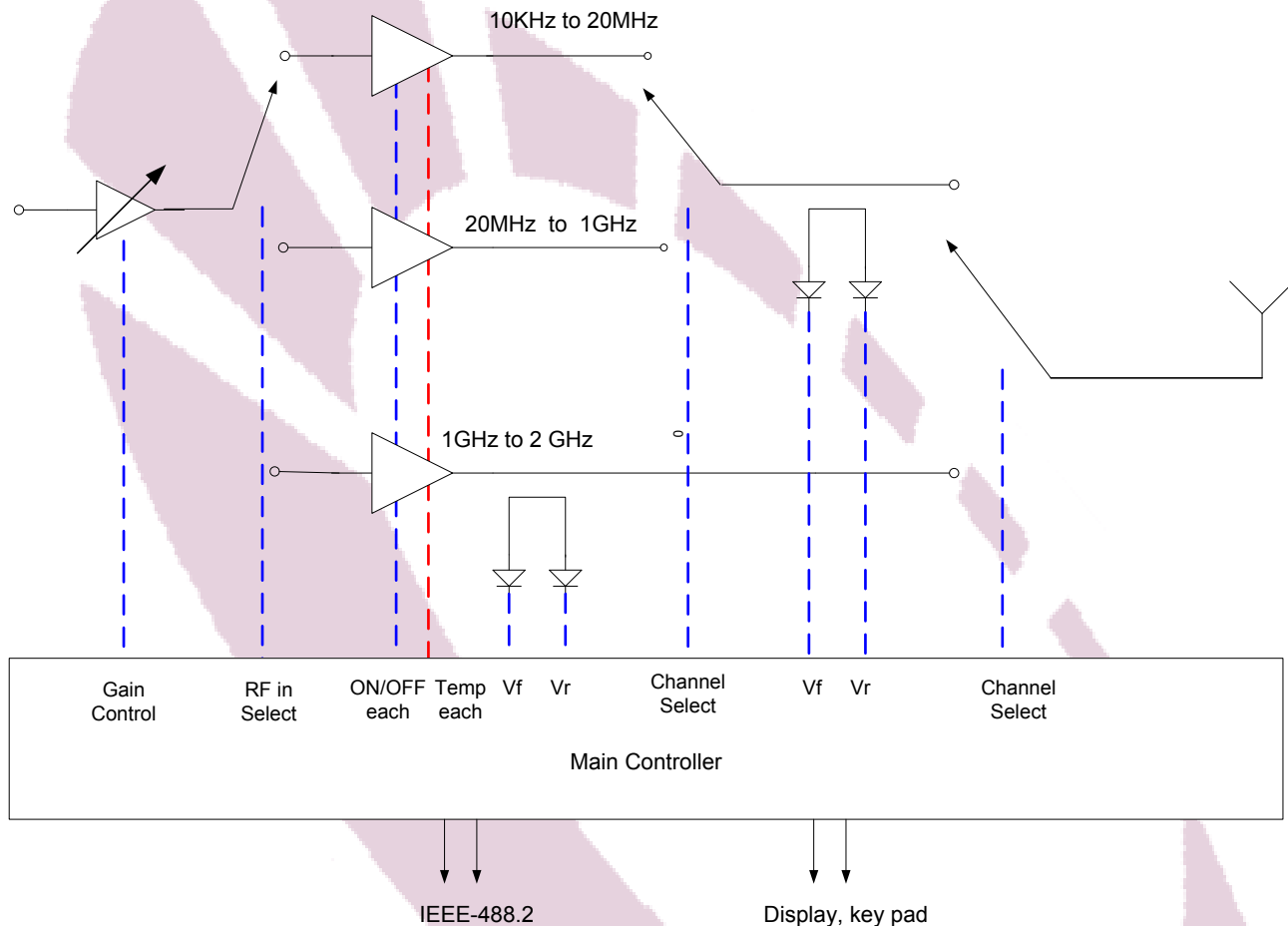
- ◇ Gain Control %
- ◇ Forward power of selected channel - average power reading
- ◇ Reflected Power of selected channel - average power reading
- ◇ Heatsink (baseplate) temperature of selected channel



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### OTHER

- ◇ AC switch control via circuit breaker - located on Front panel
- ◇ 3 years Warranty
- ◇ Operator's Manual including the following sections: Operation of equipment, Performance test of above specifications including necessary equipment and operational procedures, alignment adjustments, calibration procedures, and high level schematic/parts
- ◇ Label with warranty expiration date and the phone number where the item is serviced
- ◇ **Available in Front Connector Configuration Only**