Power Amplifier for IEC61000-4-3 testing

RF1170

A perfect match for the latest issue of radiated RF immunity tests

- Frequency range: 20MHz to 1000MHz
- 70W PSAT, 40W P1dB
- Will deliver >8V/m (<200MHz) and16V/m (>200MHz) at 3m via a typical LPDA
- >17V/m (<200MHz) and 40V/m (>200MHz) at 1m via a typical LPDA
- High quality solid state design for exceptional reliability.
- Class A operation for low distortion, high quality output.
- Optional electronics for control/comms/display.
- 5 year warranty

Efficient **Class AB operation**

Effective **Delivers >10V/m @ 1m via a typical LPDA antenna.**

Integration **Standard 0dBm input for maximum output.**

Enhancements **Optional controller and display feature for comms, VSWR protection and readout facilities.**

The 1170 is a very high power broadband amplifier that covers the 20 – 1000 MHz frequency range. This amplifier utilizes Class AB linear power devices that provide an excellent 3rd order intercept point, high gain, a wide dynamic range, and an industry leading P1dB performance.

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High power RF amplifier for immunity testing to IEC61000-4-3

Stress levels depend on the product and environment in which it is to be used, but for commercial products, these generally do not exceed 10V/m. This RF1170 solid state linear amplifier provides a single unit solution to cover the whole range from 20MHz up tp 1GHz, with output power capable of delivering over 10V/m at 1m via standard LPDA antennas.

These amplifiers have an unrivalled reputation for build quality and reliability, and are shipped with a 5 year warranty.

SPECIFICATION

Parameter	Specification @ 25 ^{O}C
Frequency range	20 to 1000MHz
Power @ P_{sat}	70W minimum
Power @ P_{1dB}	40W typical
Small signal gain	+49 dB minimum
Flatness (Pin:0dBm)	+/- 2.5dB maximum
IP_3	+52dBm typical
Input VSWR	2:1 maximum
Harmonics	-20 dBc typical @ P1dB
Spurious signals	< -60 dBc typ. @ P1dB
In/Out impedance	50ohms
RF input	0dBm max
RF Input signal format	CW/AM/FM/PM/Pulse
Class of Operation	AB

Parameter	Specification @ 25 ^{O}C
Dimensions	19” rack x 3u x 69cm
Weight	25kg
RF connectors	N type
Grounding	Chassis
Cooling	Internal forced air
Operating temperature	0^{o}C to +50^{o}C
Operating humidity	95% non-condensing
Operating Altitude	Up to 10,000’ above sea level
Vibration	Normal truck transport
AC Input power	750W maximum
AC input	100 - 240V AC, 50/60Hz

Option E (Electronic controller installation) Functions	Readout or Display
Forward power monitoring	Yes
Reflected power monitoring	Yes
Gain control (25dB range)	Yes
Fault status	Yes
Full protection of any VSWR condition	
Remote control via Ethernet, RS232, IEEE	
Automatic ALC for output level	
Standby/Enable control	
Keypad for local control	
Thermal/over current/over voltage protection	Yes
Open or short circuit VSWR conditions	Yes

Ordering codes:

RF1170-R Rear panel RF connectors
RF1170-F Front panel RF connectors
RF1170-RE Electronic controller fitted, rear panel RF connectors
RF1170-FE Electronic controller fitted, front panel RF connectors

Available from

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