

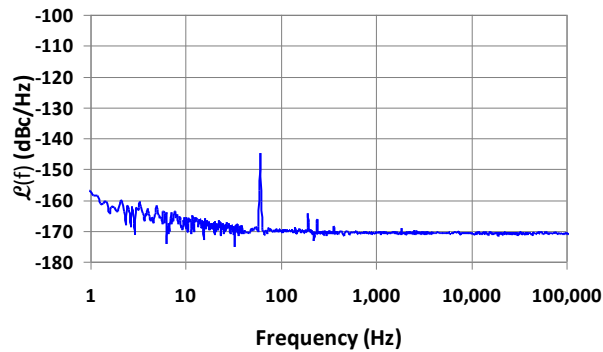


1 - 50 MHz

HIGH PERFORMANCE DISTRIBUTION AMPLIFIER

The HPDA-15RMi is an improved version of the High Performance Distribution and Isolation Amplifier with performance exceeding that required to distribute state-of-the-art atomic frequency standards. This new model offers the same exceptional low phase noise with a larger frequency bandwidth, greater isolation and improved stability. The inputs and outputs have a low VSWR to minimize environmental effects on frequency distribution through long transmission lines. The HPDA-15RMi may contain up to three HPDA modules with each module providing five isolated outputs. Each module contains an output level monitor LED located on the front panel. All the outputs power levels are monitored and compared to a preset threshold of +7dBm. If the signal level on any output drops below this threshold, the monitor LED for that module will turn off indicating a fault condition. The instrument operates from AC power and the option for DC power operation is available for some models. On the units with DC power operation an open collector alarm is available on the back panel connector. The switch from AC to DC power supply is automatic and glitch free ensuring uninterrupted continuous operation. The HPDA -15RMi comes in a 1U high, 19" rack-mount enclosure. The power requirements are 100-240 VAC and optional 12-36 VDC.

HPDA-15RMi Phase Noise Plot



FEATURES

- 1 - 50 MHz
- Unity gain
- Low VSWR
- High isolation: 140 dB
- High output: +18 dBm
- Low phase noise: -155 dBc/Hz @ 1 Hz
-171 dBc/Hz @ 10 kHz
- Low distortion: -48 dBc
- Low temp. coefficient: 1.2 ps/°C
- Signal Monitor LEDs

APPLICATIONS

- Atomic frequency standards
- Atomic time scales
- High performance testing facilities
- Laboratory frequency distribution
- Reference frequency distribution

The specifications shown above are for models: HPDA-5i, HPDA-15RMi-A, HPDA-15RMi-B, HPDA-15RMi-C

FRONT PANEL

- AC and DC Power Monitor LEDs.
- RF Signal Monitor LEDs.

HPDA-15RMi

BACK PANEL

- SMA Input connectors
- SMA Output connectors
- AC and DC power connectors

SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Input level	1 dB compression	17	18	-	dBm
Bandwidth	+/- 1 dB	1-50	0.5-65	-	MHz
Gain	@ 5 MHz	-	0.2	0.5	dB
Impedance	input output	- -	50 50	- -	Ohms
Return loss	input (S11) output (S22)	- -	-35 -35	-30 -30	dB
Distortion	+13 dBm +17 dBm	- -	-48 -42	-45 -40	dBc
Isolation	Out-out Out-in	130 140	140 145	- -	dB
Phase noise	1 Hz 10 Hz 1 kHz 10 kHz	- - - -	-155 -165 -170 -171	-150 -160 -168 -170	dBc/Hz
Temp. Delay Coefficient	0 - 50 °C	-	1.2	1.5	ps/°C

POWER REQUIREMENTS

- AC Operation: 100-240 VAC, 47-63Hz.
- DC Operation: 12-36 VDC - Available for some models

HPDA-15RMi SELECTION GUIDE

Product Name	Number of Inputs	Number of Outputs	AC Voltage Operation	DC Voltage Operation
HPDA-5i	1	5		√
HPDA-15RMi-A	1	5	√	√
HPDA-15RMi-B	3	15	√	
HPDA-15RMi-B1	1	10	√	
HPDA-15RMi-B2	2	10	√	
HPDA-15RMi-B3	1	15	√	
HPDA-15RMi-C	3	15	√	√
HPDA-15RMi-C1	1	10	√	√
HPDA-15RMi-C2	2	10	√	√
HPDA-15RMi-C3	1	15	√	√