

The HD17142-10 is suitable for broadband high power linear applications, this benchtop amplifier utilizes high push-pull MOSFET power devices that provide high gain, wide dynamic range, low distortions and good linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, built in high quality power supply, EMI/RFI filters, machined housings and all qualified components.



- Solid-state linear design
- Instantaneous ultra broadband
- Small form factor and lightweight
- Standard front panel manual gain adjust
- Suitable for all modulations CW/FM/PM/AM/Pulse/Digital
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

**ELECTRICAL SPECIFICATIONS @ T=25°C, 50 system**

Characteristics	Rating	Min	Typ	Max	Units
Frequency Response	BW	0.15		250	MHz
Power Output CW	P <sub>sat</sub>	10	12		Watts
Output Power @ 1dB G.C.P	P <sub>1dB</sub>	7			Watts
Power Gain @ 1dB G.C.P	G <sub>1dB</sub>	40			dB
Input Power for Rated Pout	P <sub>in</sub>		0		dBm
Small Signal Gain Flatness	G			±1.5	dB
Gain Adjustment Range	FGA	25	30		dB
Input/Output VSWR @ 50 ohm	S11/S22			2.0:1	-
Noise Figure @ maximum gain	NF		7	10	dB
Harmonics @ 1dB G.C.P	H		-20		dBc
Third Order Intercept Point	IP3		+48		dBm
Spurious Signals	Spur		-70	-60	dBc
Supply Voltage (single phase)	VAC	100		240	VAC
Power Consumption	Pd			100	Watts

**MECHANICAL SPECIFICATIONS**

Dimensions W x H x D	8.5 x 3.5 x 16	Inch
Weight	20 lb.	lb.
RF Connectors see options	Type-N female front or rear panel	
Cooling	Built in forced-air system	

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	T <sub>c</sub>	0		50	°C
Non-operating Temperature	T <sub>stg</sub>	-40		+85	°C
Relative Humidity w/o condensation	RH	95			%
Altitude	Alt	10,000	30,000		Feet
Shock & Vibration	SH / VI		Airborne		-

**PROTECTIONS**

Input Overdrive		+10 dBm			Max
Load VSWR		Infinite @ any angle			Nom
Thermal Overload		85°C shutdown			Max

**HD Communications Corp.**

Ronkonkoma, NY USA

Home of RF Amplifiers.com

**Solid State Broadband High Power RF Amplifier**

**HD17142-10**

**0.15 – 250 MHz / 10 Watt**

**AVAILABLE OPTIONS**

<b>Option</b>	<b>Number</b>	<b>Description</b>	<b>Price</b>
<b>FGA</b>	<b>061</b>	Front panel manual gain adjustment 10 turns	Standard
<b>FCN</b>	<b>051</b>	Front Panel Type-N female	N/C
<b>RCN</b>	<b>052</b>	Rear Panel Type-N female	N/C

Available option packages: 01, 02, 03, 04, 05, 06