

The HD18415 is suitable for S-Band broadband high power linear applications. This amplifier utilizes linear GaAsFET power devices that provide high gain, wide dynamic range, low distortions and excellent 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 class A linear design
- Instantaneous ultra broadband
- Small 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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	2000		4000	MHz
Output Power CW	P _{Sat}	25	30		Watts
Output Power @ 1dB G.C.P	P _{1dB}	20			Watts
Power Gain @ 1dB G.C.P	G _{1dB}	44			dB
Input Power for nominal Pout	P _{in}		0		dBm
Small Signal Gain Flatness	G			±1.5	dB
Gain Adjustment Range	FGA	25			dB
Input/Output VSWR @ 50	S11/S22			2:1	
Noise Figure	NF			10	dB
Third Order Intercept Point	IP3		+53		dBm
Harmonics @ 1dB G.C.P	H		-20		dBc
Spurious Signals	Spur		-60		dBc
Operating Voltage (single phase)	VAC	100		240	VAC
AC Power Consumption	Pd		200	250	Watts

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	19 x 3.5 x 18	Inch	Max
Weight	27	lb.	Max
RF Connectors Input/Output (refer to options)	Type-N female front or rear panel		
Cooling	Internal forced air		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	T _c	0		+50	°C
Non-operating Temperature	T _{stg}	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000	30,000		Feet
Shock & Vibration	SV		Airborne		

PROTECTIONS

Input Overdrive		+10 dBm	Max
Load VSWR		Infinite @ all load phase and amplitude	Nom
Thermal Overload		85°C shutdown	Max

AVAILABLE OPTIONS

Option	Number	Description	Price
FGA	061	Front panel manual gain adjustment 10 turns	Standard
LCD	062	Touchscreen Digital Display, including Fwd/Rev Power indication (dB or Watt scale), Gain Adjustment, ALC Fast/Slow, On/Off, Standby mode, Fault indication, Rear panel HPIB IEEE-488.2 or Full Duplex RS232 remote interface	3,500
FCN	051	Front Panel Type-N female	N/C
RCN	052	Rear Panel Type-N female	N/C

Available Options Packages: 03, 04, 05, 06

OUTLINE DRAWING SHOWN WITH OPTION PACKAGE 05

