

The HD18295 was designed for broadband linear applications and is utilizing HD Communications Corp.'s advanced GaAsFET technology to achieve 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 efficiency sequence regulator, EMI/RFI filters, machined housing, and qualified components. Each unit undergoes extensive burn-in prior to final inspection.

- Solid-state class A linear design
- Instantaneous ultra broadband
- Excellent Phase Linearity and Group Delay Characteristics
- Small and lightweight
- Suitable for all modulations CW/FM/PM/AM/Pulse/Digital
- 50 Ohm Input/Output impedance
- High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1000		3000	MHz
Power Output CW	Psat	10			Watts
Power Output @ 1 dB comp.	P1dB	6			Watts
Input Power for Rated Output	Pin		0		dBm
Small Signal Gain	SSG	40			dB
Small Signal Gain Flatness	Gr			±1.5	dB
Input/Output VSWR @ 50	S11/S22			2:1	-
Third Order Intercept Point	IP3		+49		dBm
Harmonics @ 1 dB compression	H		-20		dBc
Noise Figure	NF			10	dB
Load VSWR					-
Spurious Signals	Spur		-60		dBc
Operating Voltage (single phase)	VDC	12	13	15	Volts
Current Consumption	Idd		3	5	Watts

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.8 x 2.63 x 0.75	Inch	Max
Weight	1.0	lb.	Max
RF Connectors Input/Output	SMA female		
Cooling	External heatsink and forced air		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	Tc	0		+50	°C
Non-operating Temperature	Tstg	-40		+85	°C
Relative humidity w/o condensation	RH	95			%
Altitude	ALT	10,000			Feet
Shock and Vibration	SV		GR-487		

PROTECTIONS

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