



Solid State Broadband High Power Amplifier

HD30292

10 – 500 MHz / 10 Watts

- Instantaneous ultra broadband
- Small form factor and lightweight
- Suitable for most modulation standards
- 50 ohm input/output impedance
- High reliability and ruggedness

ELECTRICAL SPECIFICATIONS @ +28 VDC, 25°C, 50 Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	10		500	MHz
Operating Output Power C.W	P _{OUT}		10		Watt
Power Gain @ Rated P _{OUT}	G _P		42		dB
Input Power for Rated P _{OUT}	P _{IN}		0		dBm
Small Signal Gain Flatness	ΔG		±1.0	±1.5	dB
Input Return Loss	S ₁₁ /S ₂₂			2:1	dB
Noise Figure	NF			10	dB
Third Order Intercept Point (27 dBm Per Tone, Δ = 100KHz)	IP3		+46		dBm
Harmonics @ 10 Watt Output	H		-25	-20	dBc
Spurious Signals	Spur		-70	-60	dBc
Operating Voltage	V _{DC}	26	28	30	Volt
Current Consumption @ 10 Watts	I _{DD}		2	2.5	Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	6.4 x 3.4 x 1.1	Inch	Max
Weight	(TBD)	lb.	Max
RF Connectors In/Out	SMA Female		
DC / Shutdown Connectors	Dsub, 9-Pins, Male		
Cooling	External Heatsink		

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 (non-condensing)	RH			95	%

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PROTECTIONS

Input Overdrive	+5 dBm	Max
Load VSWR @ rated output power	∞ @ all load phase & amplitude for duration of 1 minute 3:1 all load phase & amplitude continuous	-
Thermal Overload	85°C shutdown	Max

INTERFACE CONNECTOR - D-Sub, 9 Pin(male)

HD COMM	Pin # BBM1C3KAJ	Description	Specifications
1	7,8,9	Not Assigned	Reserved
2	Not apply	Current Monitor	Analog voltage relative to I _{DD} @ 100mA / 50mV
3	Not apply	Temp Sense	Analog voltage relative to Module's Temperature @ 10mV/°C
4	1 (Reverse Operation)	VVA	VVA Control Voltage: Max. Gain = 0V _{DC} , Min. Gain = 5.0V _{DC}
5	6	Shutdown	Amplifier Enable: TTL "Low" (Logic 0) or Open Amplifier Disable: TTL "High" (Logic 1)
6	4,5	VDD	+28 V _{DC} to ±2 V
7	4,5	VDD	+28 V _{DC} to ±2 V
8	2,3	GND	Ground
9	2,3	GND	Ground

OUTLINE DRAWING

