

Solid State Personal Communication Power Amplifier

HD34009

619 – 698 MHz / 100Watts CW

- Solid-state High Power linear design
- Small and lightweight
- 50 ohm input/output impedance
- High reliability and ruggedness
- Alarm and Monitoring

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	619		698	MHz
Output Power @ 1 dB Gain Compression Point	P _{1dB}	100			Watt
Small Signal Gain	G _{SS}	49	50	51	dB
Gain Flatness	Δ G			±1.5 TBD	dB
Input Return Loss	S ₁₁			-14	dB
Output Return Loss	S ₂₂			-10	dB
Operating Voltage	V _{DC}		28		Volt
Supply Current @ P _{OUT} = 100W CW	I _{DD}		8.5	10.0 TBD	Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	120 x 110 x 25	mm	Max
RF Connectors In/Out	Input : SMA female Output : N female		
DC Connectors	D-Sub 9pin male		
Cooling	External Heatsink		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T _c	-10		+50	°C
Storage Temperature	T _{stg}	-40		+85	°C
Relative humidity (non-condensing)	RH			95	%

PROTECTIONS

Input Overdrive	+5 dBm	Max
Over Power Shutdown	+51 dBm	Nom
Thermal Overload	85°C shutdown	Nom

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INTERFACE CONNECTORS

D-Sub, 9-Pin

Pin #	Description	Specifications
1	Over Power Alarm	Po=+51dBm±1dB Shutdown High
2	High Temp. Alarm	High (Shutdown) Low (Normal) Alarm & Shutdown : +85°C Auto Recovery : +65°C
3	VSWR Alarm	> +40dBm @ Output Open Shutdown High
4	Forward Power Monitor	4.0V @ Po = +50dBm, 100mV/dB
5	Enable/Disable	Amplifier Enable: TTL “Low” or Open Amplifier Disable: TTL “High”
6	+VDD	+28V
7	+VDD	+28V
8	GND	Ground
9	GND	Ground

Mechanical Specification : (120x110x25mm)



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