



# Part Number DM-HF-1K-110-RM Solid State Broadband High Power Amplifier

Rev. 1  
12/18/2015

- Solid-state Class AB linear design
- Instantaneous ultra broadband
- Suitable for CW, AM, and FM
- 50 ohm input/output impedance
- High reliability and ruggedness
- Built-in control, monitoring and protection circuits
- LDMOS technology
- PIN diode T/R switch (50 uSec) integrated inside

## ELECTRICAL SPECIFICATIONS

V<sub>dc</sub> = 28V, over temperature and environmental conditions, as specified

Parameter	Symbol	Units	Min	Typ	Max
Operating frequency	BW	MHz	1.5		30
Linear Output power	P <sub>1dB</sub>	W		800	
Saturated output power	P <sub>sat</sub>	W	1000		
Input power for 1000W	P <sub>in</sub>	dBm	-12	-10	-8
Power flatness, closed loop	ΔP <sub>CL</sub>	dB			±0.25
Maximum input power without damage	P <sub>In, max</sub>	dBm	10		
Input return loss	IRL	dB			10
Noise figure	NF	dB			15
2 <sup>nd</sup> harmonics	2 <sup>nd</sup>	dBc			-30
3 <sup>rd</sup> harmonics	3 <sup>rd</sup>	dBc			-15
Spurious	Spur	dBc			-70
Operating voltage	V <sub>DC</sub>	V	26	28	30
Current consumption	I <sub>DC</sub>	A			110
PA enable / Disable time (open loop)	T <sub>On/Off</sub>	uSec			50

## PA PROTECTION / RUGGEDNESS

The PA includes protection circuits for:

- Under / over temperature
- Under / over voltage
- Reverse polarity
- Over current (electronically monitored and internally fused)
- High VSWR (open/short)



## Delta Microwave

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Delta Microwave's Quality Management System has been assessed by NSF-ISR and found to be in conformance with AS9100:2009, Rev. C. Delta Microwave reserves the right to change specifications without notice. Please verify specification revision upon order placement.



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## ENVIRONMENTAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Operating ambient Temperature	Tc	-10		+55	°C
Storage Temperature	Tstg	-40		+85	°C
Relative humidity (non-condensing)	RH			95	%
Altitude (MIL-STD-810F Method 500.4)	ALT			10,000	Feet
Shock / Vibration (MIL-STD-810F Method 514.5) Category 20	SH / VI				

## MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Limits
Dimensions	19 X 12.25 (7U) X 24	Inch	Max
Weight	60	kg	Max
RF Connectors	TNC Female, N-Type Female		
DC / Control Connector	D38999		
Cooling	Forced air cooling (front to back)		
LCD (optional)	Touch screen digital display: FWD/RFL indication, modes, fault type indication		
Communication	RS 422 - 9600 bps asynchronous		
Ground stud	Rear panel		
Rack slide	Jonathan slides (150QDA-26-P) provisions		
Chassis protection	Alodine (chemical conversion coating)		
Remote interface connector	D38999/20WE35SC		
DC power connector	D38999/20WJ24PN		



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