



Part Number DM-HPKA-10-102

GaN Power Amplifier

Rev. B
03/18/2016

Electrical Specifications (+25°C):

Frequency:	29 to 31 GHz
Small Signal Gain:	50 dB min
Gain Var. Over Temp	-0.05 dB/°C typical
Psat @ -10dBm Input:	40 dBm min
Psat @ -10dBm Input:	12 W typical
P1dB:	38 dBm min
Noise Figure:	8 dB max
DC Power:	20 VDC, 3.6 A nom at Psat
PAE:	15 % typical
VSWR (Input/Output):	2.0:1/1.5:1 nom
Harmonics:	-15 dBc typical @ Psat
Spurious:	-70 dBc typical
Input Power Handling:	15 dBm max
Mismatch Handling:	5.0:1 max
Operation:	CW
AM-PM Conversion:	3°/dB up to 38dBm max

Features:

DC On/Off:	1µs; TTL Logic-Low "0V": ON; High "5V": OFF
Over Temp Shutdown:	at +90°C
Current Monitoring:	Included

Mechanical Specifications:

Size (L x W x H):	3.1" x 3" x 0.78"
Connectors (In/Out):	K (f)/K (f)
Sealing:	Hermetic
Finish:	Grey Paint, Mounting surface Ni finish
Marking:	Black per MIL-STD-130
Cooling:	External heatsink
Outline:	001-0086

Classification:

ECCN:	3A001.b.4.b.4
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Registered to AS9100 (with ISO 9001)

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 (by design):

Operating Temperature:	-40 to +85°C
Storage Temperature:	-54 to +85°C
Relative Humidity:	IAW MIL-STD-810F, up to 95%
Altitude:	up to 30,000 ft
Vibration:	MIL-STD-810F, method 514.5, Categories 12, 14, 20 Categories 12, 13, 14, 20
Shock:	MIL-STD-202G method 214, condition C
Salt Fog:	MIL-STD- 810G method 509.5, 5%, 35C 96 hrs
Fungus:	MIL-STD-810G method 508.6

Test Data:

Gain, P1dB, Psat, AM-PM, VSWR, DC Power at +25°C



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