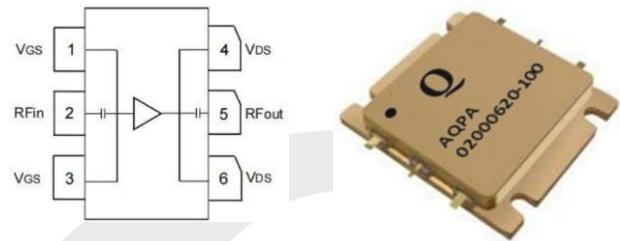


2.0 – 6.2 GHz Internally Matched Power FET

Product Features

- Operating Frequency:
2.0~6.2GHz
- Saturation Output Power:
50dBm
- Power Gain:
8.5dB
- Power added Efficiency:
40%
- Package: MH902F6AA
- Dimensions:
27.40 x 30.80 x 5.10 mm

Functional Block Diagram



General Description

The AQPA02000620-100 is a high power internally matched power transistor, based on GaN processes. It has an available operating frequency range 2.0 ~ 6.2GHz. Drain voltage $V_{ds} = 28$ Volt, saturated output power = 50dBm, power gain = 8.5dB with average drain efficiency of 40%. The product is 100% RF tested. Main applications used in microwave transceiver, radars, solid-state transmitters and jammers.

Main Electrical Specifications

Test Conditions: $f=2\sim6.2\text{GHz}$, $V_{DS}=28\text{V}$, $I_{DQ}=0.5\text{A}$, $P_{in}=41.5\text{dBm}$, CW

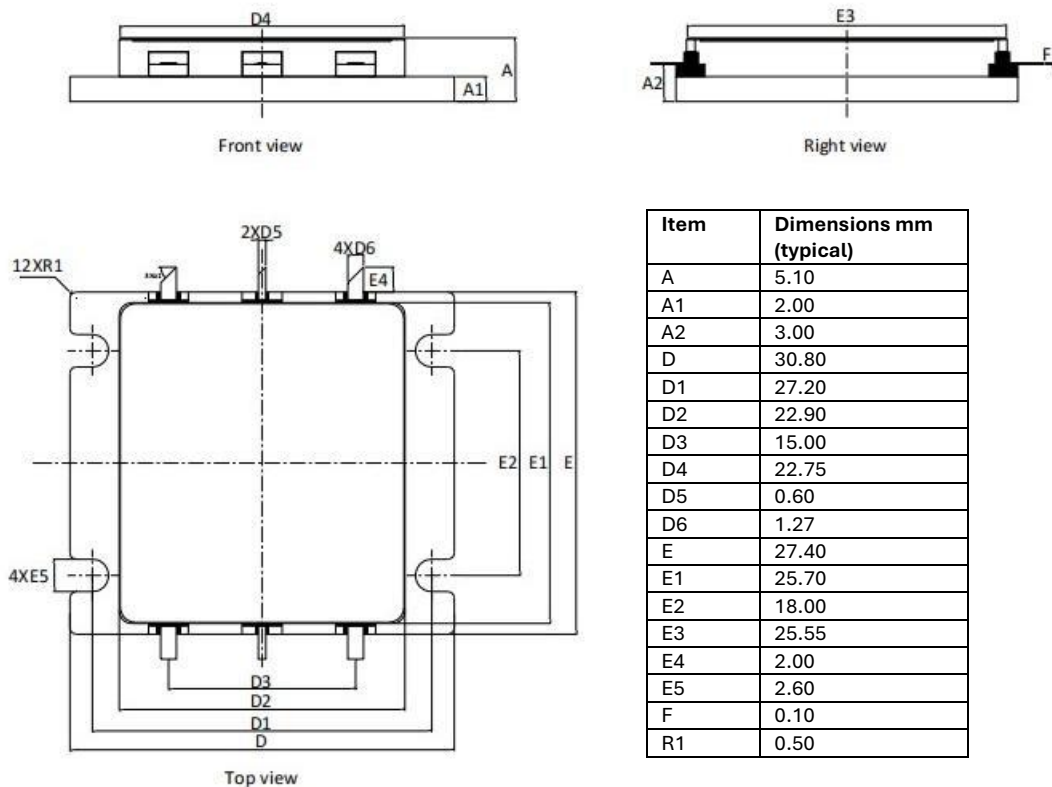
Parameter	Symbol	Value			Units
		Min	Typical	Max	
Saturation Output Power	P_{sat}	-	50.0	-	dBm
Power Gain	G_p	-	8.5	-	dB
Power Gain Flatness	ΔG_p	-	1.5	-	dB
Power Added Efficiency	PAE	-	40	-	%
Operating Current	I_d	-	0.5	-	A

Absolute Maximum Ratings

Parameter	Symbol	Value	Remarks
Drain-Source Forward Bias Voltage	V_{DS}	50V	
Gate-Source Reverse Bias Voltage	V_{GS}	0V	
Input Power	P_{in}	TBD	
Channel Temperature	T_{ch}	225°C	
Storage Temperature	T_{stg}	-65~150°C	

Mechanical Drawing

All dimensions in mm. Tolerance: +/-0.5mm



Document Revision History

Date	Description	Version	Done by
23 Jul 25	• Document creation	1.0	PK

