

GaAs MMIC Monolithic Integrated Bandpass Filter , 12-13 GHz

Performance characteristics

- Frequency range: 12 - 13 GHz
- Insertion loss: 3.5 dB (typ.)
- Stopband attenuation: $\geq 20\text{dB}$ @ 10.9 GHz , $\geq 20\text{dB}$ @ 14.1 GHz
- Stopband attenuation: $\geq 40\text{ dB}$ @ 10.6 GHz , $\geq 40\text{ dB}$ @ 14.6 GHz
- Input/output standing wave: 1.7
- 50Ohm input/output
- Chip size: QFN 4 X 4

Use limit parameters

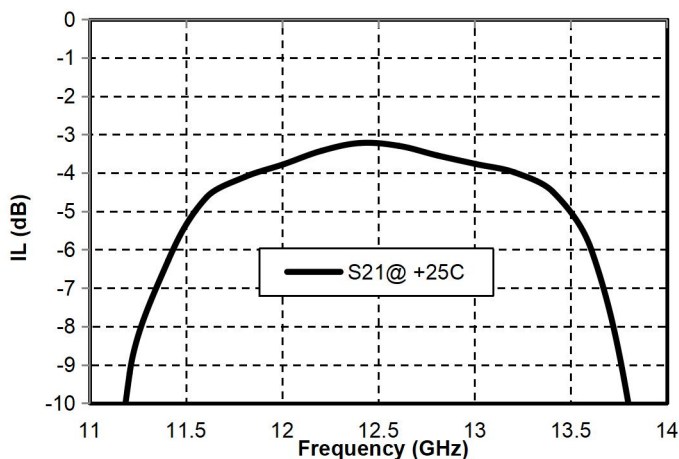
Maximum input power	+30dBm
Operating temperature	-55 ~ +85°C
Storage temperature	-65 ~ +150°C

Product Introduction

The GFB -1213A-CQ4 GaAs MMIC monolithic integrated bandpass filter chip covers a frequency range of 12~13 GHz, with an insertion loss of 3.5 dB and a standing wave of 1.7 . This chip is packaged in a 4 x 4 mm ceramic surface mount package, and the surface of the pin pad is gold-plated, which is suitable for reflow soldering installation.

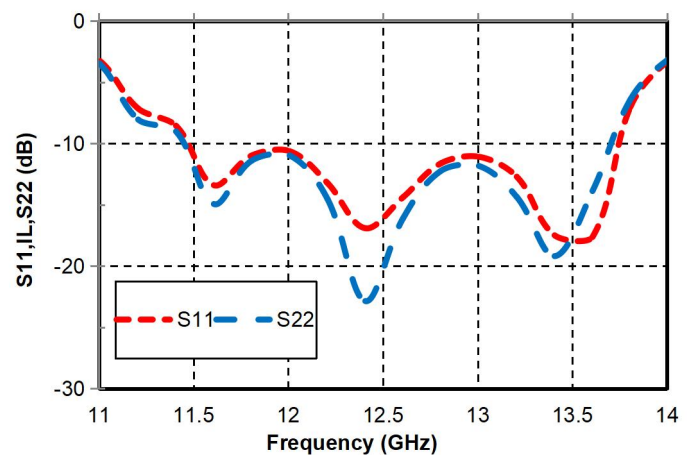
Main index test curve

Insertion Loss vs. Operating Frequency

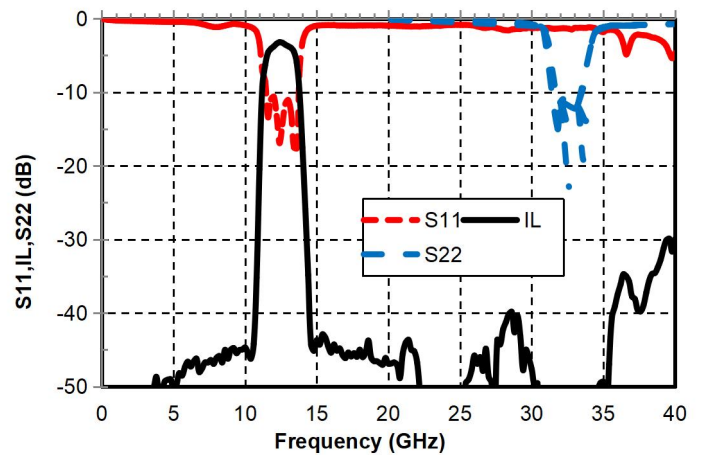
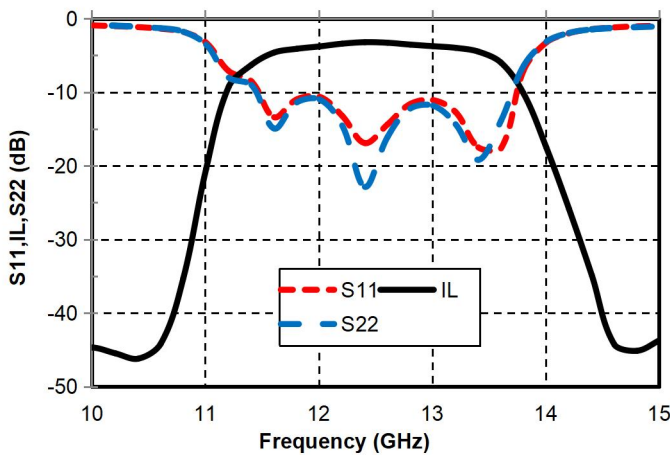


Frequency Response vs. Operating Frequency

Input/Output Frequency Response vs. Operating Frequency

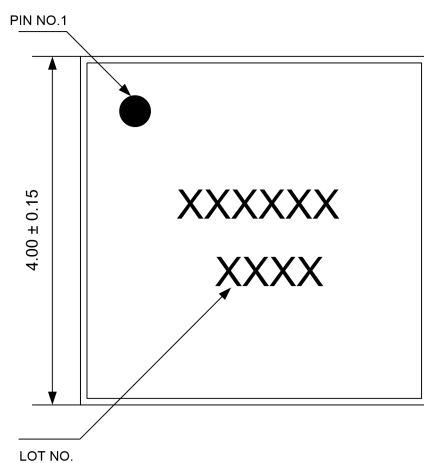


Frequency Response vs. Operating Frequency

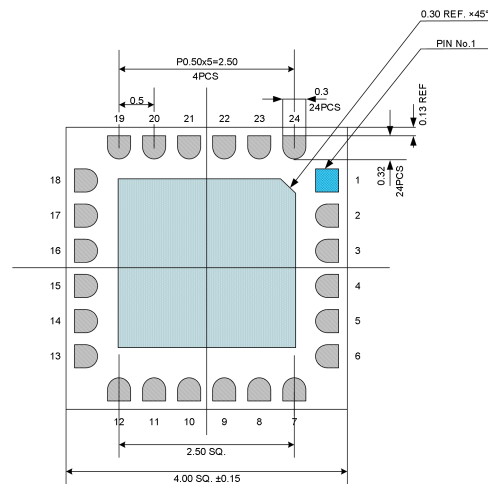


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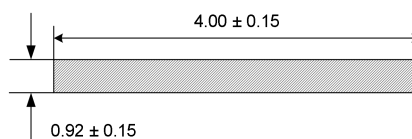
Appearance structure



Top view



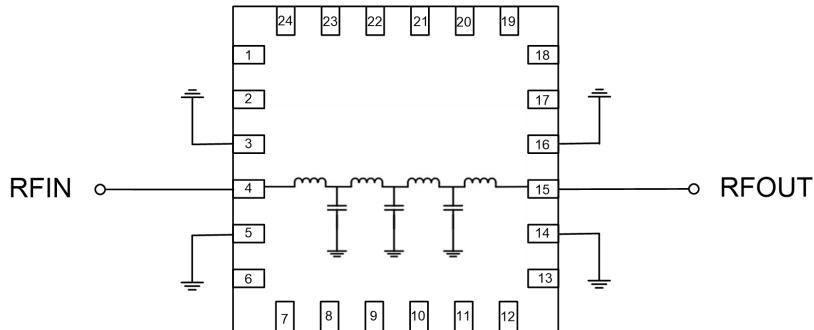
Bottom view



Side View

Pin Definition		
Pin number	Function Symbol	Functional Description
4	RFIN	RF signal input terminal
15	RFOUT	RF signal output terminal
3, 5, 14, 16	GND	the pin needs to be in good contact with the RF and DC ground
Chip bottom	GND	Needs to be in good contact with the RF and DC grounds
Other	N C	The pin is left floating and can be grounded

Recommended Circuit



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Precautions for use

- Sealing material : Ceramic material that meets ROHS standards
- Lead surface plating: gold, gold layer thickness 0.30um MIN
- Maximum reflow peak temperature: 260 °C