MILLER MMIC

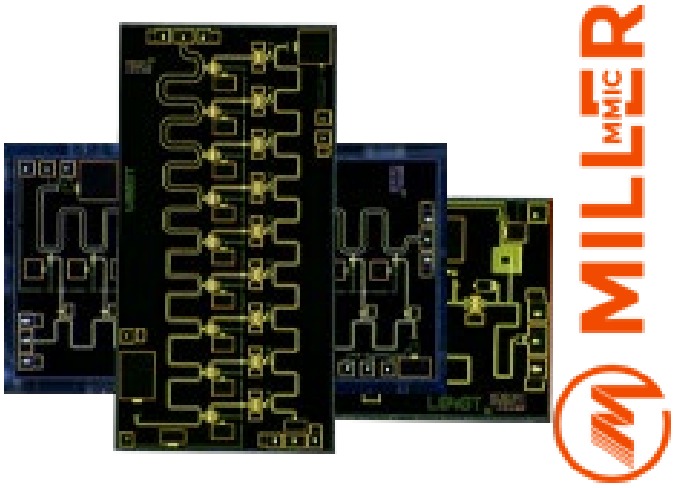
V1.0.2

MFA1004

GaAs MMIC Single Channel Series
Fixed Attenuator DC-40GHz

Features

- Ultra broadband single channel attenuator
- Frequency Range: DC - 40GHz
- Attenuation 0, 1, 2…10,15, 20, 30dB value
- Power Handling: 27dBm
- 50Ω Input and Output Impedance
- Return Loss: 20dB
- Bare Die (QFN 3x3mm Available)
- RoHS & REACH Compliant

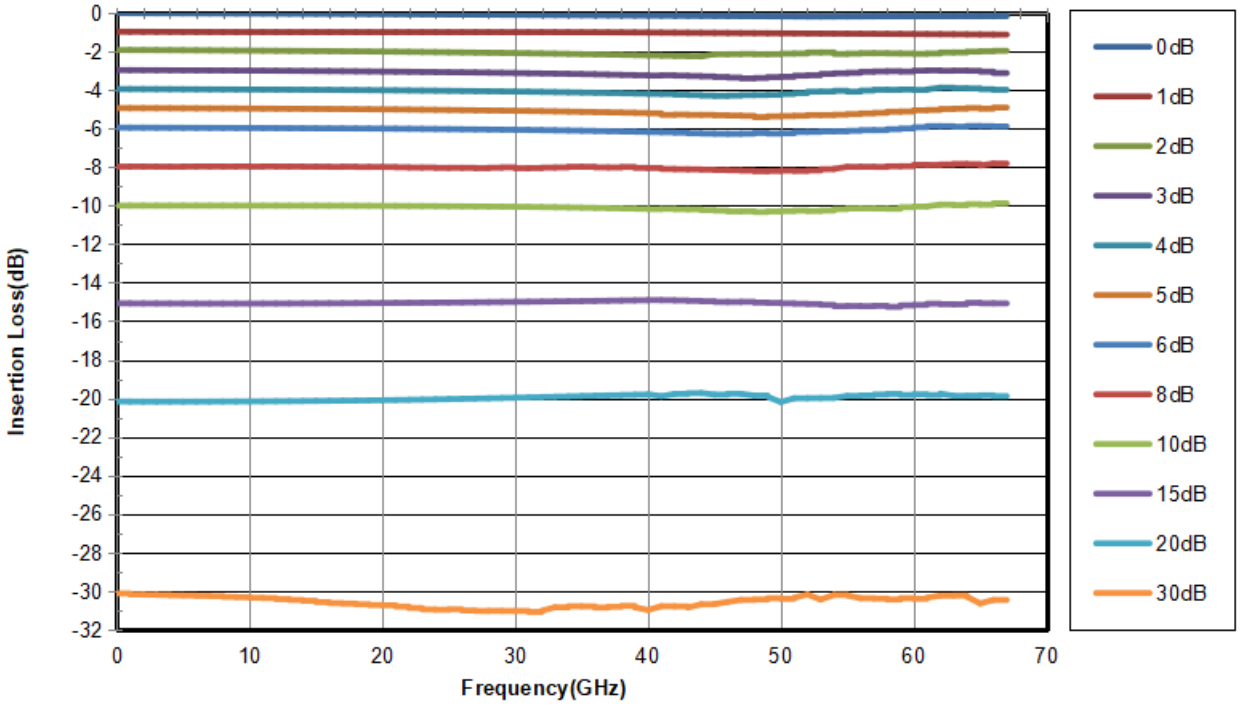


Typical Applications

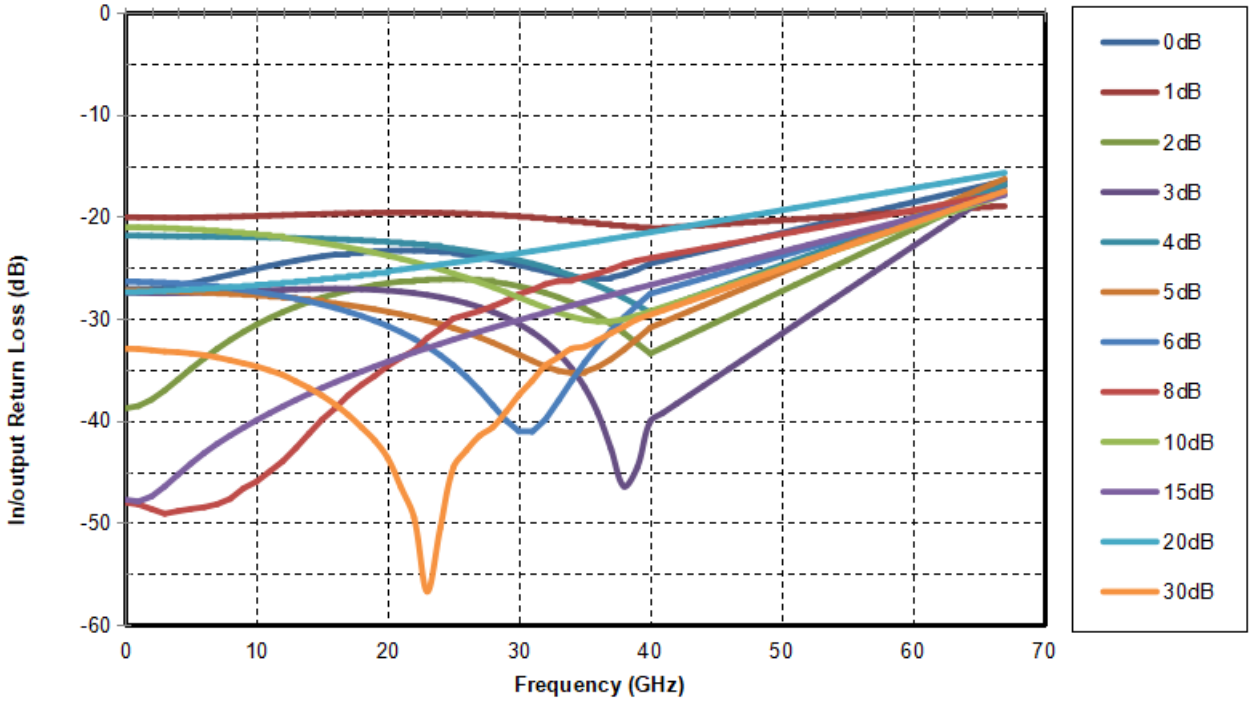
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- General Purpose

Part Number	Type	Frequency (GHz)	Attenuator (dB)	Power Handling (dBm)	Return Loss (dB)
MFA1001	Fixed Attenuator	DC-40	0	27	20
MFA1002	Fixed Attenuator	DC-40	1	27	20
MFA1003	Fixed Attenuator	DC-40	2	27	20
MFA1004	Fixed Attenuator	DC-40	3	27	20
MFA1005	Fixed Attenuator	DC-40	4	27	20
MFA1006	Fixed Attenuator	DC-40	5	27	20
MFA1007	Fixed Attenuator	DC-40	6	27	20
MFA1008	Fixed Attenuator	DC-40	7	27	20
MFA1009	Fixed Attenuator	DC-40	8	27	20
MFA1010	Fixed Attenuator	DC-40	9	27	20
MFA1011	Fixed Attenuator	DC-40	10	27	20
MFA1012	Fixed Attenuator	DC-40	15	27	20
MFA1013	Fixed Attenuator	DC-40	20	27	20
MFA1014	Fixed Attenuator	DC-40	30	27	20

Attenuation vs. Frequency @Att=0dB



Return Loss vs. Frequency @Att=0dB



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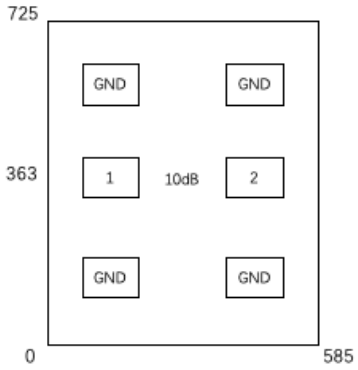
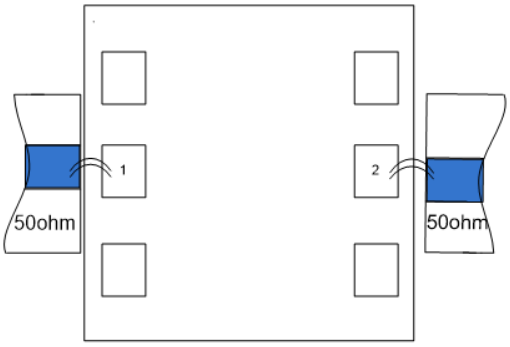
Outline Drawing:

All Dimensions in μm

Pad	Function	Description
1	RF IN	RF signal input terminal; DC blocking capacitor required.
2	RF OUT	RF signal output terminal; DC blocking capacitor required.
Die bottom	GND	Die bottom must be connected to RF/DC ground.



Assembly Drawing



Notes:

1. Die thickness: 100μm
2. Typical bond pad is 100*100 μm^2
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. Maximum input power: +27dBm
2. Operating temperature: -55℃ to +85℃
3. Storage temperature: -65℃ to +150℃