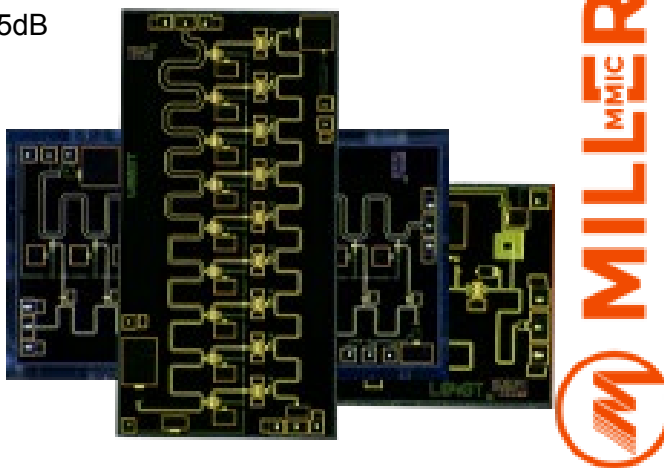


Features

- Ultra broadband multi-channel RF attenuator
- Configurable attenuation value by bonding
- Frequency Range: DC - 20GHz
- Attenuation Values: 0 / 0.25 / 0.5 / 1 / 2 / 3.75dB
- Power Handling: 27dBm
- 50Ω Input and Output Impedance
- Return Loss: 20dB
- Bare Die (QFN 3x3mm Available)
- RoHS & REACH Compliant

Typical Applications

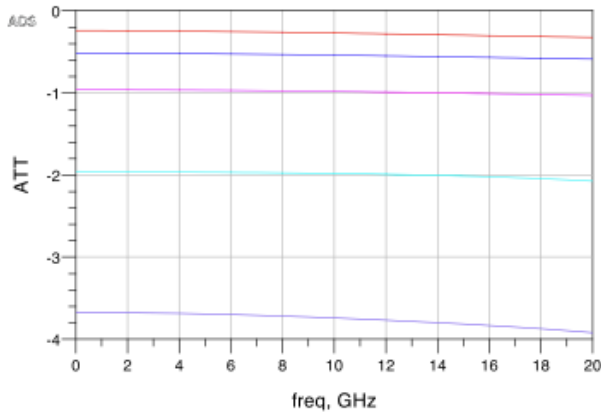
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- General Purpose



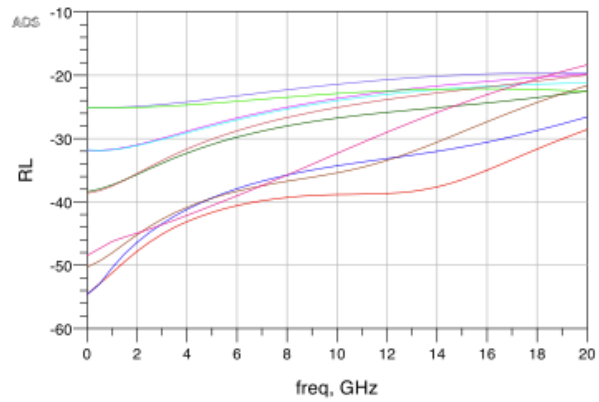
Part Number	Type	Frequency (GHz)	Attenuator (dB)	Power (dBm)	Return Loss (dB)
MFA1028	Multi-Channel Configurable Attenuation	DC-20	0	27	20
			0.25		
			0.5		
			1		
			2		
			3.75		



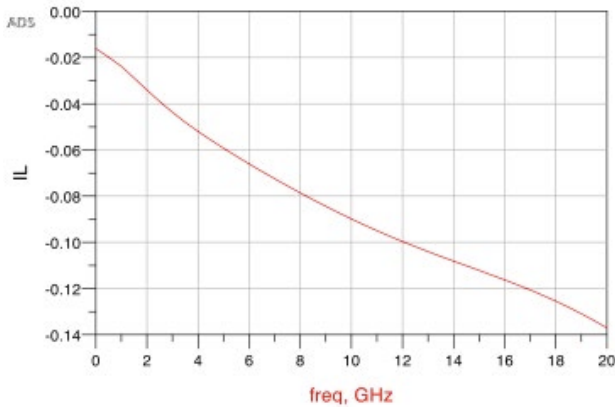
Attenuation vs. Frequency



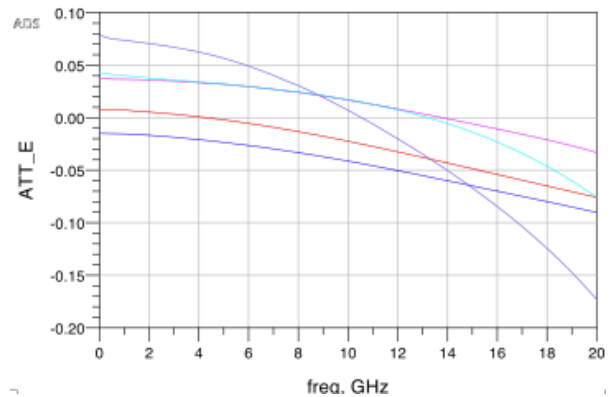
Return Loss vs. Frequency



Insertion Loss vs. Frequency



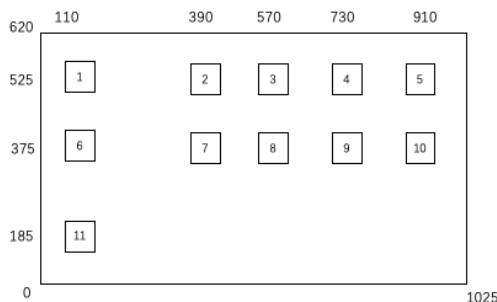
Attenuation Error vs. Frequency





Outline Drawing:

All Dimensions in μm



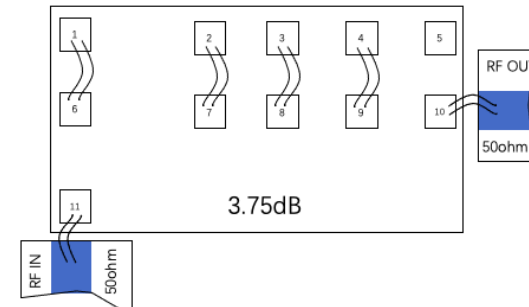
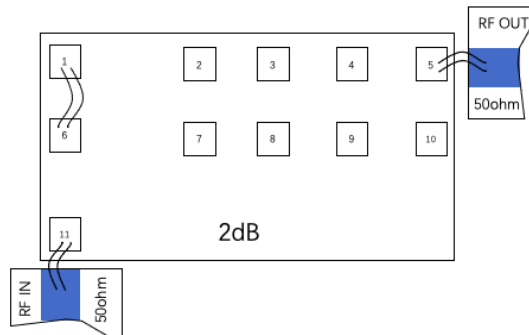
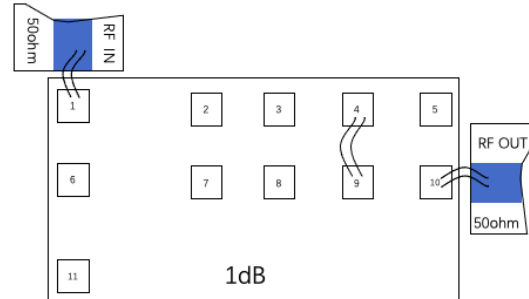
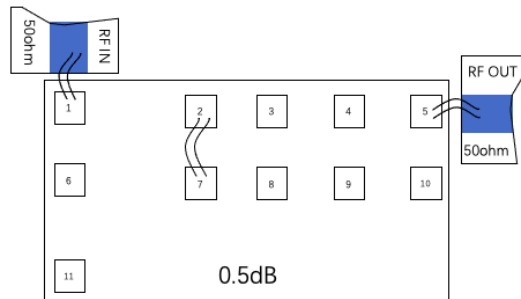
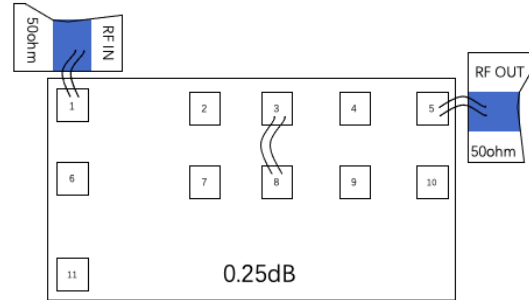
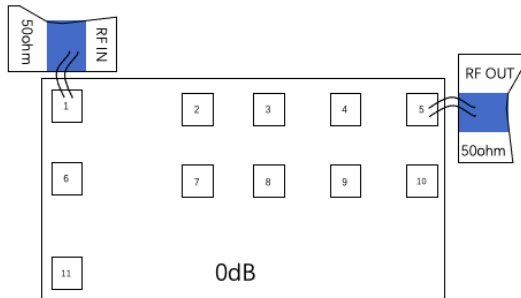
Pad	Function	Description
1, 11	RF IN	RF signal input terminal; DC blocking capacitor required.
5, 10	RF OUT	RF signal output terminal; DC blocking capacitor required.
2, 3, 4, 6, 7, 8, 9	Att.	See Att. table.
Die Bottom	GND	Die bottom must be connected to RF/DC ground.

Wire Bond Table

Value	Bonding Mode			
	Input Pad	Connecting Pad	Output Pad	
Att.	0	1	-	5
	0.25	1	3&8	5
	0.5	1	2&7	5
	0.75	1	3&8, 2&7	5
	1dB	1	4&9	10
	1.25	1	4&9, 3&8	10
	1.5	1	2&7, 4&9	10
	1.75	1	2&7, 3&8, 4&9	10
	2	11	1&6	5
	2.25	11	1&6, 3&8	5
	2.5	11	1&6, 2&7	5
	2.75	11	1&6, 2&7, 3&8	5
	3	11	1&6, 4&9	10
	3.25	11	1&6, 4&9, 3&8	10
	3.5	11	1&6, 4&9, 2&7	10
	3.75	11	1&6, 4&9, 2&7, 3&8	10



GaAs MMIC RF Attenuator DC-20GHz Multi-Channel Configurable Attenuator



Notes:

1. Die thickness: 100µm
2. Typical bond pad is 100*100 µm²
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°C to +85°C
3. Storage temperature: -65°C to +150°C

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