

METAMAG

PRODUCT CATALOG

Auto-tune Filters[®]



About Metamag

History and Experience

Metamag is a veteran owned, non-traditional, award-winning small business that has brought to the US market advanced Auto-tune Filters® (AtF®), RF Circulators and Isolators, and Gyromagnetic Nonlinear Transmission Lines. Since 2009, our advanced ferrite based technology has been assuring access to the electromagnetic spectrum in highly congested RF environments, specifically for Radar, SIGINT, EW and Communication systems.

Auto-tune Filter® Technology

AtFs® are adaptive, dynamic and miniature RF components that sense and react to input RF energy by automatically generating highly selective rejection notches centered at signals that exceed a pre-determined power threshold. Signals below this power threshold pass thru the AtF® with low loss simultaneously. The AtF's® notching response will adjust in real time as above-threshold threats change in frequency, power, bandwidth and presence within the spectrum.

The AtF® is passive and does not require power to operate, making it extremely advantageous for size, weight and power-constrained platforms. Similarly, it does not require computer-control or feedback, enabling simple system integration. AtF® technology empowers RF receivers to continuously operate in high-power and high-dynamic range EM environments while maintaining sensitivity.

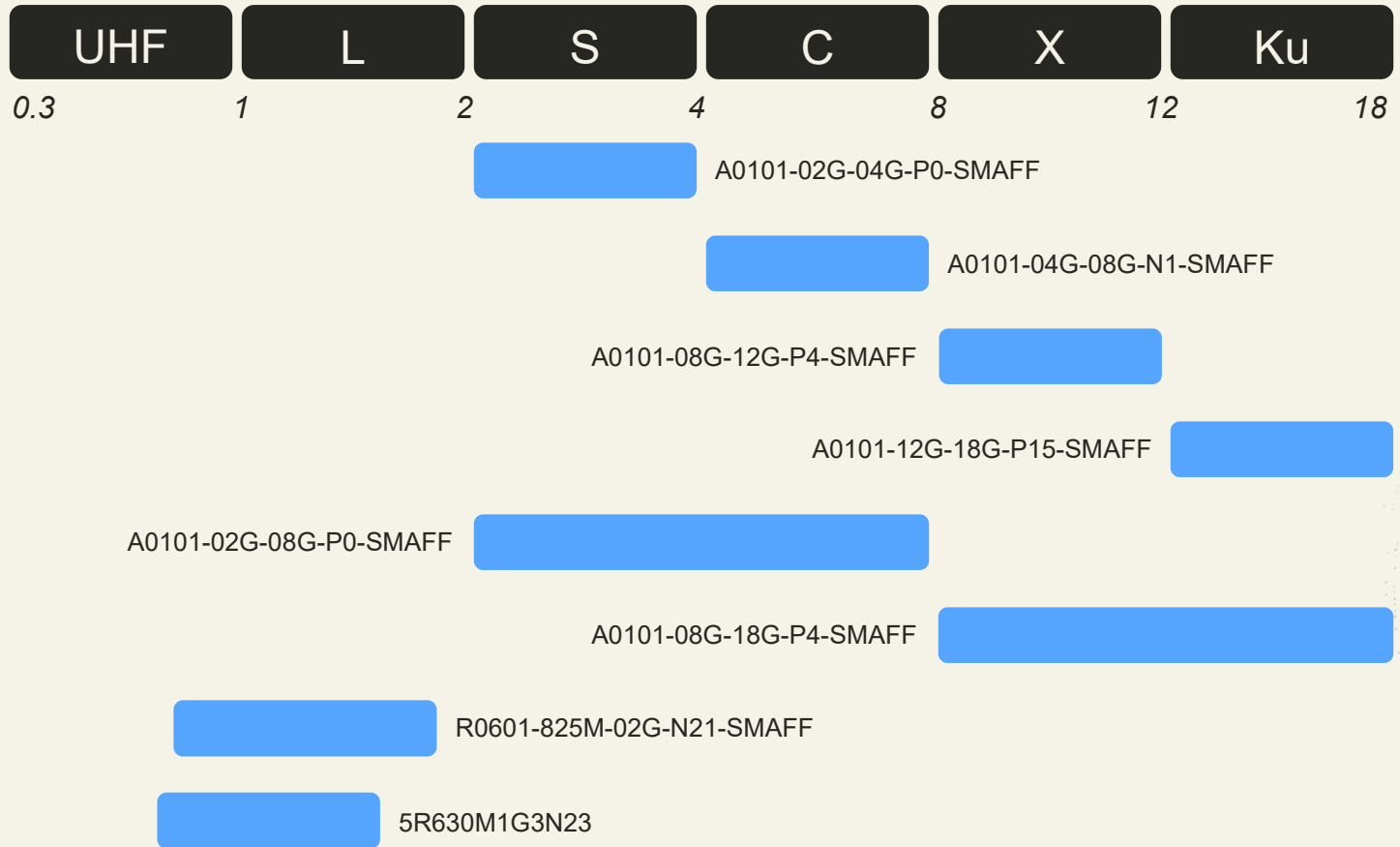
Facility Information

Cage Code	NAICS Codes	Certifications & Compliance	Quality Standards
5HV34	334419	ITAR Registered DCAA Compliant	ISO 9001:2015 AS9100:2016

Contact Us

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Auto-tune Filter[®] Chart



Current Offerings

Part Number	Package Type	Freq Start (GHz)	Freq Stop (GHz)	Insertion Loss (dB)	Return Loss (dB)	Power Threshold (dBm)	Page Number
A0101-02G-04G-P0	Connectorized	2	4	2	15	0	5
A0101-04G-08G-N1	Connectorized	4	8	2	20	-1	6
A0101-08G-12G-P4	Connectorized	8	12	2.5	20	+4	7
A0101-12G-18G-P15	Connectorized	12	18	3	15	+15	8
A0101-02G-08G-P0	Connectorized	2	8	2	12.5	0	9
A0101-08G-18G-P4	Connectorized	8.4	18	3	13.5	+4	10
R0601-825M-02G-N21	Connectorized	0.825	1.85	13	5	-21	11
5R630M1G3N23	10mm QFN	0.8	1.3	11	6	-23	12

Additional product offerings outside those listed above are available upon request. Please contact our sales department at sales@metamag.us.

A0101-02G-04G-P0-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	2 to 4 GHz
Insertion Loss.....	2 dB
Return Loss.....	15 dB
Max CW Power Input.....	+43 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	250 ns
-3 dB Response Time.....	50 ns

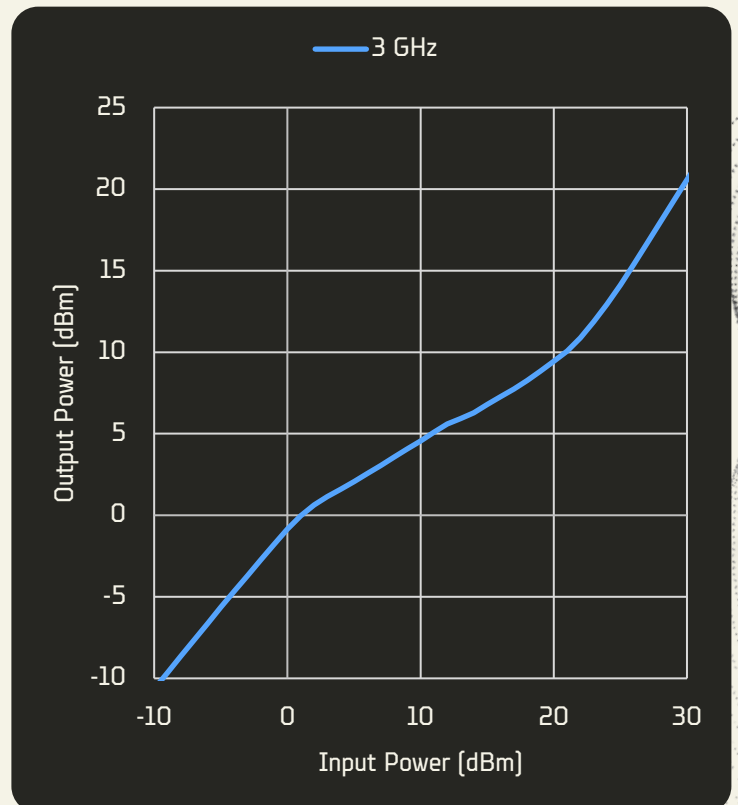
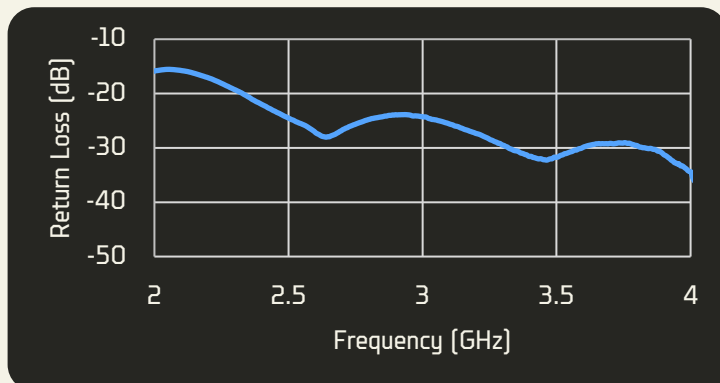
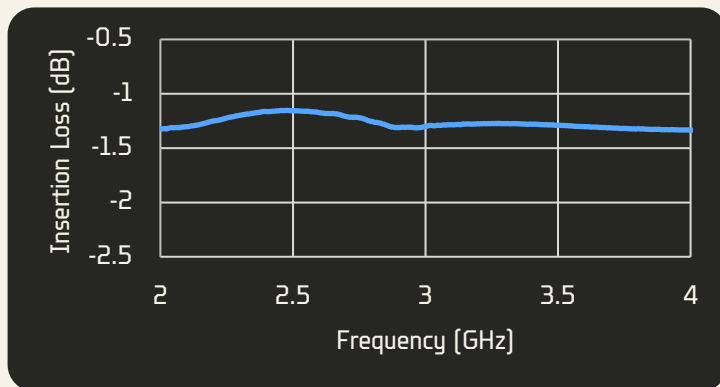


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°



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A0101-04G-08G-N1-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	4 to 8 GHz
Insertion Loss.....	2 dB
Return Loss.....	20 dB
Max CW Power Input.....	+40 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	500 ns
-3 dB Response Time.....	50 ns

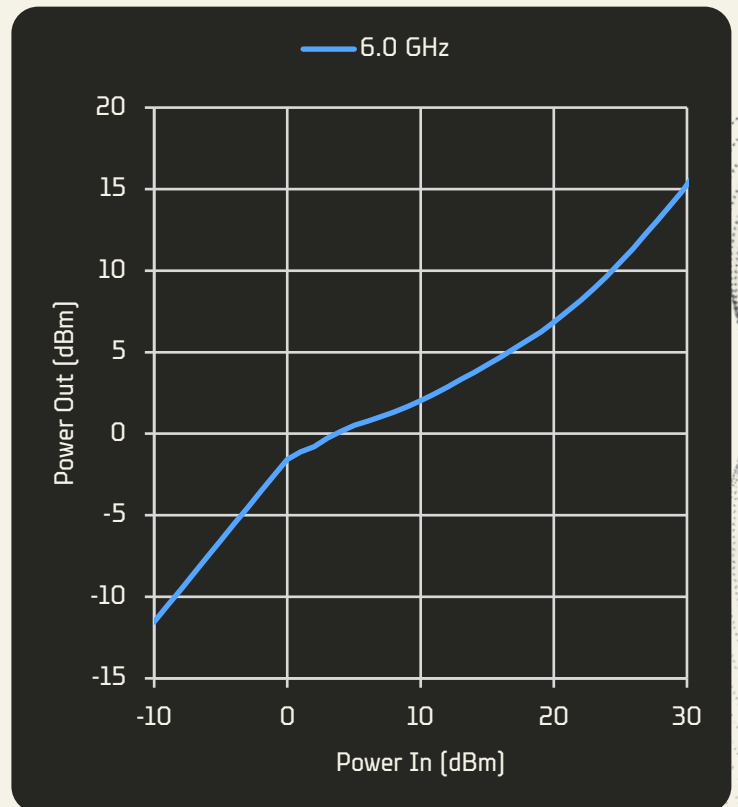
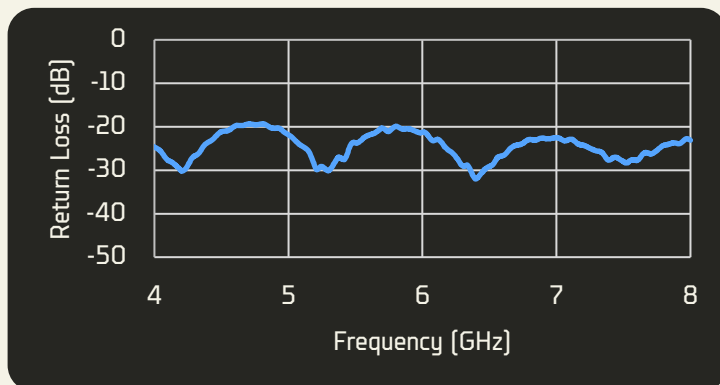
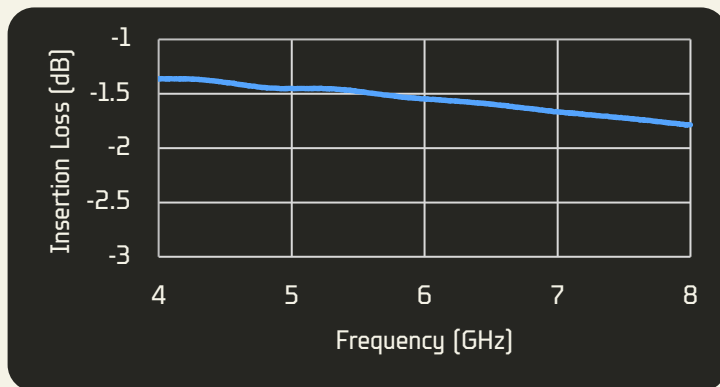


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°



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A0101-08G-12G-P4-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	8 to 12 GHz
Insertion Loss.....	2.5 dB
Return Loss.....	20 dB
Max CW Power Input.....	+40 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	550 ns
-3 dB Response Time.....	175 ns

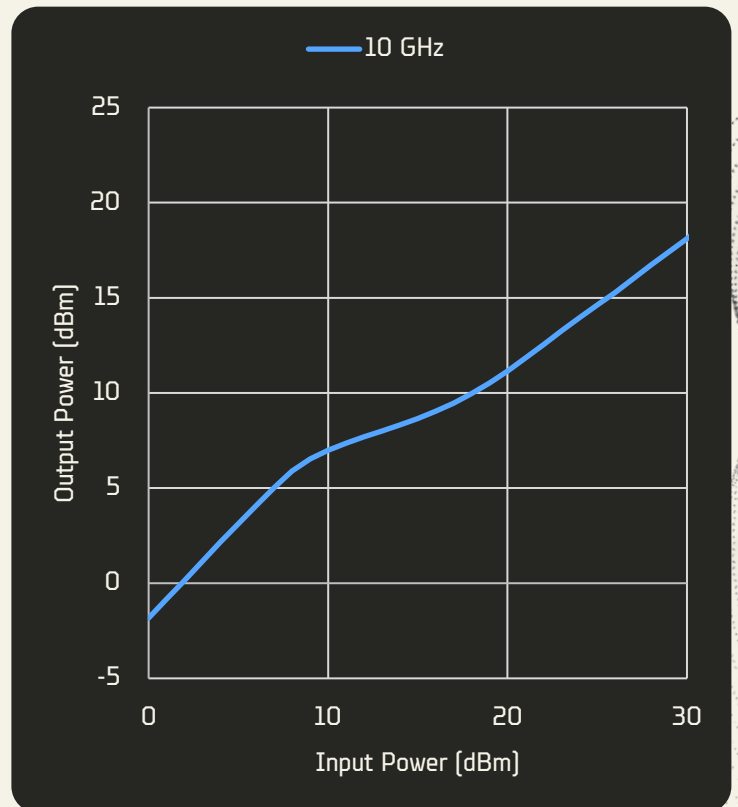
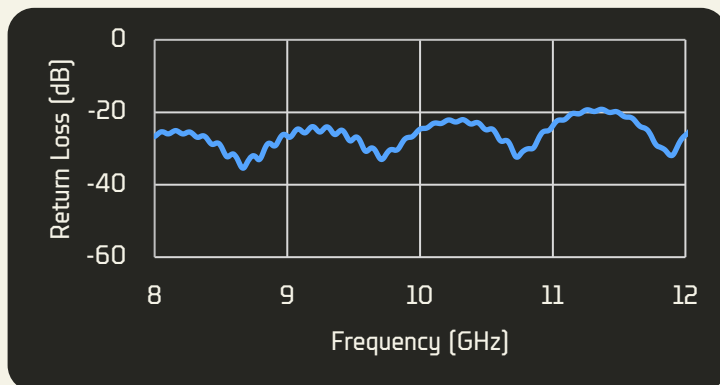
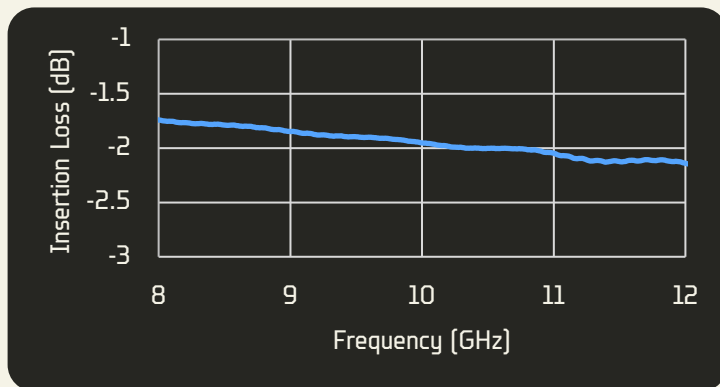


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°



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A0101-12G-18G-P15-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	12 to 18 GHz
Insertion Loss.....	3 dB
Return Loss.....	15 dB
Max CW Power Input.....	+40 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	550 ns
-3 dB Response Time.....	250 ns

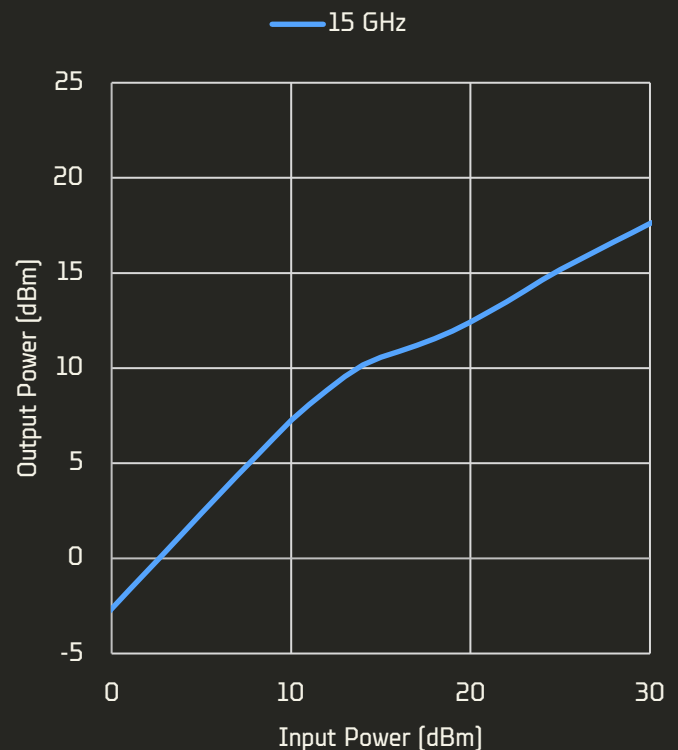
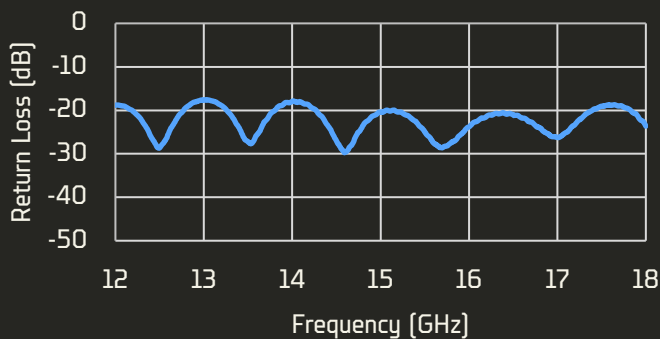
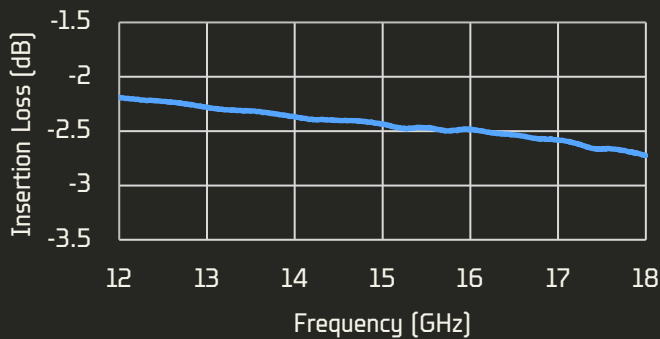


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°



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A0101-02G-08G-P0-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	2 to 8 GHz
Insertion Loss.....	2 dB Min
Return Loss.....	12.5 dB Max
Max CW Power Input.....	+40 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	500 ns
-3 dB Response Time.....	50 ns

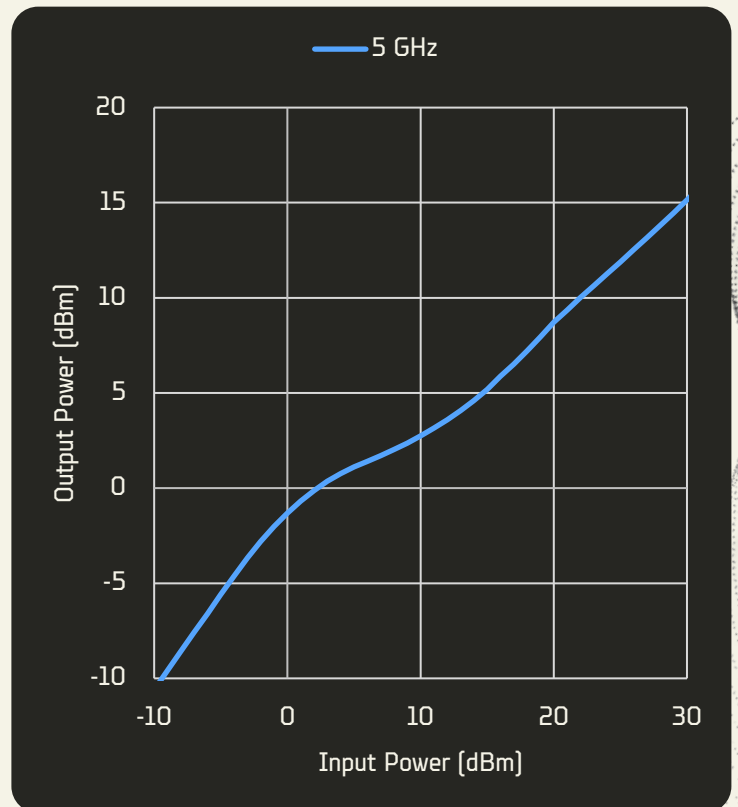
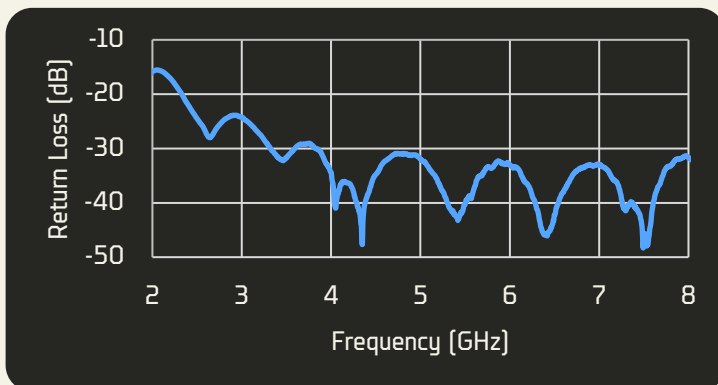
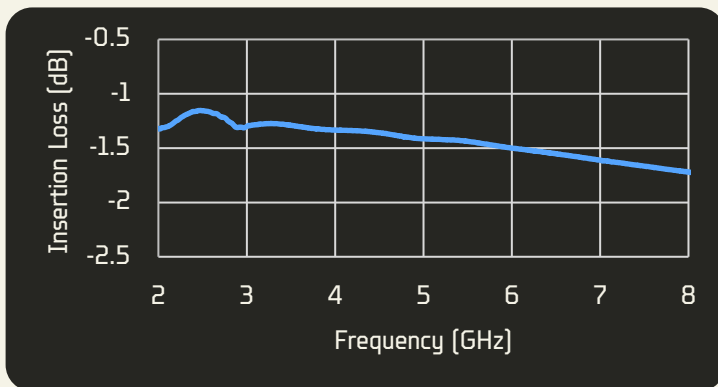


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°



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A0101-08G-18G-P4-SMAFF

RF Specifications

Type	Absorptive
Frequency Range.....	8.4 to 18 GHz
Insertion Loss.....	3 dB Min
Return Loss.....	13.5 dB Max
Max CW Power Input.....	+40 dBm
Max Peak Power Input.....	1kW
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	550 ns
-3 dB Response Time.....	250 ns

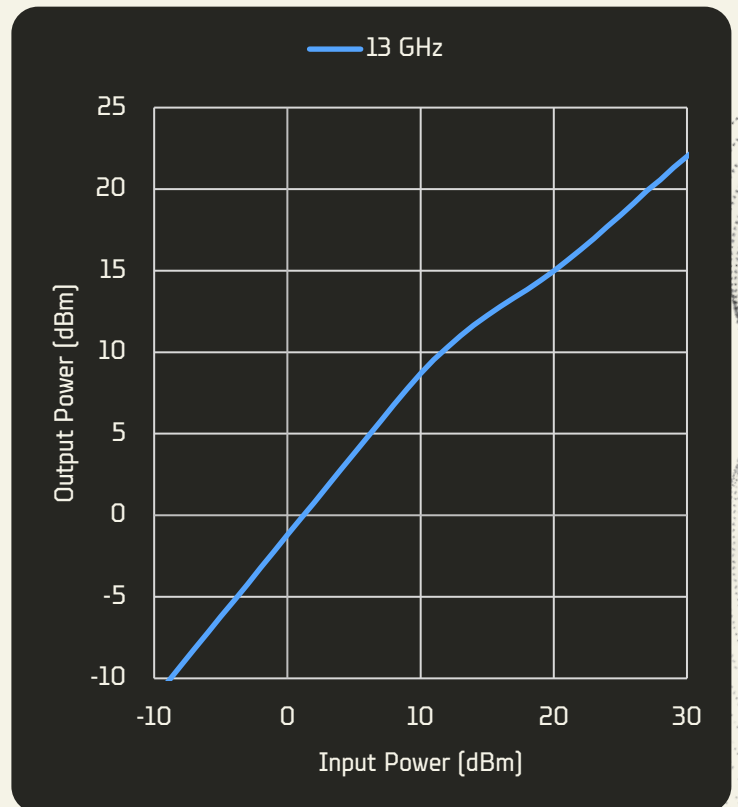
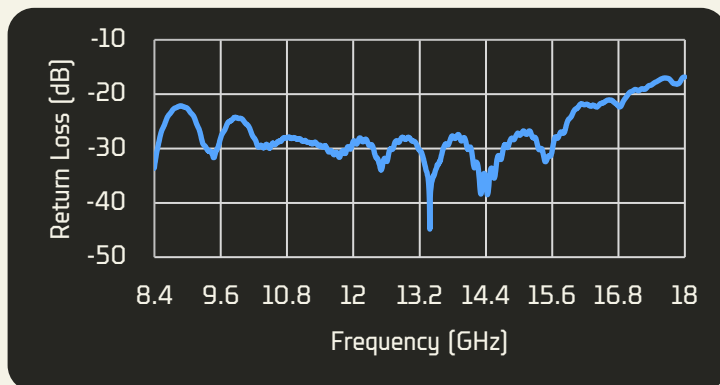
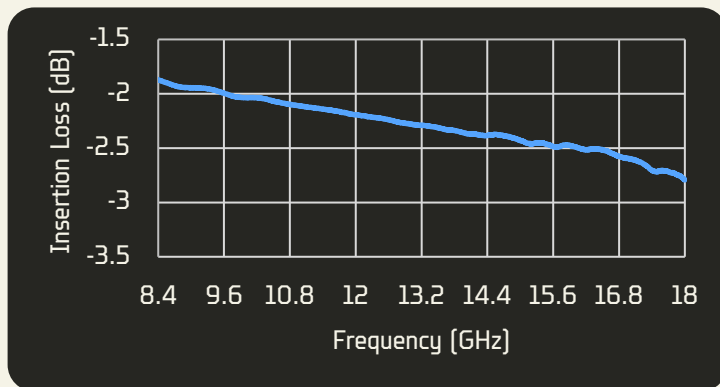


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	-15°C to +85°C
Storage Temperature.....	-40°C to +85°


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R0601-825M-02G-N21-SMAFF

RF Specifications

Type	Reflective
Frequency Range.....	0.825 to 1.85 GHz
Insertion Loss.....	13 dB Max
Return Loss.....	5 dB Min
Max CW Power Input.....	+15 dBm
Max Peak Power Input.....	+43 dBm
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	1000 ns
-3 dB Response Time.....	30 ns

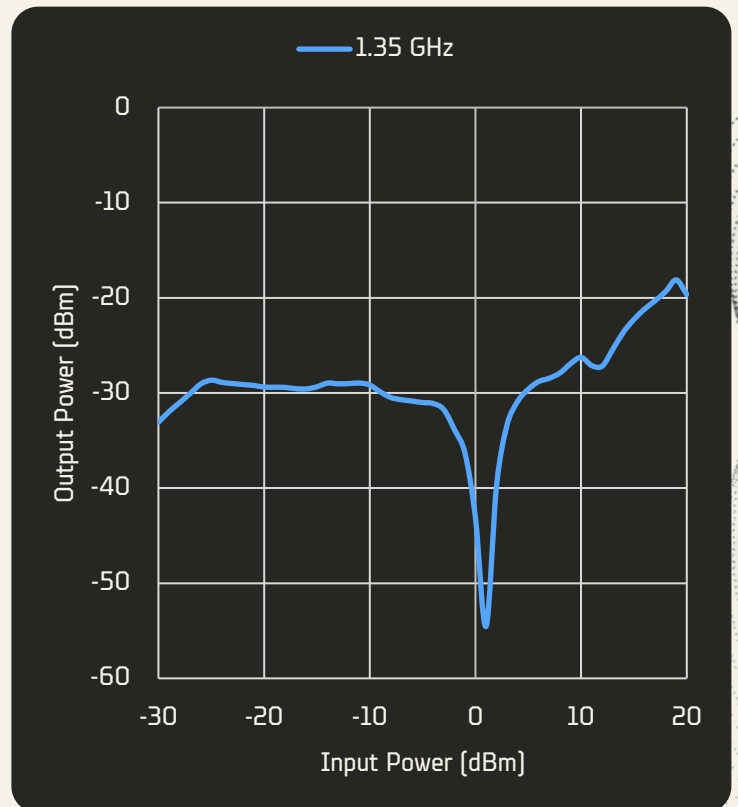
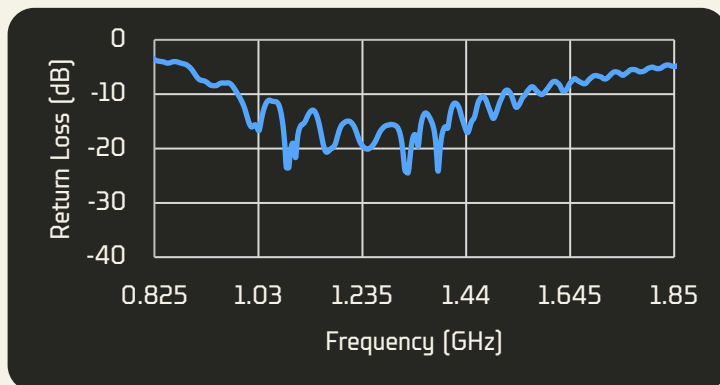
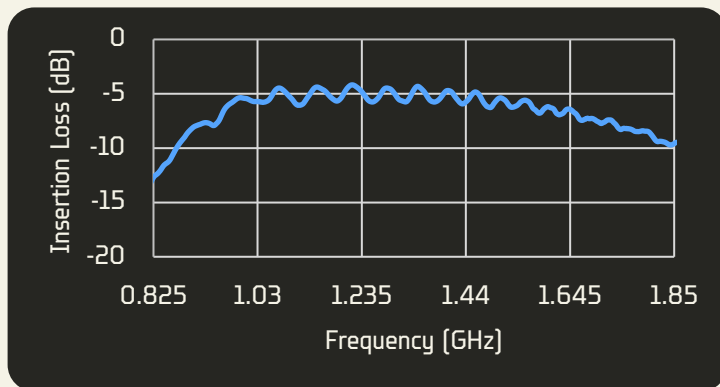


Mechanical Specifications

Package Type.....	Connectorized (Female SMA)
Length x Width x Height.....	1.96" x 0.5" x 0.5"

Environmental Ratings

Operating Temperature.....	+10°C to +85°C
Storage Temperature.....	-40°C to +85°



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5R630M1G3N23

RF Specifications

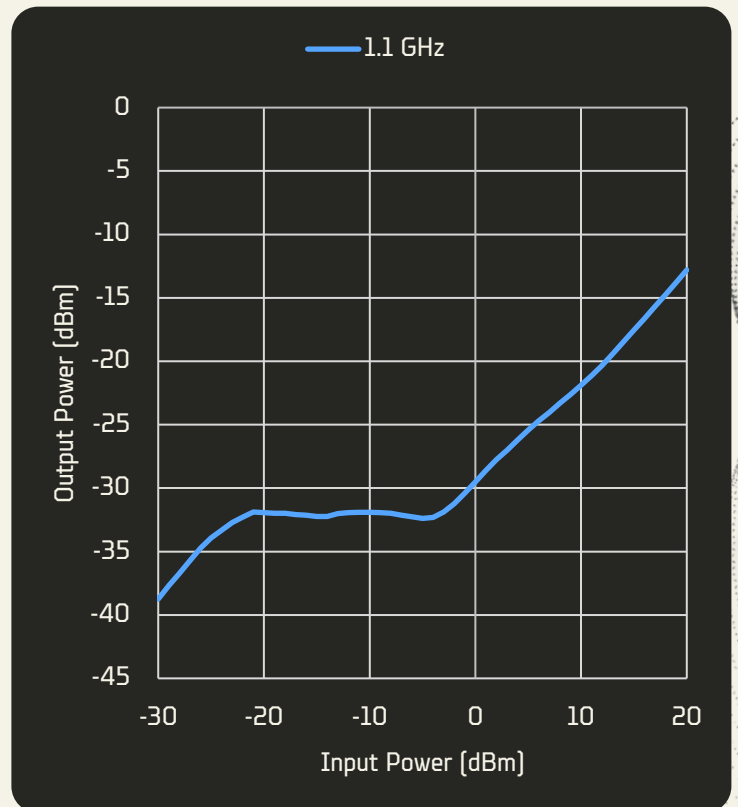
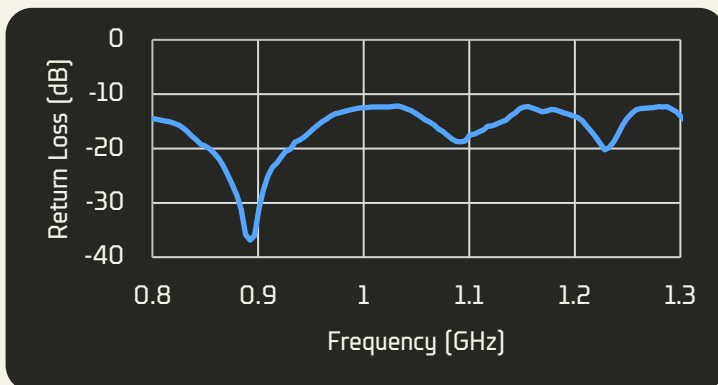
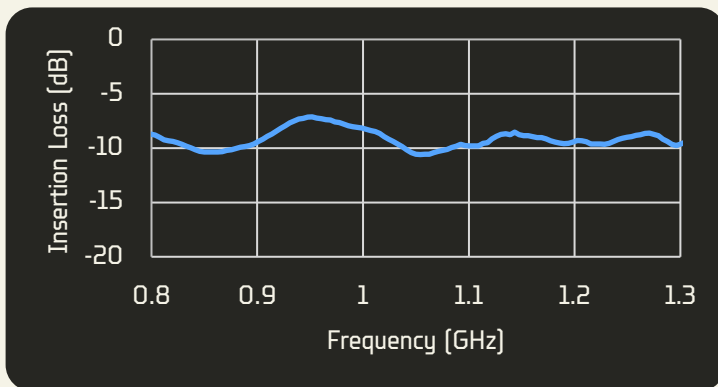
Type	Reflective
Frequency Range.....	0.8 to 1.3 GHz
Insertion Loss.....	11 dB Max
Return Loss.....	6 dB Min
Max CW Power Input.....	+20 dBm
Max Peak Power Input.....	+20 dBm
<i>1μs Pulse Width, 0.1% Duty Cycle</i>	
Steady State Response Time.....	350 ns
-3 dB Response Time.....	50 ns

Mechanical Specifications

Package Type.....	10mm QFN
Length x Width x Height.....	10mm x 10mm x 7.23mm

Environmental Ratings

Operating Temperature.....	-40°C to +85°C
Storage Temperature.....	-40°C to +85°C



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