



SUMMARY TEST DATA
ON
P5P-218-S6F-2

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER P5P-218-S6F-2 IS A PENTAPLEXER COVERING 2 TO 18 GHz. THE UNIT IS BANDED AS FOLLOWS 2-4 GHz, 4-6 GHz, 6-8 GHz, 8-12 GHz AND 12-18 GHz, WITH A RF SURVIVAL INPUT POWER OF 1W CW.



DESIGNED BY
PMI ENGINEERING

TESTED & REPORTED BY
B.WALL

DATE
January 12, 2026



**SUMMARY TEST DATA
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Technical Specifications - Band 1

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
1	Passband:	2 GHz to 4 GHz	2 GHz to 4 GHz		
2	Insertion Loss:	1.85 dB Max 1 dB TYOP2.1 to 3.8 GHz)	1.1 dB	1.04 dB	1.09 dB
3	Return Loss: (Over Insertion Loss Band)	9 dB Min 10 dB Typ	9.65 dB	10.04 dB	10.17 dB
4	Rejections:	30 dBc MIN (DC-1.7 GHz & 4.3-20 GHz)	DC - 1.7 GHz: 44.26 dBc 4.3 - 20 GHz: 47.78 dBc	DC - 1.7 GHz: 41.88 dBc 4.3 - 20 GHz: 47.65 dBc	DC - 1.7 GHz: 45.55 dBc DC - 1.7 GHz: 45.55 dBc

Technical Specifications - Band 2

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
5	Passband:	4 GHz to 6 GHz	4 GHz to 6 GHz		
6	Insertion Loss:	1.85 dB Max (4.2 to 5.7 GHz)	1.14 dB	1.12 dB	1.21 dB
7	Return Loss: (Over Insertion Loss Band)	9 dB Min 10 dB Typ	10.32 dB	12.84 dB	13.2 dB
8	Rejections:	30 dBc Min (DC-3.7 GHz & 6.3-20 GHz)	DC - 3.7 GHz: 34.06 dBc 6.3 - 20 GHz: 47.49 dBc	DC - 3.7 GHz: 35.89 dBc 6.3 - 20 GHz: 46.95 dBc	DC - 3.7 GHz: 36.41 dBc 6.3 - 20 GHz: 47.08 dBc

Technical Specifications - Band 3

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
9	Passband:	6 GHz to 8 GHz	6 GHz to 8 GHz		
10	Insertion Loss:	1.85 dB Max (6.3 to 7.6 GHz)	1.32 dB	1.44 dB	1.54 dB
11	Return Loss: (Over Insertion Loss Band)	9 dB Min 10 dB Typ	11.36 dB	11.24 dB	11.51 dB
12	Rejections:	30 dBc MIN (DC-5.7 GHz & 8.3-20 GHz)	DC - 5.7 GHz: 41.4 dBc 8.3 - 20 GHz: 47.59 dBc	DC - 5.7 GHz: 41.19 dBc 8.3 - 20 GHz: 47.61 dBc	DC - 5.7 GHz: 39.59 dBc 8.3 - 20 GHz: 46.79 dBc

Technical Specifications - Band 4

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
13	Passband:	8 GHz to 12 GHz	8 GHz to 12 GHz		
14	Insertion Loss:	1.85 dB Max (8.4 to 11.4 GHz)	1.26 dB	1.38 dB	1.64 dB
15	Return Loss: (Over Insertion Loss Band)	9 dB Min 10 dB Typ	11.37 dB	11.42 dB	10.78 dB
16	Rejections:	30 dBc MIN (DC-7.7 GHz & 12.3-20 GHz)	DC - 7.7 GHz: 42.02 dBc 12.3 - 20 GHz: 36.68 dBc	DC - 7.7 GHz: 41.49 dBc 12.3 - 20 GHz: 38.39 dBc	DC - 7.7 GHz: 40.01 dBc 12.3 - 20 GHz: 38.71 dBc



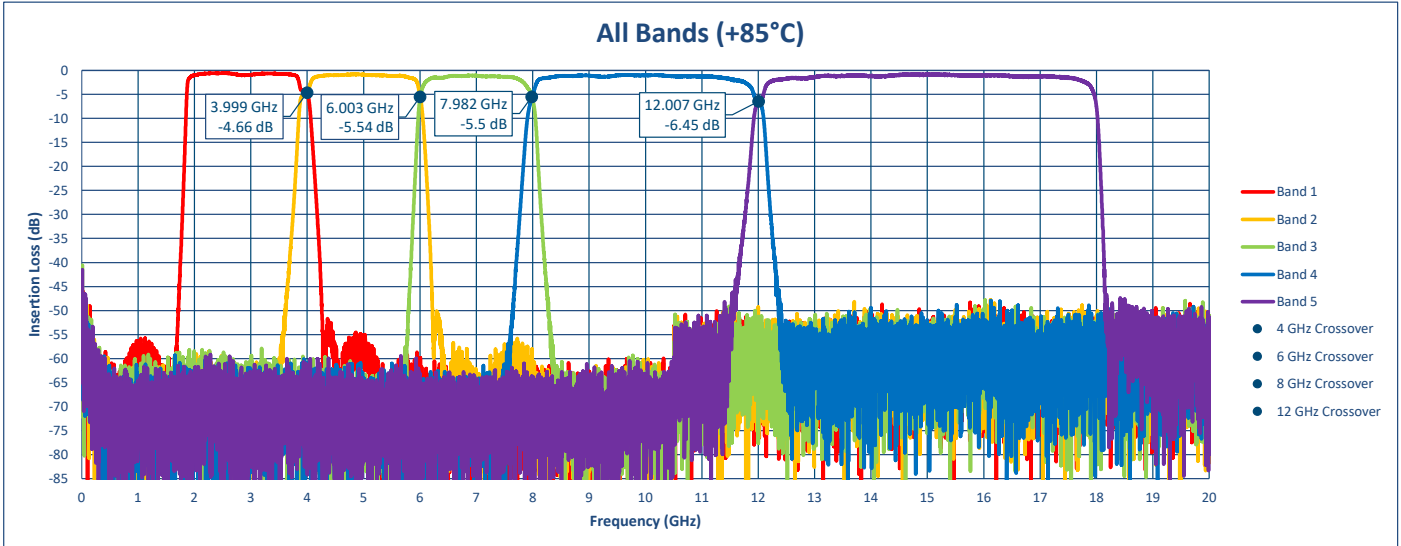
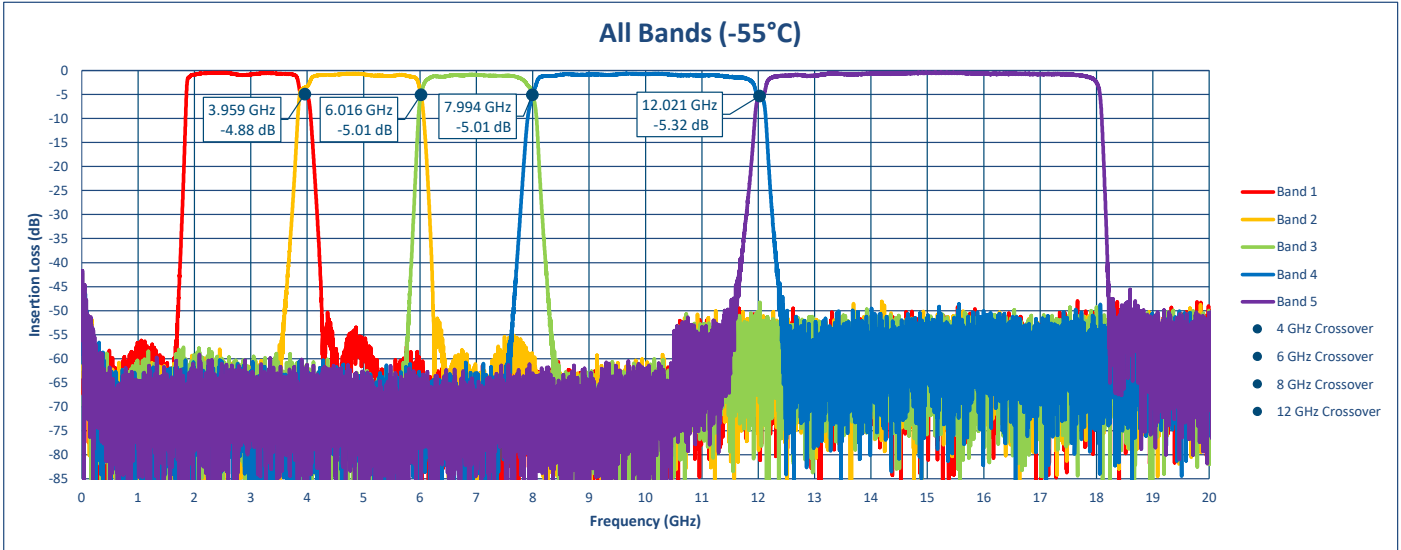
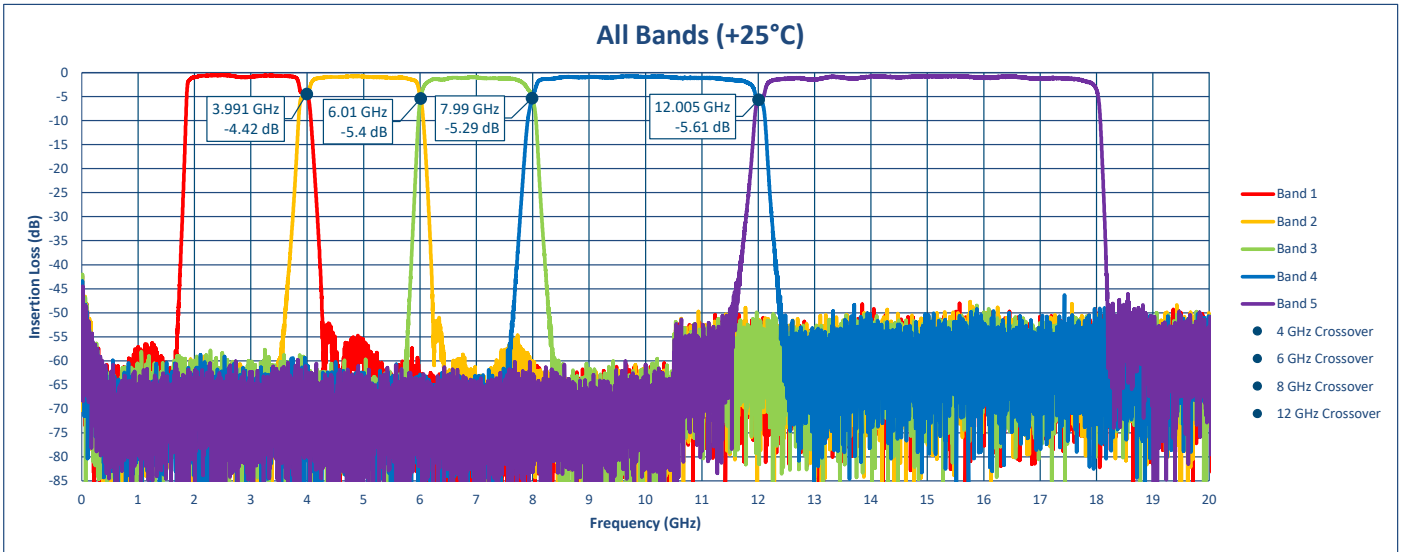
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Technical Specifications - Band 5

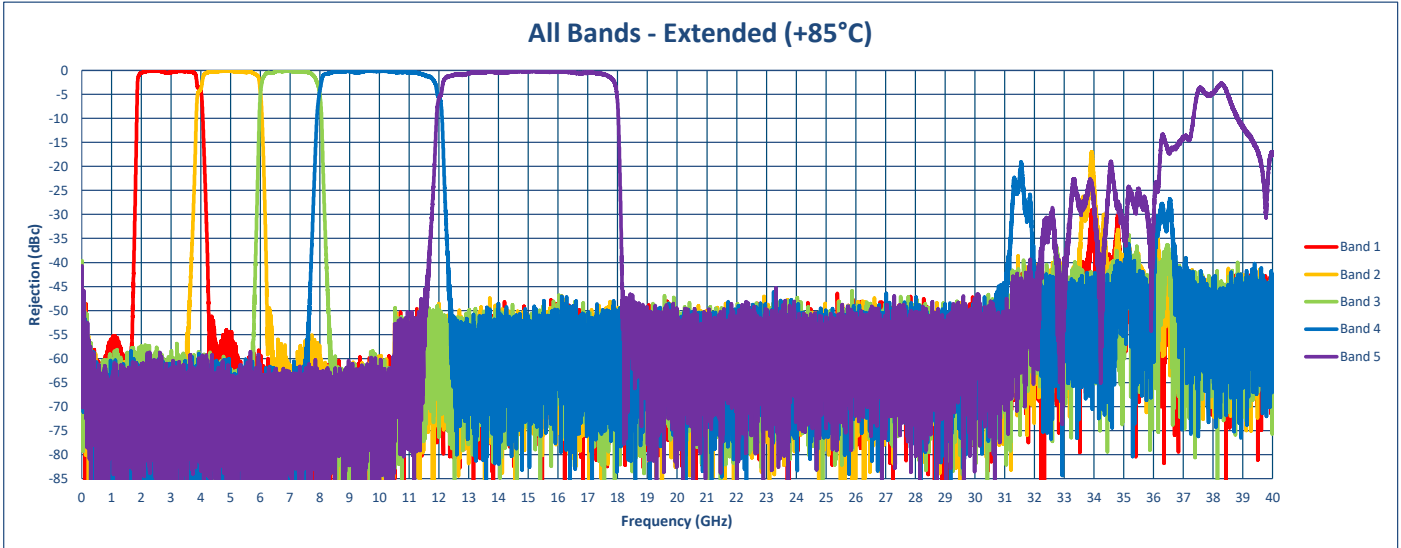
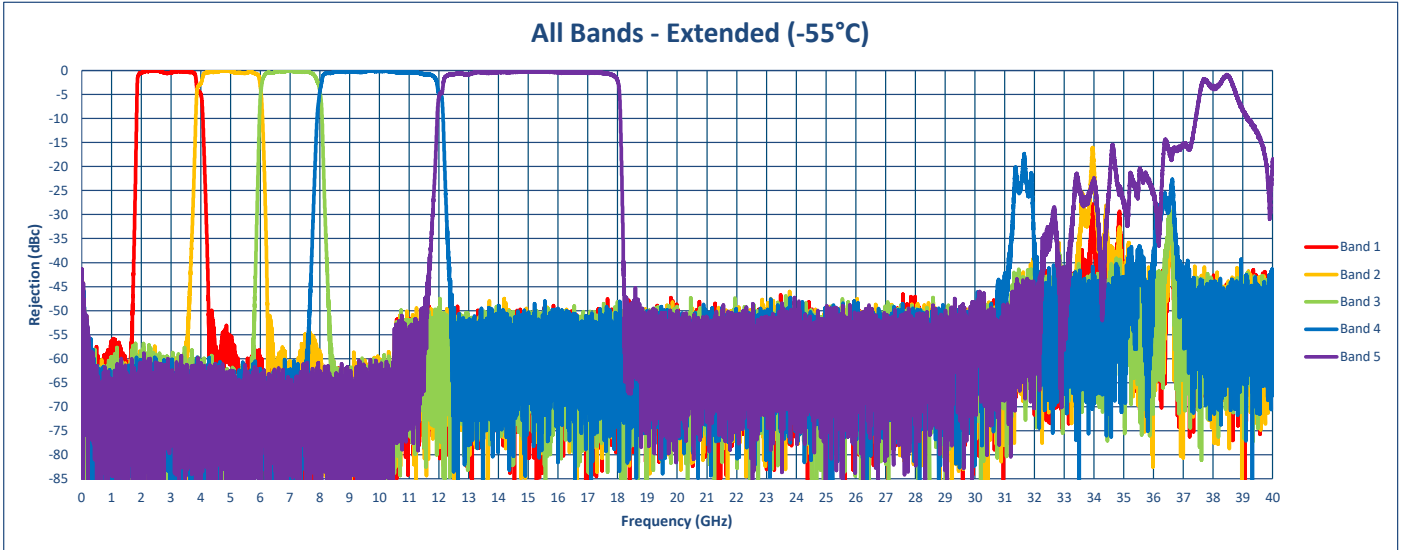
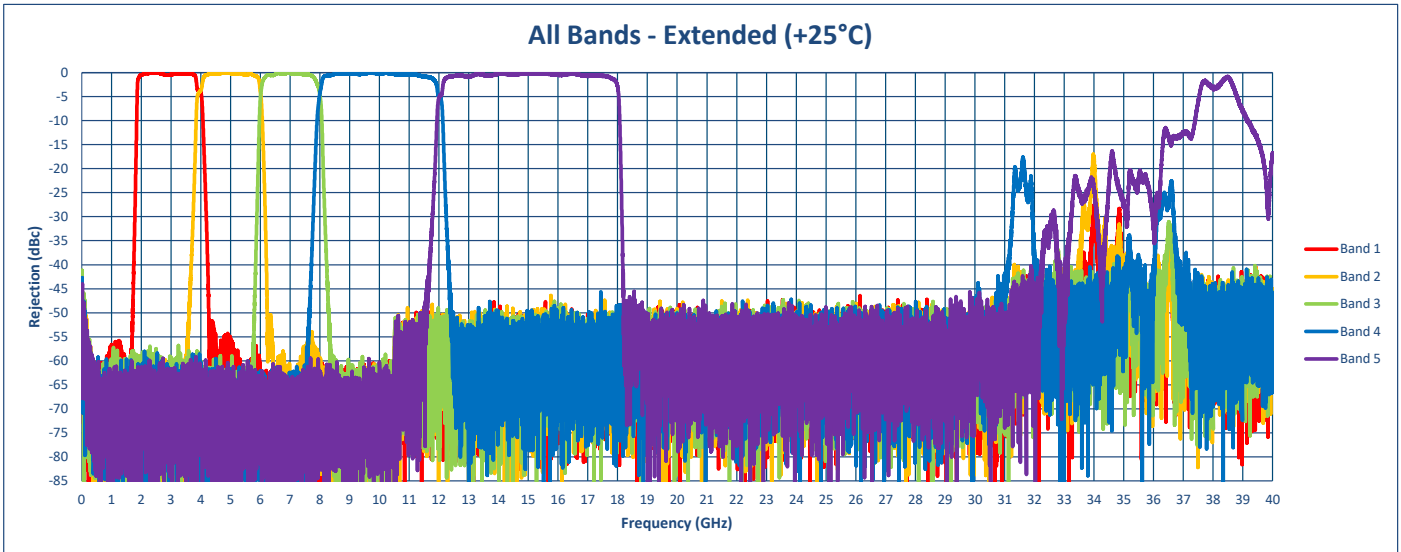
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
17	Passband:	12 GHz to 18 GHz	12 GHz to 18 GHz		
18	Insertion Loss:	1.85 dB Max (12.6 to 17.1 GHz)	1.2 dB	1.52 dB	1.77 dB
19	Return Loss: (Over Insertion Loss Band)	9 dB Min 10dB Typ	10.22 dB	9.75 dB	10.77 dB
20	Rejections:	30 dBc MIN (DC-11.7 GHz & 18.6-20 GHz)	DC - 11.7 GHz: 38.67 dBc	DC - 11.7 GHz: 37.54 dBc	DC - 11.7 GHz: 35.51 dBc
			18.6 - 20 GHz: 47.65 dBc	18.6 - 20 GHz: 47.77 dBc	18.6 - 20 GHz: 48.45 dBc

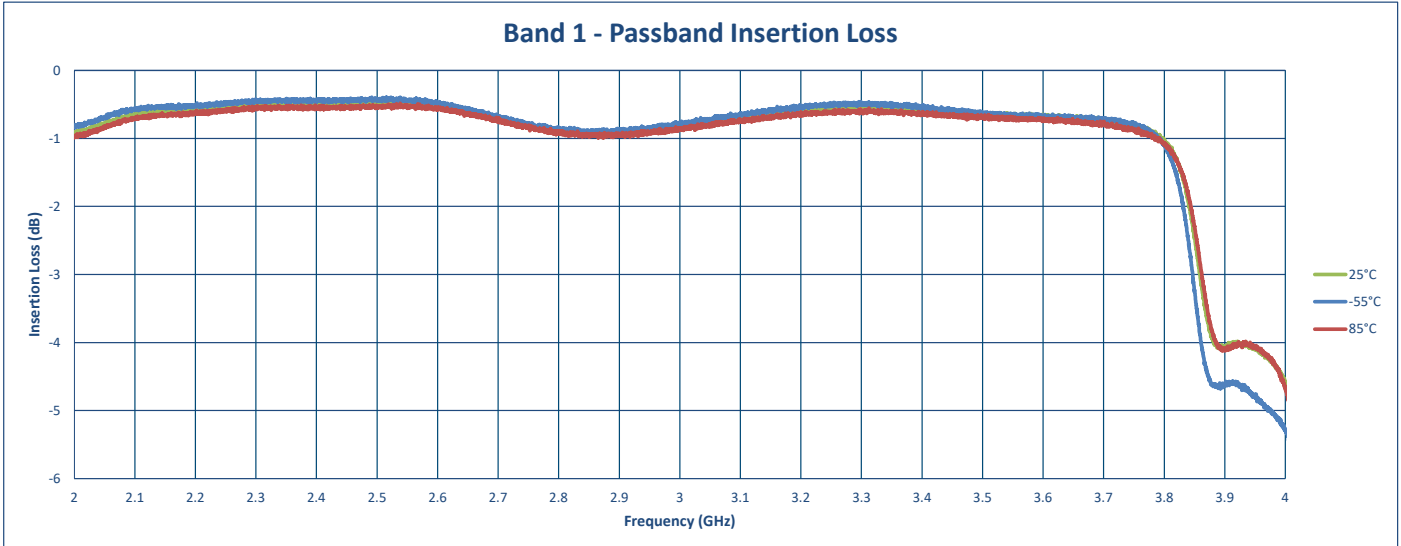
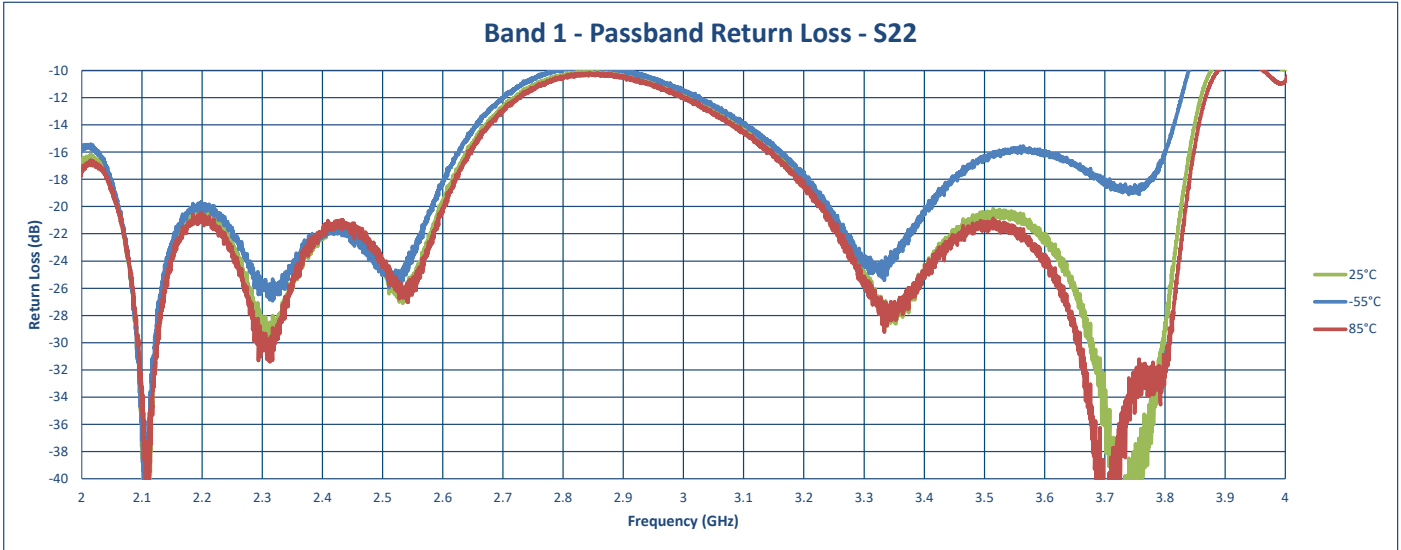
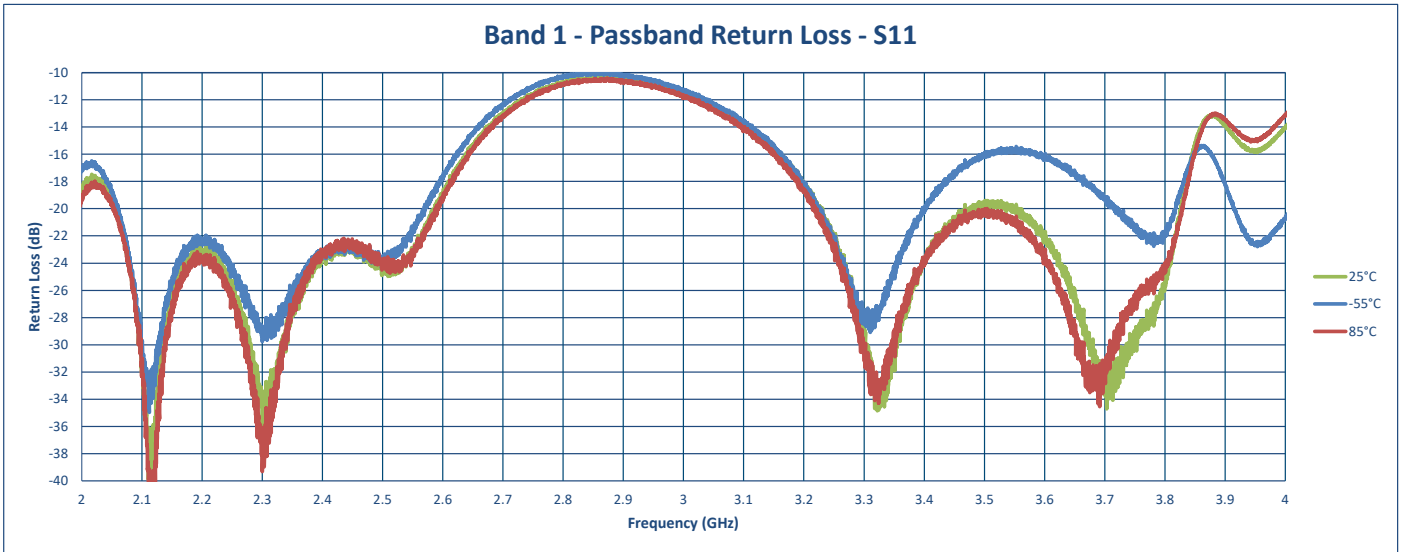
Technical Specifications - General

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-55°C	+25°C	+85°C
21	Operating Frequency:	2 GHz to 18 GHz	2 GHz to 18 GHz		
22	Crossover Insertion Loss:	5.5 dB Typ. (4 GHz ± 2%)	4.88 dB @ 3.959 GHz	4.42 dB @ 3.991 GHz	4.66 dB @ 3.999 GHz
		5.5 dB Typ. (6 GHz ± 2%)	5.01 dB @ 6.016 GHz	5.4 dB @ 6.01 GHz	5.54 dB @ 6.003 GHz
		5.5 dB Typ. (8 GHz ± 2%)	5.01 dB @ 7.994 GHz	5.29 dB @ 7.99 GHz	5.5 dB @ 7.982 GHz
		5.5 dB Typ. (12 GHz ± 2%)	5.32 dB @ 12.021 GHz	5.61 dB @ 12.005 GHz	6.45 dB @ 12.007 GHz

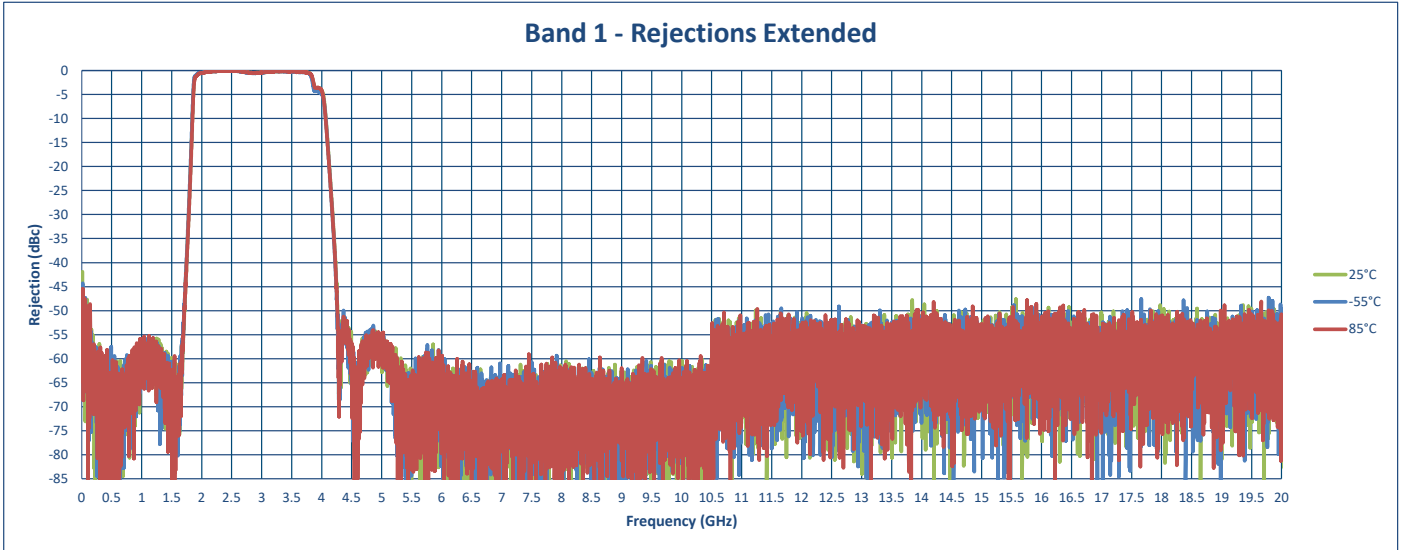
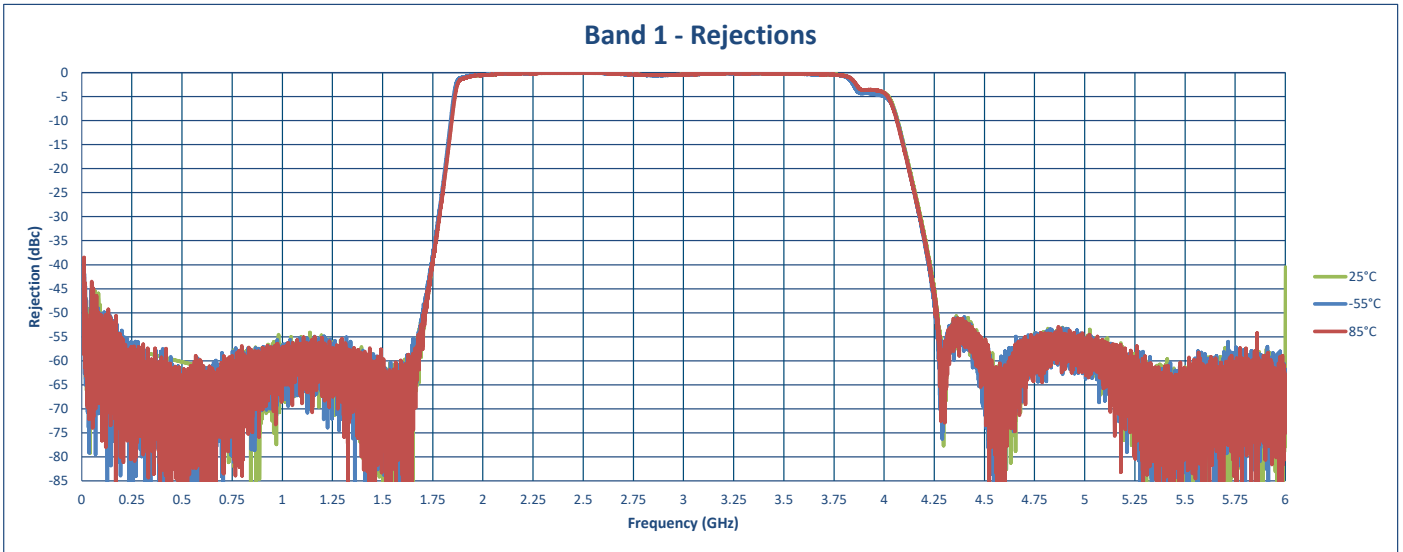


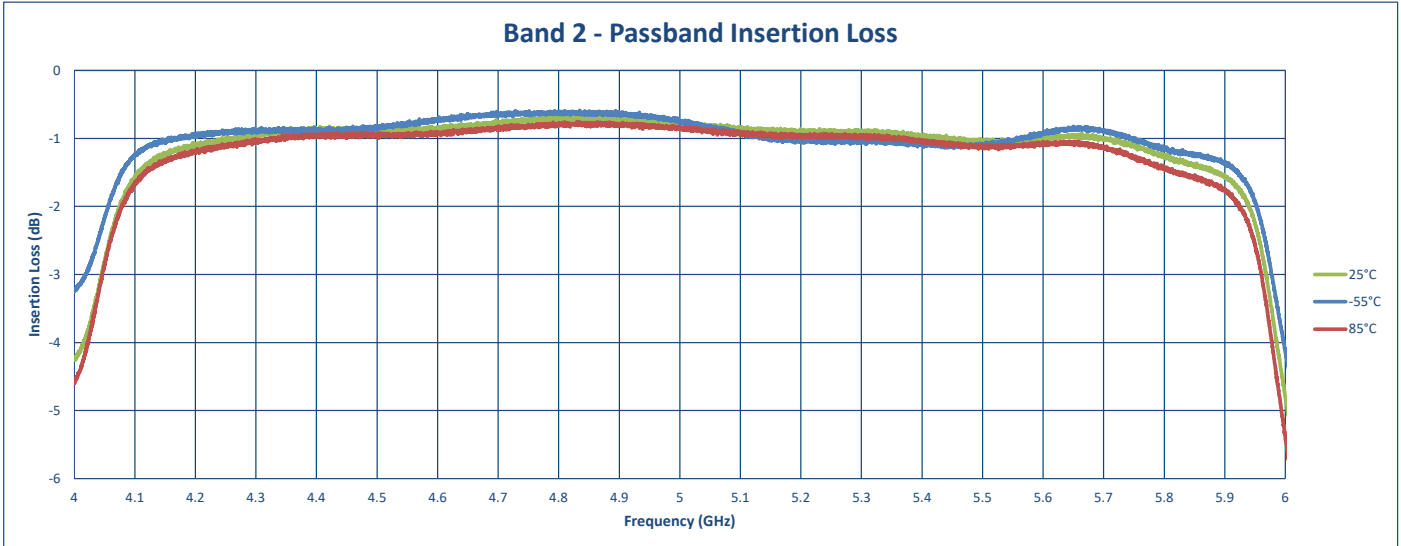
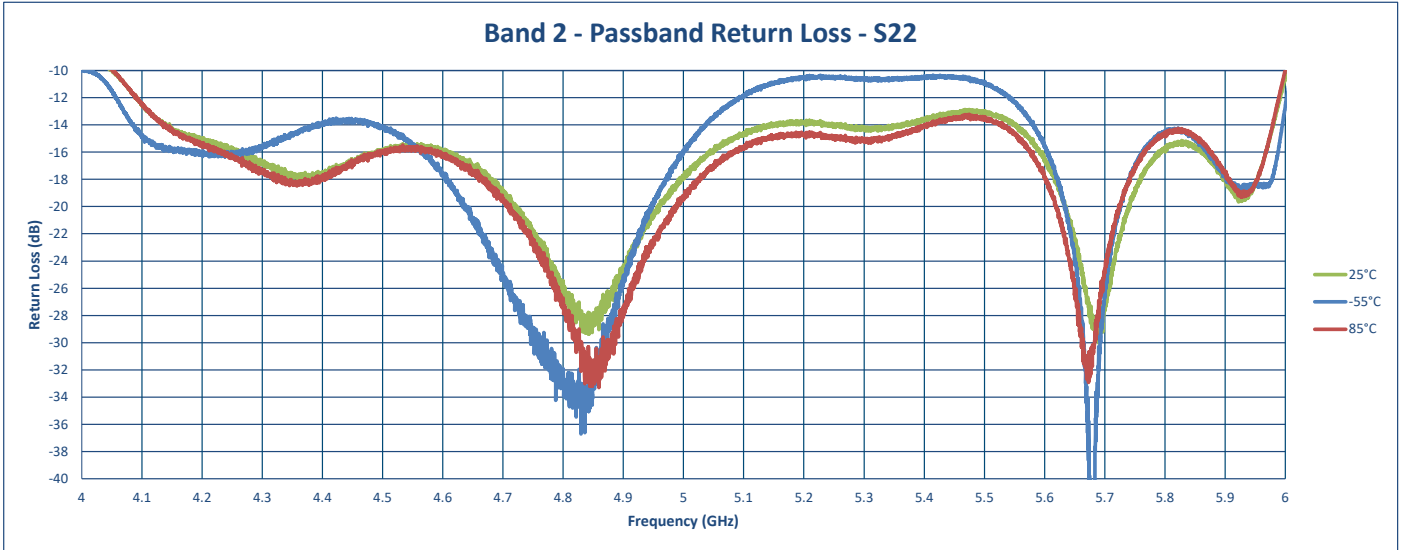
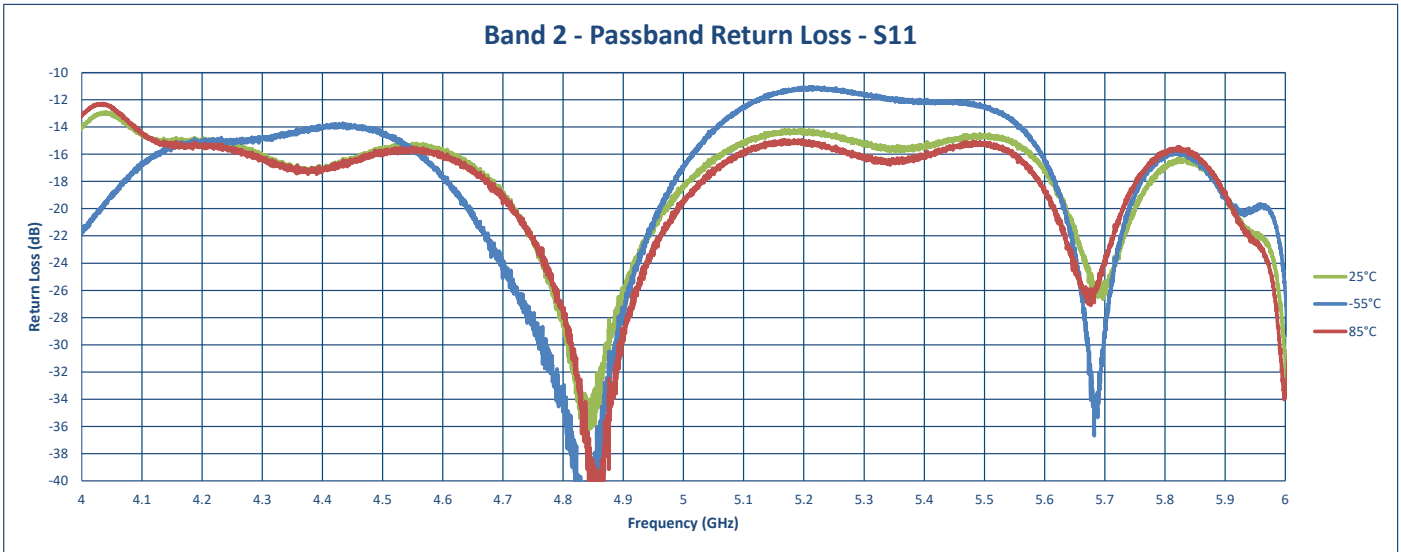
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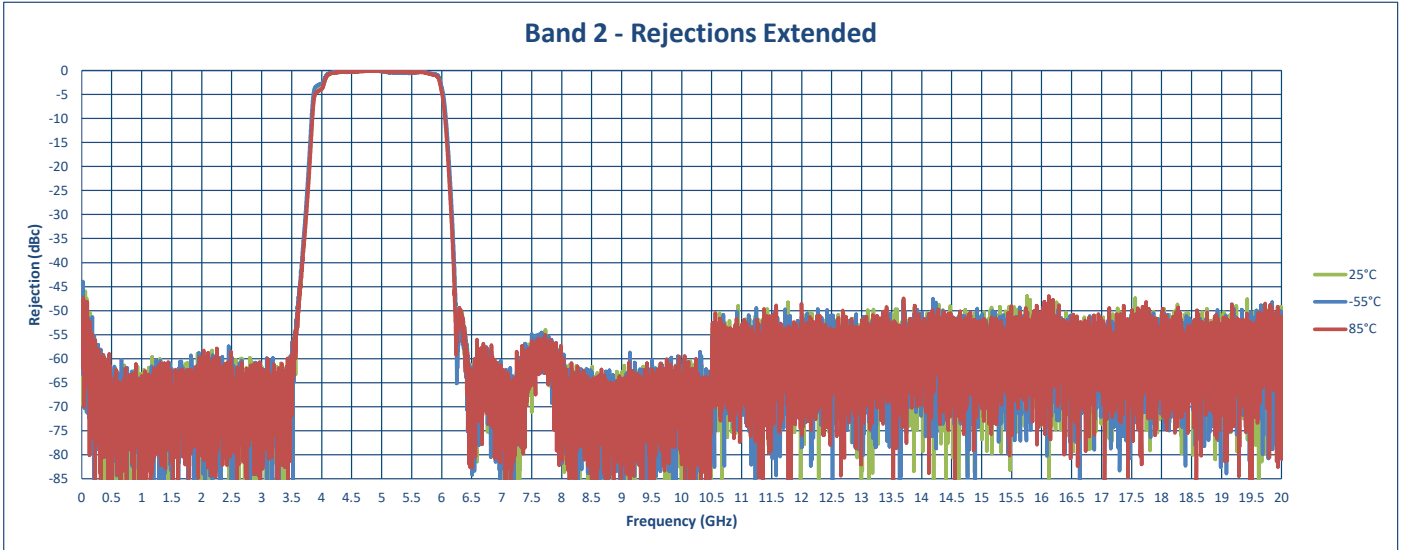
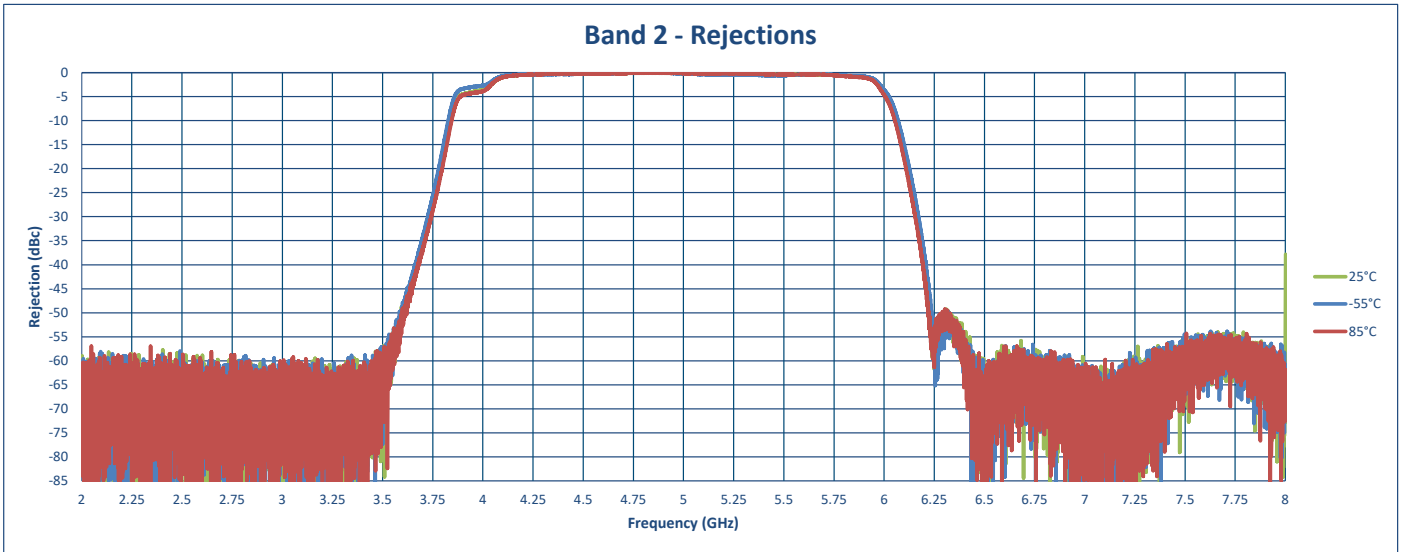


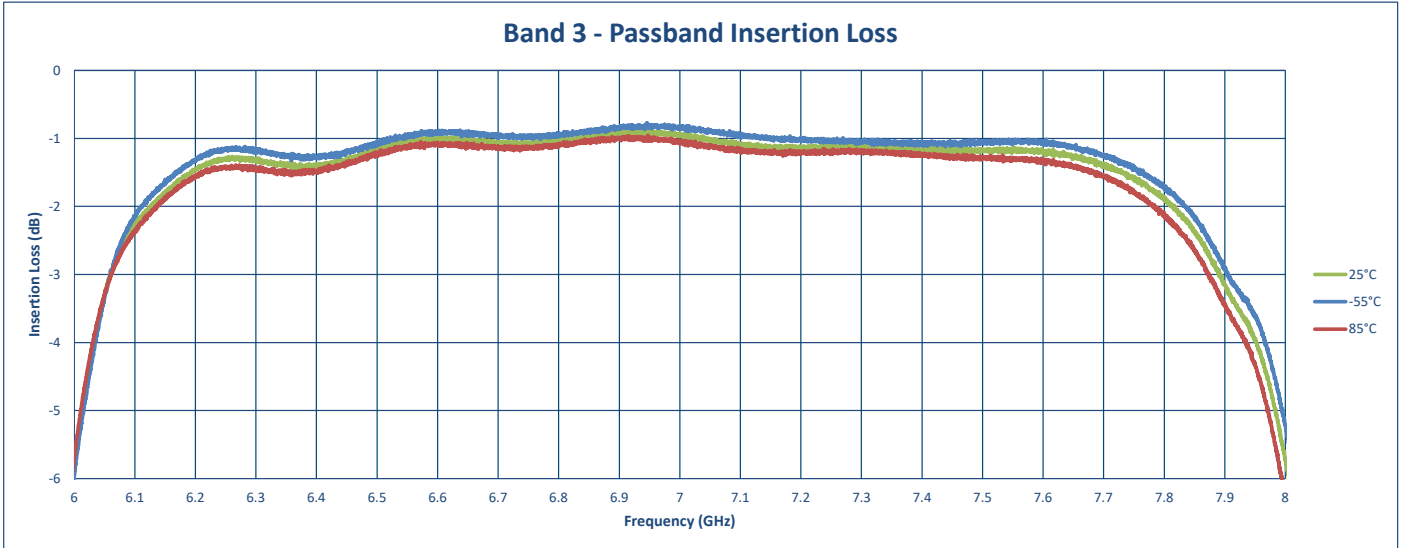
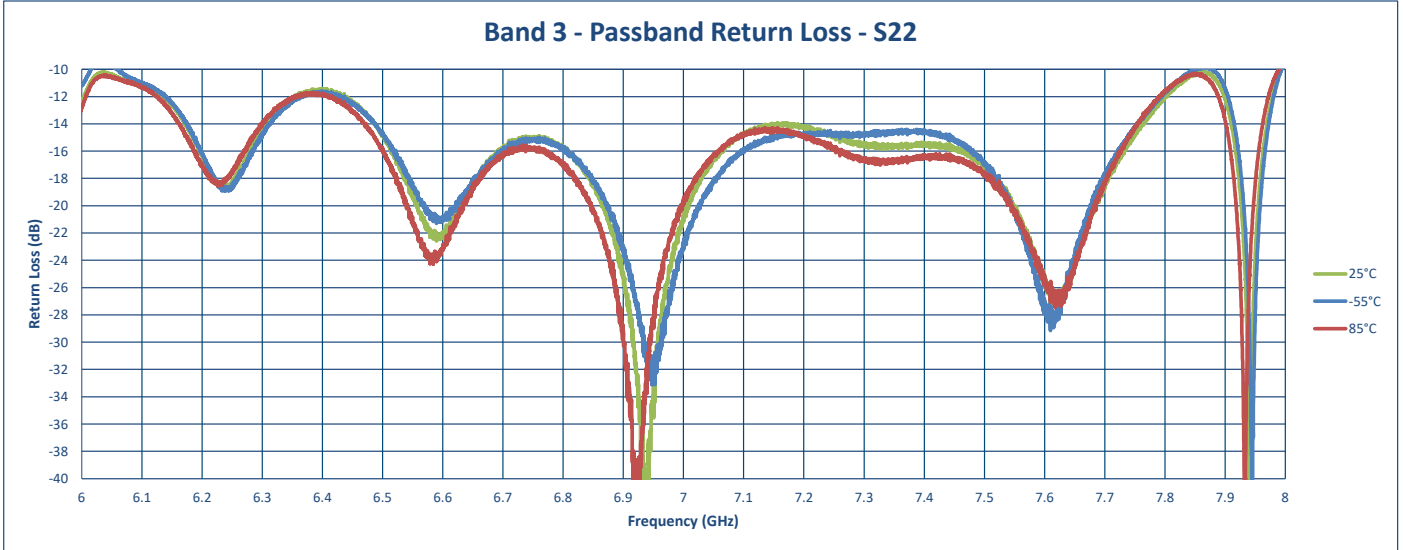
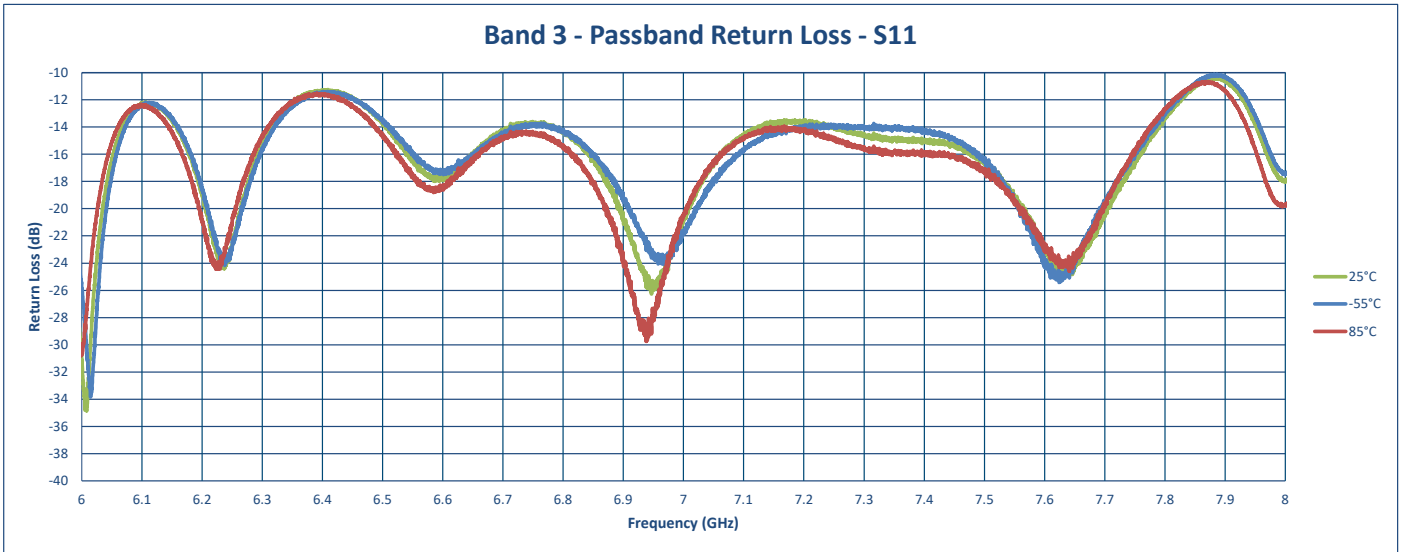
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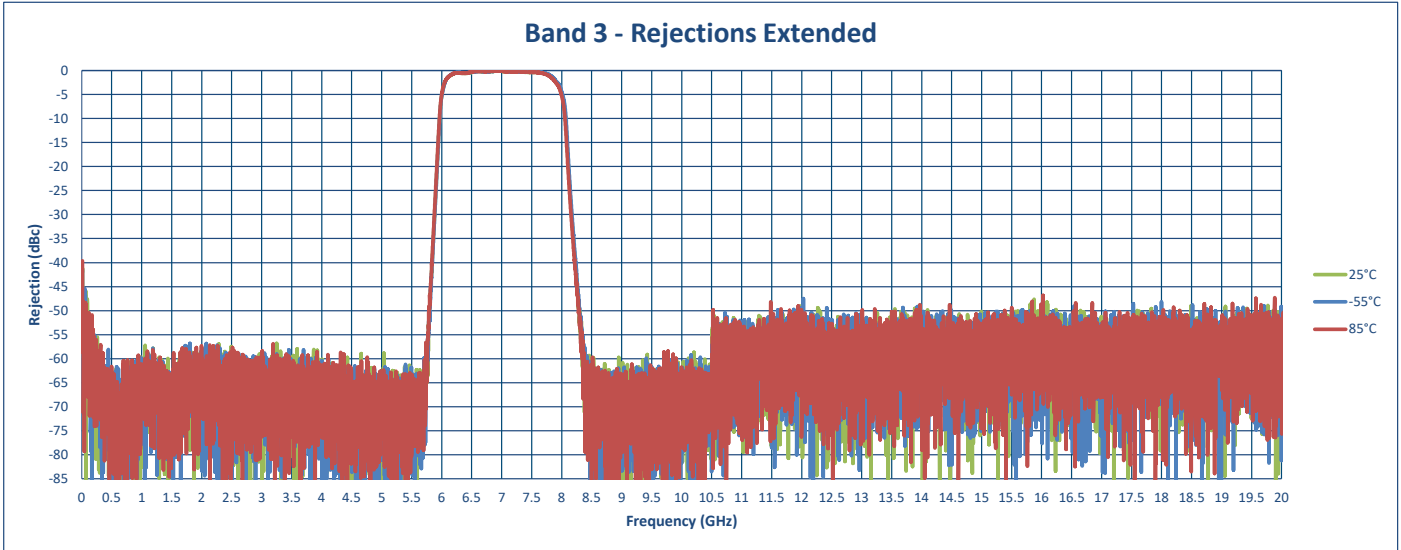
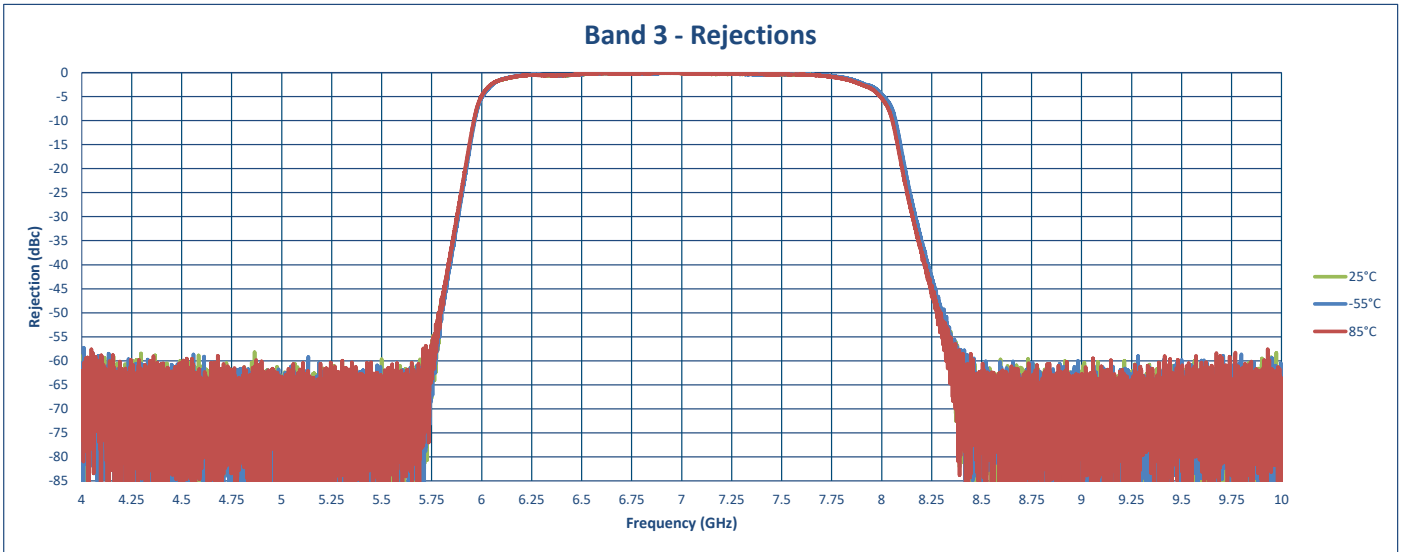


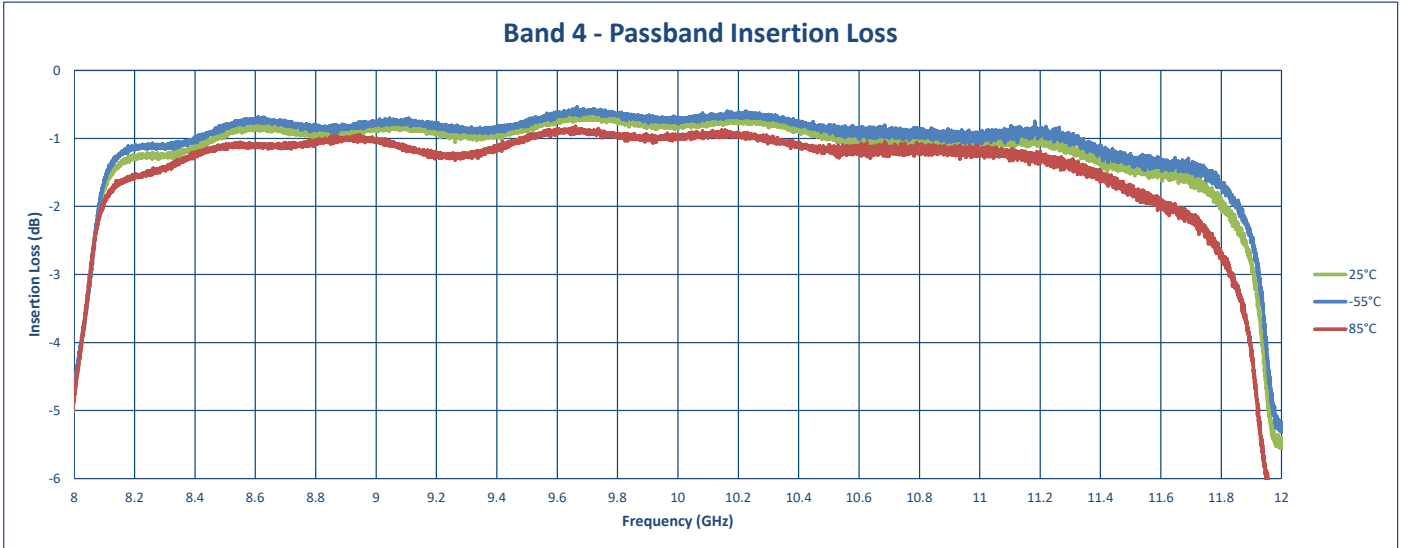
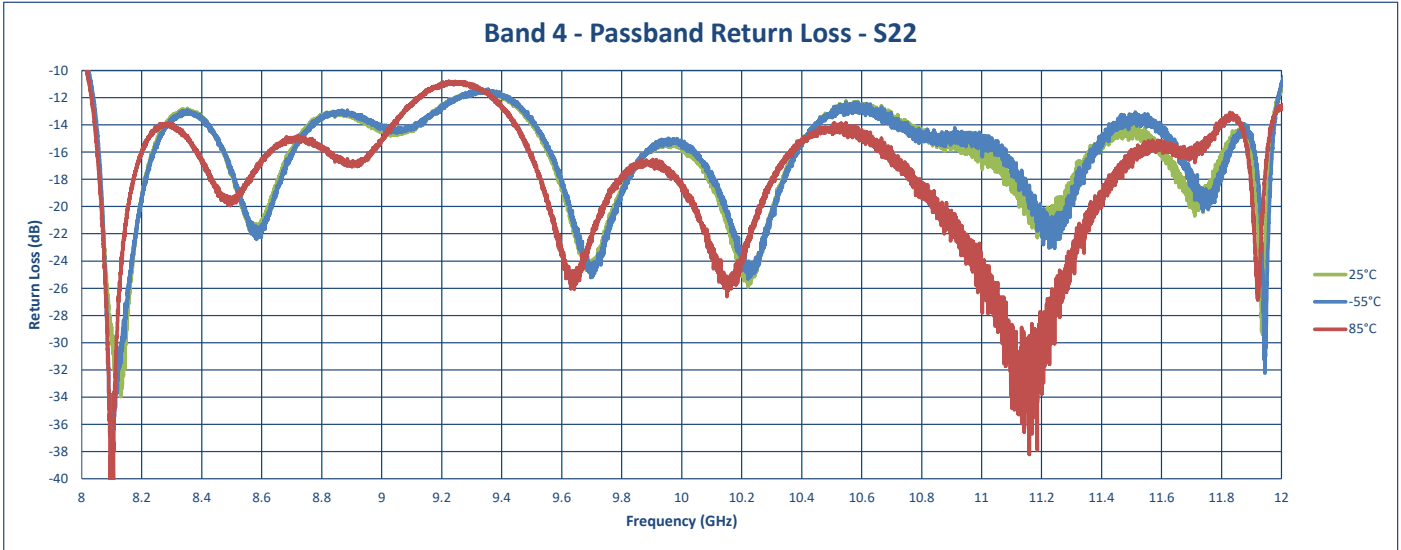
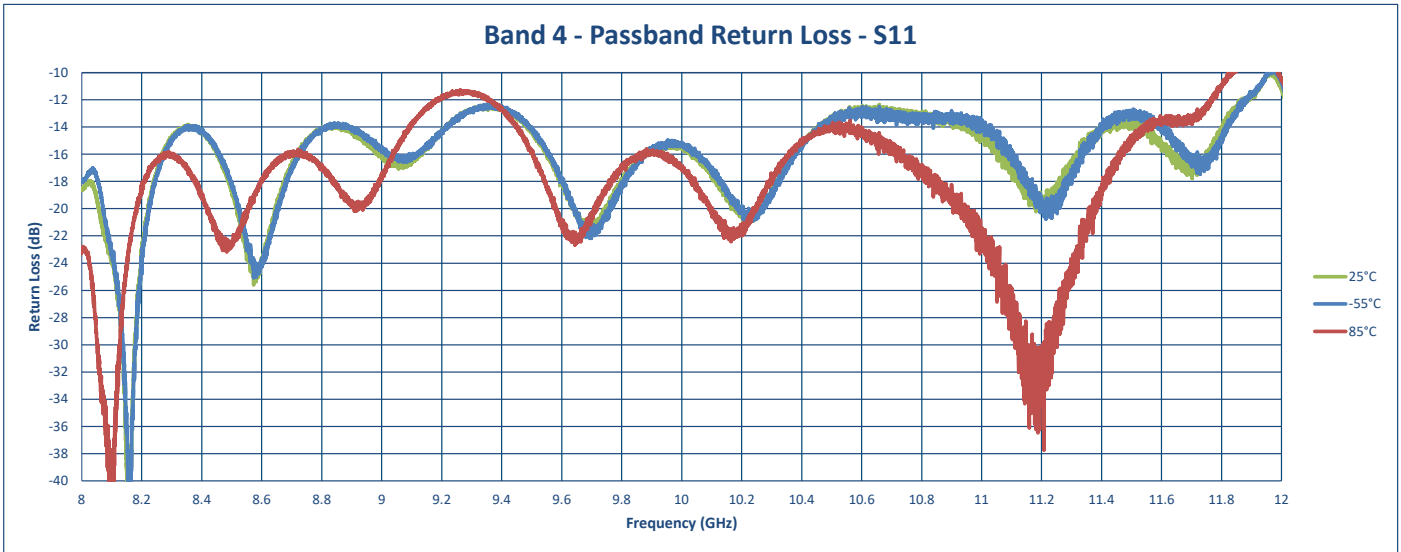


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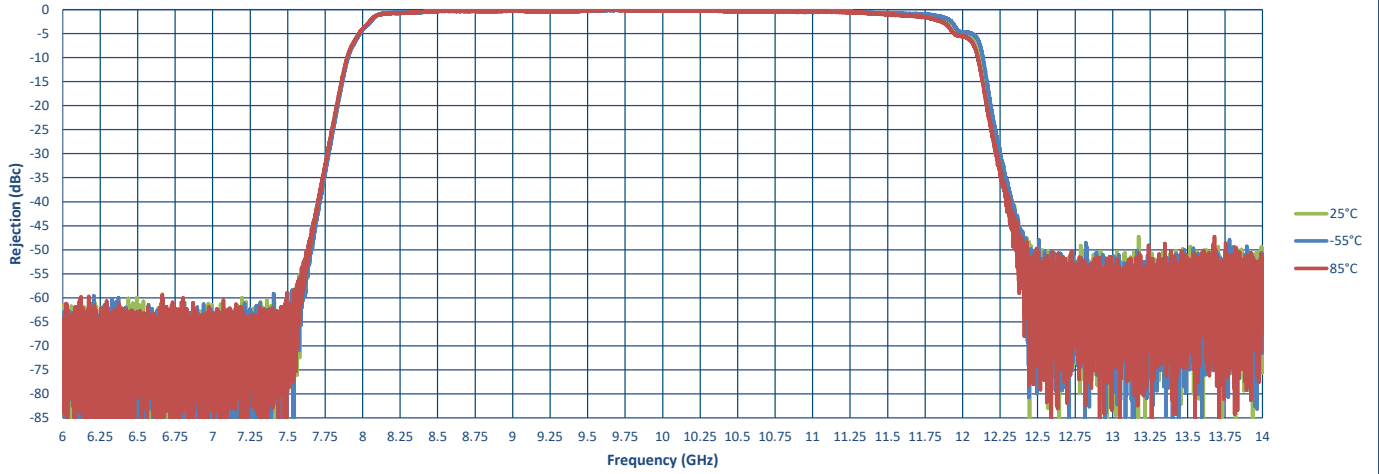




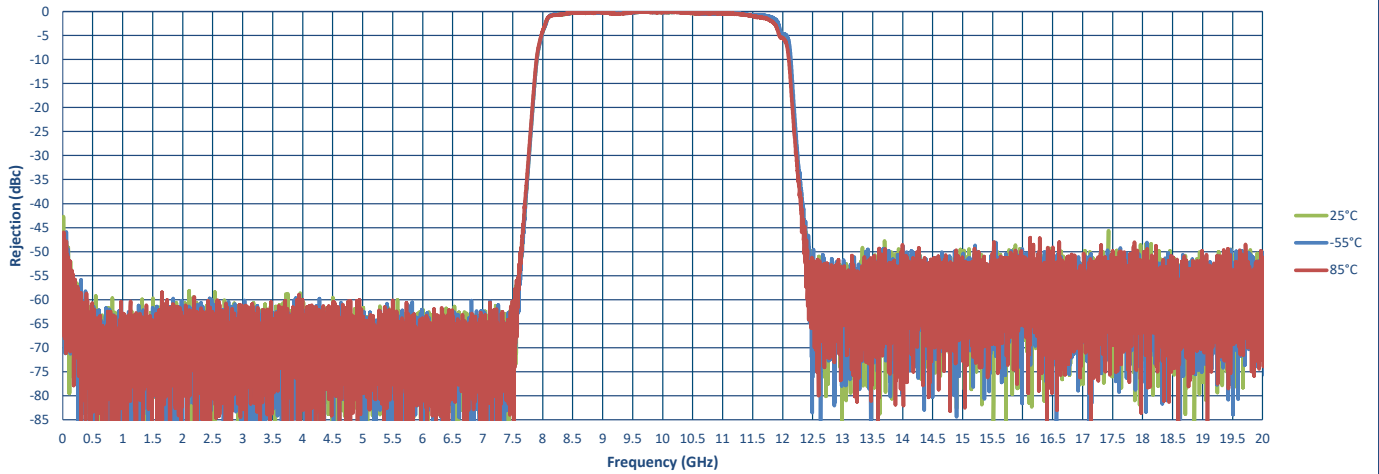


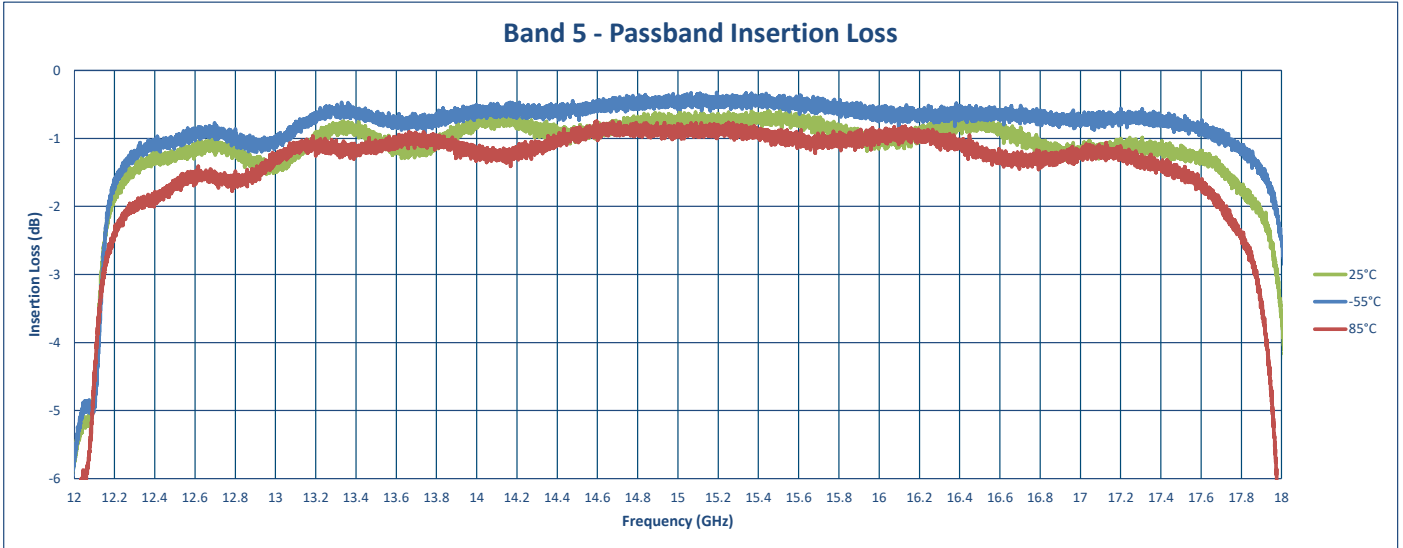
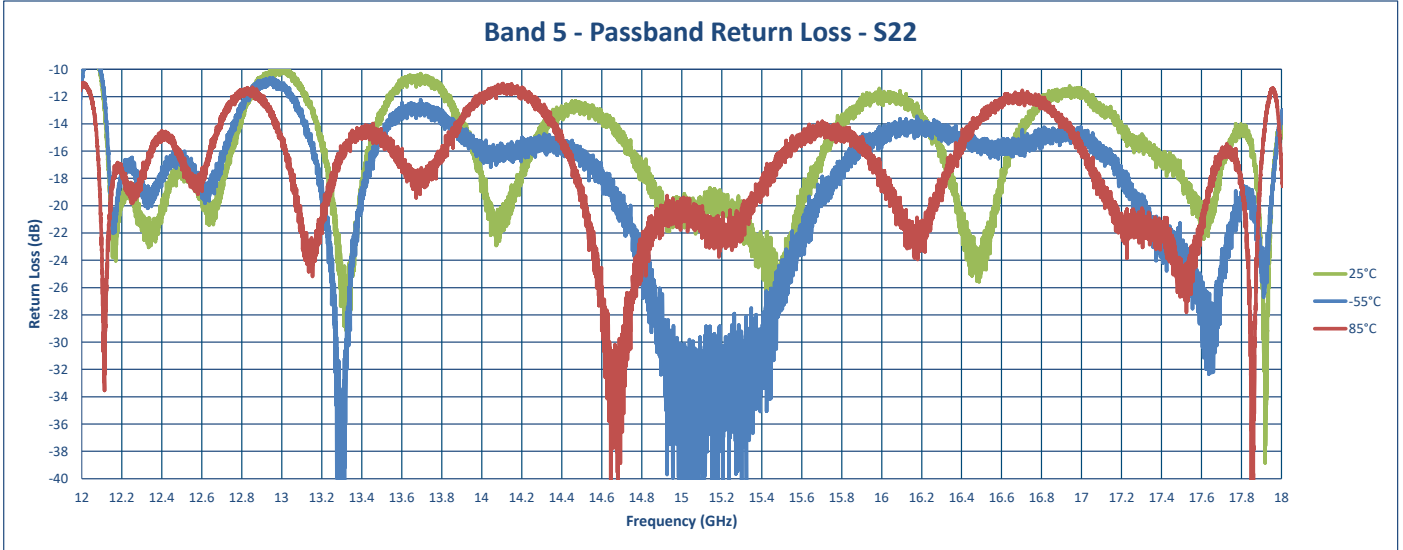
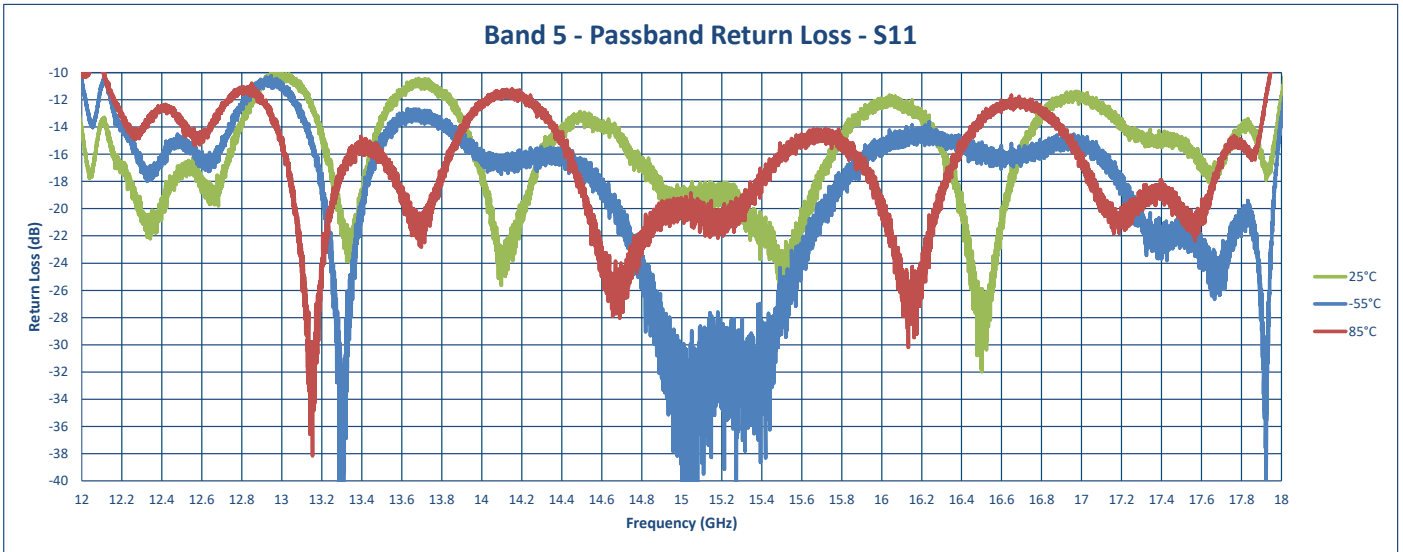


Band 4 - Rejections

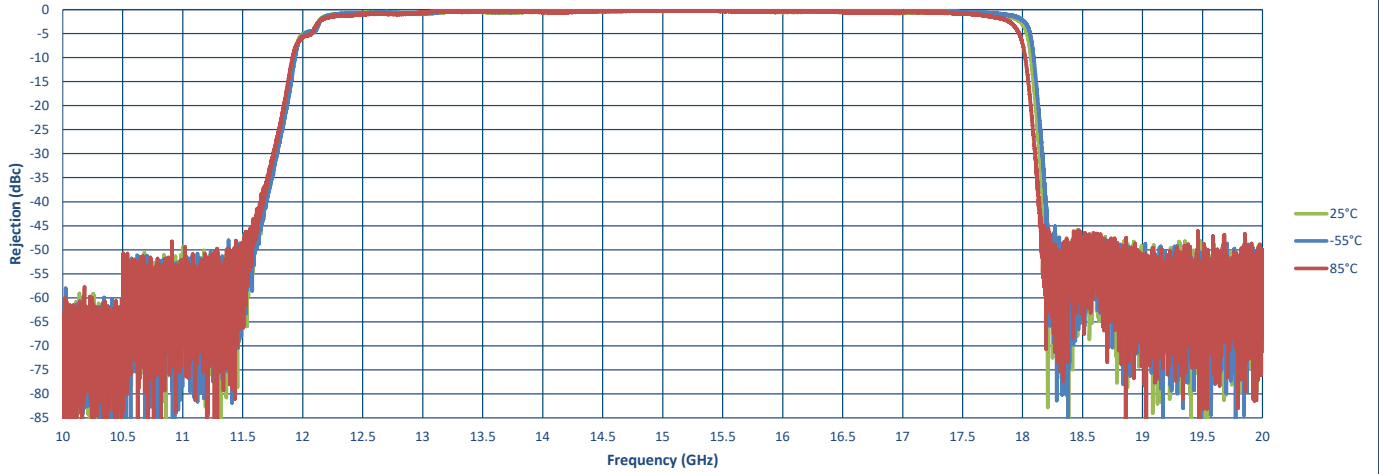


Band 4 - Rejections Extended





Band 5 - Rejections



Band 5 - Rejections Extended

