

TYPICAL CHARACTERISTICS ON HP-55G57G-185FF

QUANTIC PMI MODEL HP-55G57G-185FF IS A HIGH PASS FILTER HAVING A PASSBAND OF 55 TO 57 GHz. CUT-OFF FREQUENCY IS 50 GHz WITH A MAXIMUM PASSBAND INSERTION LOSS OF 2 dB. THIS MODEL PROVIDES 50 dB MINIMUM REJECTION FROM 34 TO 45 GHz.



April 10, 2025

Designed By:

Engineering PMI

Tested and Reported By:

Alfredo Lopez

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Outline Drawing

DESCRIPTION:

QUANTIC PMI MODEL HP-55G57G-185FF IS A HIGH PASS FILTER HAVING A PASSBAND OF 55 TO 57 GHz. THE 3 dB CUT-OFF FREQUENCY IS 50 GHz WITH A MAXIMUM PASSBAND INSERTION LOSS OF 2 dB. THIS MODEL PROVIDES 50 dB MINIMUM REJECTION FROM 34 TO 45 GHz.

SPECIFICATIONS:

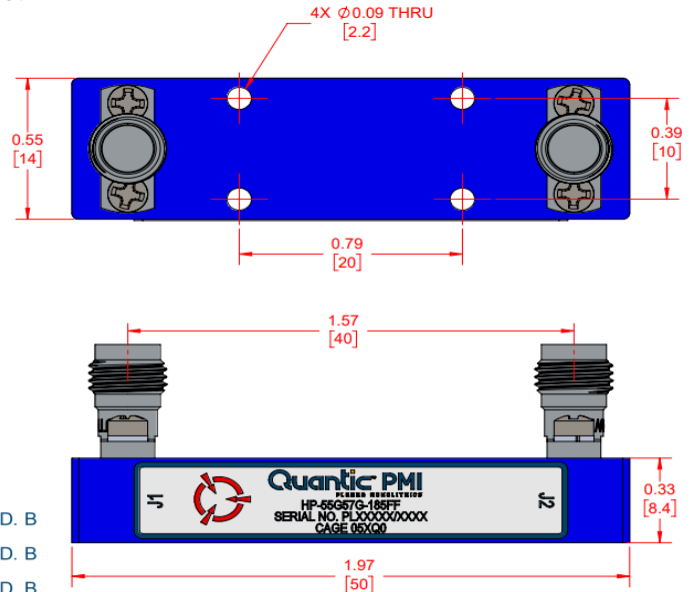
- PASSBAND FREQUENCY RANGE:..... 55 GHz TO 57 GHz
- CUT-OFF FREQUENCY (3 dB):..... 50 GHz MIN
- PASSBAND INSERTION LOSS:..... 2 dB MAX
- VSWR (OVER 90% OF PASSBAND):..... 1.5:1 MAX
- REJECTION:..... 50 dB MIN @ 34 GHz TO 45 GHz
- INPUT POWER:..... 2 WATTS CW MAX
- CONNECTORS (IN/OUT):..... 1.85mm - FEMALE
- FINISH:..... PAINTED BLUE

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)
..... -55°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE :..... MIL-STD-202, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	3/18/2022	



PMI CONFIDENTIAL AND PROPRIETARY

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ø .010 .005 .010</small>		<small>APPROVALS</small> <small>DATE</small> <small>3/18/2022</small>	<small>TITLE</small> OUTLINE
<small>DESIGN</small> S LANGE	<small>ISSUED</small>	<small>SIZE</small> B	<small>FIG. NO.</small> 05X00
<small>REV.</small> A1	<small>DATE</small> 27051040	<small>SCALE</small> 3:1	<small>SHEET</small> 1 OF 1

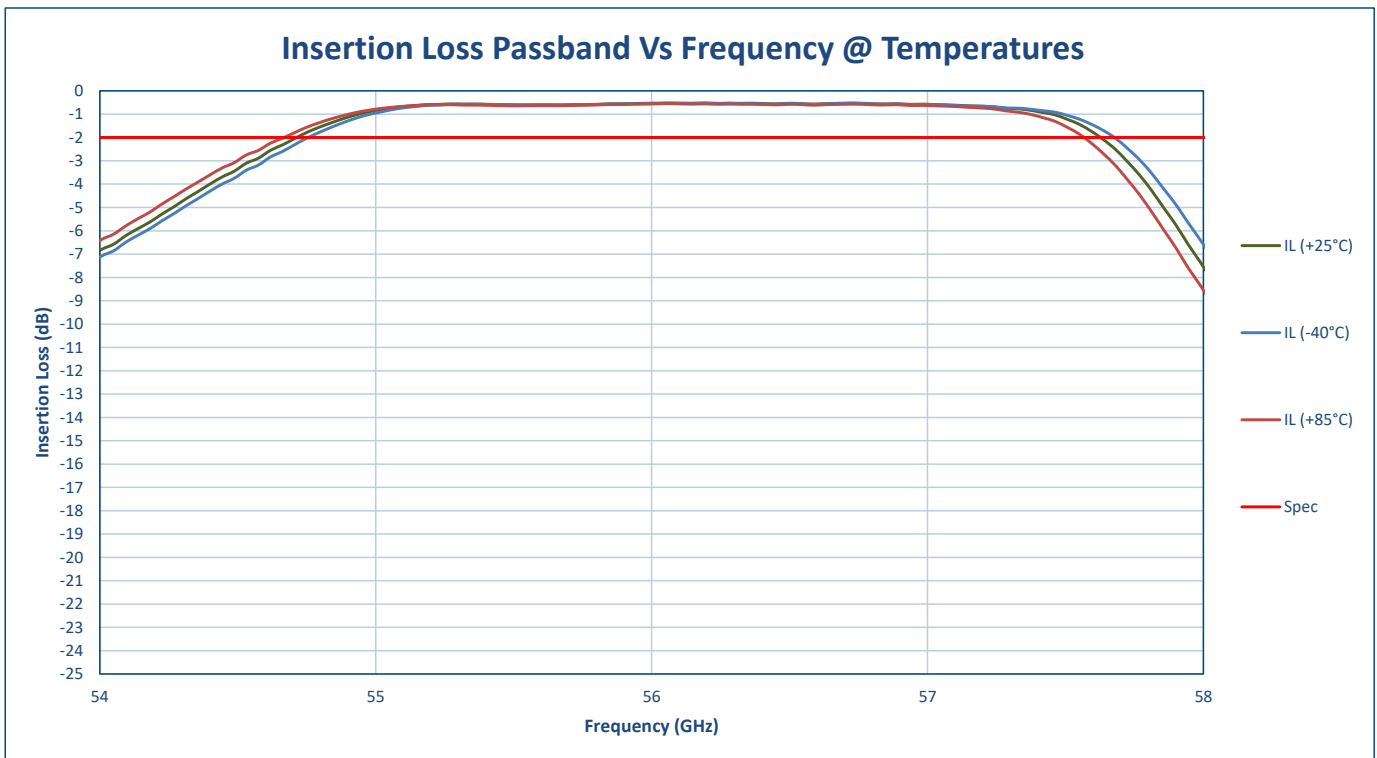
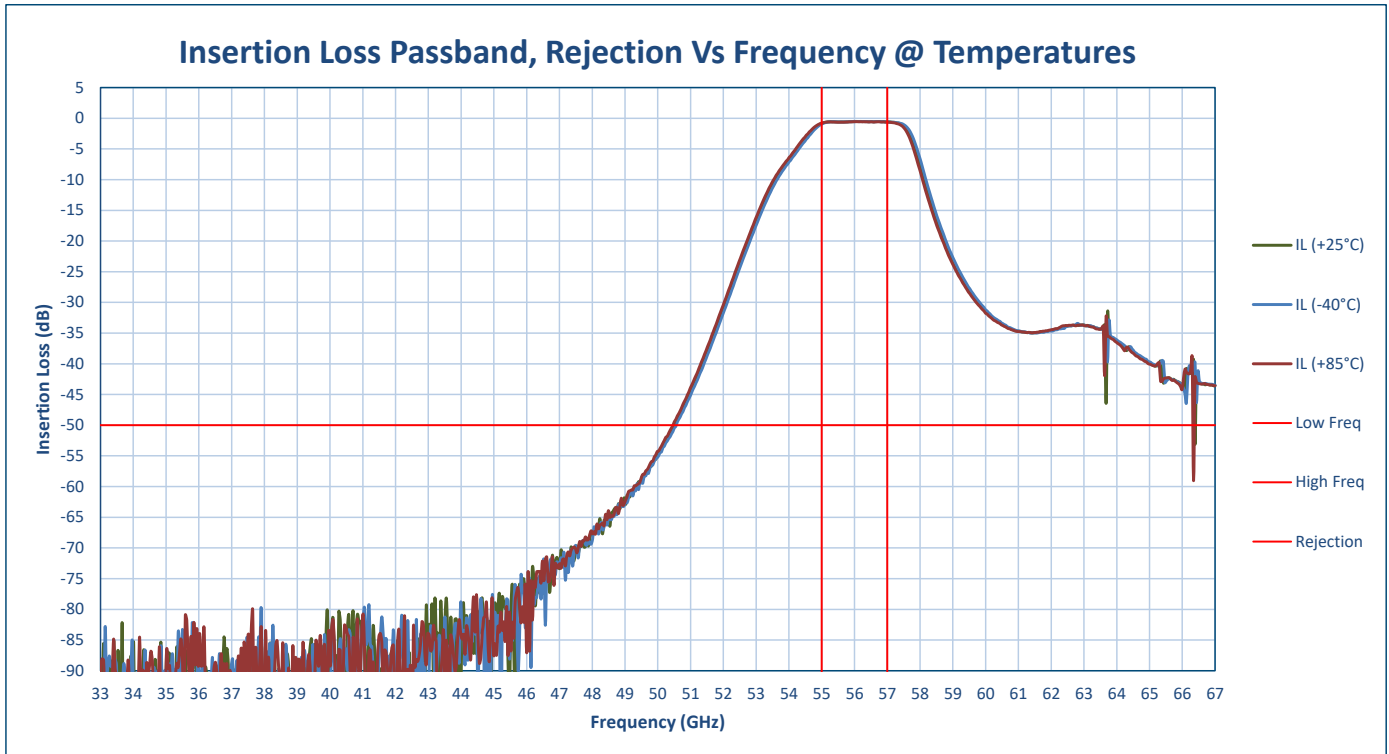
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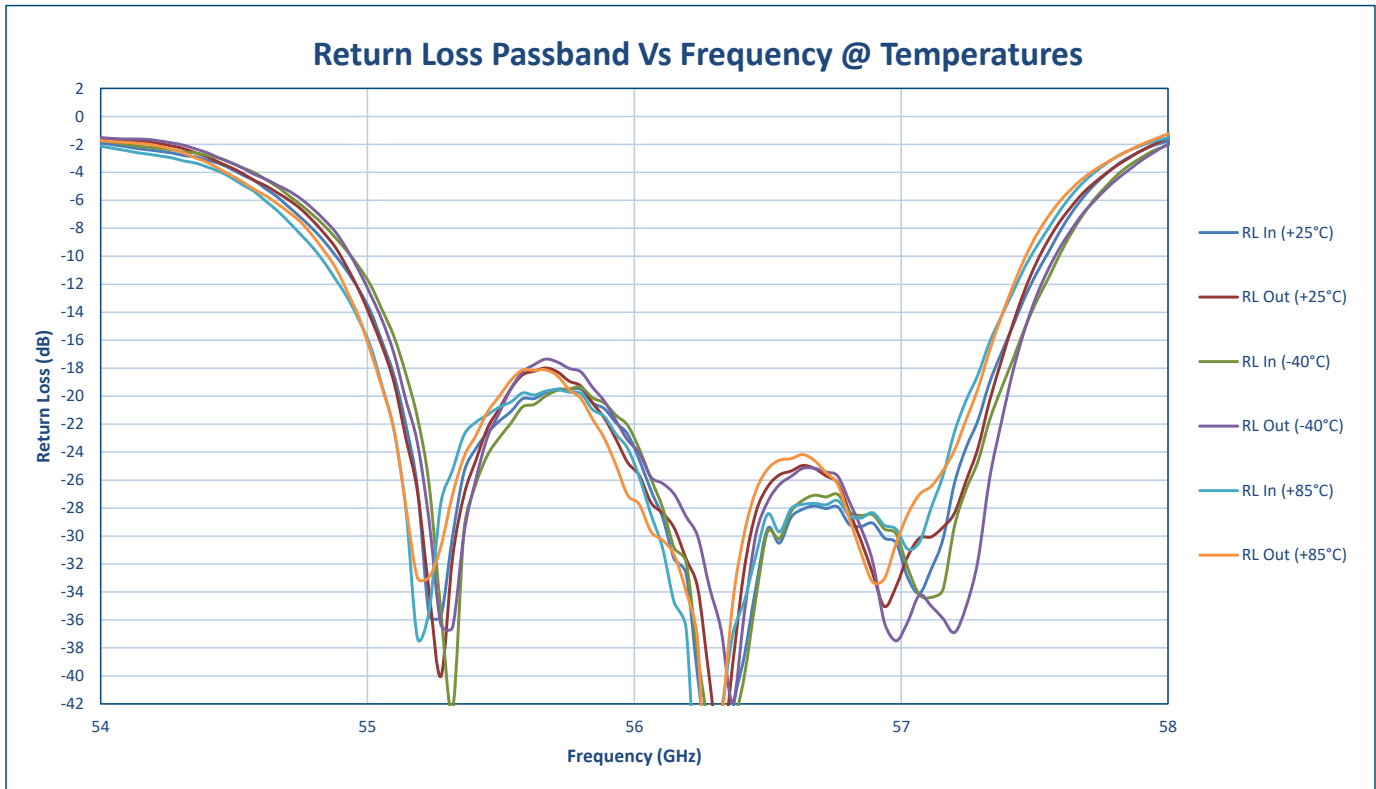
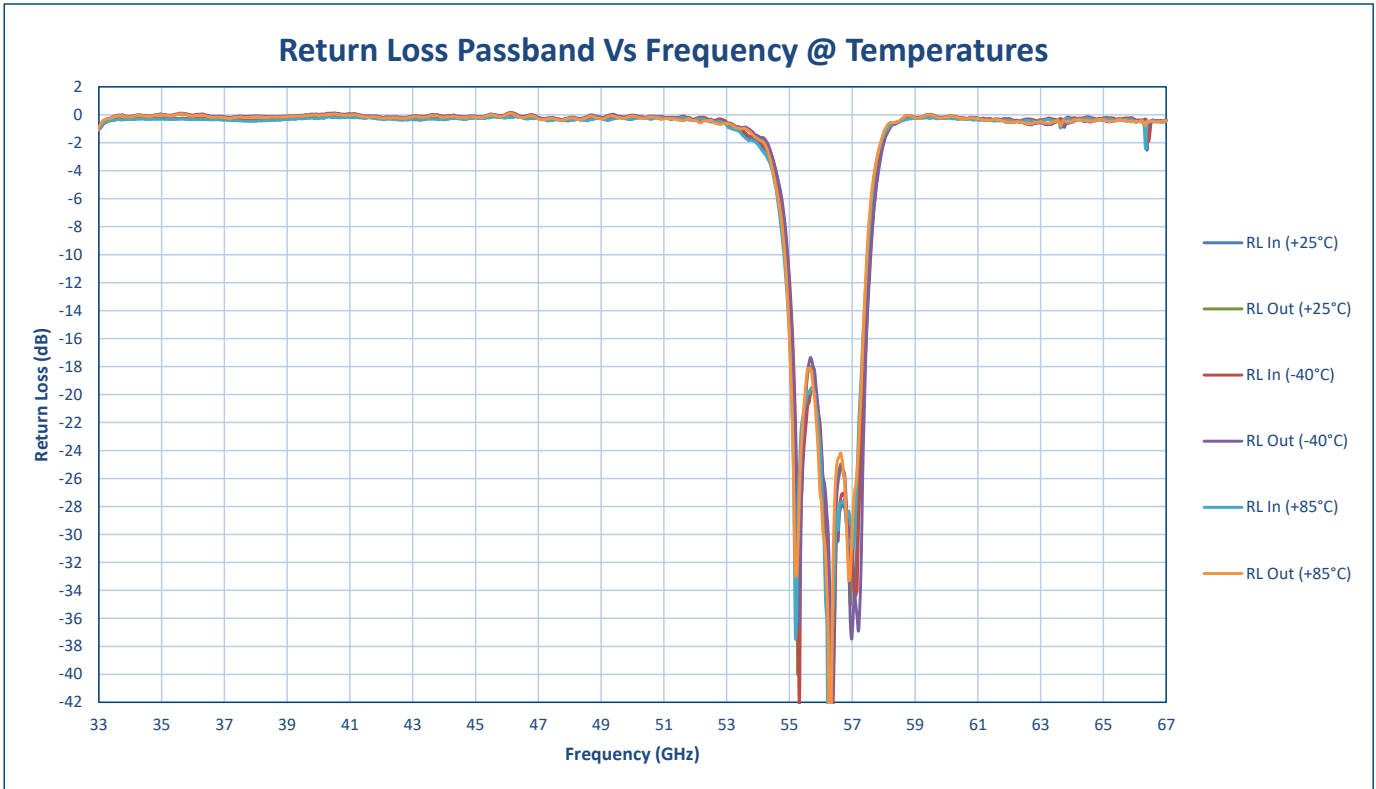
Technical specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-40°C	+85°C
1	Passband Frequency Range:	55 to 57 GHz	55 to 57 GHz	55 to 57 GHz	55 to 57 GHz
2	3 dB Cut-Off Frequency:	50 GHz Min.	54.5 GHz See Graph	54.5 GHz See Graph	54.5 GHz See Graph
3	VSWR: (Over 90% of Passband)	1.5:1 Max.	1.29:1 See Graph	1.39:1 See Graph	1.28:1 See Graph
4	Passband Insertion Loss:	2 dB Max.	0.52 dB See Graph	0.54 dB See Graph	0.55 dB See Graph
5	Rejection: At 34 to 45 GHz	50 dB Min.	78.18 dB See Graph	77.84 dB See Graph	77.61 dB See Graph
6	Operating Input Power:	2 Watts CW Max.	Pass By Design		

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