



Typical Characteristics
ON
QSM-112-16-1D5-SFF

PMI MODEL NUMBER QSM-112-16-1D5-SFF IS A 1 TO 12 GHz AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR SURFACE MOUNT COMPONENT.



TESTED AND REPORTED BY
I. Cossio

DATE
March 4, 2025

Typical Characteristics ON QSM-112-16-1D5-SFF

Outline Drawing

DESCRIPTION:

PMI MODEL NUMBER QSM-112-16-1D5-SFF IS A 1 TO 12 GHz AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PEAF33 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.

SPECIFICATIONS:

- FREQUENCY RANGE: 1 TO 12 GHz
- GAIN: 17 dB TYP, 14 dB MIN
- GAIN FLATNESS: ± 1.25 dB TYP, ± 1.5 dB MAX
- NOISE FIGURE: 1.75 dB TYP, 3.5 dB MAX
- OP1dB: 17 dBm TYP, 12 dBm MIN
- VSWR (INPUT/OUTPUT): 2.0:1 MAX
- RF INPUT POWER: +12 dBm MAX
- DC VOLTAGE SUPPLY: +12 V @ 100 mA MAX
- DC VOLTAGE SUPPLY (@ P_{sat}): +12 V @ 100 mA MAX
- CONNECTORS: SMA FEMALE
- FINISH: GOLD PLATED

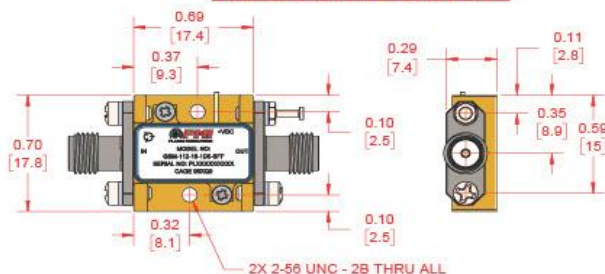
ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202, METHOD 103B COND. B
- SHOCK: MIL-STD-202, METHOD 213B COND. B
- ALTITUDE: MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202, METHOD 107D COND. A

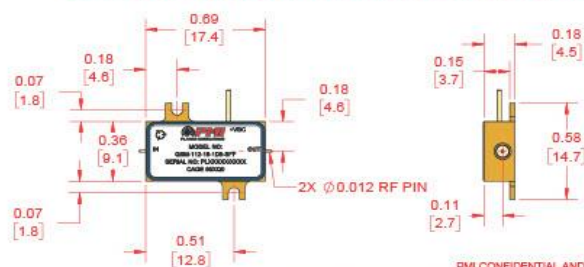
NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	01/12/08	

HOUSING WITH CARRIER



HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS:		DATE:	TITLE:	
DESIGNED BY	D. WOSCHAR	01/12/08	OUTLINE	
DESIGNED BY				
DATE:	05XQ0	27052200	REV: A1	
SCALE:	2:1	SHEET 1 OF 1		



Typical Characteristics ON QSM-112-16-1D5-SFF

Technical Specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results		
			-55°C	+25°C	+85°C
1	Frequency Range:	1 GHz to 12 GHz	1 GHz to 12 GHz	1 GHz to 12 GHz	1 GHz to 12 GHz
2	Gain:	17.00 dB Typ 14.00 dB Min	+14.87 dB Min. +17.22 dB Max. See Graph	+14.75 dB Min. +17.23 dB Max. See Graph	+14.46 dB Min. +17.18 dB Max. See Graph
3	Gain Flatness:	±1.50 dB Max ±1.25 dB Typ	± 1.17 dB	± 1.24 dB	± 1.36 dB
4	Noise Figure:	3.50 dB Max 1.75 dB Typ	2.2 dB Max. See Graph	2.7 dB Max. See Graph	3.0 dB Max. See Graph
5	OP1dB:	17.0 dBm Typ 12.0 dBm Min	+15.3 dBm Min. See Graph	+14.3 dBm Min. See Graph	+12.8 dBm Min. See Graph
6	Psat:	Not Specified	+17.5 dBm See Graph	+17.0 dBm See Graph	+16.4 dBm See Graph
7	Harmonics:	Not Specified	2nd Harm: 16.4 dBc 3rd Harm: 17 dBc	2nd Harm: 19.4 dBc 3rd Harm: 15.7 dBc	2nd Harm: 18.5 dBc 3rd Harm: 15.6 dBc
8	OIP3:	Not Specified	+28.9 dBm See Graph	+28.5 dBm See Graph	+27.2 dBm See Graph
9	Max RF Input Power	+12 dBm Max	+10 dBm See Graph	+10 dBm See Graph	+10 dBm See Graph
10	VSWR In:	2.0 :1 Max	1.7 :1 Max. See Graph	1.7 :1 Max. See Graph	1.8 :1 Max. See Graph
11	VSWR Out:	2.0 :1 Max	1.5 :1 Max. See Graph	1.5 :1 Max. See Graph	1.5 :1 Max. See Graph
12	DC Supply: (No RF)	12 V @ 100 mA Max	+12 VDC @ 75 mA	+12 VDC @ 85 mA	+12 VDC @ 95 mA
13	DC Supply: (@ Psat)	12 V @ 100 mA Max	+12 VDC @ 95 mA	+12 VDC @ 95 mA	+12 VDC @ 95 mA

