TYPICAL CHARACTERISTICS
ON
EQL-17D5G21D5G+4DB-292MF

PMI MODEL NUMBER EQL-17D5G21D5G+4DB-292MF IS A PASSIVE AMPLITUDE EQUALIZER PROVIDING THE FOLLOWING SPECIFICATIONS. THIS EQUALIZER HAS A POSITIVE SLOPE WHICH EQUALIZES CABLE LOSS.

Picture does not represent exact model number

February 19, 2015

Designed by: PMI Engineering
Tested by: Jason Peacher
Reported by: Jason Peacher

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

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DESCRIPTION:

PMI MODEL NUMBER EQL-17D5G21D5G+4DB-292MF IS A PASSIVE AMPLITUDE EQUALIZER PROVIDING THE FOLLOWING SPECIFICATIONS. THIS EQUALIZER HAS A POSITIVE SLOPE WHICH EQUALIZES CABLE LOSS.

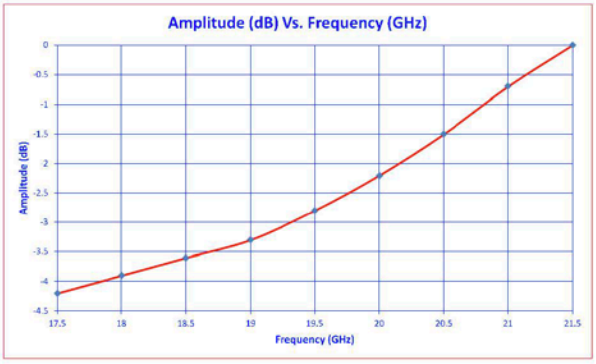
SPECIFICATIONS:

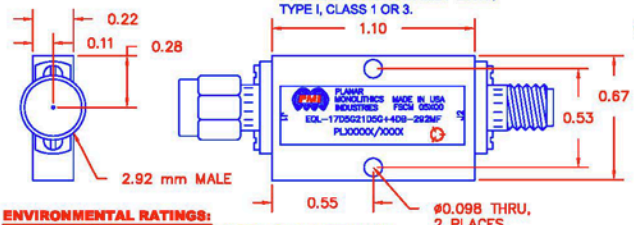
- FREQUENCY: 17.5 GHz TO 21.5 GHz
- MAXIMUM INPUT POWER: 0.5 WATT CW
- VSWR: 2.0 :1 MAX
- INSERTION LOSS @ 21.5 GHz: 6 dB MAX
- SLOPE:

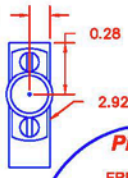
FREQUENCY	AMPLITUDE*
17.5 GHz	-4.2 dB
18 GHz	-3.9 dB
18.5 GHz	-3.6 dB
19 GHz	-3.3 dB
19.5 GHz	-2.8 dB
20 GHz	-2.2 dB
20.5 GHz	-1.5 dB
21 GHz	-0.7 dB
21.5 GHz	0 dB

*ADD INSERTION LOSS @ 21.5 GHz TO ALL VALUES

- ACCURACY @ DEFINED POINTS: ±1.2 dB
- CONNECTORS: 2.92 mm MALE J1, 2.92 mm FEMALE J2
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.







ENVIRONMENTAL RATINGS:

- TEMPERATURE: -40°C TO +85°C (OPERATING), -65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	A1	ORIGINAL RELEASE	9/23/14
	B1	ECN # 16-0001	1/5/16

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
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ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN DPD	9/23/14
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
EQL-17D521D5+4DB-292MF

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27024161	B1

SCALE N:S SHEET 1 OF 1

TYPICAL CHARACTERISTICS ON EQL-17D5G21D5G+4DB-292MF

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE		TEST RESULTS	QA QC
1	Frequency:	17.5 GHz to 21.5 GHz		**17.5 GHz to 21.5 GHz See Plot**	
2	Maximum Input Power:	0.5 Watts CW		**Pass**	
3	VSWR:	2.0:1 Max		**1.92:1**	
4	Insertion Loss @ 21.5 GHz:	6 dB Max		**2.16 dB See Plot**	
5	Slope:	FREQUENCY	AMPLITUDE*	**See Plot**	
		17.5 GHz	-4.2 dB		
		18 GHz	-3.9 dB		
		18.5 GHz	-3.6 dB		
		19 GHz	-3.3 dB		
		19.5 GHz	-2.8 dB		
		20 GHz	-2.2 dB		
		20.5 GHz	-1.5 dB		
		21 GHz	-0.7 dB		
		21.5 GHz	0 dB		
6	Accuracy @ Defined Points:	±0.1 dB		**Pass**	

*ADD INSERTION LOSS @ 21.5 GHz TO ALL VALUES

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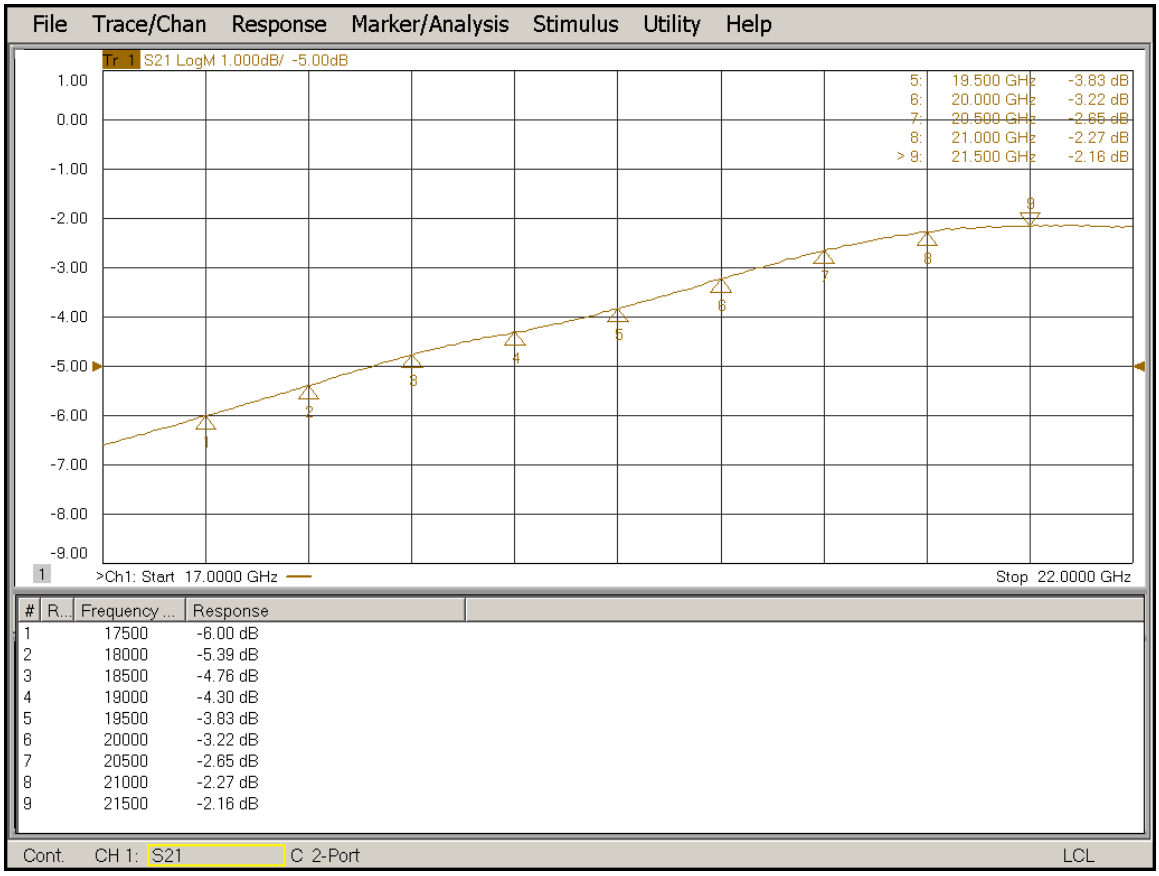
INSERTION LOSS SLOPE



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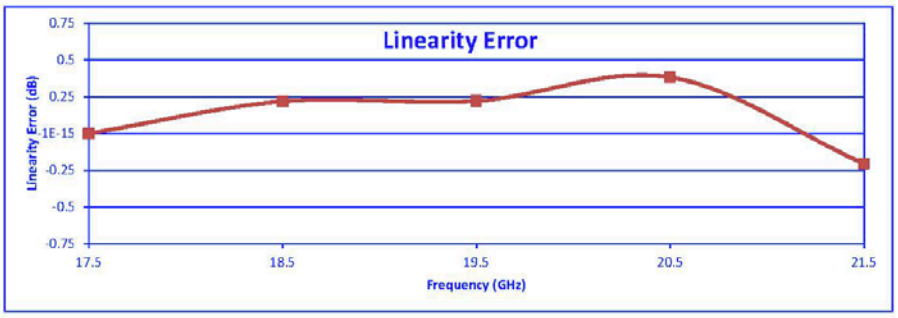
TYPICAL CHARACTERISTICS ON EQL-17D5G21D5G+4DB-292MF

LINEARITY ERROR CALCULATION GRAPH

EQL-17D5G21D5G+4DB-292MF						
						Specification
Serial Number	PL16618/1509					
Insertion Loss @ 17.6 GHz (dB)	-6.05					+4 dB MIN
Slope (dB / GHz)	0.988					-0.5 dB / GHz NOMINAL
Intercept (dB)	-17.1668					
	Frequency (GHz)					
	17.5	18.5	19.5	20.5	21.5	
Ideal Loss above Insertion Loss (dB)	-	-0.5	-1	-1.5	-2	
Actual Loss above Insertion Loss (dB)	-	1.33	2.32	3.47	3.87	
Best Fit Line (dB)	-	1.1112	2.0992	3.0872	4.0752	
Linearity Error from Best Fit Line (dB)	-	0.2188	0.2208	0.3828	-0.2052	+/- 0.5 dB



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