



**TYPICAL CHARACTERISTICS
ON
FD-0518-10-2G4G**

**PMI MODEL: FD-0518-10-2G4G IS A 2 TO 4 GHz FREQUENCY DESCRIMINATOR
HAVING A VSWR OF 2.0:1 MAXIMUM AND 1.5:1 TYPICAL, AND A VIDEO OUTPUT
SLOPE OF 1 V / GHz.**



July 17, 2018

DESIGNED BY: PMI ENGINEERING

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TYPICAL CHARACTERISTICS ON FD-0518-10-2G4G

OUTLINE DRAWING

DESCRIPTION

PMI MODEL FD-0518-10-2G4G IS A 2 TO 4 GHz FREQUENCY DISCRIMINATOR HAVING A VSWR OF 2.0:1 MAXIMUM, 1.5:1 TYPICAL, AND A VIDEO OUTPUT SLOPE OF 1 V / GHz.

SPECIFICATIONS

- FREQUENCY RANGE: 2 TO 4 GHz
- INPUT VSWR: 2.0:1 MAXIMUM
1.5:1 TYPICAL
- OPERATING INPUT POWER: +10 dBm NOMINAL, ± 0.1 dBm
- VIDEO IMPEDANCE: 100 Ω NOMINAL
- VIDEO OUTPUT RISE TIME: 20 ns
- VIDEO OUTPUT SLOPE: 1 V/GHz NOMINAL
- FREQUENCY DISCRIMINATOR ACCURACY: ± 100 MHz
- RF INPUT POWER, SURVIVAL: +15 dBm
- DC SUPPLY: +15 VDC @ +75 mA
-15 VDC @ -75 mA
- SIZE: (L) 2.00" X (W) 1.80" X (H) 0.50"
- WEIGHT: 4 oz MAXIMUM
- FINISH: PAINTED BLUE

ENVIRONMENTAL RATINGS

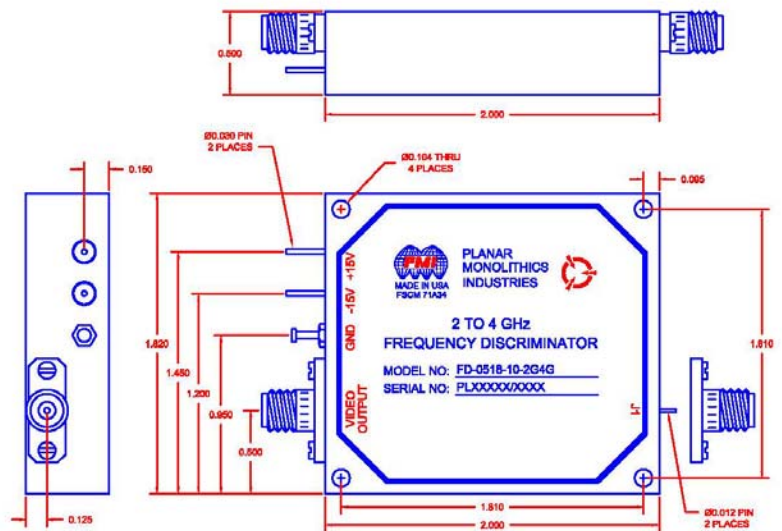
- TEMPERATURE: -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202, METHOD 103B COND. B
- SHOCK: MIL-STD-202, METHOD 213B COND. B
- VIBRATION: MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
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	APPROVED
	A1	ORIGINAL RELEASE	5/1/10	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN	JPH	5/1/10	PRODUCT FEATURE			
REDRAWN	NJA	5/1/10	FD-0518-10-2G4G			
ISSUED			2 TO 4 GHz FREQUENCY DISCRIMINATOR			
			SIZE	FIG. NO.	DWG. NO.	
			A	05XQ0	27034821	A1
			SCALE	N:S		SHEET 1 OF 1



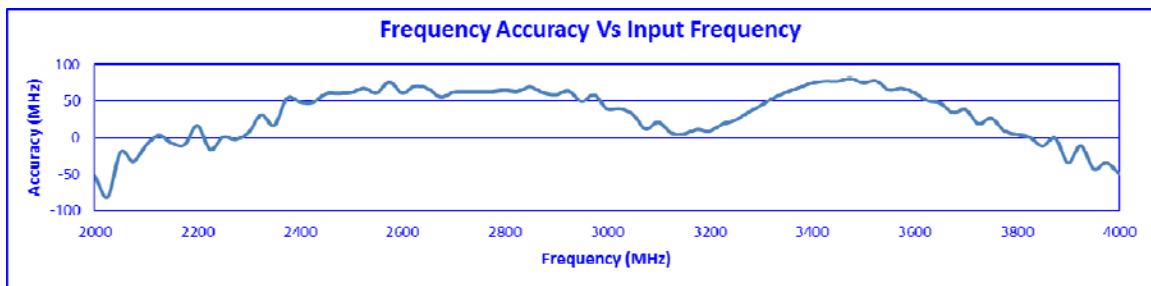
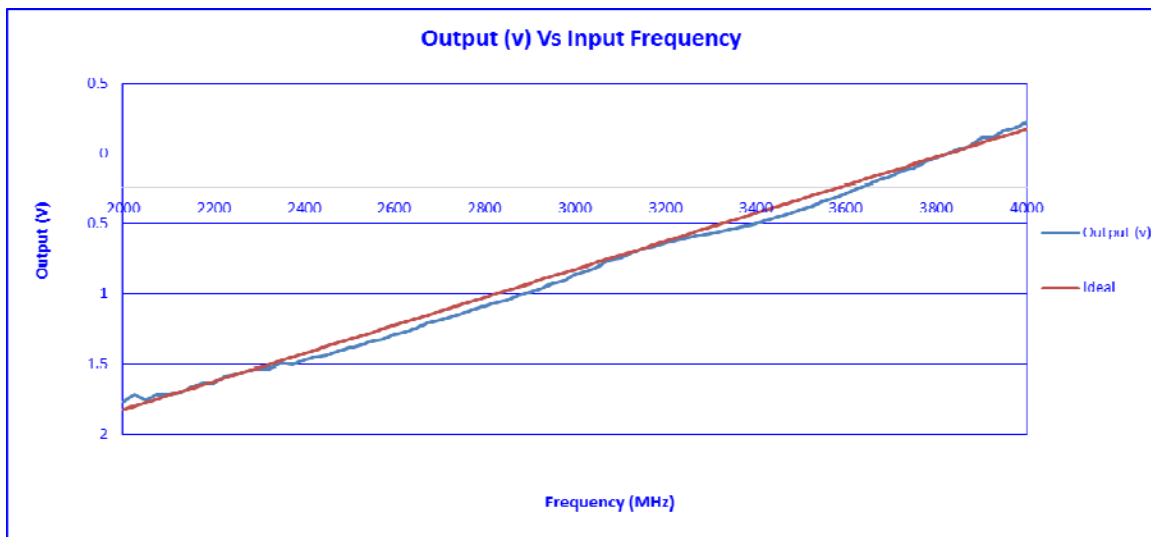
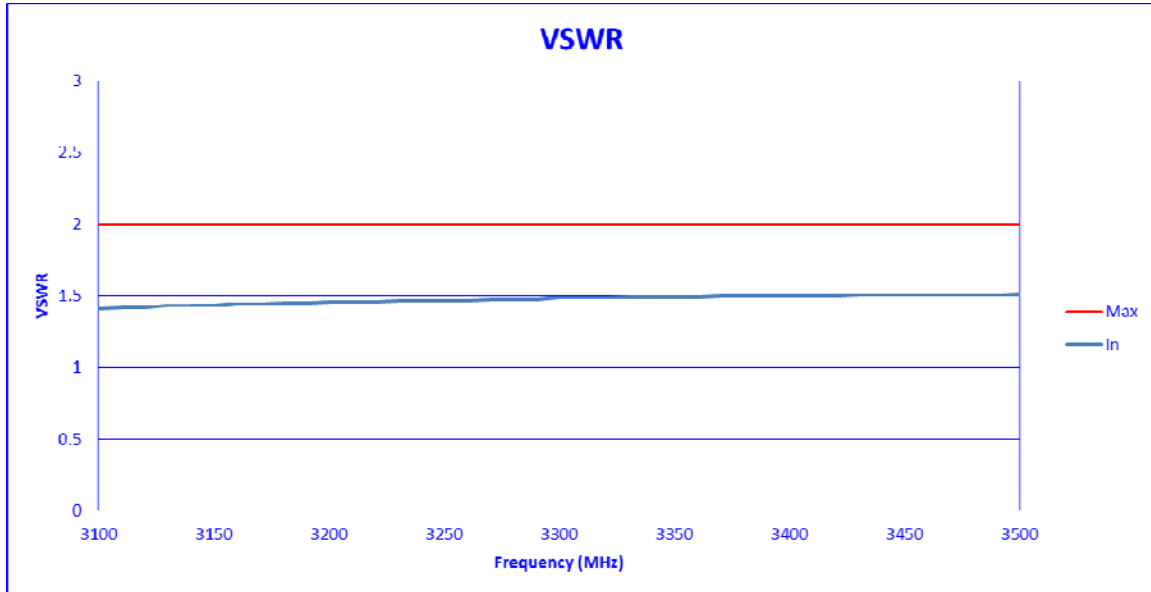
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TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS/FAIL	QA QC
1	Frequency Range:	2 TO 4 GHz	2 TO 4 GHz	PASS
2	Input VSWR	2.0:1 MAX 1.5:1 TYP	1.51:1	PASS
3	Operating Input Power	+10 dBm NOM, ± 0.1 dBm	+10 dBm	PASS
4	Video Impedance	100 Ω NOM	100 Ω	PASS
6	Video Output Rise Time	20 ns	10 ns	PASS
7	Video Output Slope	1V/GHz Nominal	1 V/GHz	PASS
8	Frequency Discriminator Accuracy	±100 MHz	± 81 MHz	PASS
9	RF Input Power, Survival	+15 dBm	+15 dBm	PASS
10	DC Supply:	+15 VDC @ +75 mA -15 VDC @ -75 mA	+15 VDC @ 11mA -15 VDC @ 11mA	PASS



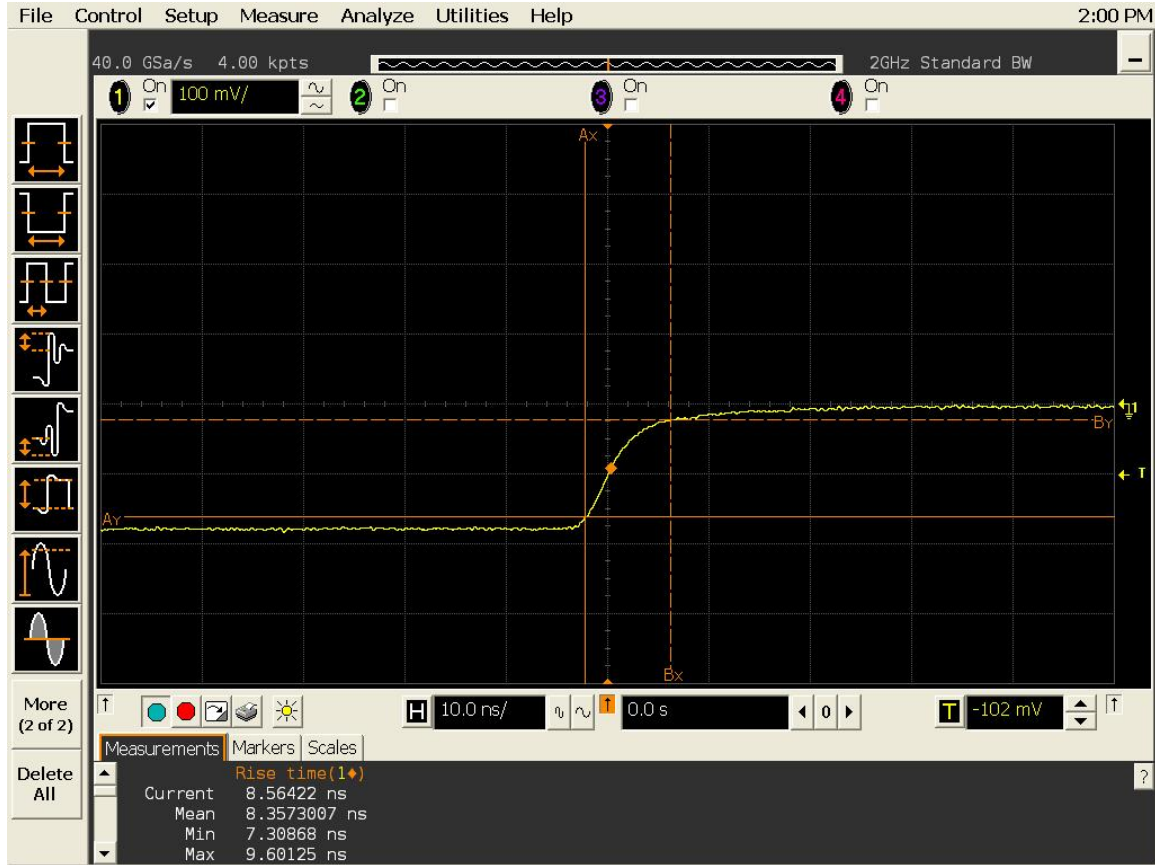
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OUTPUT RISE TIME





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OutPut Table		
MHz	dBm	Volts
2000	10	-1.77486977
2025	10	-1.72201908
2050	10	-1.75816006
2075	10	-1.72036856
2100	10	-1.71775764
2125	10	-1.70584979
2150	10	-1.67053128
2175	10	-1.64325663
2200	10	-1.64432141
2225	10	-1.58685914
2250	10	-1.5786546
2275	10	-1.55081276
2300	10	-1.53491985
2325	10	-1.53413936
2350	10	-1.49450453
2375	10	-1.50707042
2400	10	-1.47680261
2425	10	-1.45114497
2450	10	-1.43771747
2475	10	-1.41355669
2500	10	-1.38948995
2525	10	-1.37052481
2550	10	-1.33918065
2575	10	-1.32908972
2600	10	-1.28895016
2625	10	-1.27344938
2650	10	-1.24495314
2675	10	-1.20854027
2700	10	-1.19023011
2725	10	-1.16600376
2750	10	-1.14075591
2775	10	-1.11596525
2800	10	-1.09282366
2825	10	-1.06636638
2850	10	-1.04692865
2875	10	-1.01441415
2900	10	-0.986901019
2925	10	-0.966815361
2950	10	-0.927506444
2975	10	-0.911506756
3000	10	-0.867197891
3025	10	-0.842373036
3050	10	-0.810087665
3075	10	-0.764533447
3100	10	-0.748982106
3125	10	-0.709451795

3150	10	-0.682990698
3175	10	-0.663971449
3200	10	-0.637085349
3225	10	-0.621398692
3250	10	-0.601608049
3275	10	-0.58735149
3300	10	-0.571861272
3325	10	-0.557508217
3350	10	-0.540244678
3375	10	-0.52117037
3400	10	-0.502627932
3425	10	-0.480151421
3450	10	-0.455056265
3475	10	-0.433904369
3500	10	-0.403087926
3525	10	-0.380618687
3550	10	-0.343237288
3575	10	-0.320420528
3600	10	-0.289444668
3625	10	-0.253627345
3650	10	-0.225409024
3675	10	-0.187264591
3700	10	-0.166094384
3725	10	-0.121780123
3750	10	-0.104353402
3775	10	-0.062470161
3800	10	-0.032155744
3825	10	-0.003473651
3850	10	0.033479815
3875	10	0.047742928
3900	10	0.106310251
3925	10	0.107857657
3950	10	0.164870564
3975	10	0.181581282
4000	10	0.222055637