



TEST REPORT
ON
1 GHz TO 2 GHz 2 WAY POWER DIVIDER

PMI MODEL No:
APD-2-12 OPTION FD

Series Number: PM708999

DESIGNED
BY
YU RONG

TESTED
BY
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ISO9001 : 2000 CERTIFIED



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1 To 2 GHz 2 WAY POWER DIVIDER

KEY FEATURES:

- 1 TO 2 GHz Frequency Range
- Insertion Loss: 0.75 dB max.
- Isolation: 22 dB min.
- Amplitude Balance: ± 0.1 dB max.
- Phase Balance: $\pm 1^\circ$
- Size: 1.08" L x 1.18" W x 0.47" H



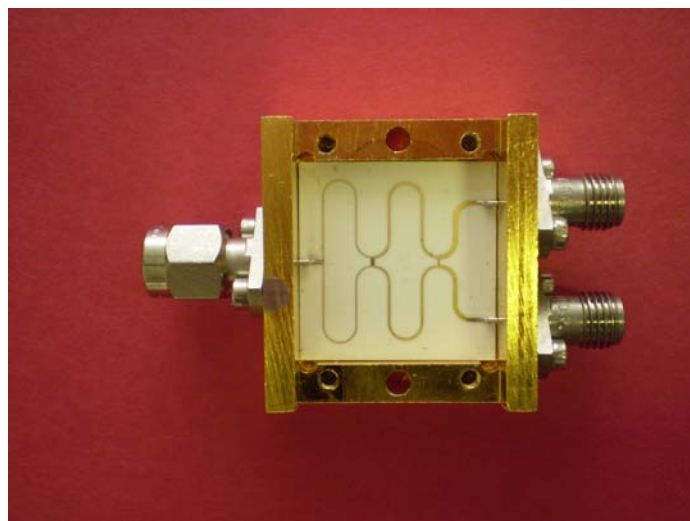
SPECIFICATIONS:

FREQUENCY RANGE	1 GHz TO 2 GHz
■ INSERTION LOSS	0.75 dB max.
■ VSWR INPUT	1.4:1 max
■ VSWR OUTPUT	1.4:1 max
■ ISOLATION	22 dB MINIMUM
■ AMPLITUDE BALANCE	+/-0.1 dB
■ PHASE BALANCE	+/-1 degrees
■ AVERAGE POWER INTO LOAD VSWR:	1.2:1 25 WATTS 2.0:1 7.5 WATTS 00:1 0.75 WATTS
■ SIZE	1.08"(L) X 1.18"(W) X 0.47(H)"



ENVIRONMENTAL RATINGS:

Temperature:	-55 °C to +85 °C Operating
	-65 °C to +125 °C Non-Operating
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 107D Cond. A

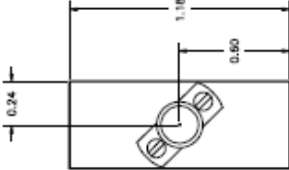
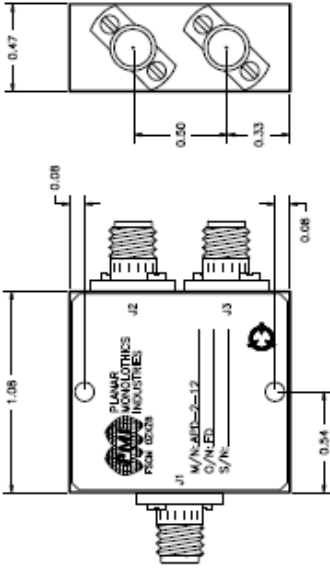




PRODUCT FEATURE

REV	DESCRIPTION	DATE	APPROVAL
1	ORIGINAL RELEASE JOB# P701002XPE	8/17/07	

DESCRIPTION
 PMI MODEL APD-2-12 OPTION FD IS A TWO WAY POWER DIVIDER FEATURING HIGH ISOLATION, LOW INSERTION LOSS, AND LOW VSWR. IT IS DESIGNED FOR NARROWBAND USE AND HIGH RELIABILITY.

SPECIFICATIONS

- FREQUENCY RANGE: 1 TO 2 GHz
- INSERTION LOSS: 0.75 dB MAXIMUM
- VSWR: 1.4:1 MAXIMUM
- ISOLATION: 22 dB MINIMUM
- AMPLITUDE BALANCE: ±0.1 dB
- PHASE BALANCE: ±1°
- AVERAGE POWER INTO LOAD VSWR:
 - 1.2:1 25 WATTS
 - 2.0:1 7.5 WATTS
 - ∞:1 0.75 WATTS
- SIZE: 1.08 (L) x 1.18" (W) x 0.47" (H)

OPTIONS

- 500M205

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
-85°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 107D COND. A

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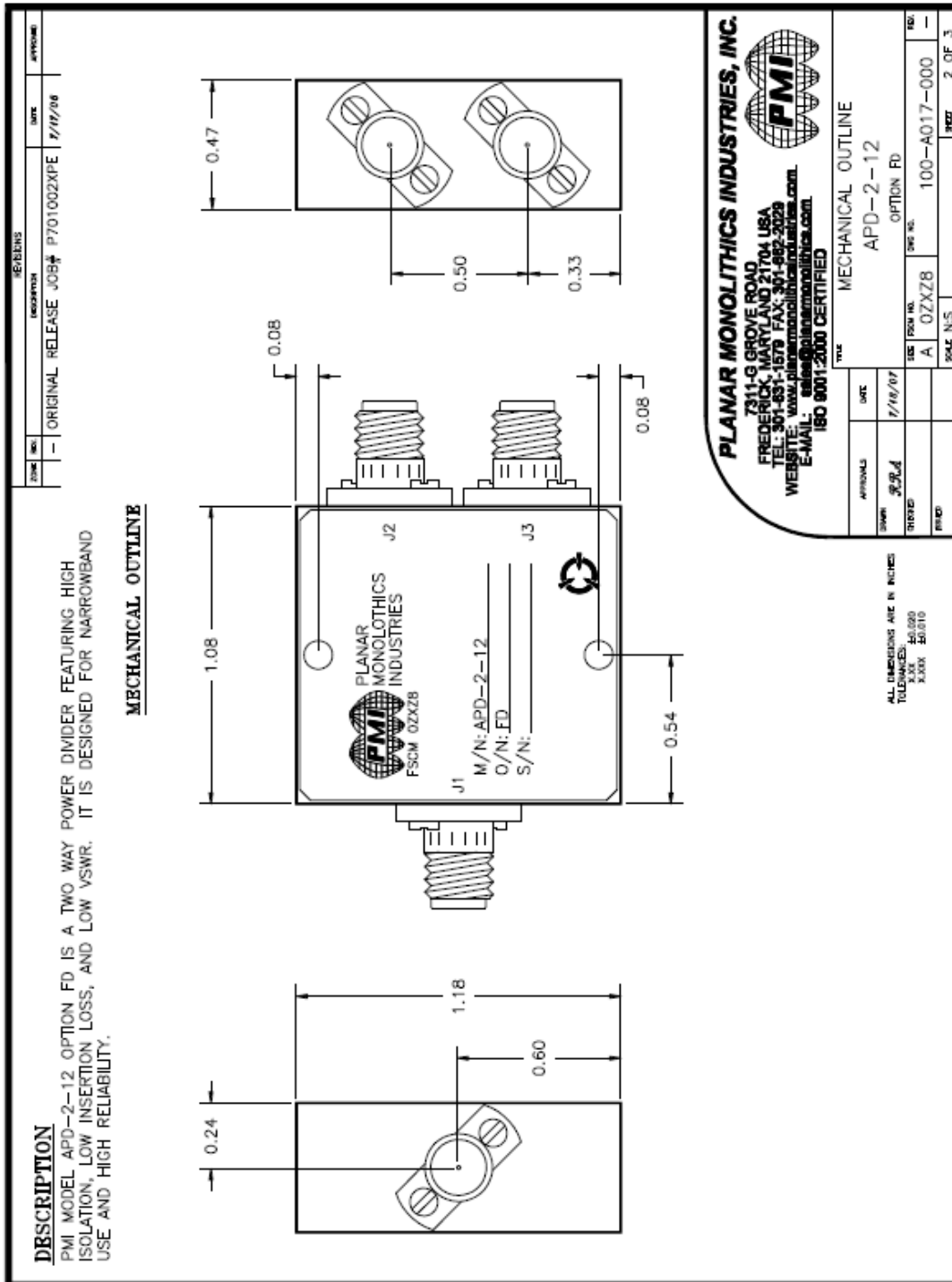
APPROVALS	DATE	PRODUCT FEATURE	
DESIGN: <i>SJA</i>	1/17/07	APD-2-12	
URGENT:		REV. NO.	OPTION FD
FIELD:		REV. NO.	100-A017-000
		SCALE: N/S	SHEET 1 OF 3

ALL DIMENSIONS ARE IN INCHES
 TOLERANCES: ±0.010
 ±0.008
 ±0.010

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



OUTLINE DRAWING





FUNCTIONAL SCHEMATIC

DATE	-	DESCRIPTION	ORIGINAL RELEASE JOB# P701002XPE	DATE	7/17/07
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 PMI MODEL APD-2-12 OPTION FD IS A TWO WAY POWER DIVIDER FEATURING HIGH ISOLATION, LOW INSERTION LOSS, AND LOW VSWR. IT IS DESIGNED FOR NARROWBAND USE AND HIGH RELIABILITY.

FUNCTIONAL BLOCK DIAGRAM

FUNCTIONAL BLOCK DIAGRAM

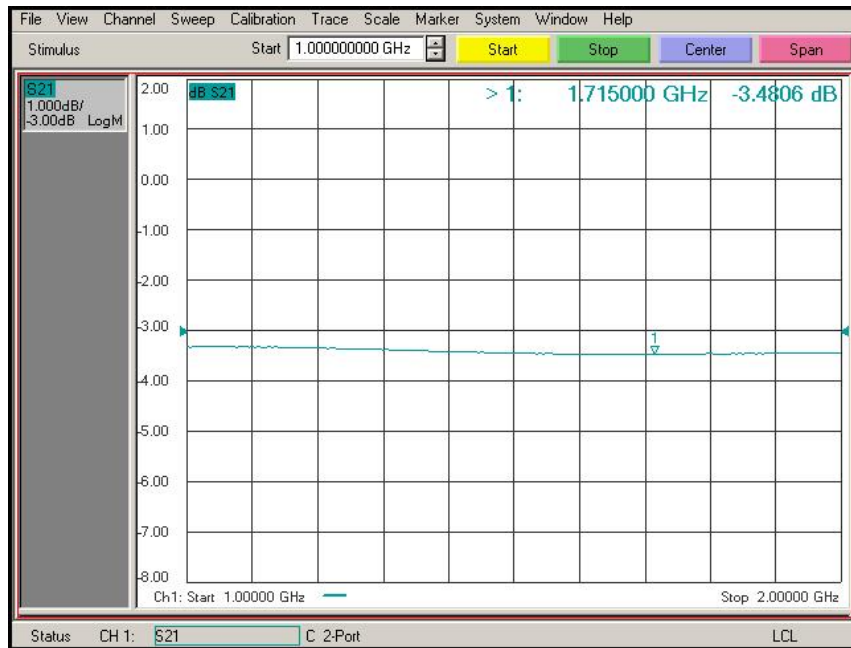
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APPROVALS	DATE	TITLE	SCALE	SHEET	NO.
SWAN	7/17/07	FUNCTIONAL BLOCK DIAGRAM	A, 07XZ8	100-A017-000	-
SHAW		APD-2-12			
FILED		OPTION FD			

CONFIDENTIAL AND PROPRIETARY



Insertion Loss



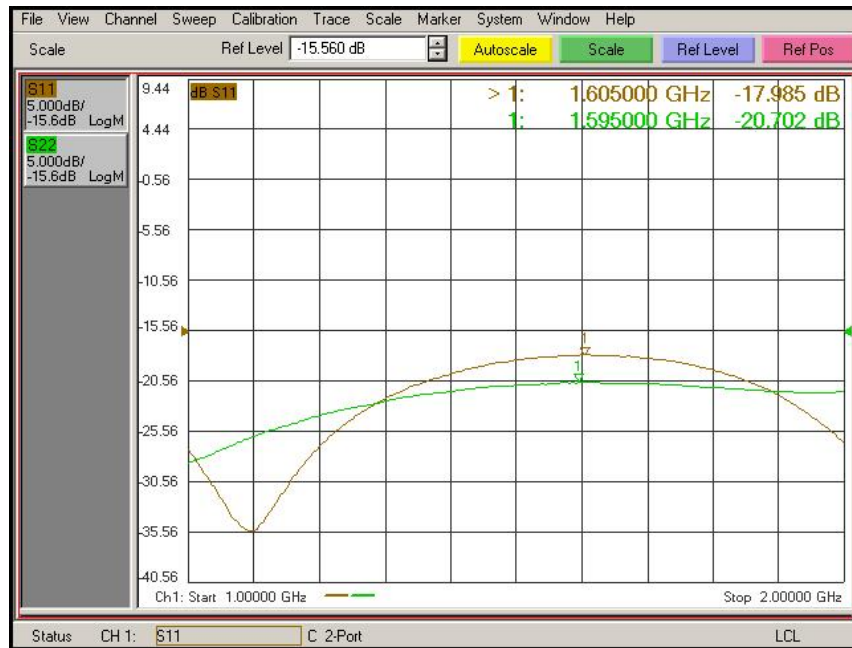
(a) Ports J1 and J2 with Port J3 terminated



(b) Ports J1 and J3 with Port J2 terminated



Return Loss



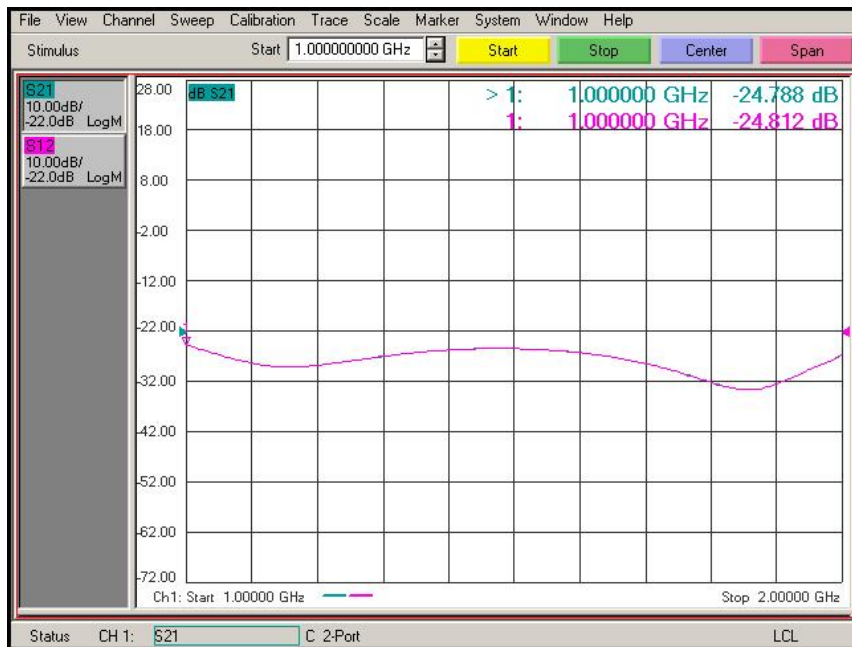
(a) Ports J1 and J2 with Port J3 terminated



(b) Ports J1 and J3 with Port J2 terminated

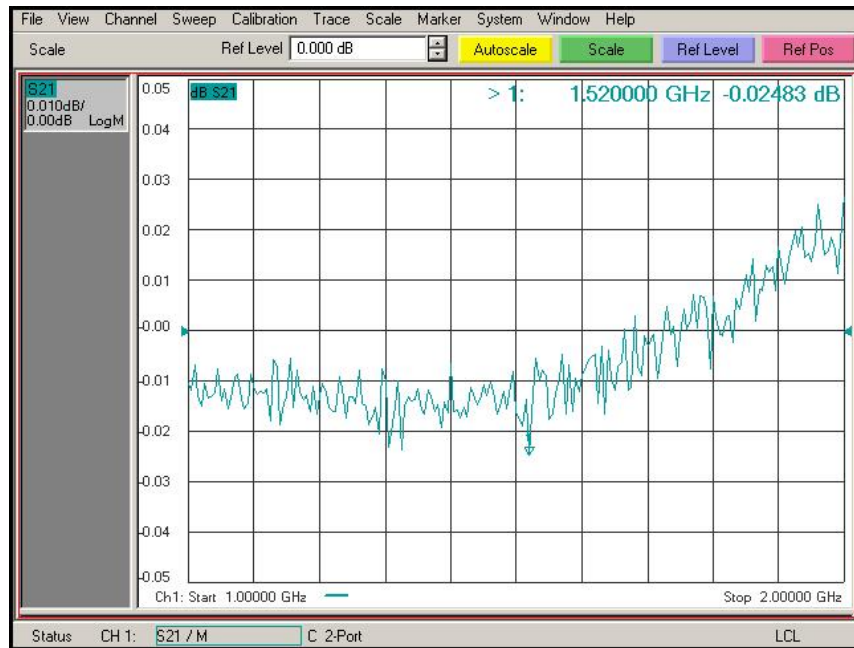


Isolations between Ports 2 and 3

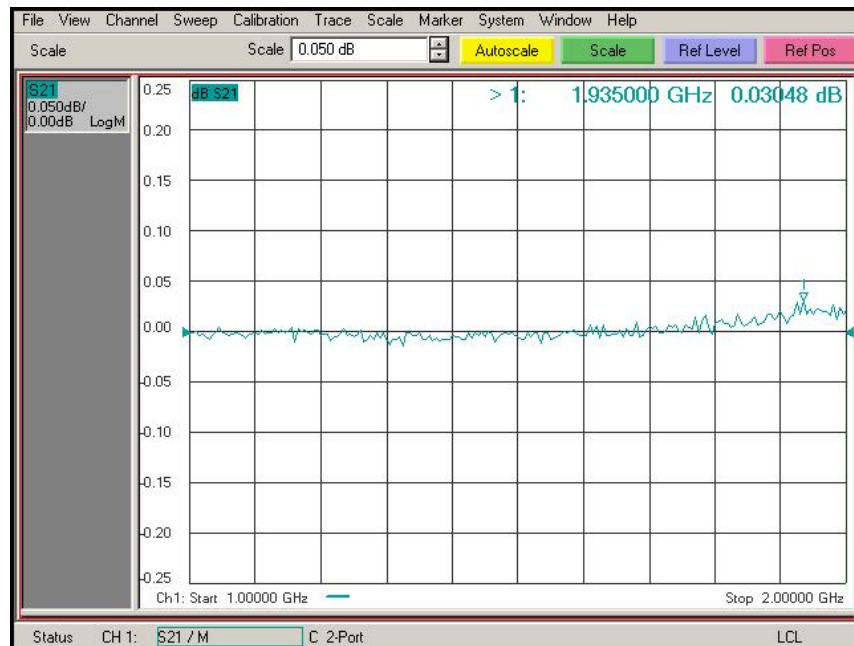




Amplitude Balance: Ports 2 and 3



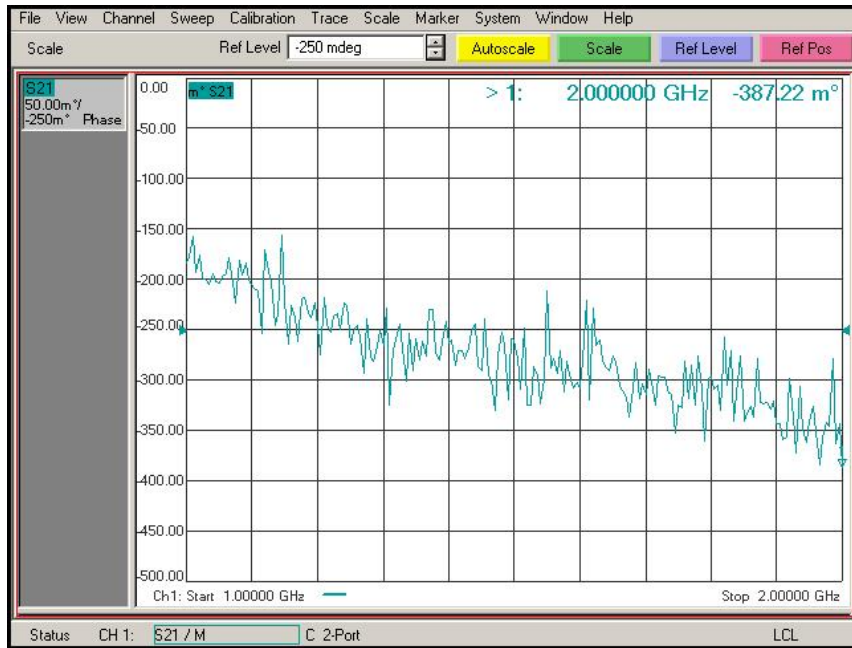
(a) 0.01 dB Scale



(b) 0.05 dB Scale



Phase Balance: Ports 2 and 3



(a) 0.05 Degree Scale



(b) 1.0 Degree Scale



FORM: 006-PD-DTA



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**SUMMARY TEST DATA ON
 POWER DIVIDER**

CUSTOMER: SIMA PERU JOB NO: P701002XPE
 MODEL NO: APD-2-12 TESTED BY: RA
 OPTION NO: FD DATE: 7/17/07
 SERIAL NO: PM708999

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE		Q/A
1	FREQUENCY	1 TO 2 GHz	1 TO 2 GHz		
2	INSERTION LOSS	0.75 dB MAXIMUM	J1-J2:	0.51 dB	
			J1-J3:	0.50 dB	
3	ISOLATION (J2 TO J3)	22 dB MINIMUM	24 dB		
4	VSWR INPUT	1.4:1 MAXIMUM	1.28:1		
5	VSWR OUTPUT	1.4:1 MAXIMUM	J2:	1.20:1	
			J3:	1.17:1	
6	PHASE BALANCE (J2 TO J3)	±1° MAXIMUM	0.53°		
7	AMPLITUDE BALANCE (J2 TO J3)	±0.1dB MAXIMUM	0.01 dB		

QA/QC APPROVAL: DATED: 8/19/07



FORM: 006-PD-DTA



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**SUMMARY TEST DATA ON
 POWER DIVIDER**

CUSTOMER: SIMA PERU JOB NO: P701002XPE
 MODEL NO: APD-2-12 TESTED BY: RA
 OPTION NO: FD DATE: 7/17/07
 SERIAL NO: PM7081000

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE		Q/A
1	FREQUENCY	1 TO 2 GHz	1 TO 2 GHz		
2	INSERTION LOSS	0.75 dB MAXIMUM	J1-J2:	0.53 dB	
			J1-J3:	0.52 dB	
3	ISOLATION (J2 TO J3)	22 dB MINIMUM	24 dB		
4	VSWR INPUT	1.4:1 MAXIMUM	1.29:1		
5	VSWR OUTPUT	1.4:1 MAXIMUM	J2:	1.20:1	
			J3:	1.18:1	
6	PHASE BALANCE (J2 TO J3)	±1° MAXIMUM	0.8°		
7	AMPLITUDE BALANCE (J2 TO J3)	±0.1dB MAXIMUM	0.02 dB		

QA/QC APPROVAL:  DATED: 8/19/07