To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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RENESAS

NEC

Evaluation Board Information

μPG2030TB
SPDT SW IC Evaluation Board

- **Evaluation Board Pattern Layout**
- **Circuit Description**
- **Insertion Loss Data**
  (Including loss of the test fixture)
- **Isolation Data**
- **Input and Output Return Loss Data**
- **1 GHz and 2.5 GHz P_{in} vs. P_{out} Data**
- **Loss of The Test Fixture vs. Frequency Data**

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Date Published April 2004 CP(K)

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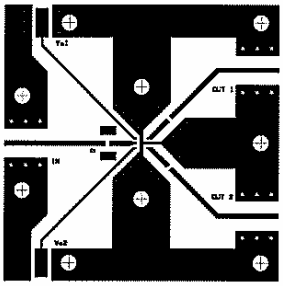
M8E 00. 4 - 0110

Evaluation Board Pattern Layout

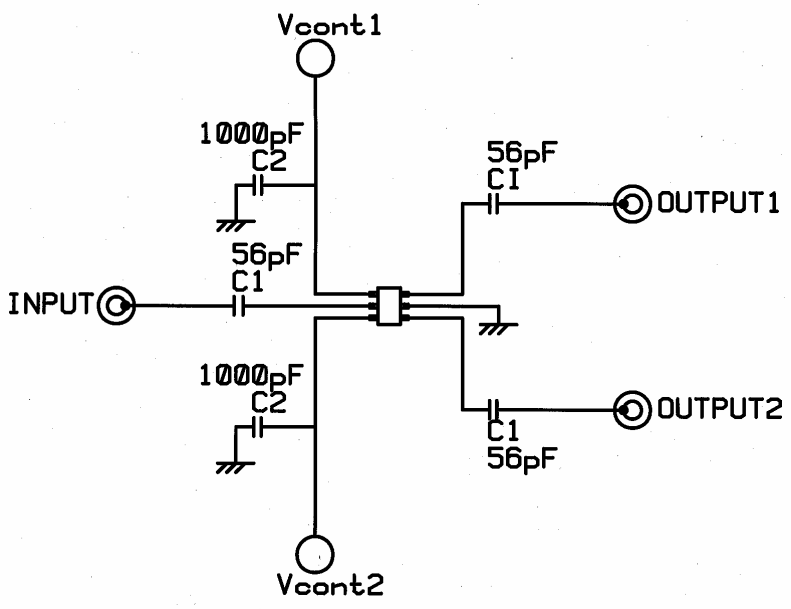


scale 1 : 1

size 38 mm × 38 mm

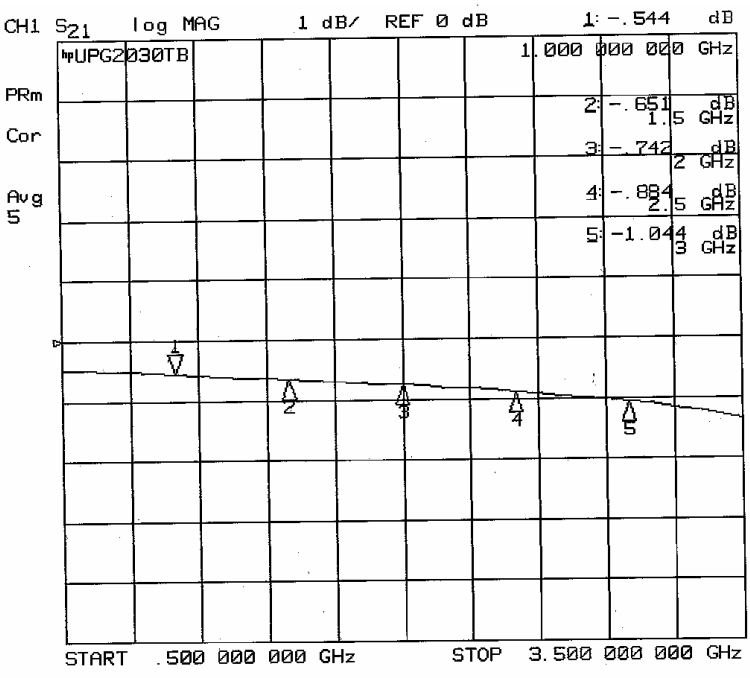
material FR4 (ELC4756/Sumitomo)
h = 0.4 mm, εr = 4.6

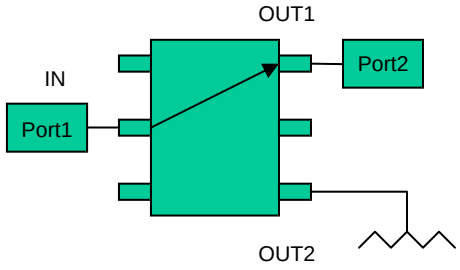
Circuit Description



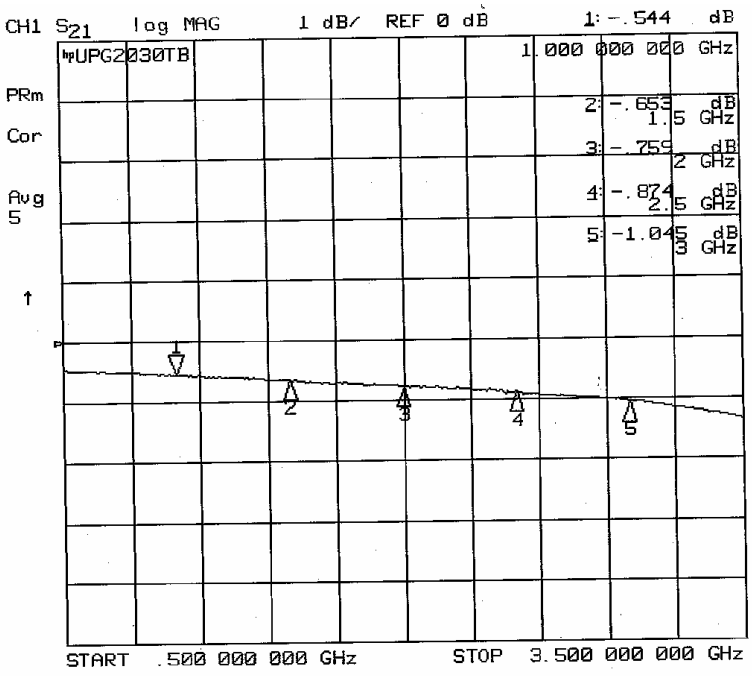
Parts	Model No.	Value	Maker	Symbol
Chip Capacitance	GRM1552C1H560JZ01B	56 pF	Murata	C1
	GRM155B11H102KA01B	1000 pF	Murata	C2
PC Terminal	A2–2PA–2.54DSA	—	Hirose	—
RF Connector	142–0721–821	—	Jhonson	—
Substrate	FR4 (t = 0.4 mm)	—	Sumitomo	—

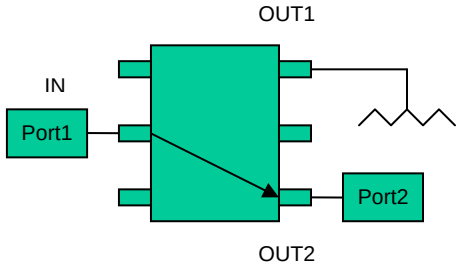
OUT1 Insertion Loss



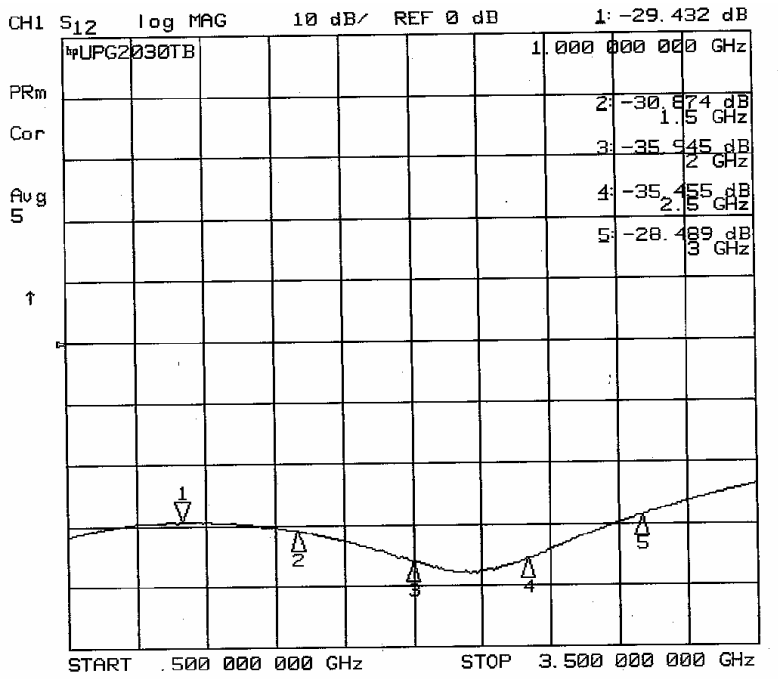


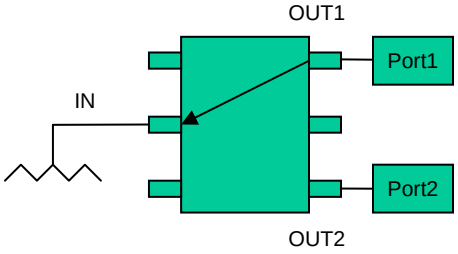
OUT2 Insertion Loss



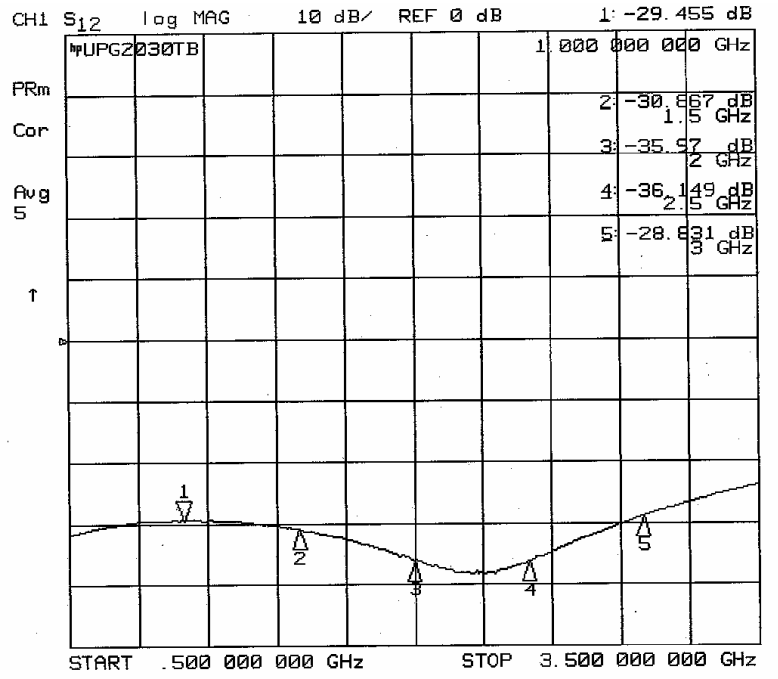


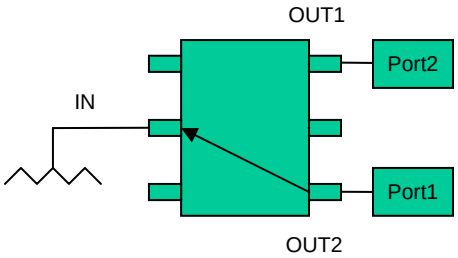
OUT1 Isolation



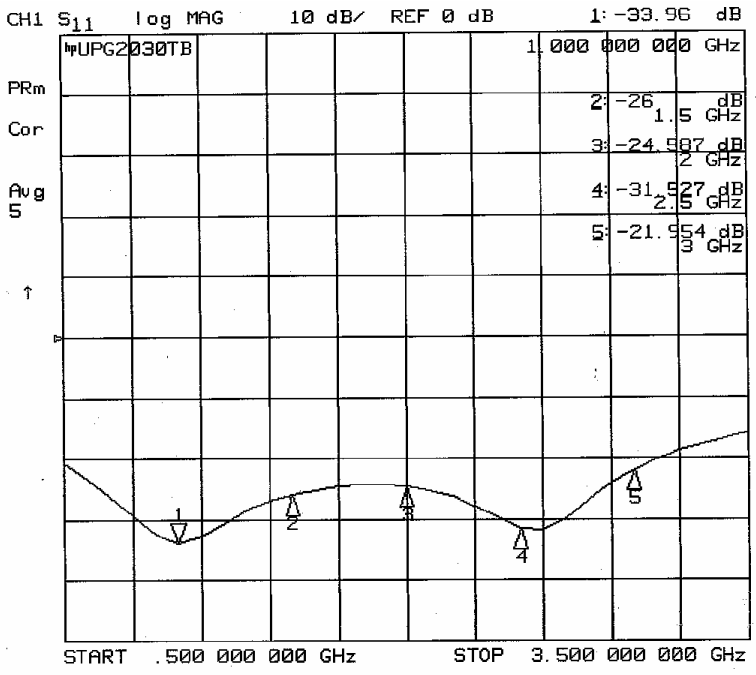


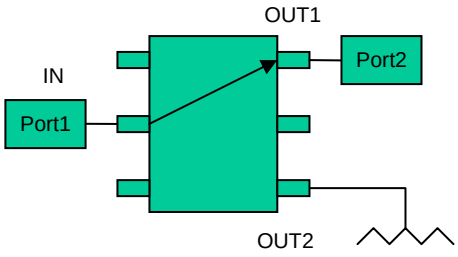
OUT2 Isolation



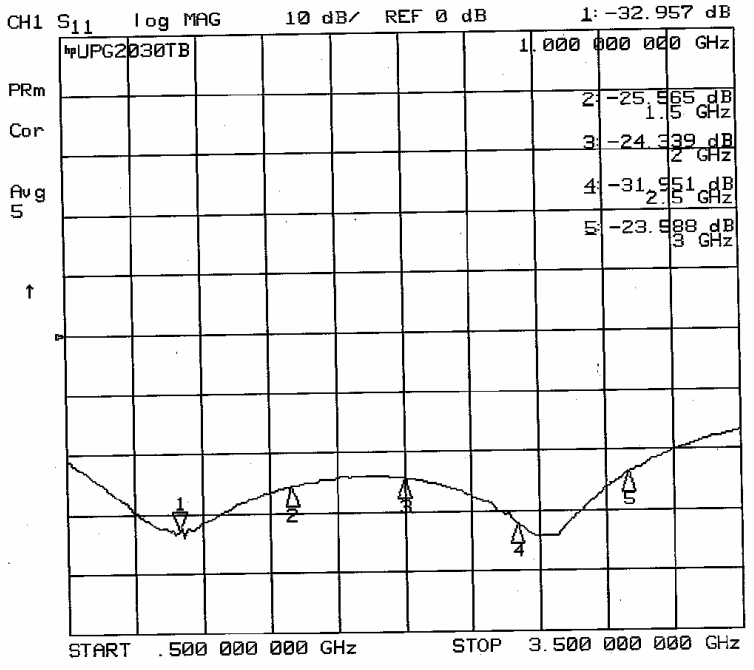


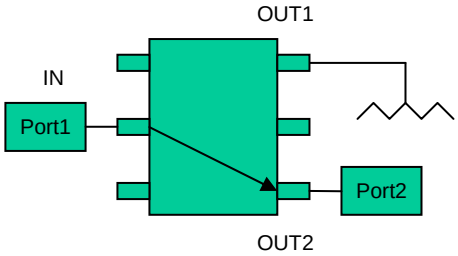
OUT1 Input Return Loss





OUT2 Input Return Loss





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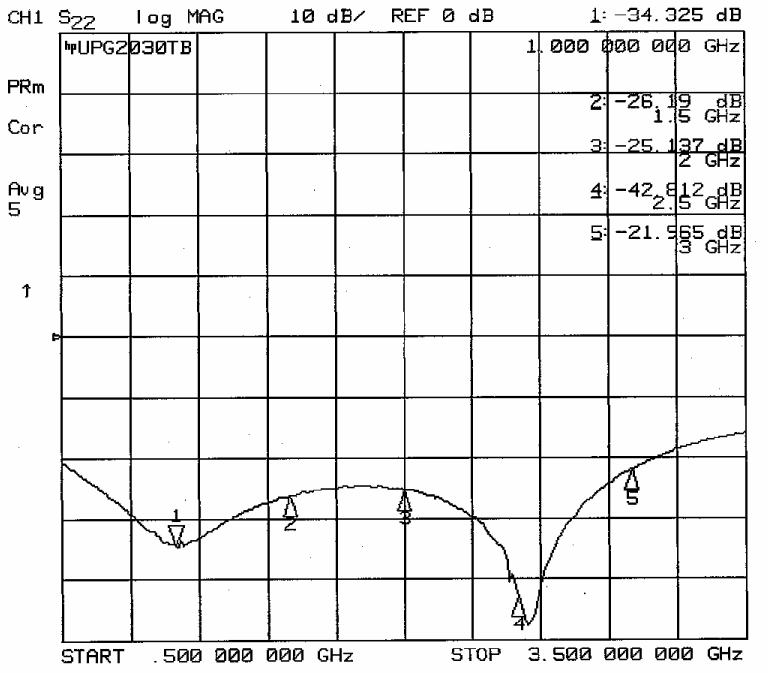
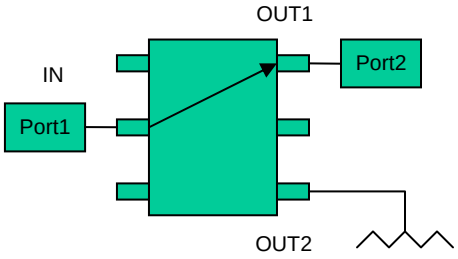
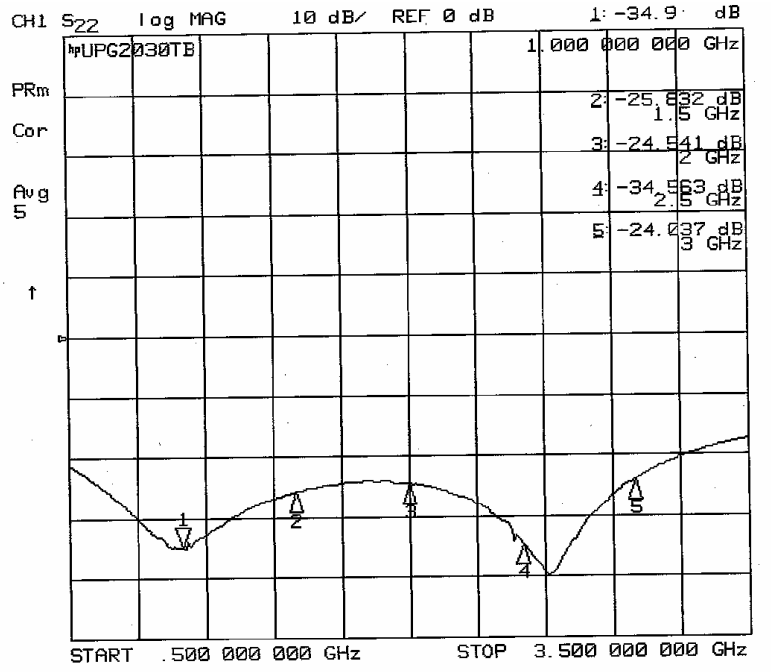
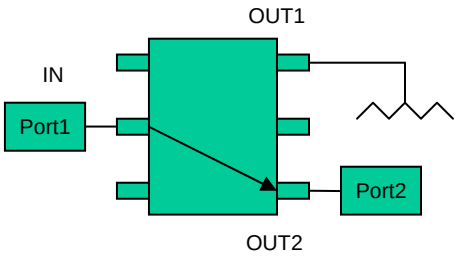


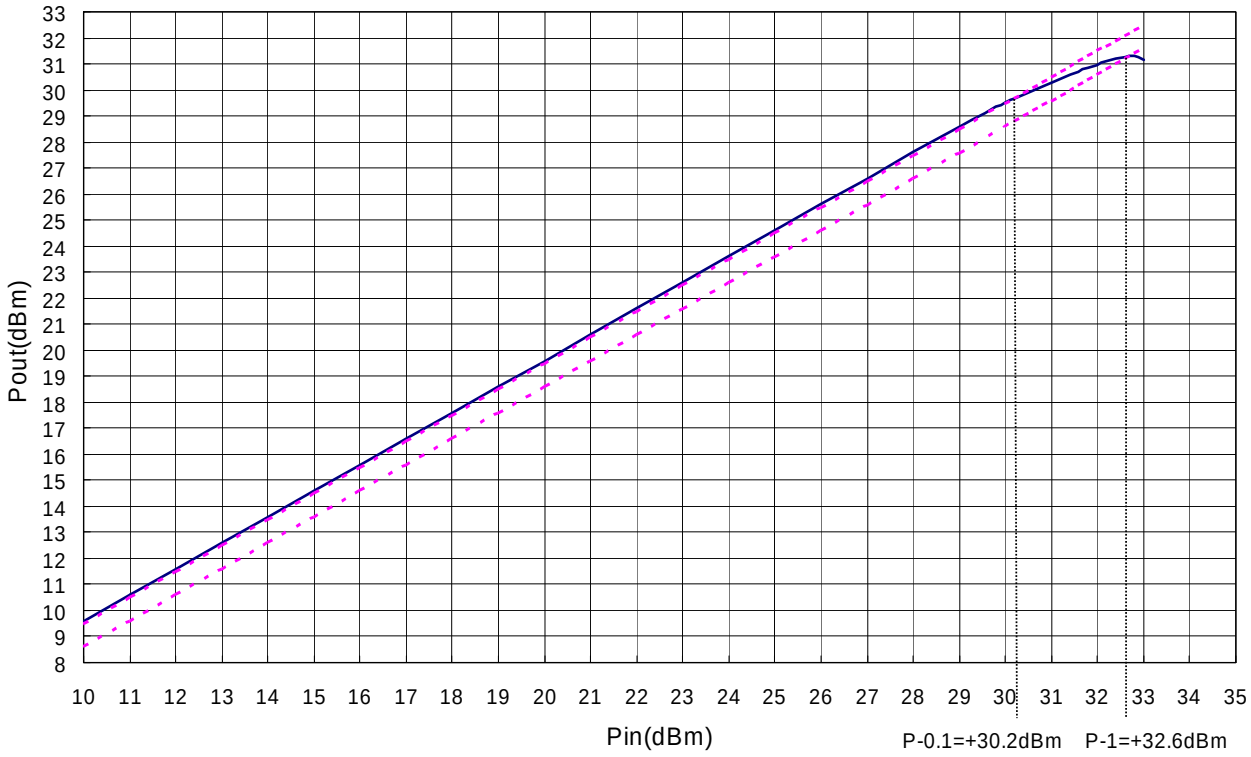


OUT2 Output Return Loss

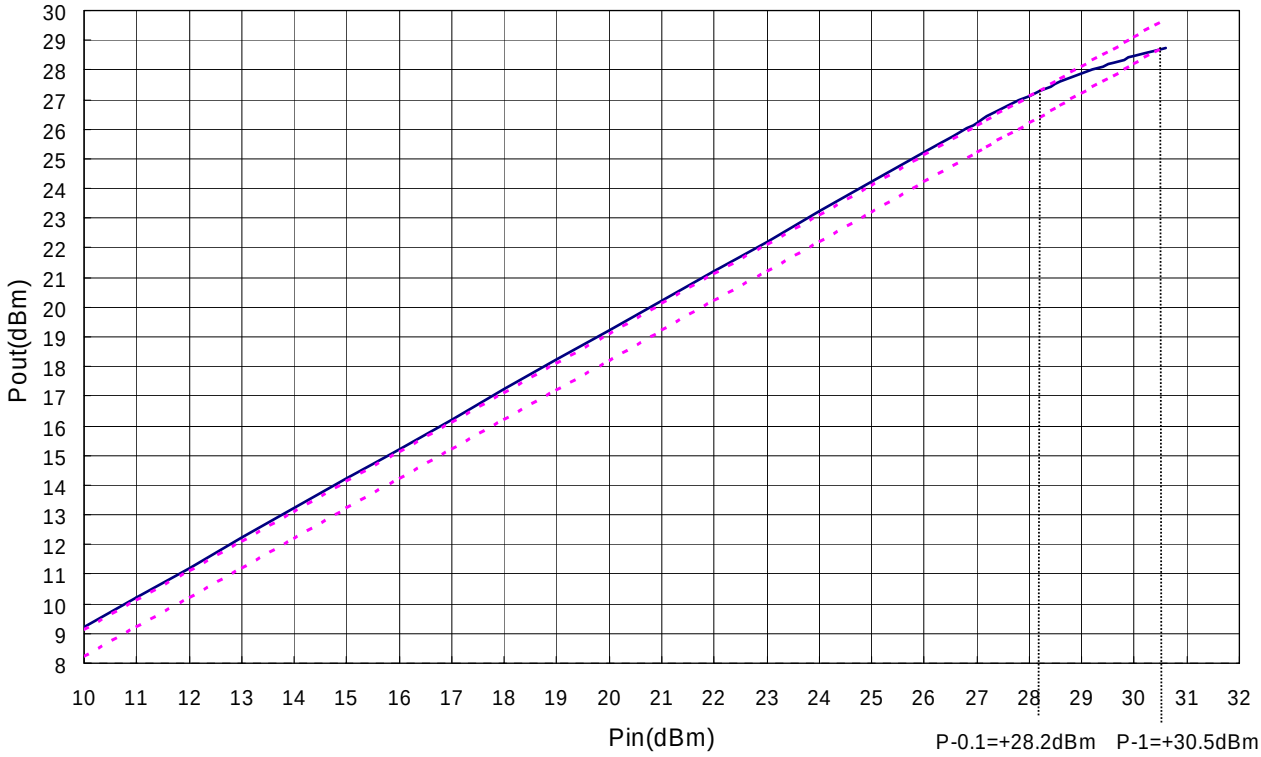




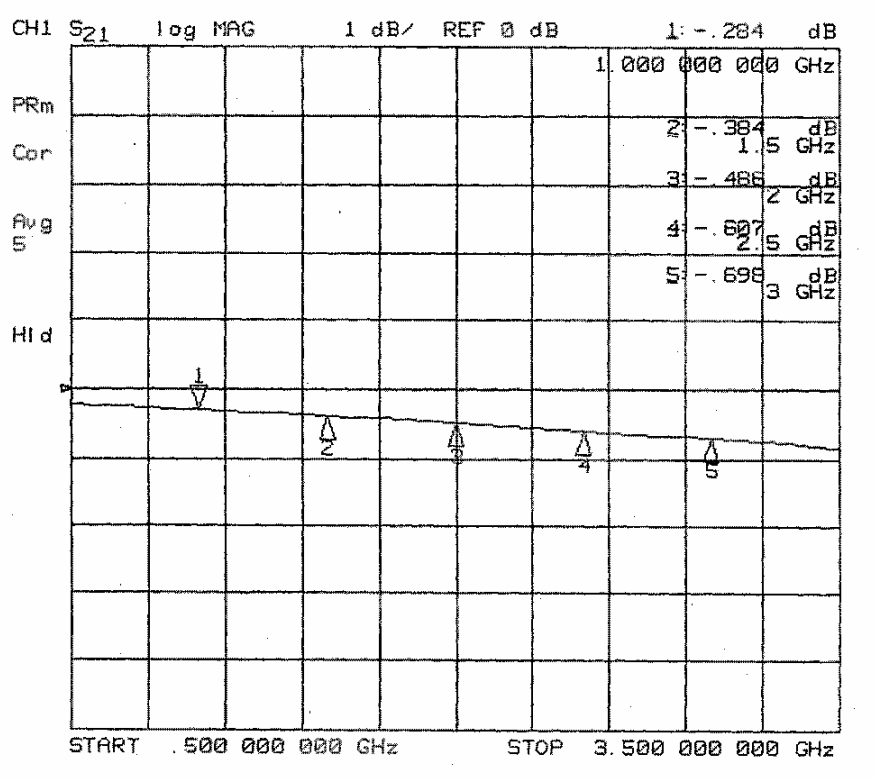
1.0 GHz P_{in} vs. P_{out}



2.5 GHz P_{in} vs. P_{out}

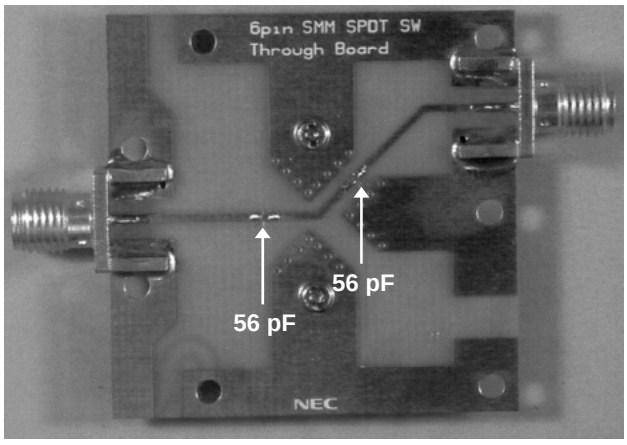


Loss of The Test Fixture vs. Frequency



STIMULUS MHz	CH1 S21	
.500 000 000	-.225	dB
.600 000 000	-.238	dB
.700 000 000	-.244	dB
.800 000 000	-.257	dB
.900 000 000	-.275	dB
1.000 000 000	-.284	dB
1.100 000 000	-.310	dB
1.200 000 000	-.322	dB
1.300 000 000	-.344	dB
1.400 000 000	-.365	dB
1.500 000 000	-.384	dB
1.600 000 000	-.400	dB
1.700 000 000	-.416	dB
1.800 000 000	-.443	dB
1.900 000 000	-.461	dB
2.000 000 000	-.486	dB
2.100 000 000	-.511	dB
2.200 000 000	-.534	dB
2.300 000 000	-.561	dB
2.400 000 000	-.583	dB
2.500 000 000	-.607	dB
2.600 000 000	-.631	dB
2.700 000 000	-.642	dB
2.800 000 000	-.665	dB
2.900 000 000	-.683	dB
3.000 000 000	-.698	dB
3.100 000 000	-.721	dB
3.200 000 000	-.742	dB
3.300 000 000	-.768	dB
3.400 000 000	-.804	dB

Through Board (Including DC Block Capacitances)



▶**For further information, please contact**

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