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

μPG2008TK
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**
  (Microstrip Line + RF Connectors)

Document No. PG10382EJ01V0EB (1st edition)
Date Published March 2003 CP(K)

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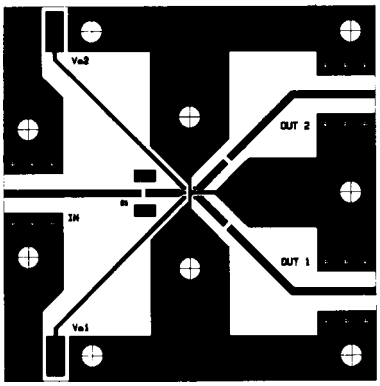
M8E 00. 4 - 0110

Evaluation Board Pattern Layout

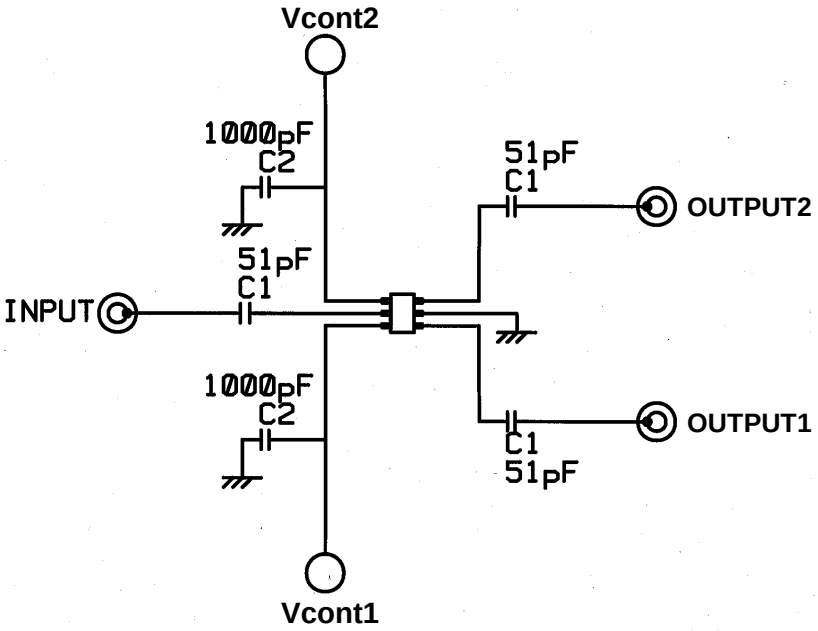


scale 1 : 1

size 38 mm × 38 mm

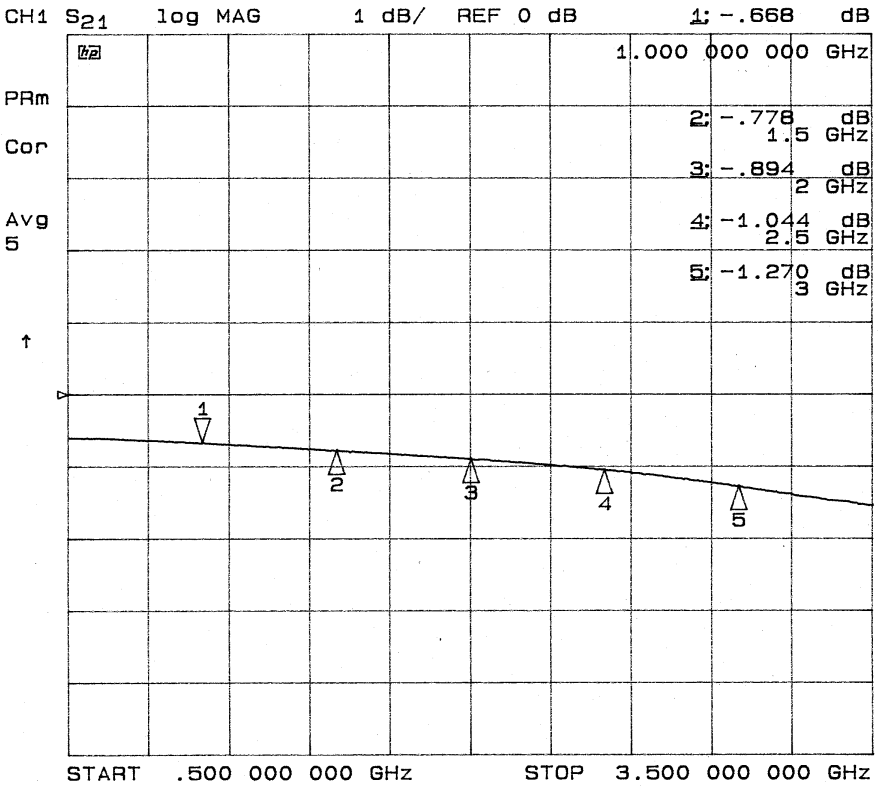
material FR4 (ELC4756/Sumitomo)
h = 0.4 mm, εr = 4.6

Circuit Description

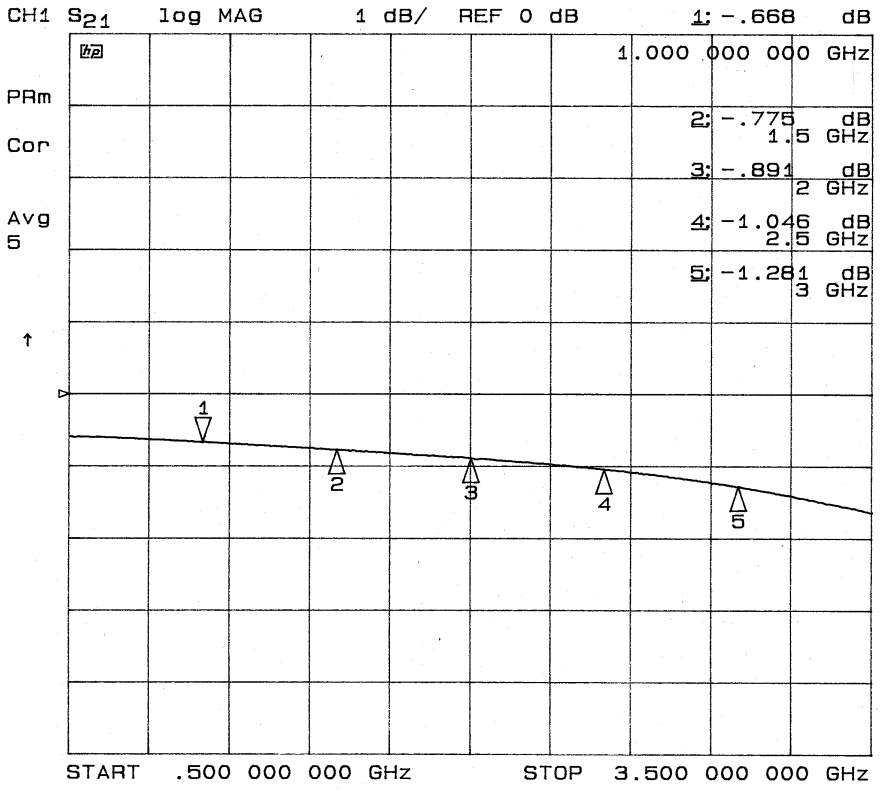


Parts	Model No.	Value	Maker	Symbol
Chip Capacitance	GRM36CH510K50	51 pF	Murata	C1
	GRM36B102K50	1000 pF	Murata	C2
PC Terminal	A2–2PA–2.54DSA	—	Hirose	—
RF Connector	142–0721–821	—	Jhonson	—
Substrate	FR4 (t = 0.4 mm)	—	Sumitomo	—

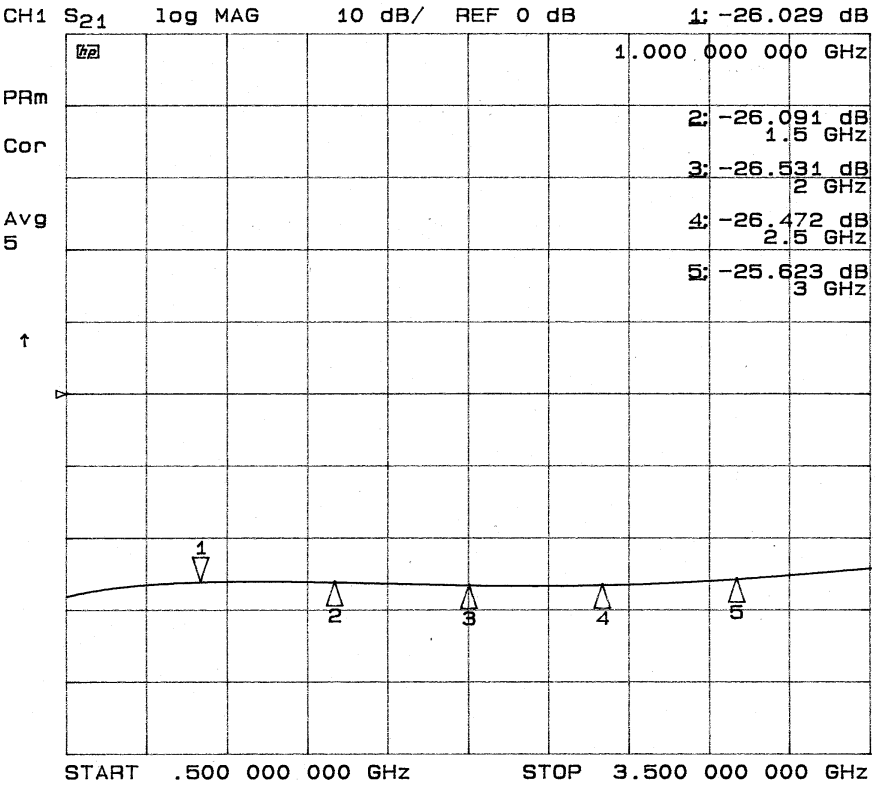
OUT1 Insertion Loss



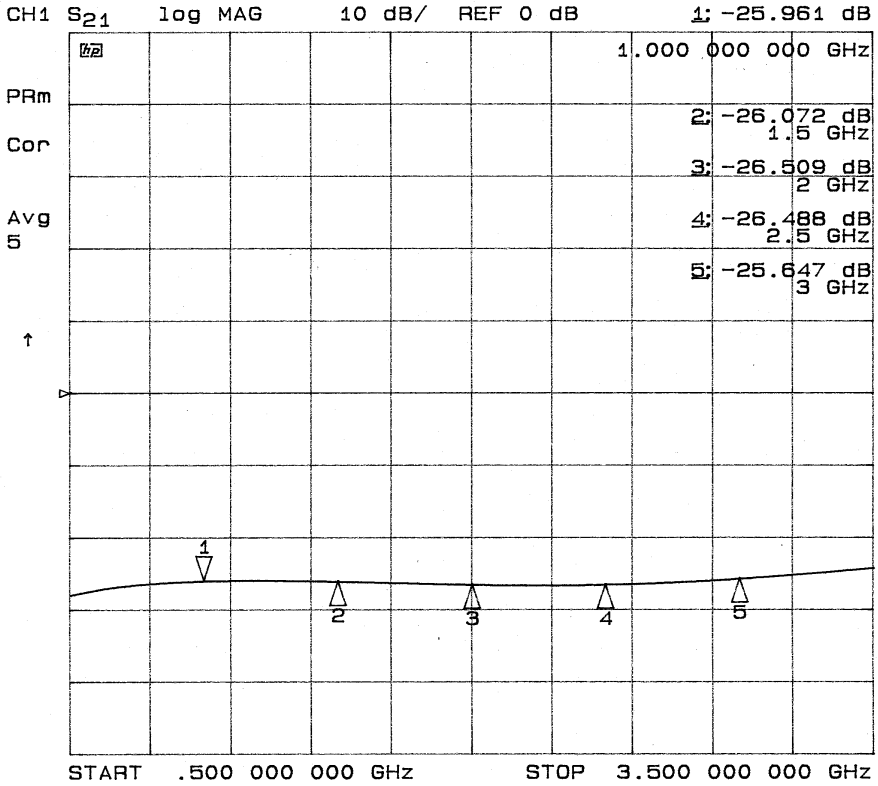
OUT2 Insertion Loss



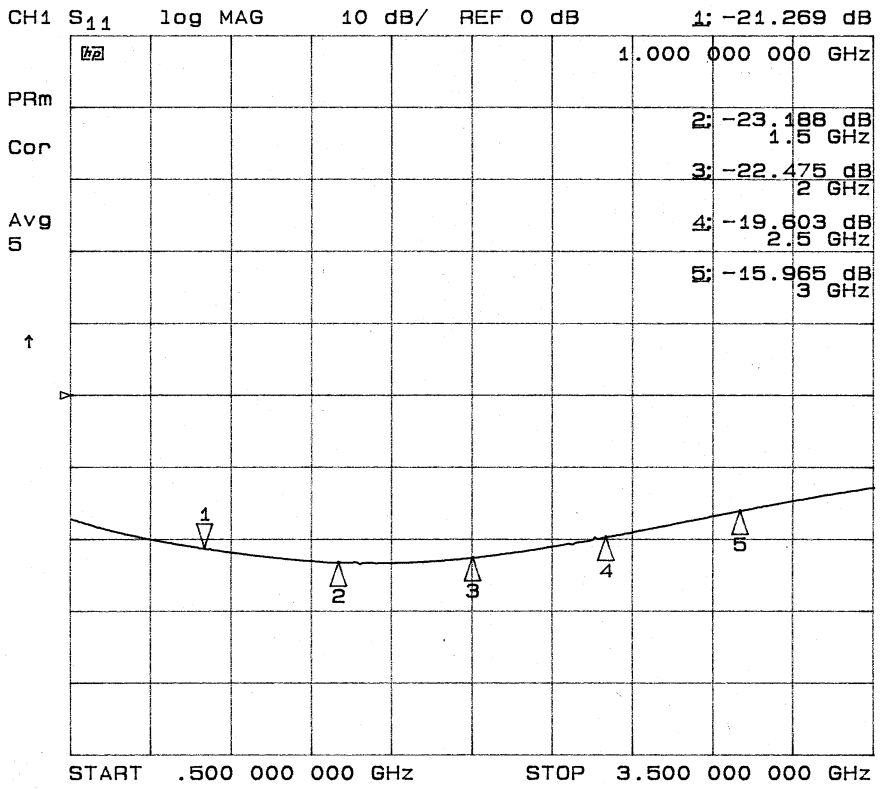
OUT1 Isolation



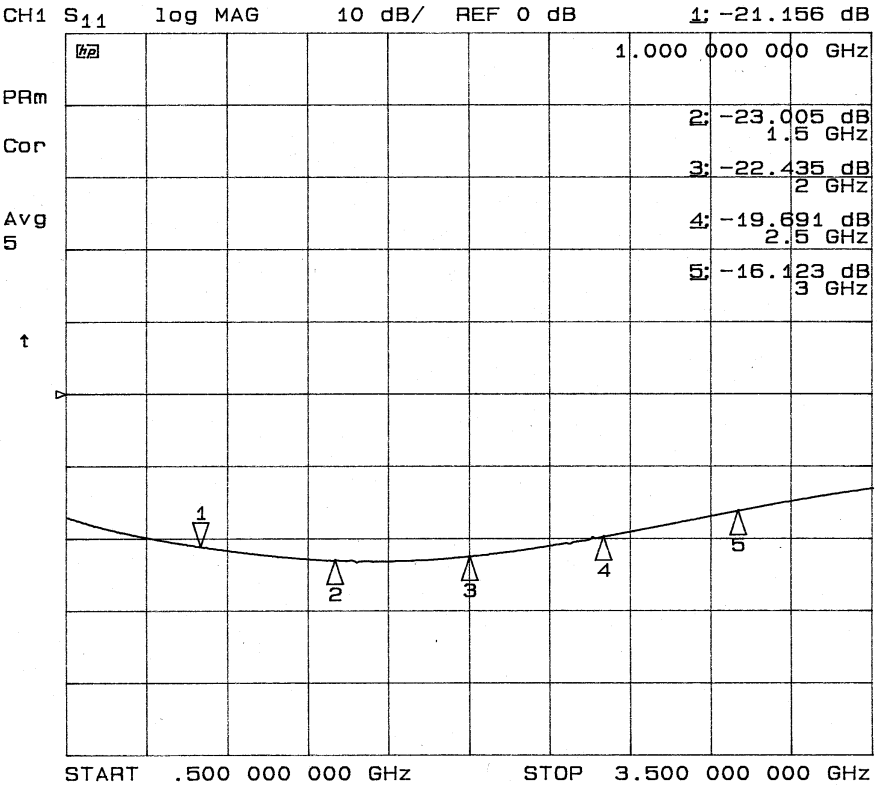
OUT2 Isolation



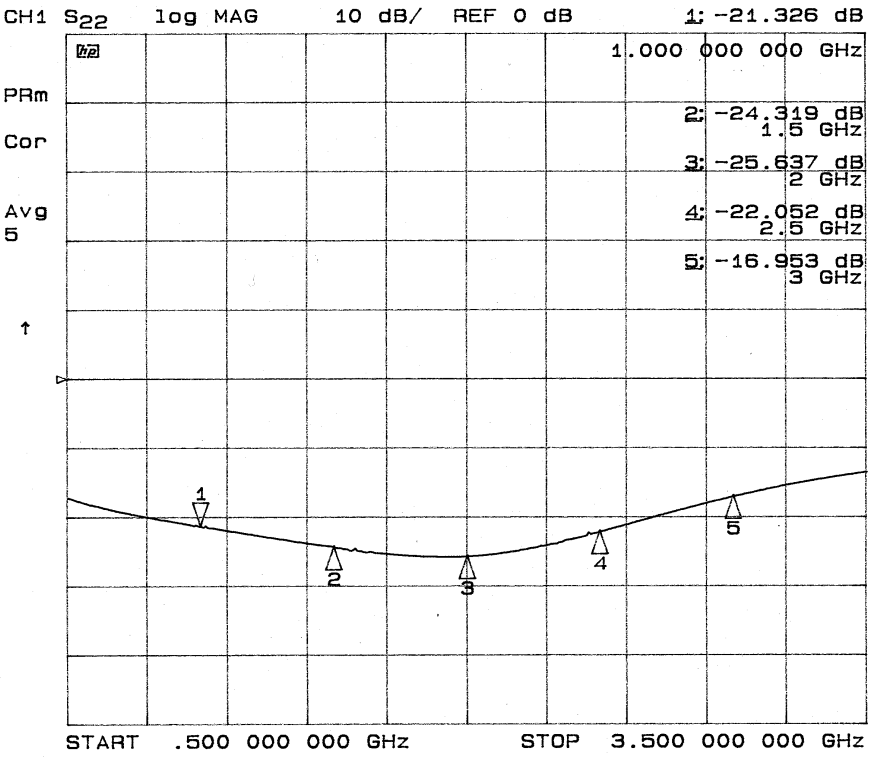
OUT1 Input Return Loss



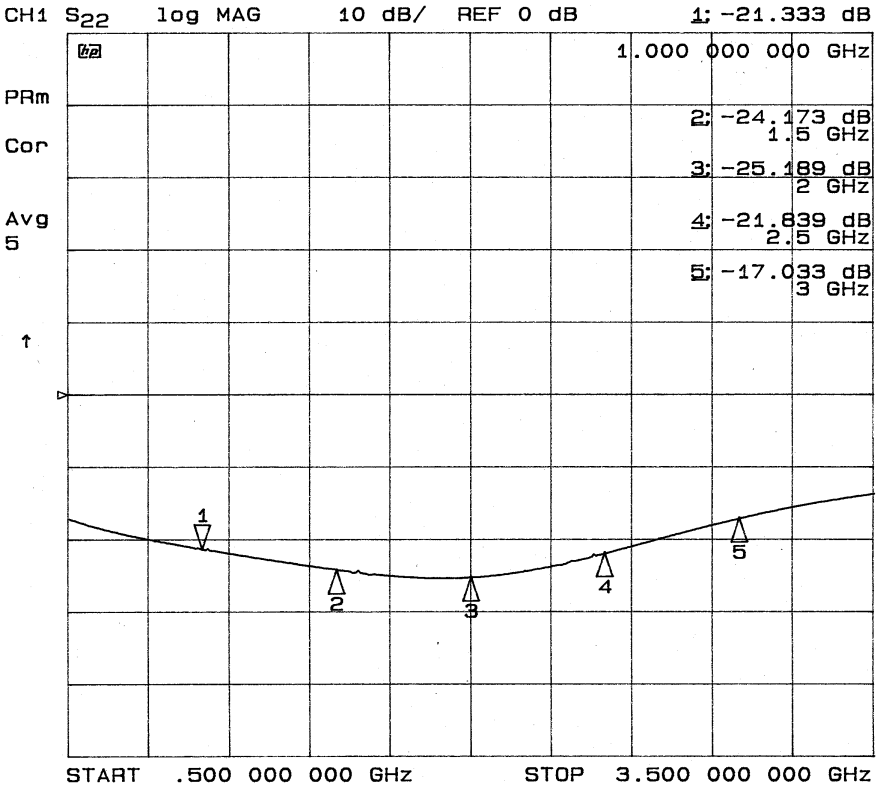
OUT2 Input Return Loss



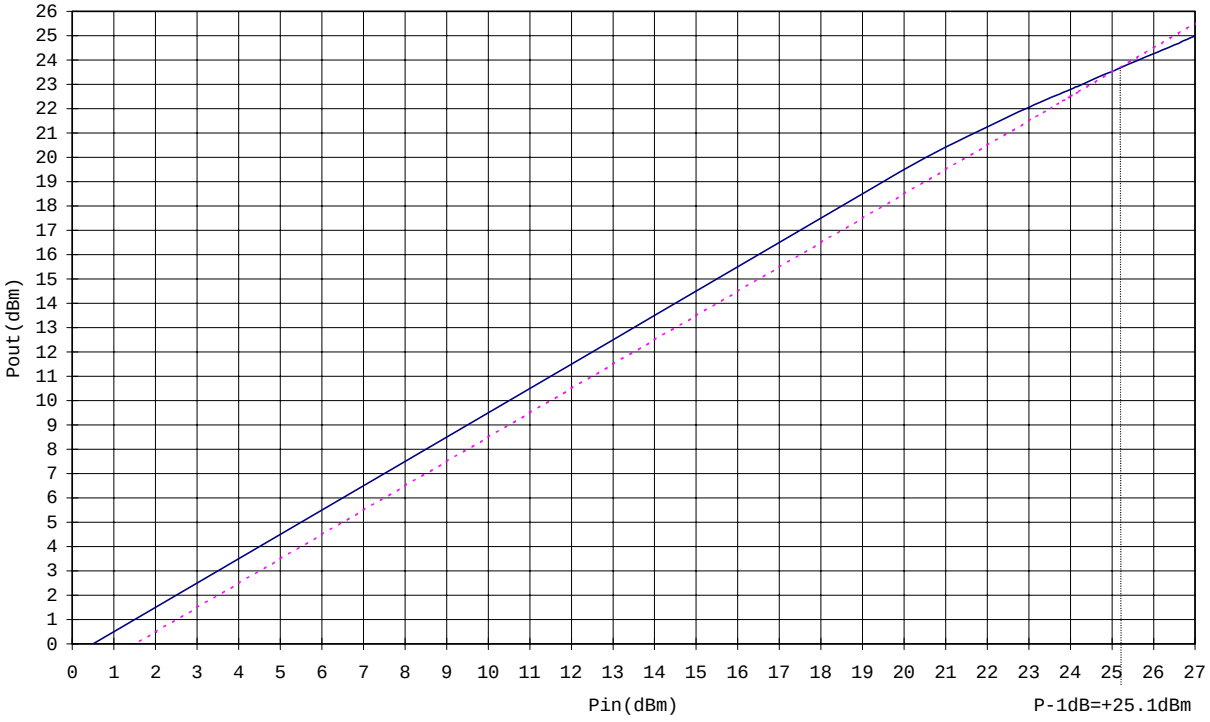
OUT1 Output Return Loss



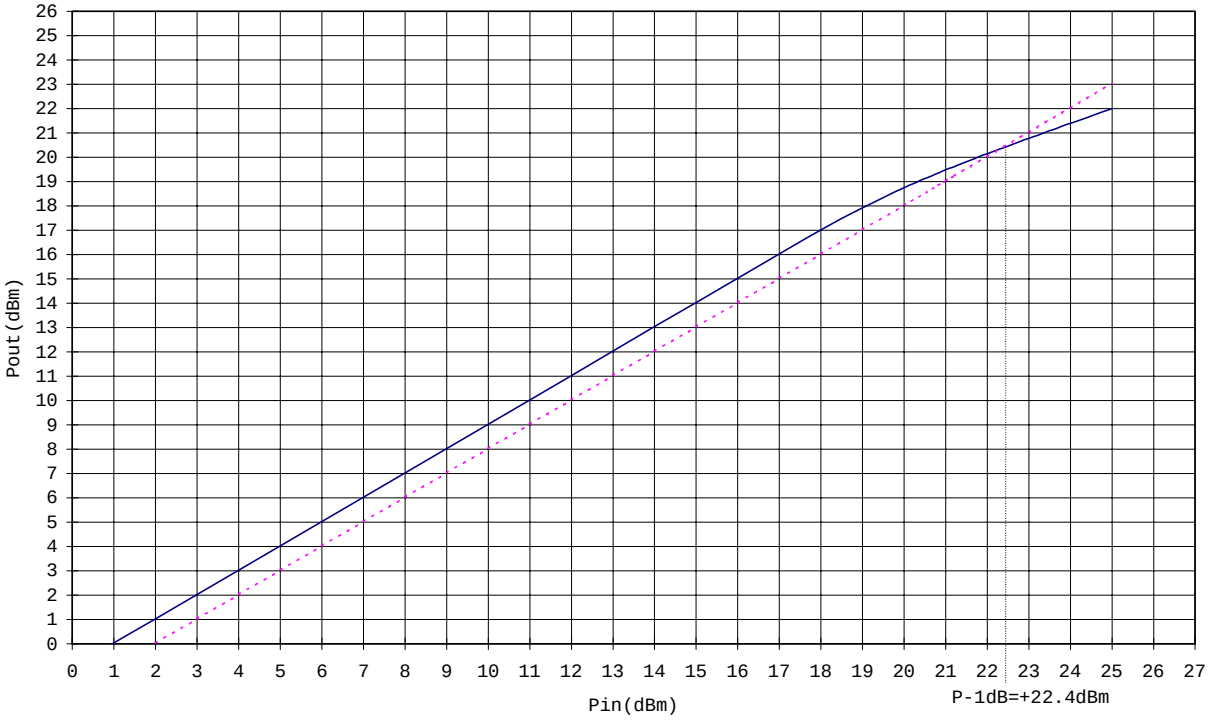
OUT2 Output Return Loss



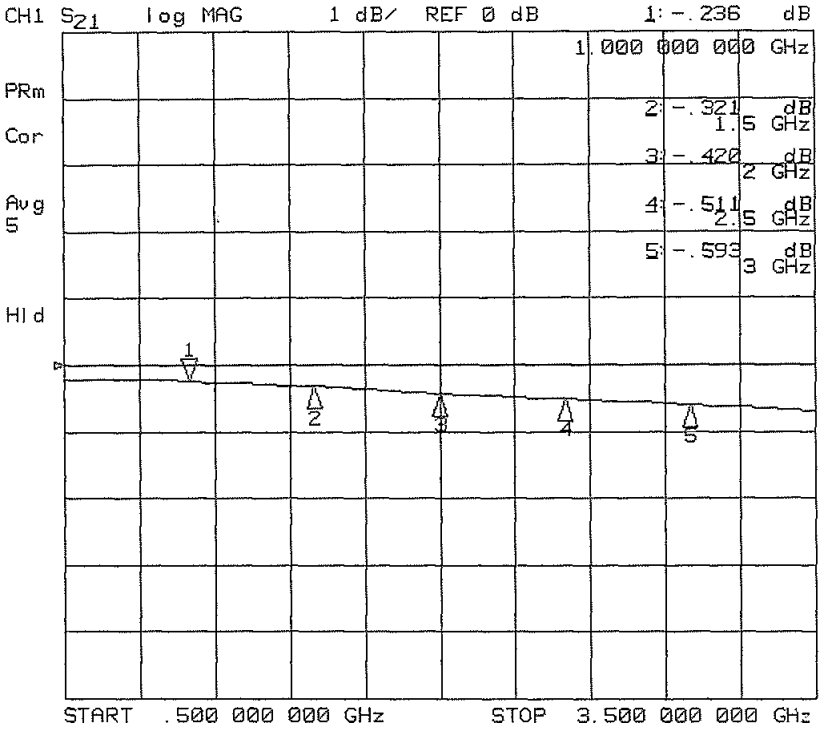
1 GHz P_{in} vs. P_{out}



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

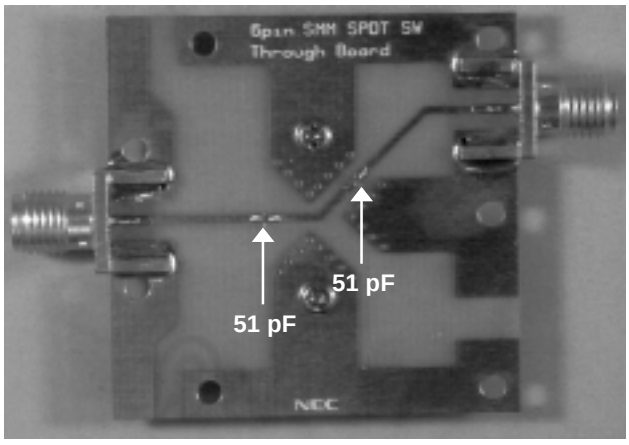


Loss of The Test Fixture vs. Frequency



STIMULUS MHz	CH1 S21	
.500 000 000	-.202	dB
.600 000 000	-.202	dB
.700 000 000	-.203	dB
.800 000 000	-.211	dB
.900 000 000	-.224	dB
1.000 000 000	-.236	dB
1.100 000 000	-.261	dB
1.200 000 000	-.272	dB
1.300 000 000	-.284	dB
1.400 000 000	-.308	dB
1.500 000 000	-.321	dB
1.600 000 000	-.342	dB
1.700 000 000	-.361	dB
1.800 000 000	-.375	dB
1.900 000 000	-.400	dB
2.000 000 000	-.420	dB
2.100 000 000	-.444	dB
2.200 000 000	-.460	dB
2.300 000 000	-.481	dB
2.400 000 000	-.500	dB
2.500 000 000	-.511	dB
2.600 000 000	-.524	dB
2.700 000 000	-.543	dB
2.800 000 000	-.559	dB
2.900 000 000	-.581	dB
3.000 000 000	-.593	dB
3.100 000 000	-.614	dB
3.200 000 000	-.623	dB
3.300 000 000	-.654	dB
3.400 000 000	-.680	dB

Through Board
(Including DC Block Capacitances)



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