

To our customers,

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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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Evaluation Board Information

EC- μ PC3226TB SiGe Wideband Amplifier (For DBS LNB) Evaluation Board

- **Evaluation Board Pattern Layout**
- **Power Gain Data**
- **Isolation Data**
- **Input Return Loss Data**
- **Output Return Loss Data**
- **2.15 GHz P_{out} vs. P_{in} Data**
- **P_O (1 dB) vs. Frequency**
- **Output Power (1 tones), IM₃ vs. Input Power**
- **2nd/3rd Harmonics vs. Input Power**

Document No. PU10567EJ01V0EB (1st edition)

Date Published May 2005 CP(K)

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Printed in Japan

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This document outlines general applications for this product. The application circuits and circuit constants provided in this document are simply examples and should not be used for mass production design. Be aware also that there is no intention to standardize the restrictions and characteristics of these application circuits.

The characteristics of high-frequency devices in particular vary depending on the external components and mounting pattern used.

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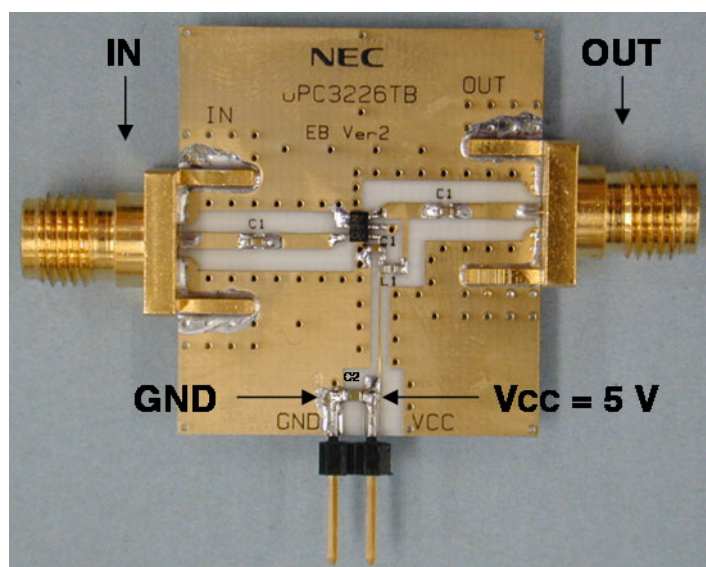
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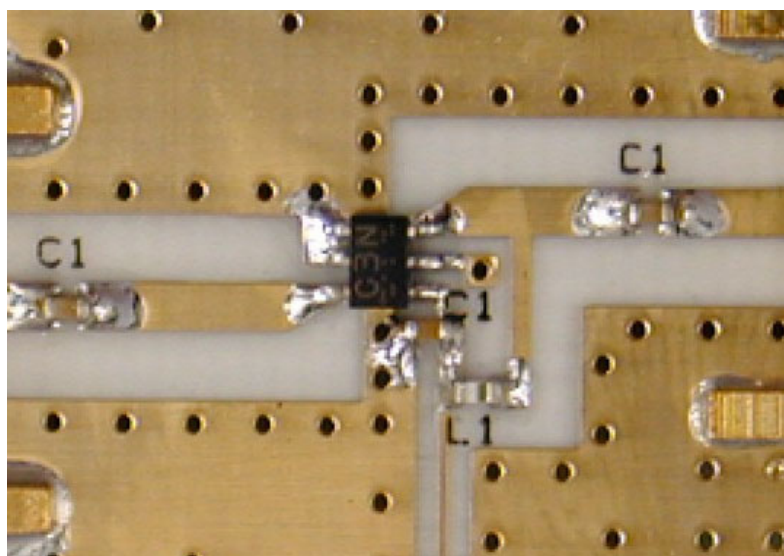
M8E 00.4-0110

Evaluation Board Pattern Layout



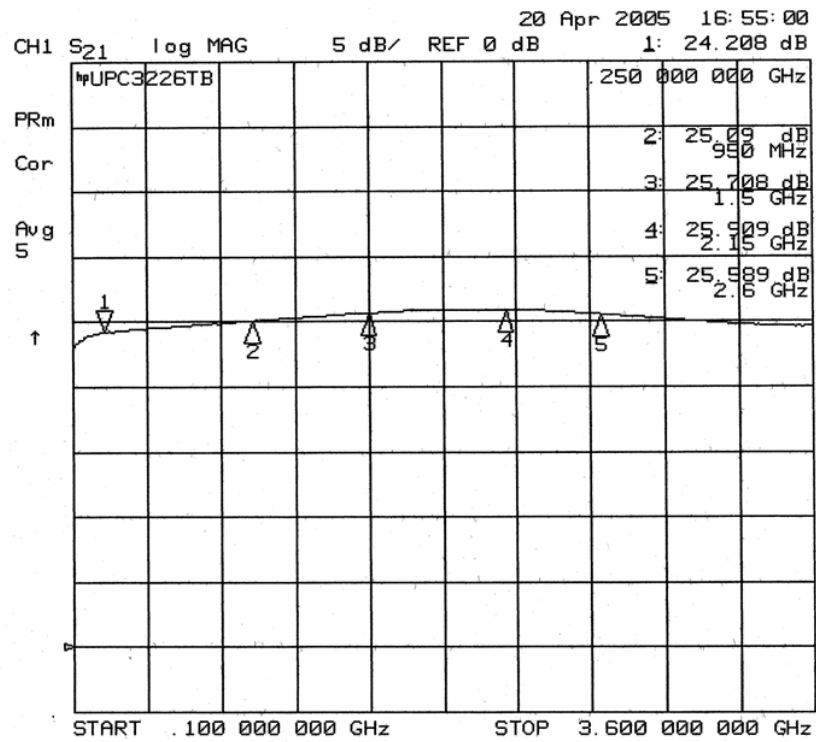
size 24 mm × 27 mm

substrate RO4003 (Rogers)
t = 0.51 mm, $\epsilon_r = 3.38$

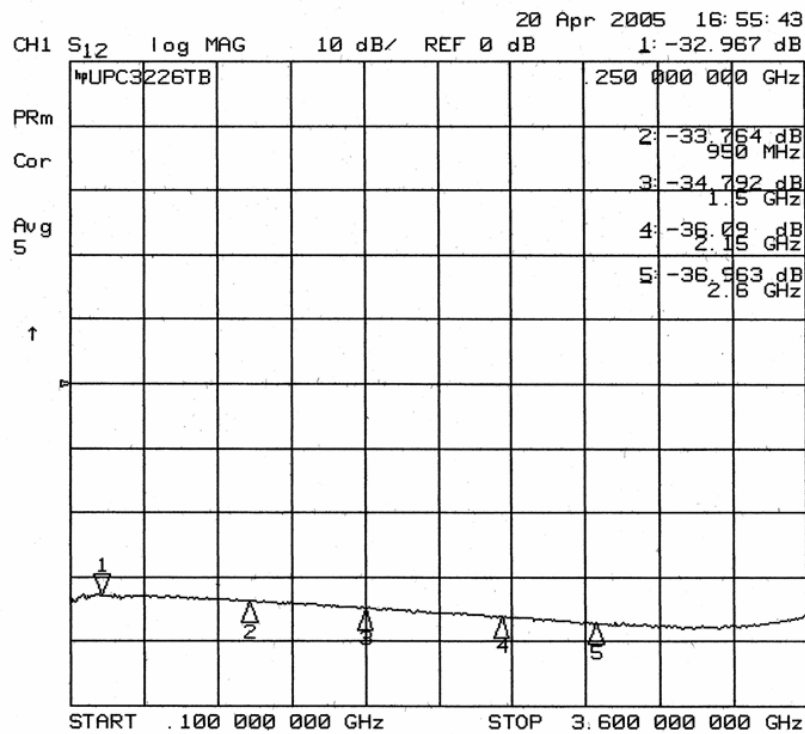


Parts	Model No.	Value	Maker	Symbol
Chip Capacitance	GRM1552C1H102JA01	1 000 pF	Murata	C1
	GRM1882C1H102JA01	1 000 pF	Murata	C2
Chip Inductor	AML1005H82NJT	82 nH	FDK	L1
PC Terminal	A2-2PA-2.54DSA	—	Hirose	—
RF Connector	WK72475	—	Waka	—
Substrate	RO4003 (t = 0.51 mm)	—	Rogers	—

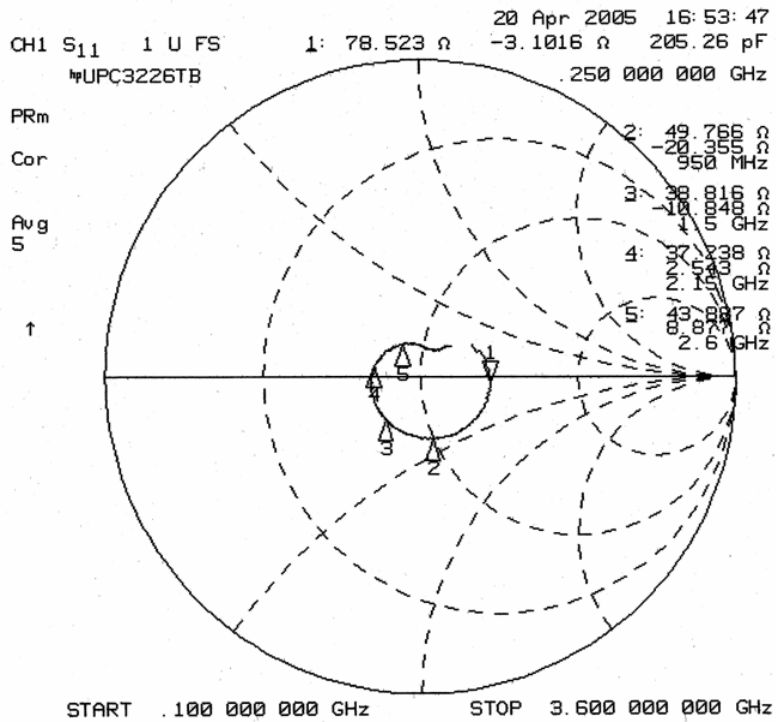
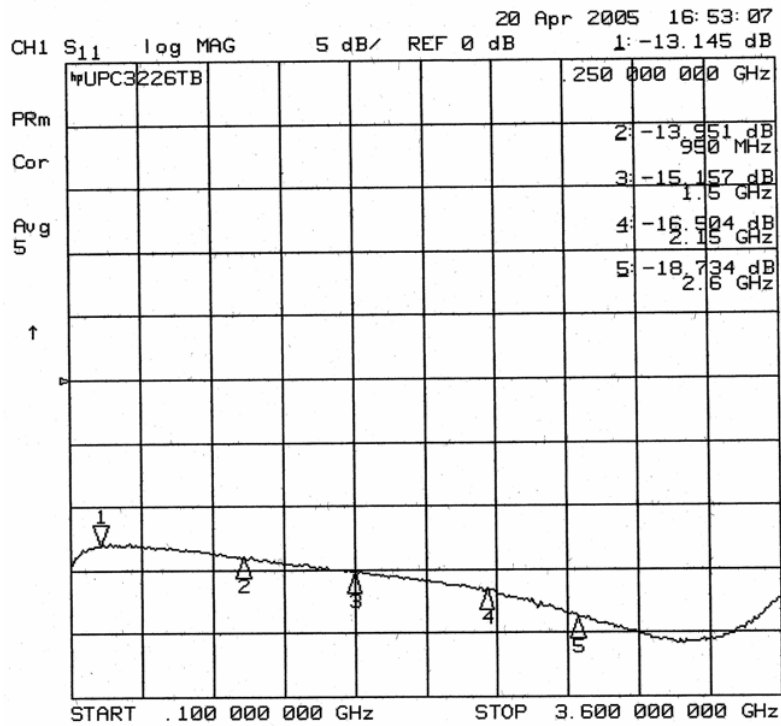
Power Gain Data



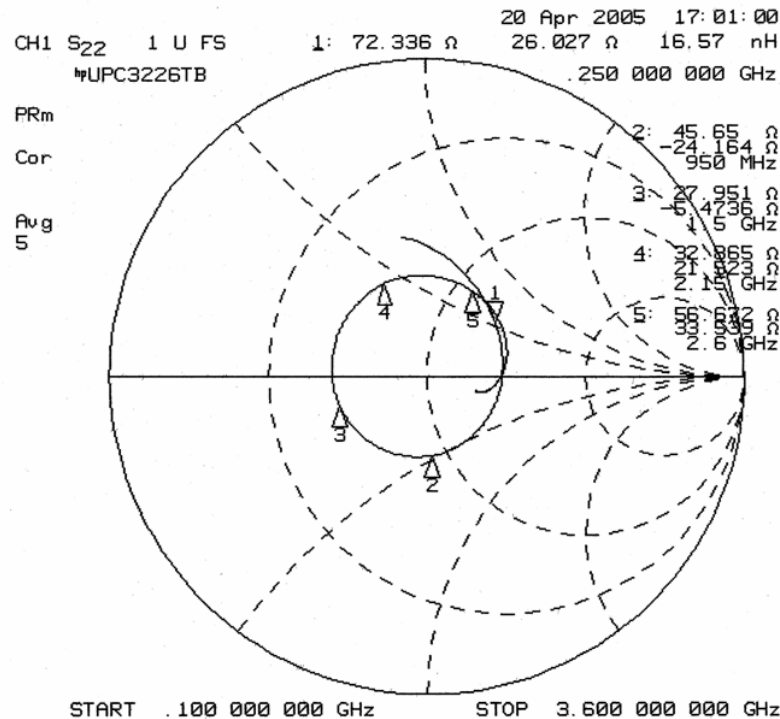
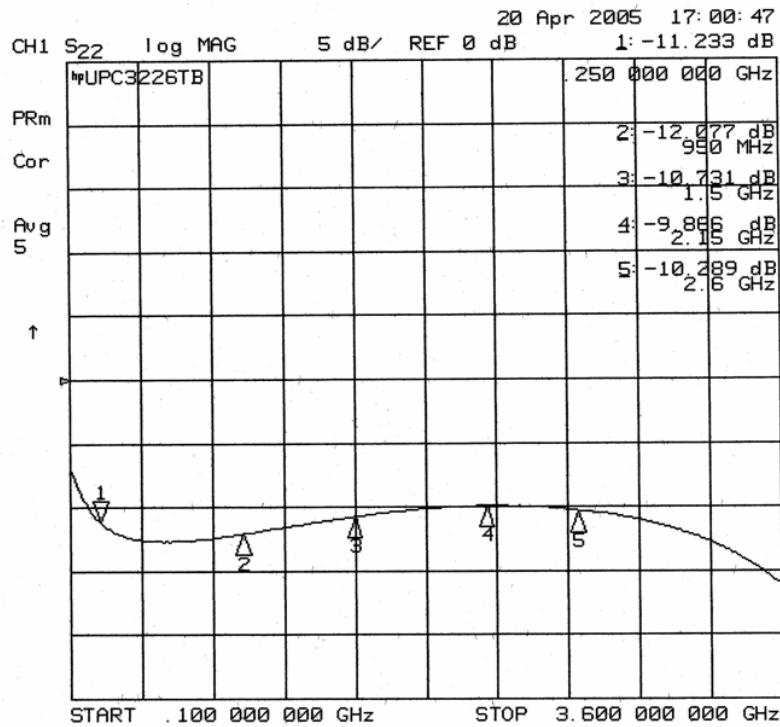
Isolation Data



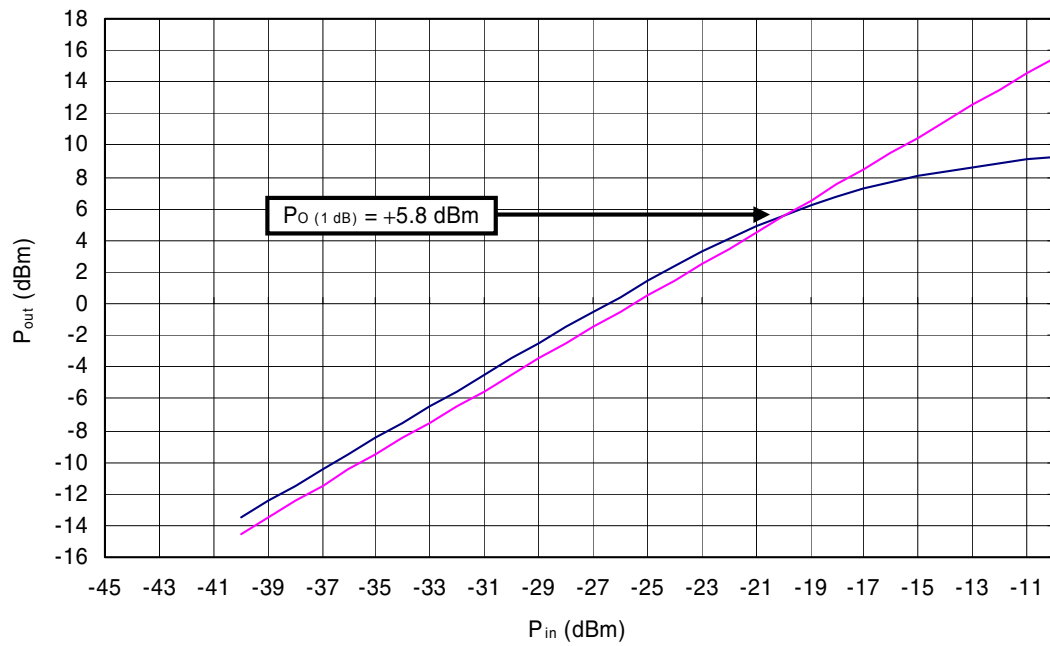
Input Return Loss Data



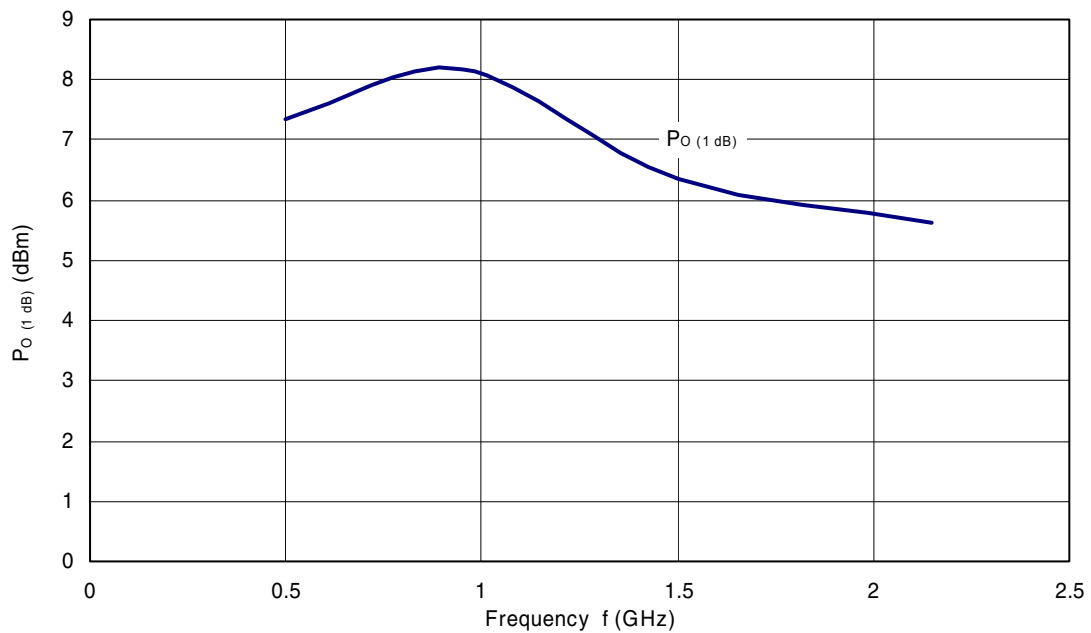
Output Return Loss Data



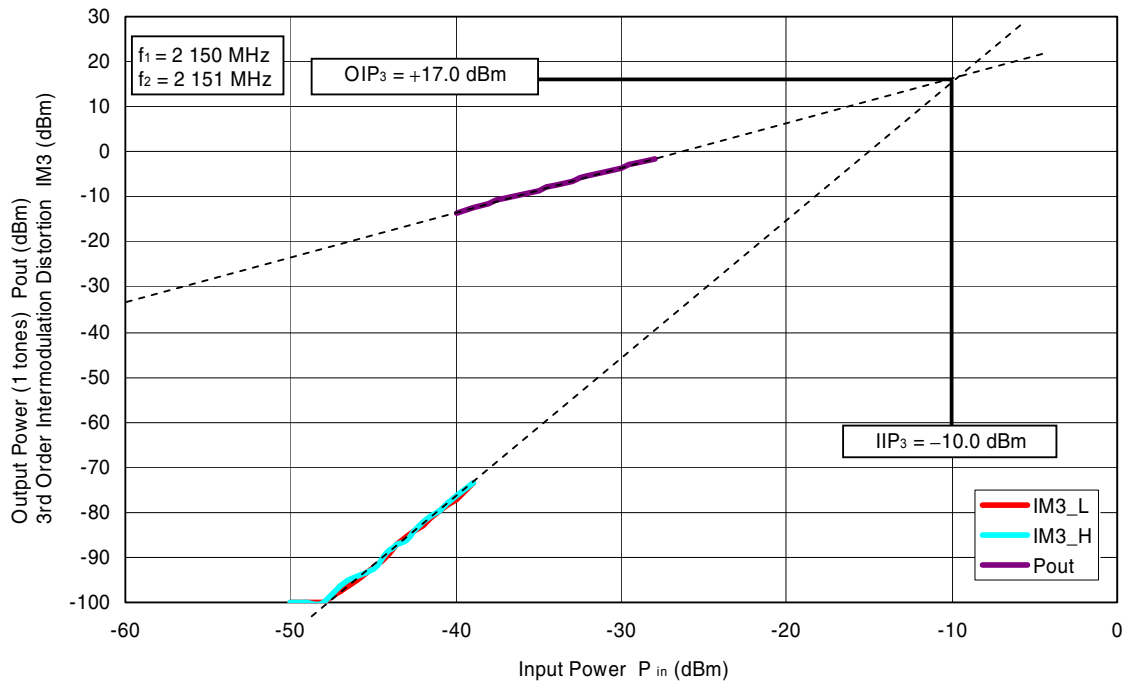
2.15 GHz P_{out} vs. P_{in} Data



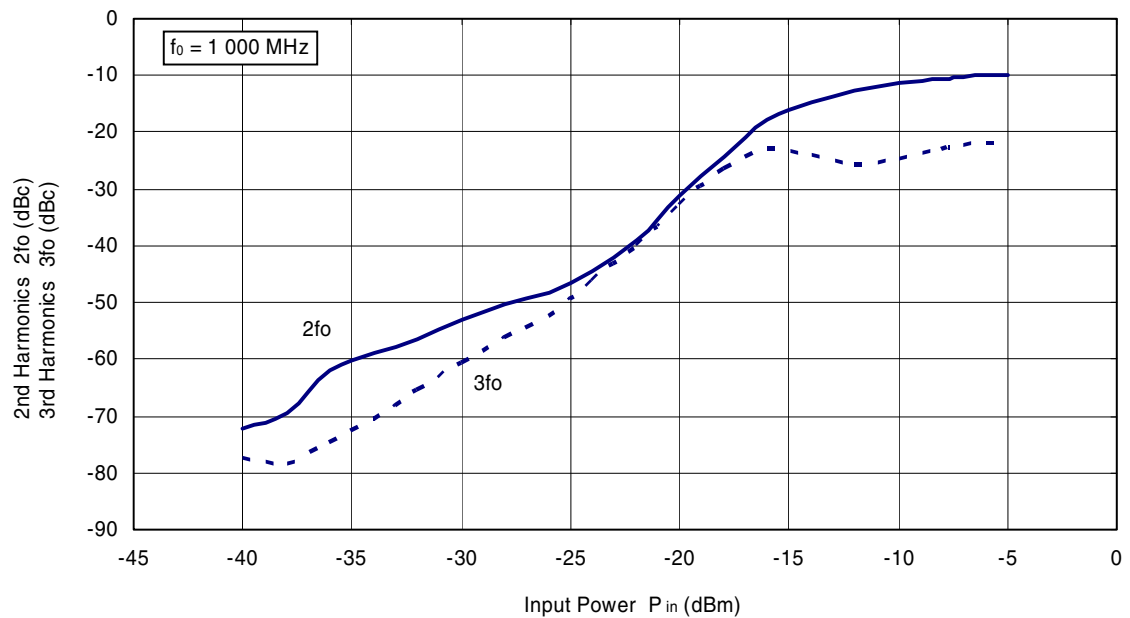
$P_O (1\text{ dB})$ vs. Frequency



Output Power (1 tones), IM₃ vs. Input Power



2nd/3rd Harmonics vs. Input Power



► For further information, please contact

NEC Compound Semiconductor Devices, Ltd. <http://www.ncsd.necel.com/>

E-mail: salesinfo@ml.ncsd.necel.com (sales and general)

techinfo@ml.ncsd.necel.com (technical)

Sales Division TEL: +81-44-435-1573 FAX: +81-44-435-1579

NEC Compound Semiconductor Devices Hong Kong Limited

E-mail: ncsd-hk@elhk.nec.com.hk (sales, technical and general)

Hong Kong Head Office TEL: +852-3107-7303 FAX: +852-3107-7309

Taipei Branch Office TEL: +886-2-8712-0478 FAX: +886-2-2545-3859

Korea Branch Office TEL: +82-2-558-2120 FAX: +82-2-558-5209

NEC Electronics (Europe) GmbH <http://www.ee.nec.de/>

TEL: +49-211-6503-0 FAX: +49-211-6503-1327

California Eastern Laboratories, Inc. <http://www.cel.com/>

TEL: +1-408-988-3500 FAX: +1-408-988-0279