

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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Evaluation Board Information

EC-NESG260234

460 MHz, 6 V Medium Power Amplifier Evaluation Board

- **Evaluation Board Pattern Layout**
- **Circuit Description**
- **P_{out}, G_P, I_c, Power Consumption vs. P_{in}**

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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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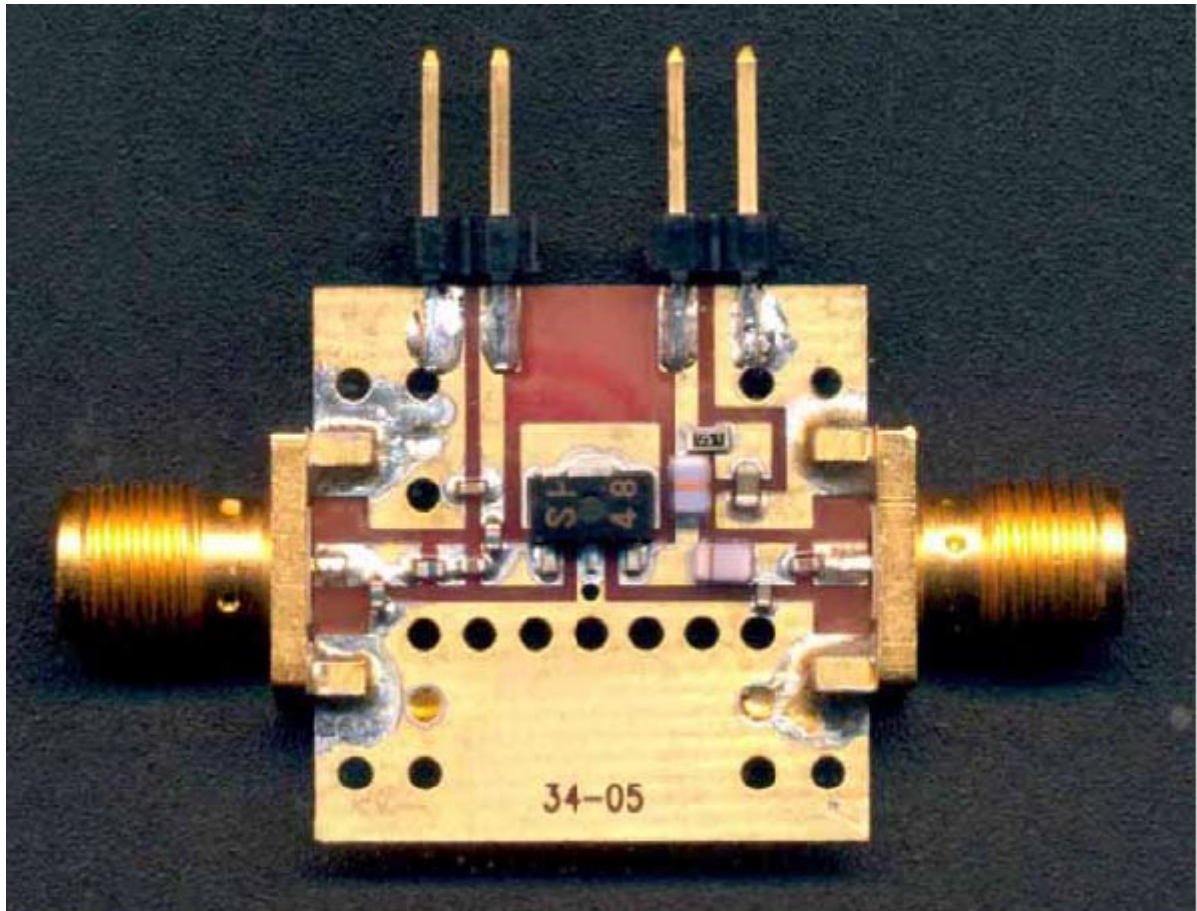
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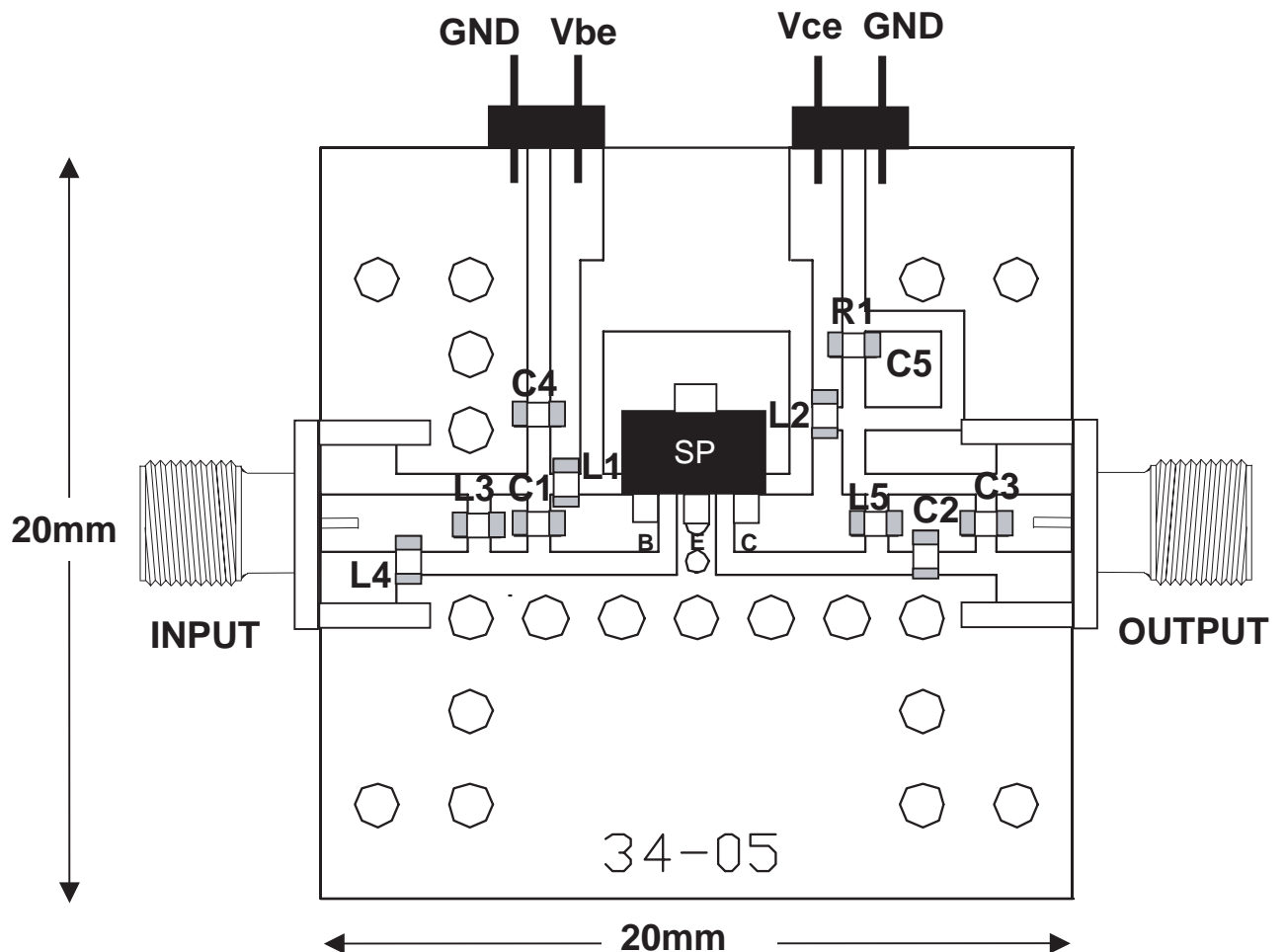
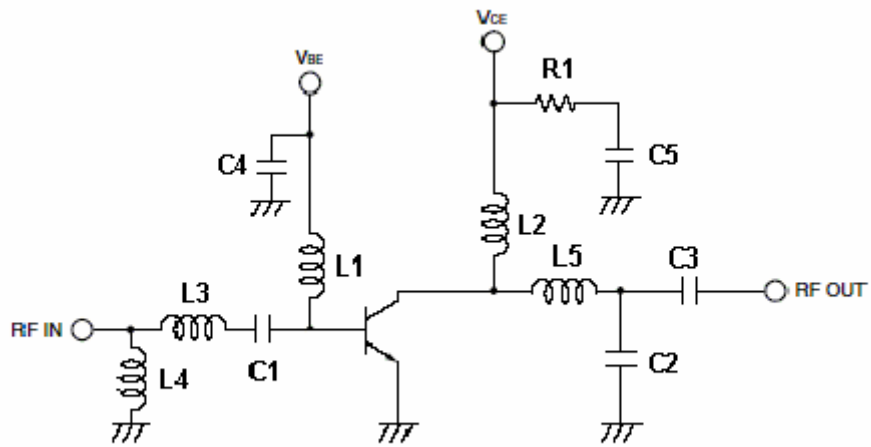
Evaluation Board Pattern Layout



size 20 mm × 20 mm

material FR4 (ELC4756/Sumitomo)
h = 0.4 mm, $\epsilon_r = 4.6$

Circuit Description



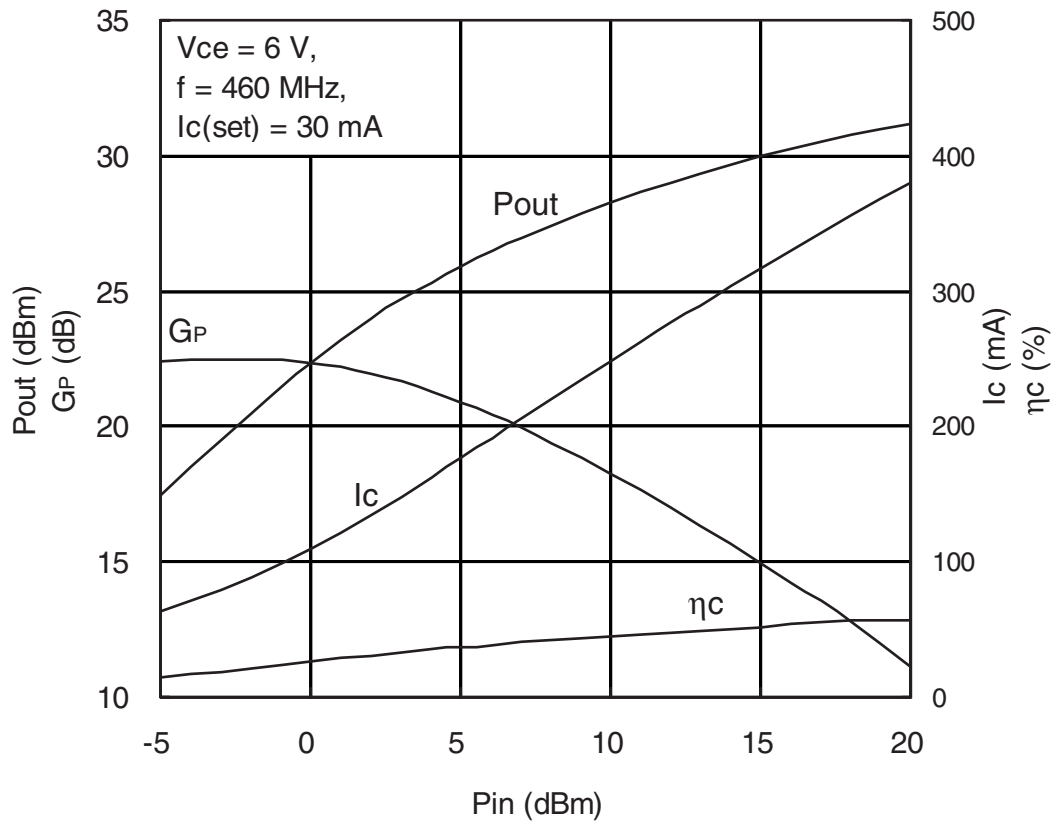
Parts List

Component	Manufacturer	Value	Unit	Size (TYPE)	Purpose
C1	Murata	10	pF	1005	Input DC Block/Input RF Matching
C2	Murata	4	pF	1005	Input RF Matching
C3	Mutara	33	pF	1005	Input DC Block/Output RF Matching
C4	Murata	10 000	pF	1005	RF GND
C5	Murata	1	μ F	1608	RF GND
L1	Toko	68	nH	1005	RF Block/Input RF Matching
L2	Toko	33	nH	LLQ2021	RF Block/Output RF Matching
L3	Toko	1	nH	1005	Input RF Matching
L4	Toko	8.2	nH	1005	Input RF Matching
L5	Toko	8.2	nH	LLQ2021	Output RF Matching
R1	SSM	15	Ω	1608	Improve Stability

P_{out}, G_P, I_c, Power Consumption vs. P_{in}

(EC-NESG260234 460 MHz PA V_{CE} = 6 V, I_{C (set)} = 30 mA)

P_{out}, G_P, I_c, η_c vs. P_{in}



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