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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

μ PC8178TB 1.0 GHz Silicon MMIC Evaluation Board

- **Evaluation Board Pattern Layout**
- **Circuit Description**
- **Circuit Current and Power Gain Data**
- **1 dB Gain Compression Output Power Data**
- **Isolation Data**
- **Input and Output Return Loss Data**

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

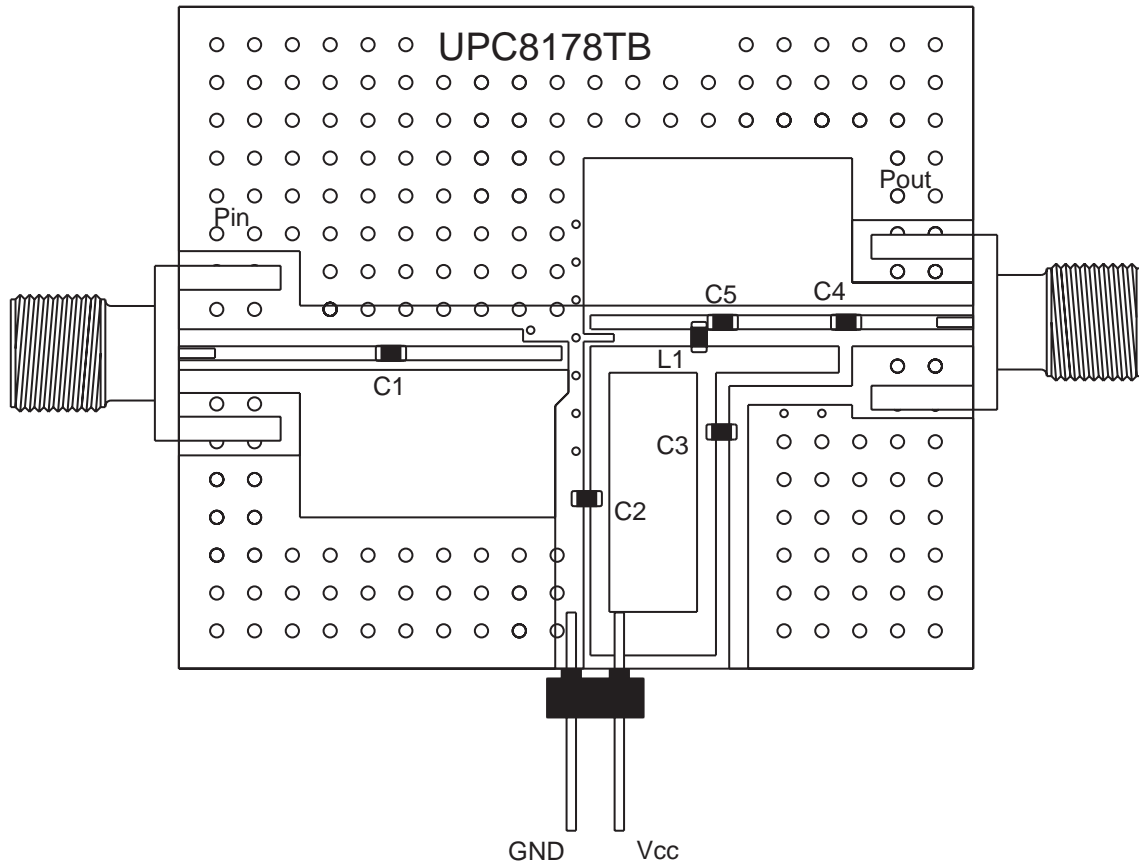
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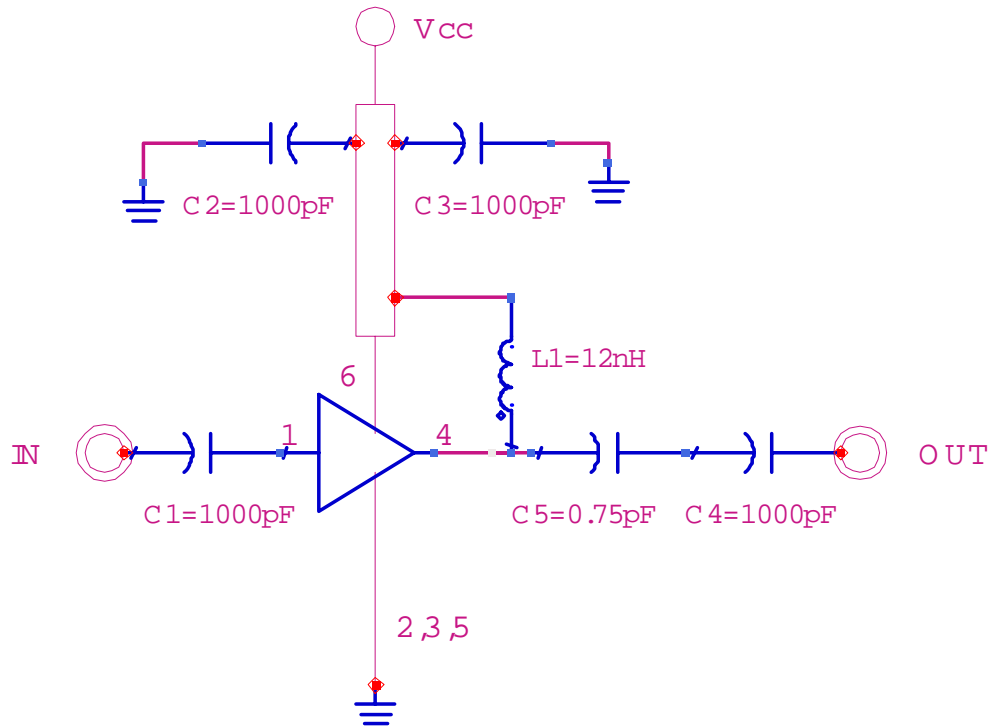
Evaluation Board Pattern Layout

uPC8178TB $f = 1.0 \text{ GHz}$



Circuit Description

uPC 8178TB $f=1.0\text{GHz}$



KC-8178TB**@ f = 1.0 GHz, V_{CC} = 3.0 V**

Symbol	I _{CC}	G _P	P _{O(1 dB)}	ISL	RL _{in}	RL _{out}
Unit	mA	dB	dBm	dB	dB	dB
Conditions	No signal	P _{in} = -30 dBm	—	P _{in} = -30 dBm	P _{in} = -30 dBm	P _{in} = -30 dBm
TYP.	1.90	11.0	-4.0	39.0	7.0	—
1	1.76	11.2	-4.8	37.2	7.0	18.8
2	1.75	10.9	-5.5	38.0	7.3	10.5
3	1.77	11.2	-4.6	36.4	7.1	17.2
4	1.75	11.1	-5.0	37.8	6.8	19.3
5	1.77	10.9	-5.7	37.6	7.3	10.0
AVE.	1.78	11.1	-4.9	37.7	7.1	15.1

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