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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 PC8178TK

1.9 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.

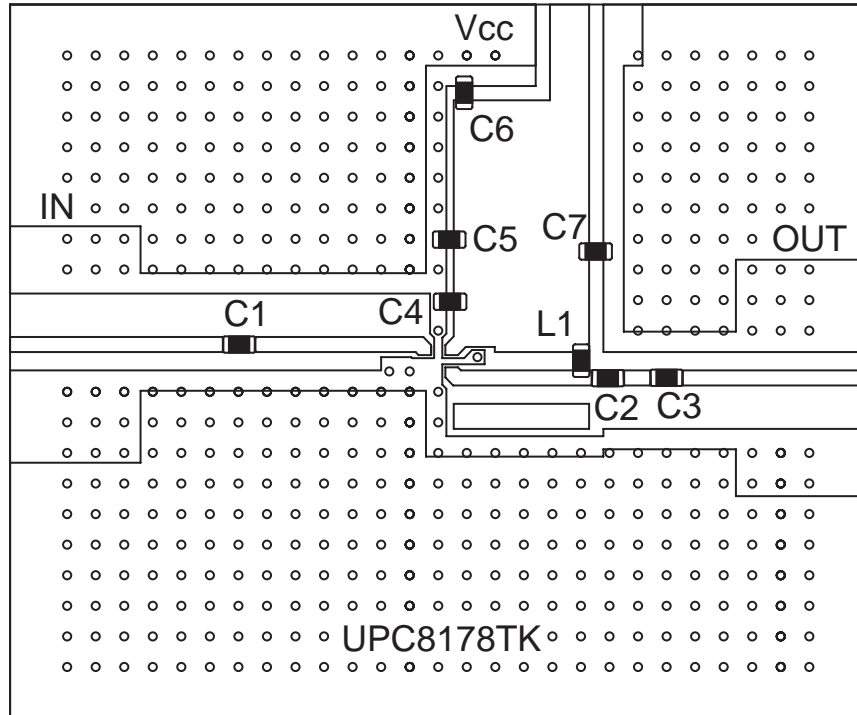
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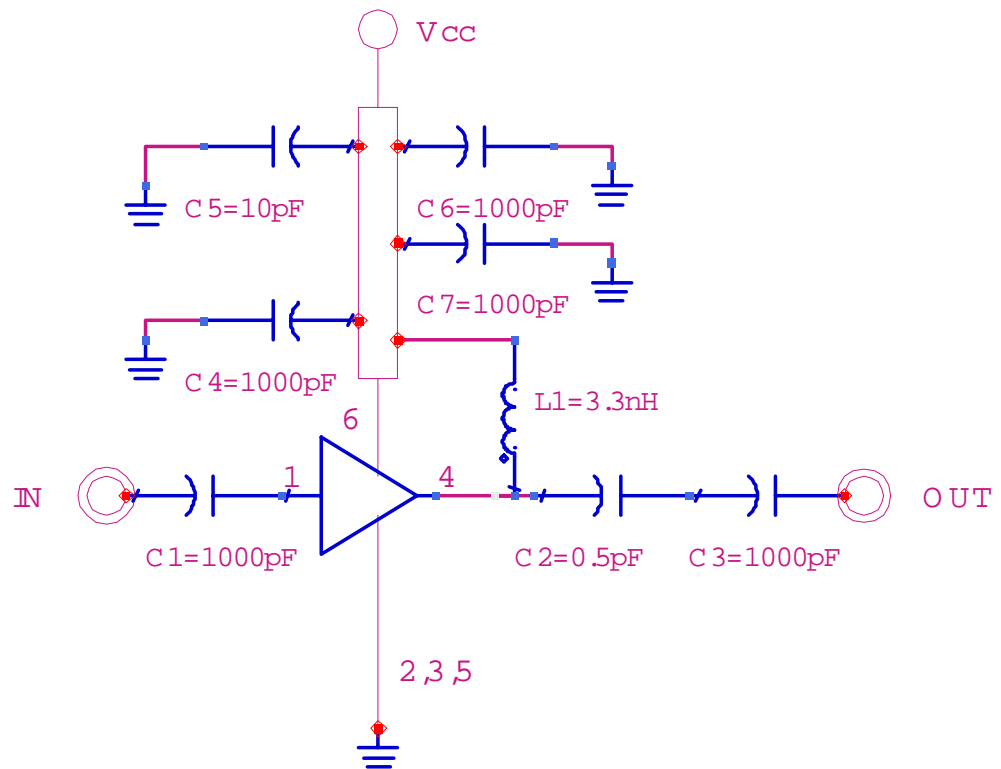
Evaluation Board Pattern Layout

uPC8178TK $f = 1.9 \text{ GHz}$



Circuit Description

uPC8178TK $f=1.9\text{GHz}$



KC-8178TK**@ f = 1.9 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	-8.0	41.0	8.0	—
1	2.11	10.8	-6.1	36.5	8.4	13.3
2	2.11	10.9	-6.6	37.6	8.3	12.0
3	2.09	10.9	-6.4	37.1	8.5	26.4
4	2.11	10.8	-6.7	37.1	8.3	11.2
5	2.09	10.7	-6.4	37.0	8.3	12.2
AVE.	2.07	10.9	-6.7	37.7	8.3	15.0

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