

DATA SHEET

December, 2007 – V3

	8010 Ceramic Chip Antenna for Bluetooth/Wimax Application			CAN4311 181 XX 245 3K CAN4311 881 XX 245 3K			October, 2007 - V1
							November, 2007 v2
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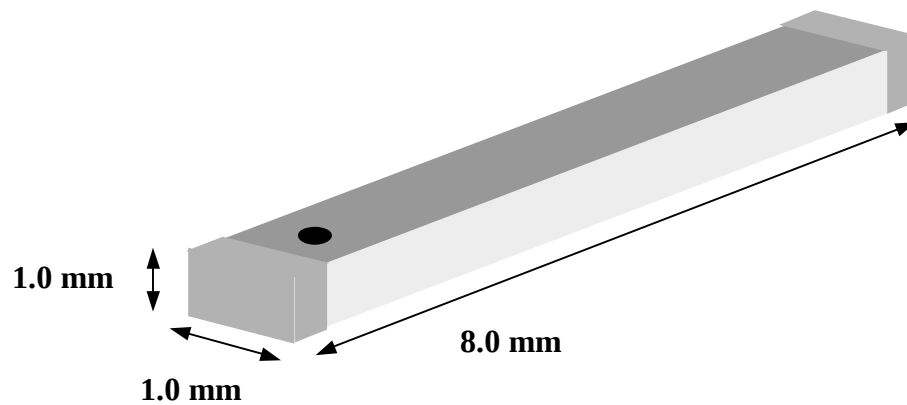
8010 Ceramic Chip Antenna for Bluetooth/Wimax Application

Quick Reference Data

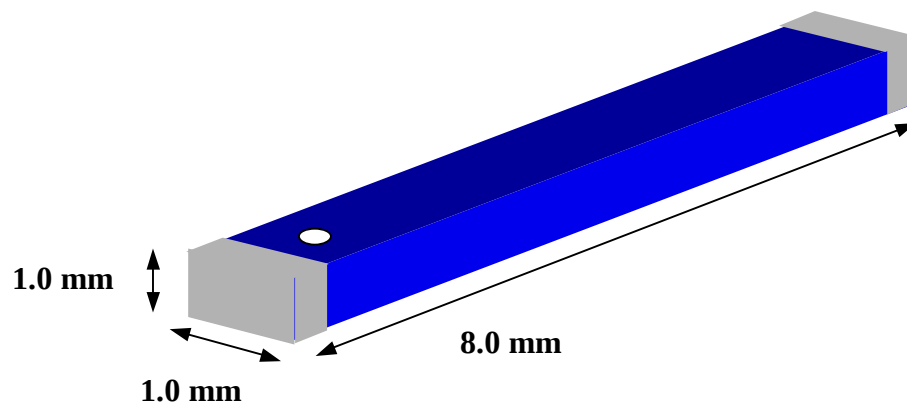
Centre Frequency	2.38 GHz
Bandwidth	2.3 ~ 2.49 GHz
VSWR	2.5 (Max.)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	3.0 dBi
Impedance	50Ω
Operating Temperature	-55~125 °C
Termination	Ni / Sn (Environmentally-Friendly Leadless)
Resistance to soldering heats	260℃ , 10sec.
Maximum Power	1W

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1. Mechanical Data (8 x 1x 1 mm³)



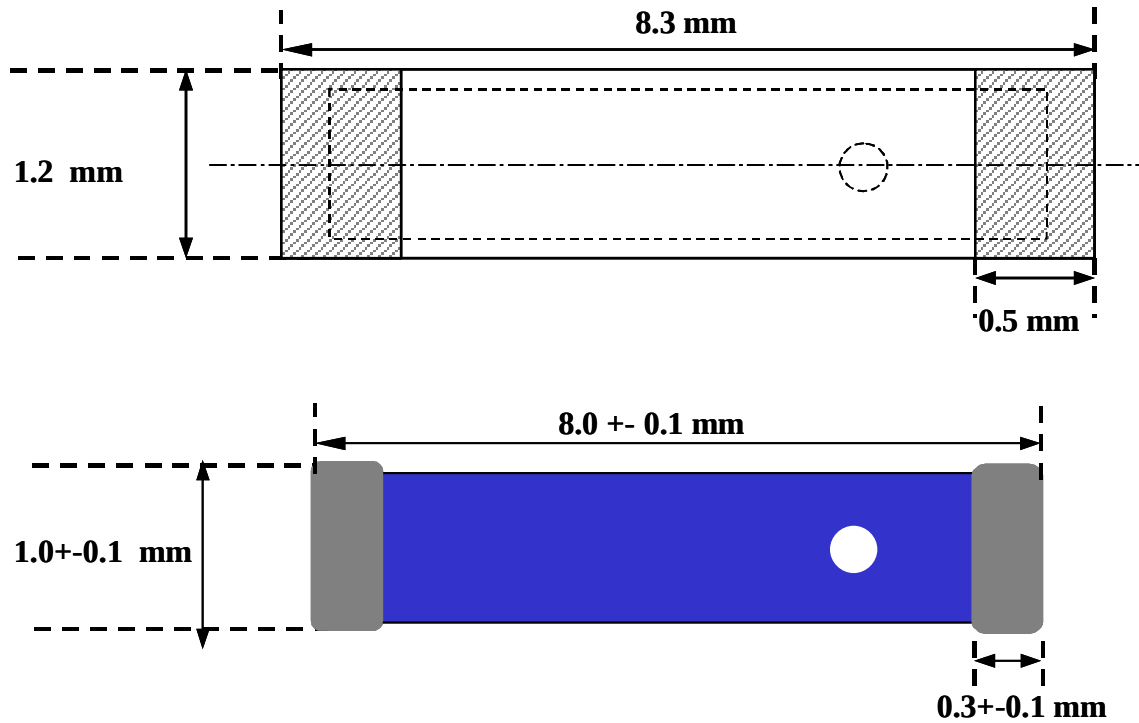
CAN4311181072453K



CAN4311881072453K

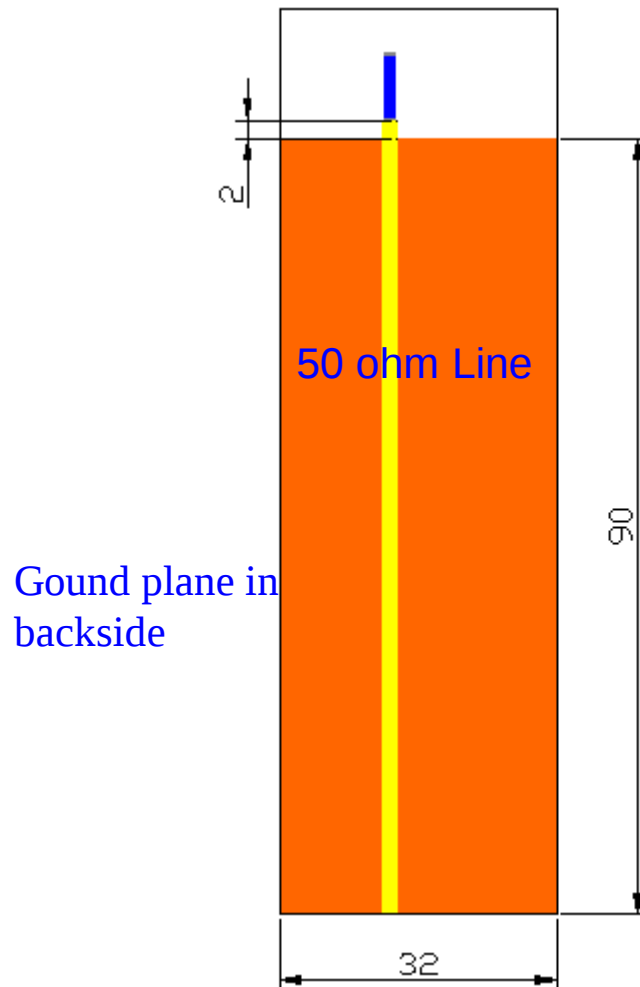
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2. Dimension of Footprint



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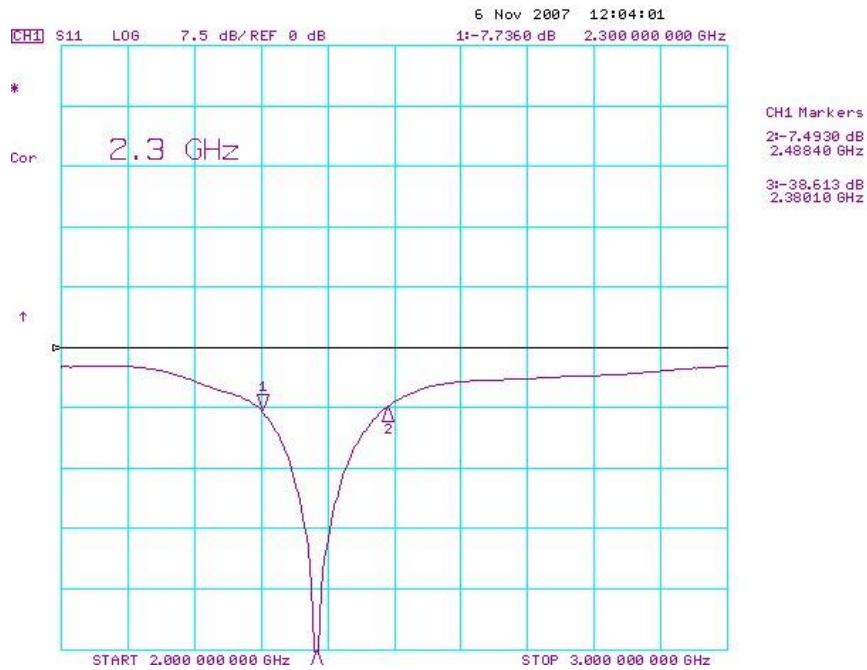
3. Evaluation Board Dimension and Outlook



Unit: mm

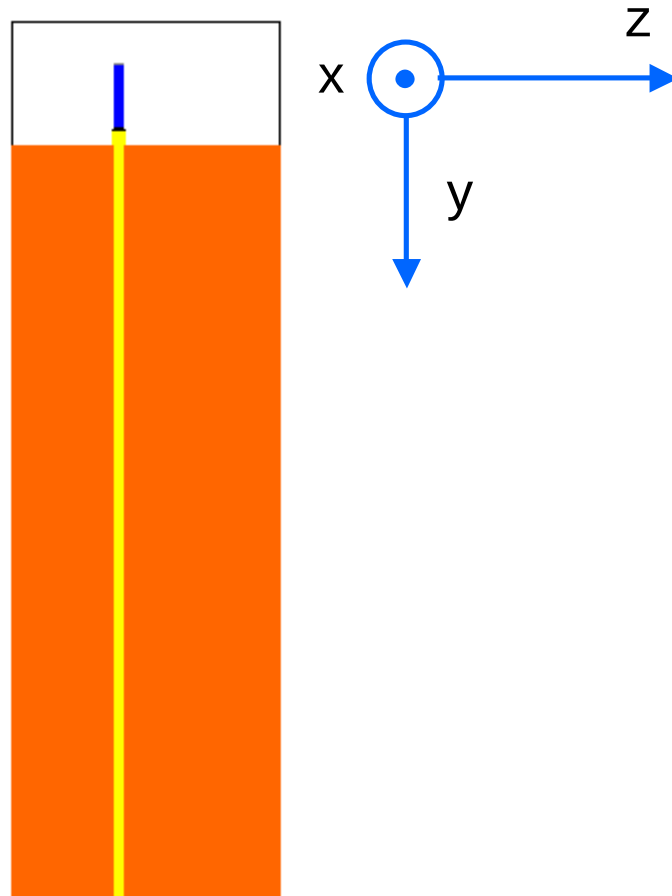
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4. Measured S-parameter



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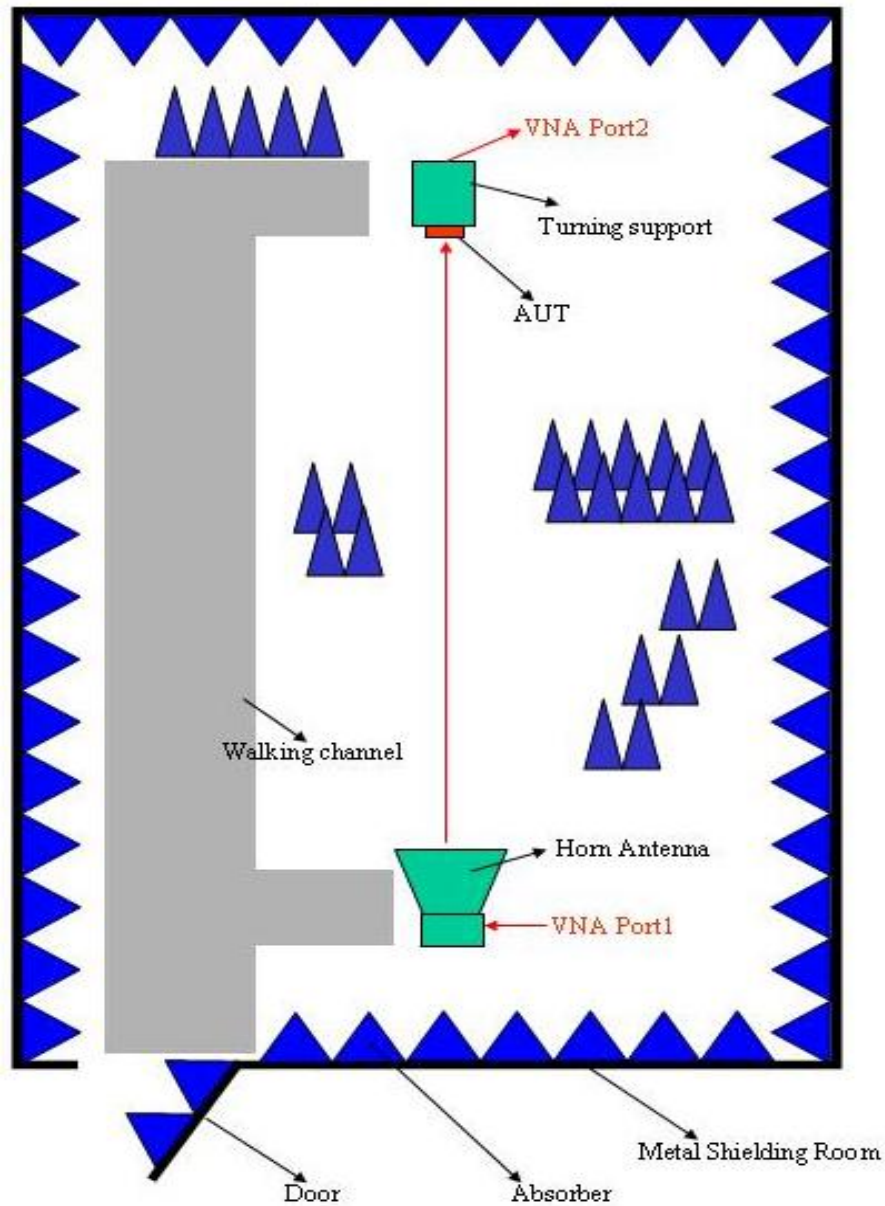
5.The Definition of X-Y-Z Plane



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6. The Environment of Antenna Radiation Pattern

Anechoic Chamber Dimension=10(m) × 6(m) × 6(m)



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8. Reliability Test

IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.4		Mounting	The antenna can be mounted on printed-circuit boards or ceramic substrates by applying wave soldering, reflow soldering (including vapour phase soldering) or conductive adhesive	No visible damage
4.5		Visual inspection and dimension check	Any applicable method using $\times 10$ magnification	In accordance with specification (chip off 4mm)
4.6.1		Antenna	Central Frequency at 20 °C	Standard test board in page 4
4.8		Adhesion	A force of 3 N applied for 10 s to the line joining the terminations and in a plane parallel to the substrate	No visible damage
4.9		Bond strength of plating on end face	Mounted in accordance with CECC 32 100, paragraph 4.4	No visible damage
			Conditions: bending 0.5 mm at a rate of 1mm/s, radius jig. 340 mm, 2mm warp on FR4 board of 90 mm length	No visible damage
4.10	20(Tb)	Resistance to soldering heat	260 $\pm$ 5 °C for 10 $\pm$ 0.5 s in a static solder bath	The terminations shall be well tinned after recovery and Central Freq. Change $\pm$ 6%

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IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
		Resistance to leaching	260 ± 5 °C for 30 ± 1 s in a static solder bath	Using visual enlargement of $\times 10$, dissolution of the termination shall not exceed 10%
4.11	20(Ta)	Solderability	Zero hour test, and test after storage (20 to 24 months) in original atmosphere; un-mounted chips completely immersed for 2 ± 0.5 s in 235 ± 5 °C.	The termination must be well tinned, at least 75% is well tinned at termination
4.12	4(Na)	Rapid change of temperature	-25 °C (30 minutes) to +85 °C (30 minutes); 100 cycles	No visible damage Central Freq. Change $\pm 6\%$
4.14	3(Ca)	Damp heat	500 ± 12 hours at 60 °C; 90 to 95 % RH	No visible damage 2 hours recovery Central Freq. Change $\pm 6\%$
4.15		Endurance	500 ± 12 hours at 85 °C;	No visible damage 2 hours recovery Central Freq. Change $\pm 6\%$

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9. Ordering Information

The antennas may be ordered by using the Yageo ordering code. These code numbers can be determined by the following rules:

CAN43 11 1 81 07 245 3K

Family Code

CAN 43 = Yageo Part No. for Antenna

Packing Type Code

11 = 180 mm/ 7" reel , blister taping

Materials Code

1 = High Frequency Material (blue)

2 = High Frequency Material (White)

Size Code

81 = 8.0 * 1.0 * 1.0 mm

Antenna type

05 = type 5

06 = type 6

07 = type 7

Working Frequency

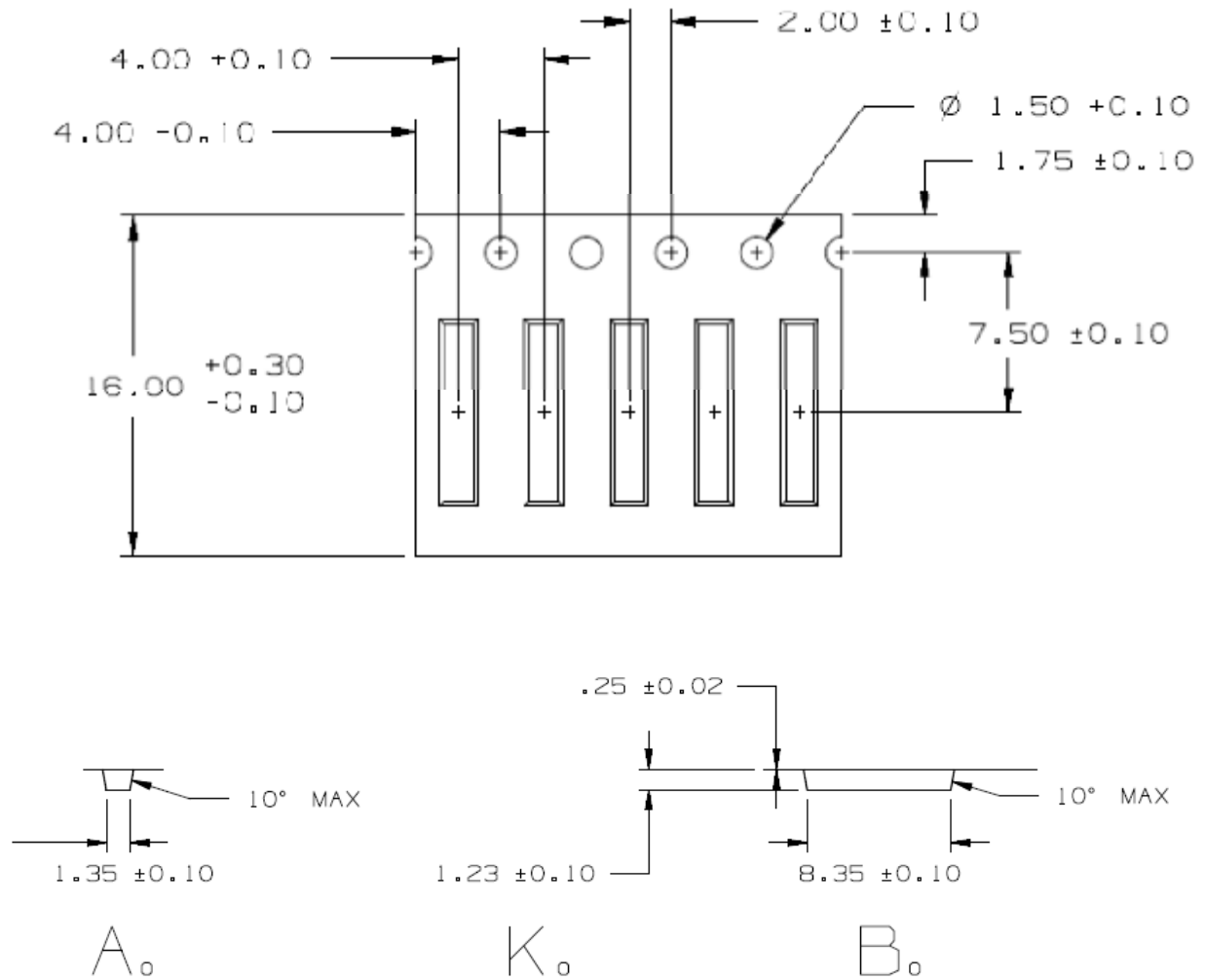
245 = 2.45 GHz

Packing Type Code

3K = 3000 pcs for taping per reel

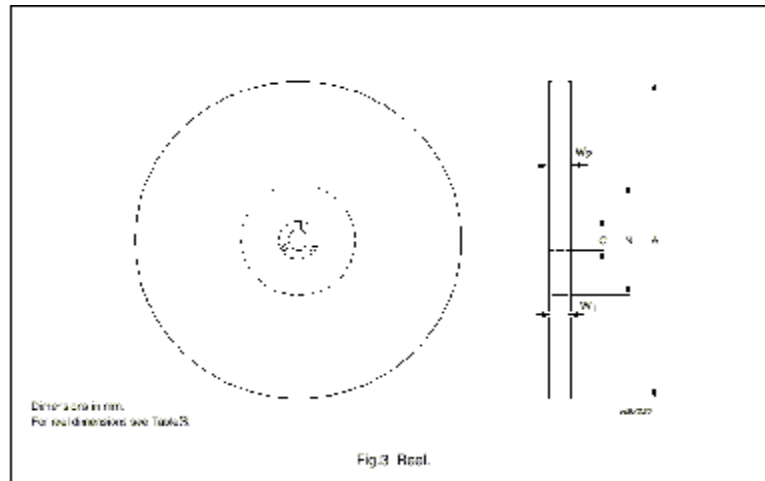
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10. Taping Blister Tape



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10. 7”(180mm) Reel Specifications



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11. Tape Revision Control:

Revision	Date	Content	Remark
V1	8 th ,October, 2007	New Issue	
V2	Nov., 2007	Improvement	
V3	Dec, 2007	Part number, Tape specification, Footprint	

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