

## 樣品承認書 (APPROVAL SHEET)

機 種 : Z-2060  
(MODEL NO.)




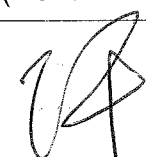
料 號 : 162-2620R9-500  
(PART NO.)

品 名 : AN9520 chip Antenna 2.62 GHz  
(DESCRIPTION)

廠 牌 : \_\_\_\_\_  
(BRAND NAME)

廠 商 : P1044 舜是微波  
(SUPPLIER)

日 期 : \_\_\_\_\_  
(DATE)

單位主管 (Manager)	研 發 (R&D)	工 程 (P E)	品 管 (Q A)	採 購 (Purchaser)
	 0/00		 2/808	

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霖昱微波科技股份有限公司

RainSun Corporation

電話：(02)2911-7997

傳真：(02)2918-5200

產品承認書

Product Specification



客戶名稱：巨豪實業股份有限公司

承認日期：96年12月10日

承認編號：9600028

客戶品名：162-2620R9-500

產品名稱：Chip Antenna AN9520-262 (2.62GHz)

承認印欄	96年12月10日	備註欄
<p>承認</p> <p>霖昱微波科技(股)公司</p> <p>DEC. 10 2007</p> <p>承認書專用章</p>	<p>確認</p> 	<p>擔當</p> 



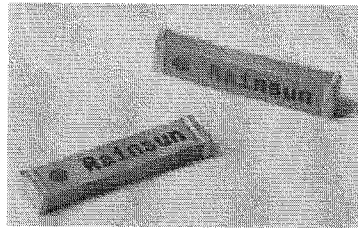
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**AN9520-262**

**Multilayer Chip Antenna for**

**2.62GHz Wireless  
Communication**





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## AN9520-262 Multilayer Chip Antenna

### ◆ Features

- Light weight and low profile 9.5mm(L)X2.0mm(W)X1.0mm(H)
- Omni-directional in azimuth
- Lead (Pb) Free

### ◆ Applications

- 2.4GHz wireless communications
- 2.4GHz Modules
- Bluetooth System
- 802.11b/g Wireless LAN System

### Specifications

Center frequency	2.62GHz
Peak gain	1.5dBi
Operation temperature	-40 ~ +85 °C
Storage temperature	-40 ~ +85 °C
VSWR	2.0 (max)
Input Impedance	50 Ohm
Power handling	3W (max)
Bandwidth	200MHz
Azimuth beamwidth	Omni-directional
Polarization	Linear

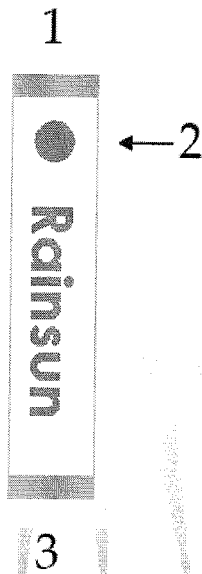


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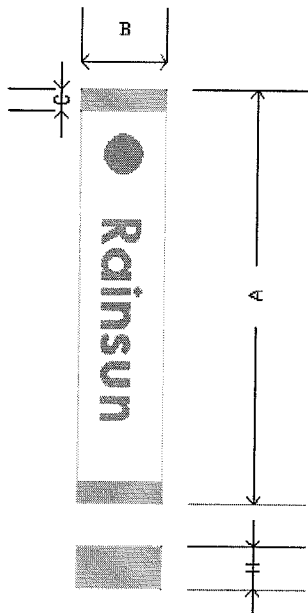
### Pin configuration

Top view



Pin No	Pin assignment
1	Feed termination
2	Feed point mark
3	Solder termination

### Dimensions



Symbol	Dimensions(mm)
A	$9.50 \pm 0.10$
B	$2.00 \pm 0.10$
C	$0.50 \pm 0.05$
H	$1.00 \pm 0.20$

## Recommended Test Board Pattern

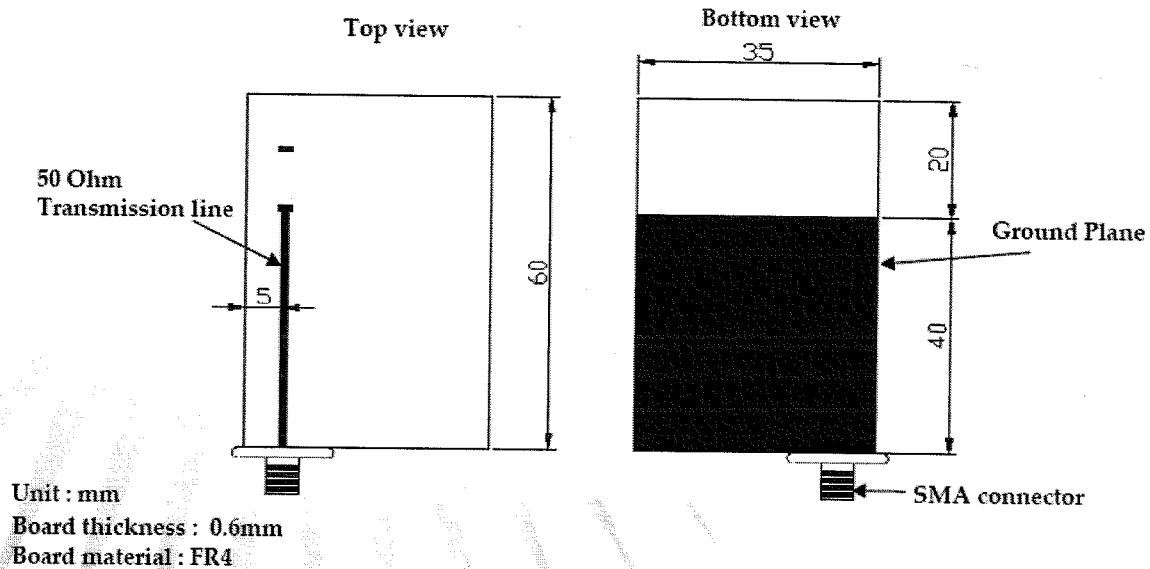
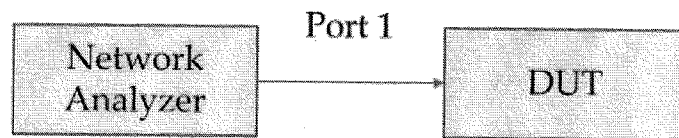
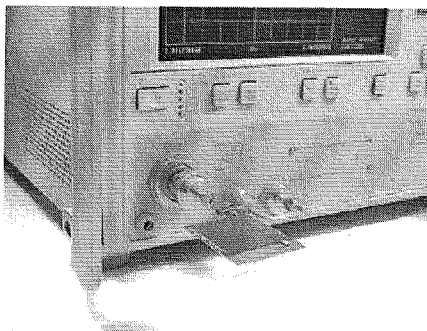


Fig-1

## Testing Setup



## Measurement



### Testing Instrument:

Anritsu 37369C VNA (Vector Network Analyzer)

VNA calibrate with 1 path reflection only calibration sequence on test board feed point.

The test board dimension and it's layout is the same as Fig-1.

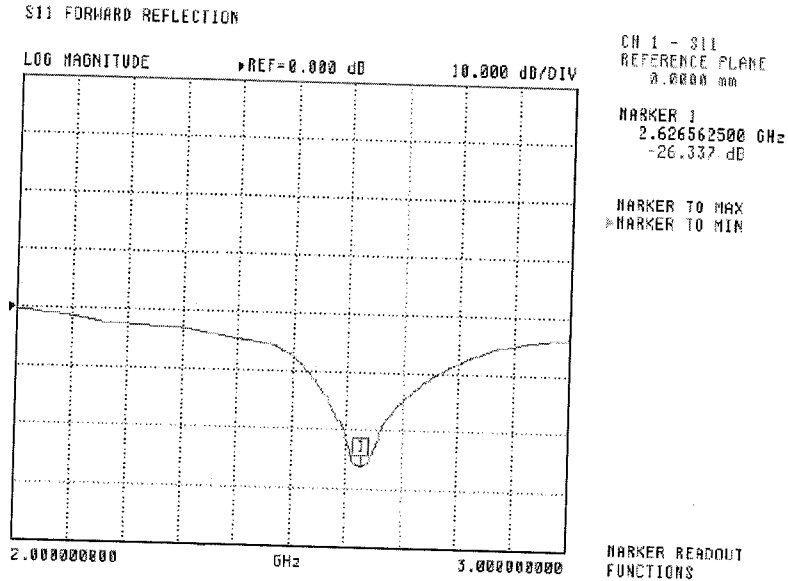


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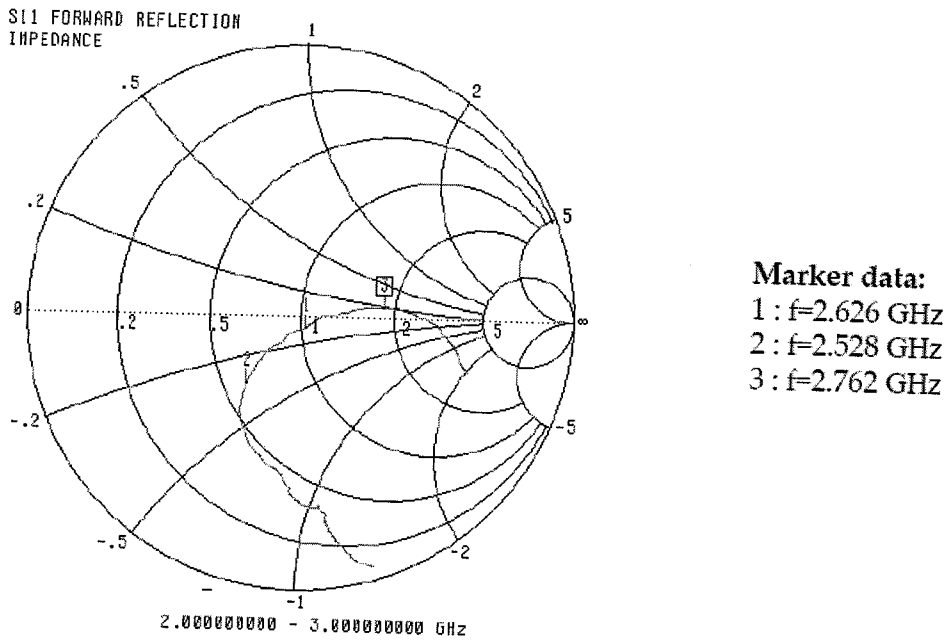
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### Typical Electrical Characteristics

#### Return loss



#### Smith Chart

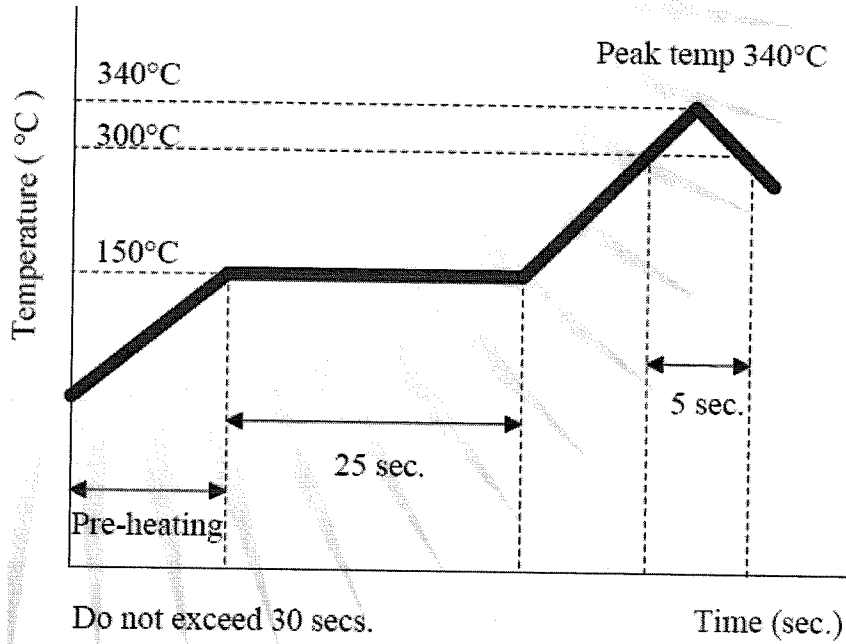




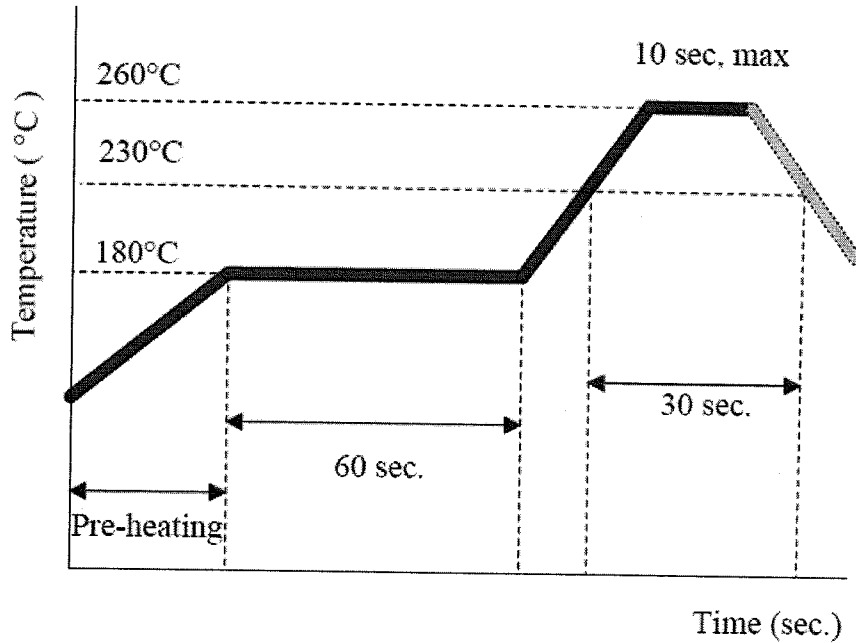
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### Typical Soldering Profile for Lead-free Process



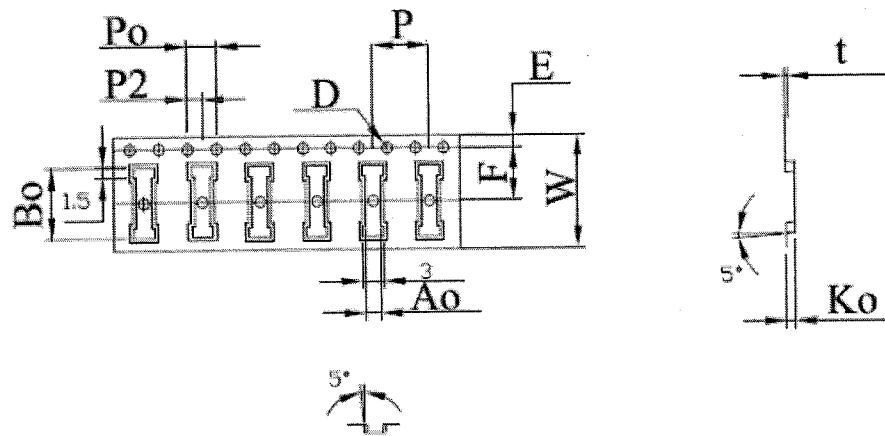
### Reflow Soldering





## Packing

### Blister Tape Specifications



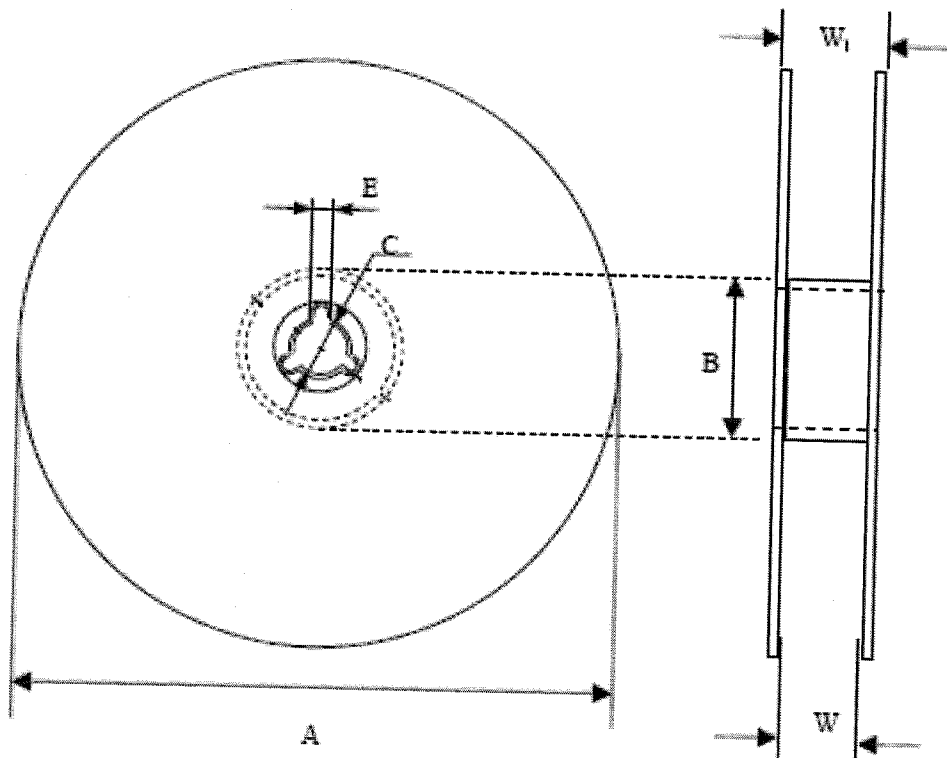
Symbol	Dimension	Tolerance	Unit
W	16.00	$\pm 0.30$	mm
E	1.75	$\pm 0.10$	mm
F	7.50	$\pm 0.10$	mm
D	1.50	+ 0.10 - 0.00	mm
$D_1$	1.50	+ 0.25 - 0.00	mm
$P_0$	4.00	$\pm 0.10$	mm
P	8.00	$\pm 0.10$	mm
$P_2$	2.00	$\pm 0.10$	mm
$A_0$	2.20	$\pm 0.10$	mm
$B_0$	10.00	$\pm 0.10$	mm
$K_0$	1.20	$\pm 0.10$	mm
t	0.30	$\pm 0.05$	mm



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### Reel Specifications



Quantity Per Reel	Tape Width (mm)	A (mm)	C (mm)	B (mm)	E (mm)	W (mm)	W <sub>1</sub> (mm)
1,500	16	180±1	13.0±0.5	62±0.5	2.2±0.5	16±0.5	20±0.2



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TEST REPORT

NUMBER : THJ0052310

APPLICANT: RAIN SUN CORPORATION
3F NO 14 LANE 235 BAOCIAO RD
SINDIAN CITY TAIPEI TAIWAN 231

DATE : AUG 21, 2007

SAMPLE DESCRIPTION:

ONE (1) GROUP OF SUBMITTED SAMPLES SAID TO BE :
SAMPLE DESCRIPTION : CHIP ANTENNA
STYLE / ITEM NO. : CHIP ANTENNA-BLUE
COUNTRY OF ORIGIN : TAIWAN
MANUFACTURE'S NAME : 霖昱微波科技股份有限公司 RAIN SUN CORPORATION
DATE SAMPLE RECEIVED : AUG 14, 2007
DATE TEST STARTED : AUG 15, 2007

TEST CONDUCTED:

AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE REFER TO ATTACHED PAGES.

AUTHORIZED BY:
ON BEHALF OF INTERTEK TESTING SERVICES
TAIWAN LIMITED

Handwritten signature of K. Y. Liang



K. Y. LIANG
DIRECTOR

THIS REPORT SHALL NOT BE REPRODUCED
EXCEPT IN FULL, WITHOUT THE WRITTEN
APPROVAL OF THE LABORATORY.



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RainSun Corporation



NUMBER : THJ0052310

TEST CONDUCTED

(I) TEST RESULT SUMMARY :

TESTING ITEM	RESULT (ppm)
	BLUE/GREEN ELECTRONIC COMPONENT
CADMIUM (Cd) CONTENT	ND
LEAD (Pb) CONTENT	ND
MERCURY (Hg) CONTENT	ND
CHROMIUM VI (Cr <sup>6+</sup> ) CONTENT	ND
<b>POLYBROMINATED BIPHENYLS (PBBs)</b>	
MONOBROMINATED BIPHENYLS (MonoBB)	ND
DIBROMINATED BIPHENYLS (DiBB)	ND
TRIBROMINATED BIPHENYLS (TriBB)	ND
TETRABROMINATED BIPHENYLS (TetraBB)	ND
PENTABROMINATED BIPHENYLS (PentaBB)	ND
HEXABROMINATED BIPHENYLS (HexaBB)	ND
HEPTABROMINATED BIPHENYLS (HeptaBB)	ND
OCTABROMINATED BIPHENYLS (OctaBB)	ND
NONABROMINATED BIPHENYLS (NonaBB)	ND
DECABROMINATED BIPHENYL (DecaBB)	ND
<b>POLYBROMINATED DIPHENYL ETHERS (PBDEs)</b>	
MONOBROMINATED DIPHENYL ETHERS (MonoBDE)	ND
DIBROMINATED DIPHENYL ETHERS (DiBDE)	ND
TRIBROMINATED DIPHENYL ETHERS (TriBDE)	ND
TETRABROMINATED DIPHENYL ETHERS (TetraBDE)	ND
PENTABROMINATED DIPHENYL ETHERS (PentaBDE)	ND
HEXABROMINATED DIPHENYL ETHERS (HexaBDE)	ND
HEPTABROMINATED DIPHENYL ETHERS (HeptaBDE)	ND
OCTABROMINATED DIPHENYL ETHERS (OctaBDE)	ND
NONABROMINATED DIPHENYL ETHERS (NonaBDE)	ND
DECABROMINATED DIPHENYL ETHER (DecaBDE)	ND

REMARKS : ppm = PARTS PER MILLION

ND = NOT DETECTED

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RainSun Corporation



NUMBER : THJ0052310

TEST CONDUCTED

(II) TEST METHOD :

TESTING ITEM	TESTING METHOD	REPORTING LIMIT
CADMIUM (Cd) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
LEAD (Pb) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
MERCURY (Hg) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
CHROMIUM VI (Cr <sup>6+</sup> ) CONTENT	AS PER APPLICANT'S REQUEST WITH REFERENCE TO USEPA 3060A & 7196A, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER	1 ppm
POLYBROMINATED BIPHENYLS (PBBs)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY HPLC-DAD OR GC-MSD	5 ppm
POLYBROMINATED DIPHENYL ETHERS (PBDEs)	WITH REFERENCE TO USEPA 3540C, BY SOLVENT EXTRACTION AND DETERMINED BY HPLC-DAD OR GC-MSD	5 ppm

REMARK: REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE

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END OF REPORT



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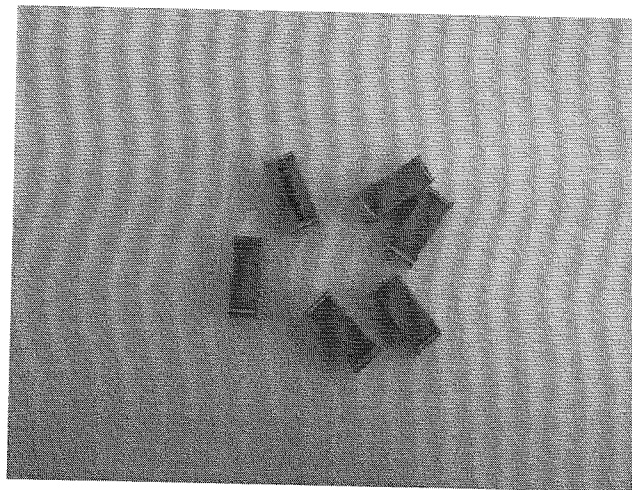
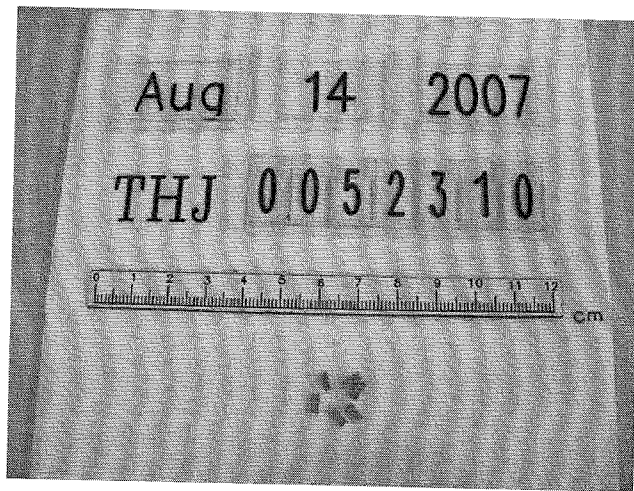
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TEST CONDUCTED

PHOTO



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