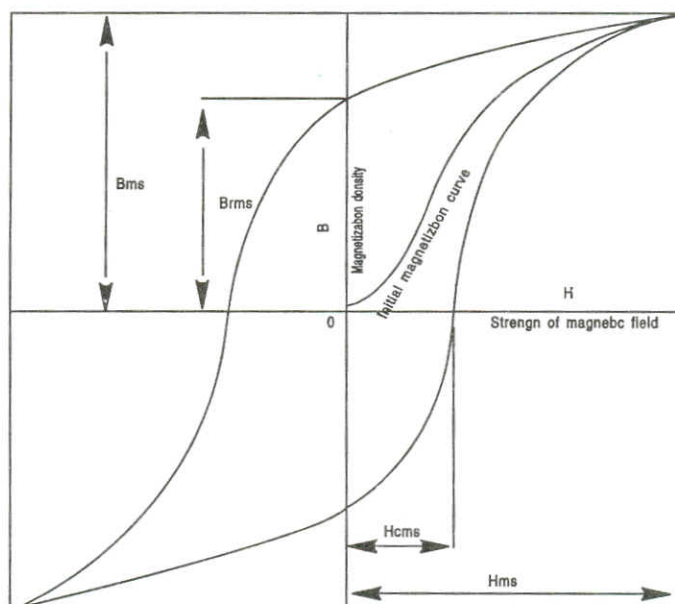


PROPERTIES OF TAK MATERIALS

Ni-Zn Ferrite Series (For High Frequency)

CHARACTERISTICS	UNIT	V4F1	V2F1	M5E1	M11A	M9D1	M9A	M8B1	M8C1	M61	MG2
μ_{iac}	---	8	30	15	20	50	50	60	60	100	300
APPLICABLE FREQUENCY	MHz	10-250	3-70	10-120	3-80	1-50	0.5-30	0.5-15	0.5-15	0.5-10	0.1-2
B _m	Gauss	2100	3100	3000	2700	3700	3400	3200	3000	3500	2400
B _r	Gauss	1300	1700	1600	1800	2300	1900	1800	750	2100	1300
H _c	Oersted	38	8	15	10	4	5.5	6	4	2.5	0.8
T _c	°C	300	300	300	300	300	300	300	300	250	150
$\alpha \mu r$	-6 x 10 ⁶ /°C	10	70	110	80	80	60	15	10	38	9
Tan δ / μ_{iac}	-6 x 10	600(10) 4000(250)	80(3.0) 400(70)	500(10) 800(120)	100(3.0) 500(80)	200(21) 600(500)	100(0.5) 300(30)	130(0.5) 350(15)	100(0.5) 1500(15)	100(0.5) 1509(10)	20(0.1) 100(2.0)
ρ	Ωcm	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶	10 ⁶



SPECIFICATION

規格號碼
DRAWING NO.

顧主
CUSTOMER

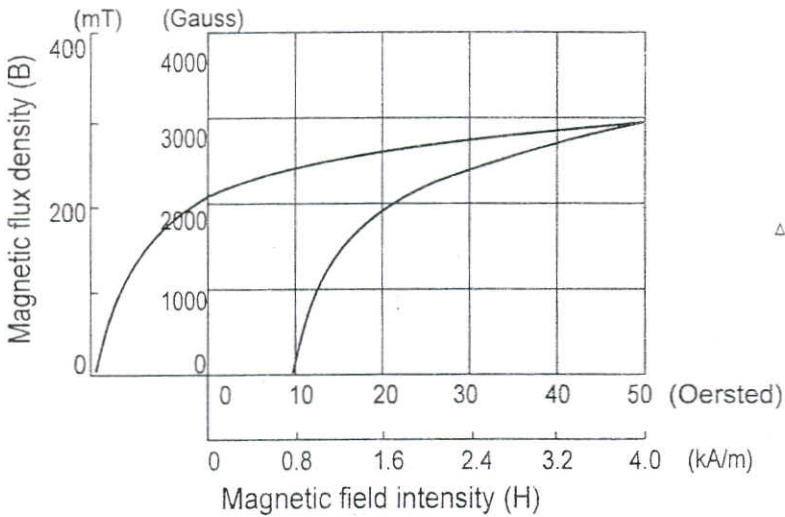
品名
ITEM

關連規格號碼
CUSTOMER DRAWING NO.

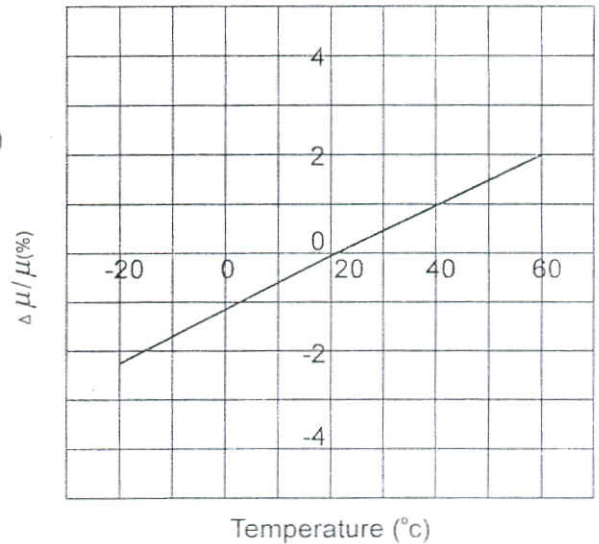
M8B1 MATERIAL

材質 MAT'L	圖法 METHOD	單位 UNIT	尺度 SCALE	制定 DESIGN	承認 APPVD	確認 CHKD	立案 DWN
		M/M		1997 年 07 月 04 日 YEAR MONTH DAY	杨惠民	刘哲男	刘时晔

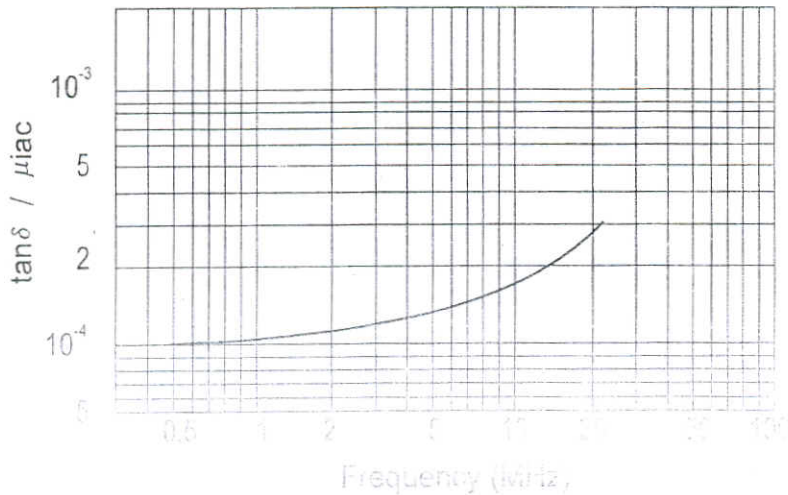
修訂 REVISION	1.	年 YEAR	月 MONTH	日 DAY
	2.	年 YEAR	月 MONTH	日 DAY
	3.	年 YEAR	月 MONTH	日 DAY



$\Delta \mu / \mu$ Vs. temperature curve (M-series materials)



$\tan \delta / \mu_{iac}$ Vs. frequency response characteristics (M-series materials)





Test Report

No. CANEC0802809707

Date: 07 Jun 2008

Page 1 of 4

TAK TECHNOLOGY CO.,LTD
NO.3RD INDUSTRIAL AREA JUZHOU SHIJIE TOWN DONGGUAN CITY GUANGDONG PROVINCE
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :
M8B1 MATERIAL FERRITE CORE

SGS Job No. : 11064108 - SZ
 SGS Internal Reference No. : 8.7
 Date of Sample Received : 02 Jun 2008
 Testing Period : 02 Jun 2008 - 06 Jun 2008
 Test Requested : Selected test(s) as requested by client.
 Test Method : Please refer to next page(s).
 Test Results : Please refer to next page(s).

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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GZCM2283478

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch / Chemical Laboratory

198 Kazhu Road, Sciencetech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com
t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

Test Results:

ID for specimen 1 : CAN08-028097.007
Description for specimen 1 : Dk-gray core

Heavy metal(s)

Test Item(s)	Unit	Test Method (Reference)	Result	MDL
Cadmium (Cd)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2
Lead (Pb)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	18935	2
Mercury (Hg)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2
Hexavalent Chromium (CrVI) by alkaline extraction	mg/kg	IEC 62321/2nd CDV (111/95/CDV), UV-Vis	N.D.	2

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

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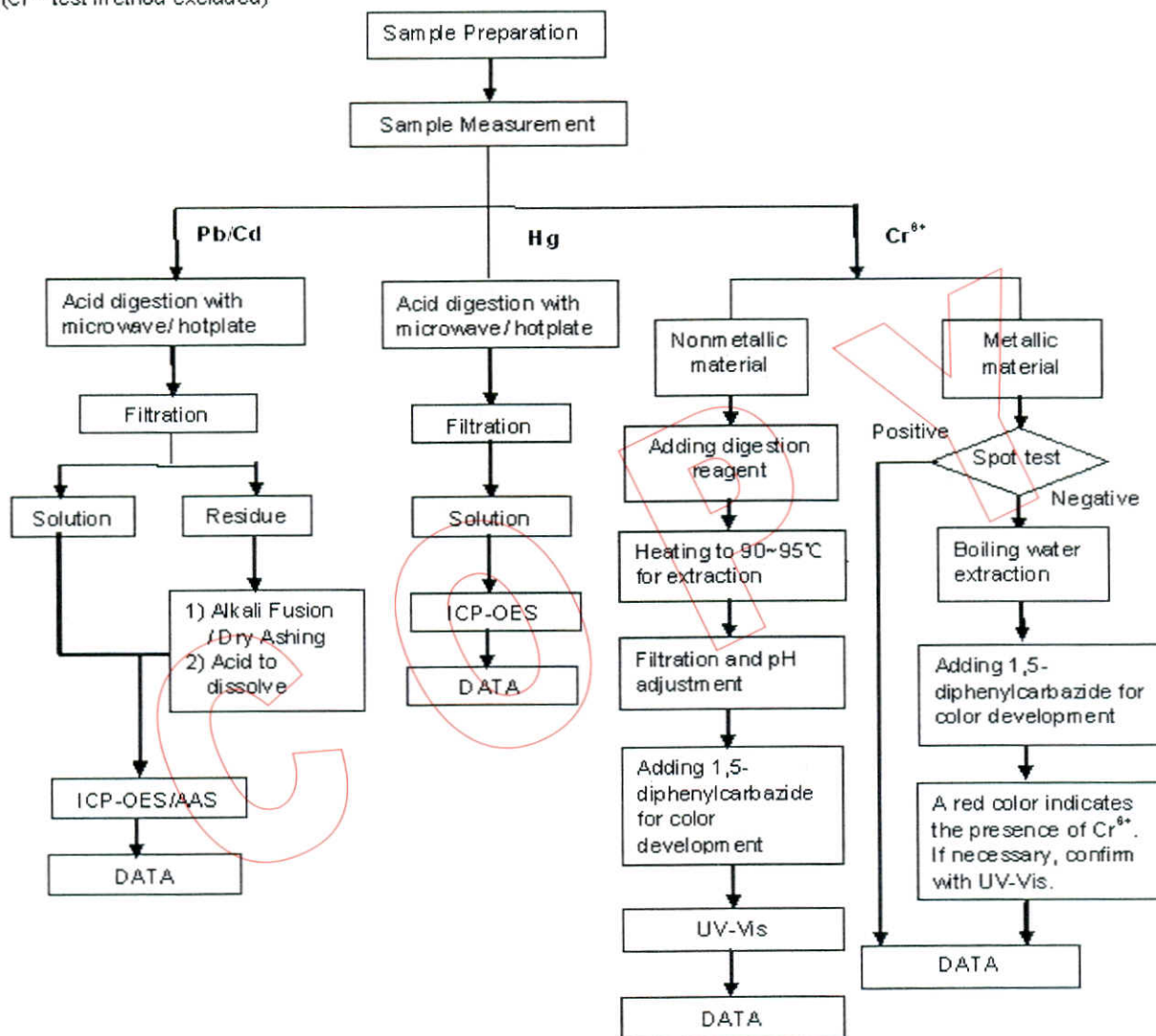
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ATTACHMENTS

Testing Flow Chart

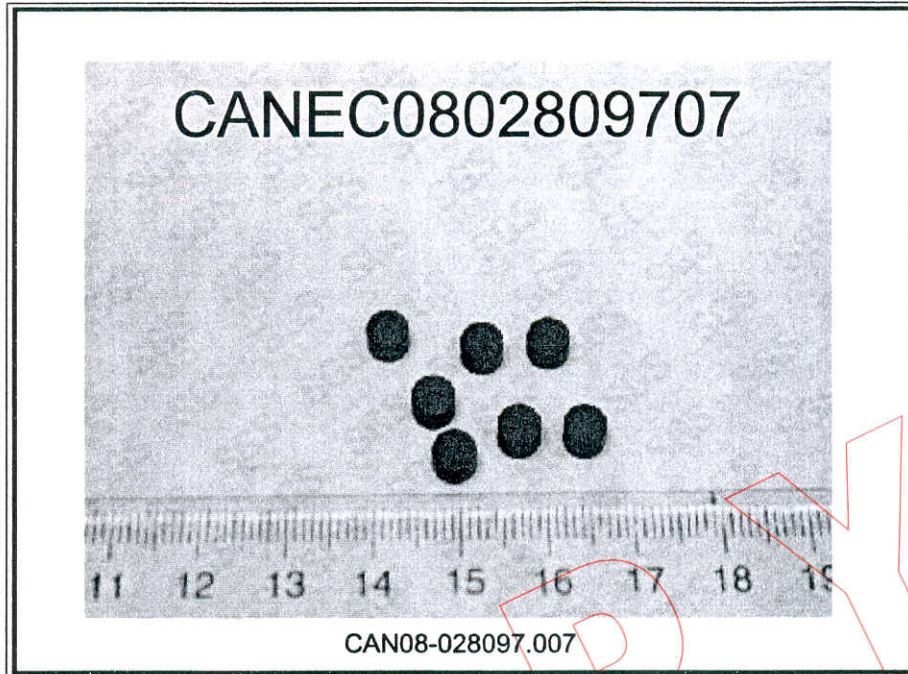
- 1) Name of the person who made measurement: Bowen Chen
- 2) Name of the person in charge of measurement: Adams Yu
- 3) These samples were dissolved totally by pre-conditioning method according to below flowchart. (Cr⁶⁺ test method excluded)



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Sample photo:



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Test Report

No. CANEC0802809707

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TAK TECHNOLOGY CO.,LTD
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SGS Job No. : 11064108 - SZ
SGS Internal Reference No. : 8.7
Date of Sample Received : 02 Jun 2008
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Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).

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Huang Fang, Sunny
Sr. Engineer

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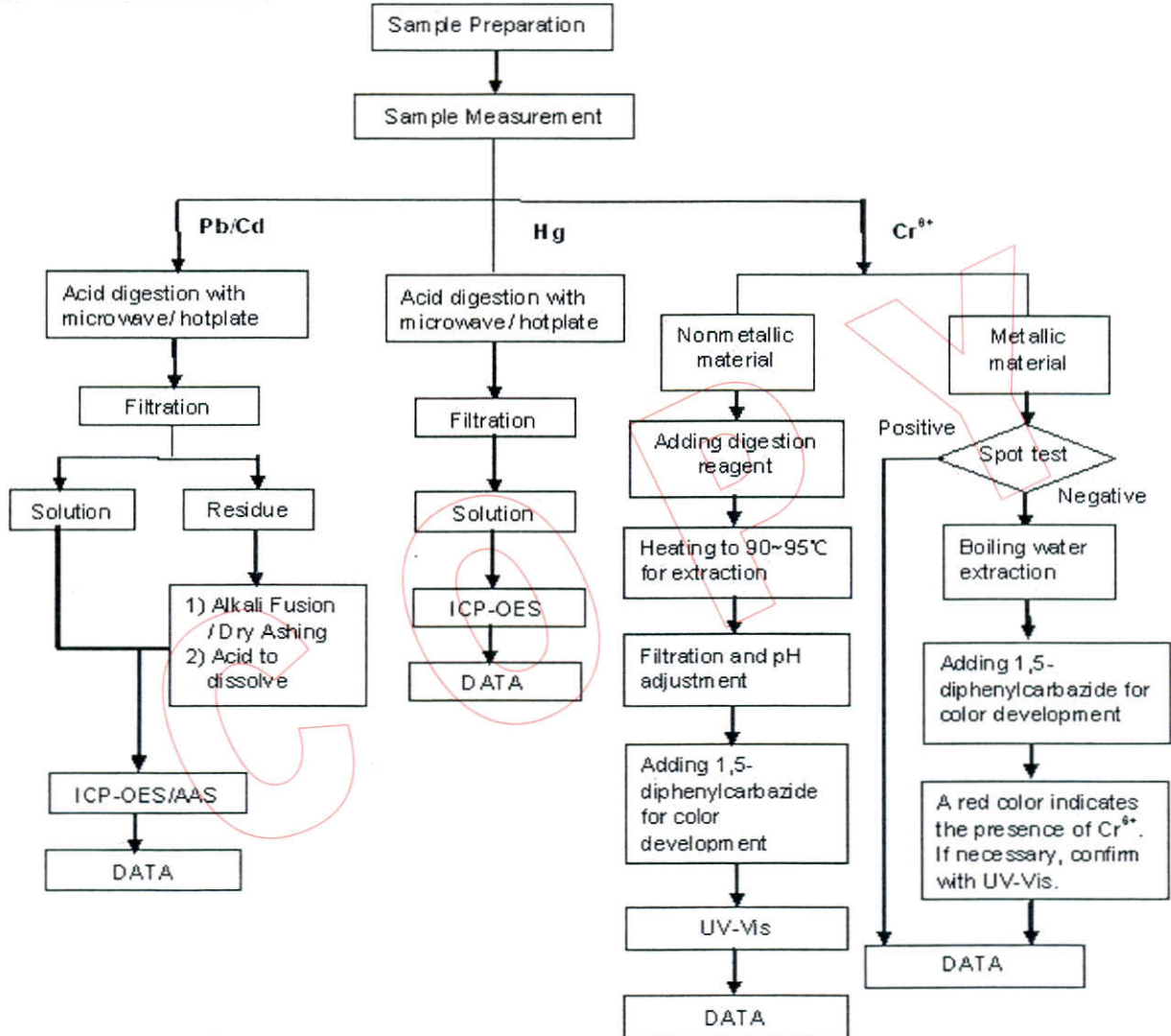
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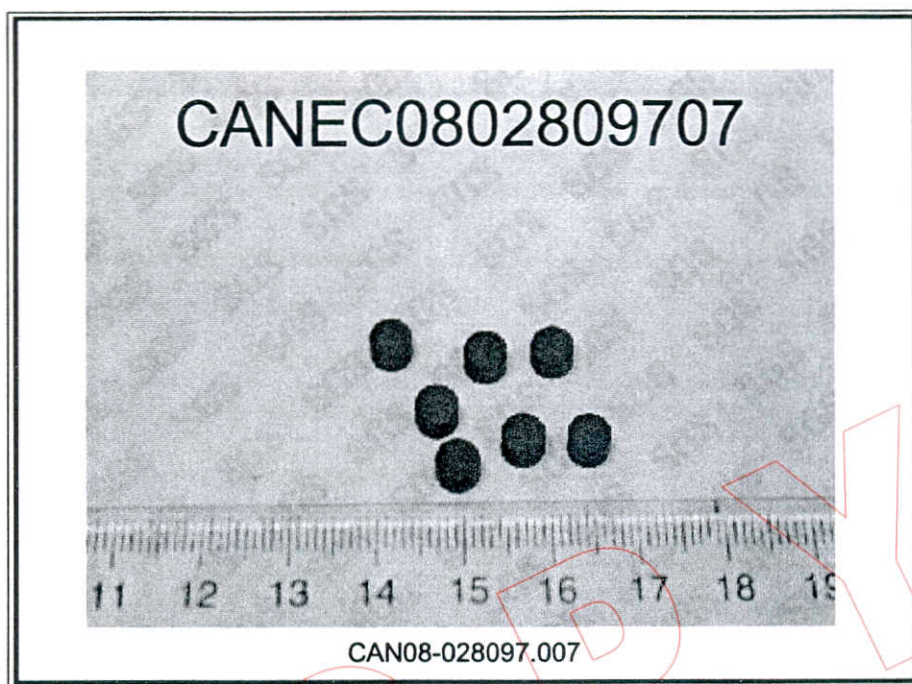
Testing Flow Chart

- 1) Name of the person who made measurement: Bowen Chen
- 2) Name of the person in charge of measurement: Adams Yu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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