Sw electronics Presentation

Head office (in korea)

Address : 742-15, otea dong, gumi city, gyeong buk, korea

T E L : 82 54-463-5517

F A X : 82 54-463-5527

YANTAI FACTORY OFFICE (in china)

Address : 89 huanhai road, yantai, china

T E L : 82 535-682-5767

F A X : 82 535-682-5797

Homepage : http://www.swxt.co.kr

E-mail : swxt@swxt.co.kr

개 요

- 회사명:SW ELECTRONICS(烟台大运电子有限公司）
- 사업영역: 수정 진동자 및 발진자 제조/판매
- 설립일: 1988. 10. 08
- 대표이사: 황 지야
- 소재지: 중국 산동성 연태시 지부구 관해로 89호
- 자본금: 320만불
- 매출액
  - 2009년 : $2,532,253
  - 2008년 : $1,725,433
- 인원: 67명
- 회사면적:600평
- 전화번호:86-535-682-5767
- FAX:86-535-682-5797
- Homepage: www.swxt.co.kr

연 혁

- 1988년 10월 08일 서울전파설립
- 1988년 10월 08일부터 Crystal Unit, Crystal OSC 생산
- 1991년 3월부터 Crystal Filter 생산
- 2004년 4월 1일 회사명칭변경
- 서울전파 → SW ELECTRONICS.
- 2006년 01월 09일 중국공장 대운전자 설립
- 2010년 06월 07일 SW전자 충주 사무소 설립

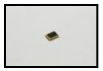
도 약 기

3.2by2.5

2.5by2.0 소형화 size양산

ISO9001/14001 인증

충주 사업소 설립.



성장기

OSC 생산

7by5, 5by32 등

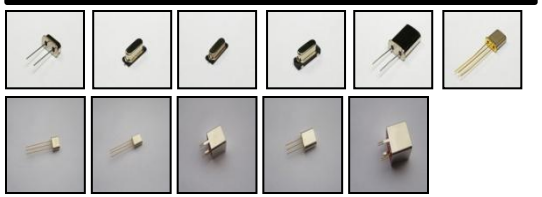
Ceramic type 생산

창업기

CRYSTAL UNIT 생산

CRYSTAL QUARTZ 생산

FILTER 생산



Production Factories Office (china& Korea)

KOREA

SW ELECTRONICS

CHINA

SW ELECTRONICS

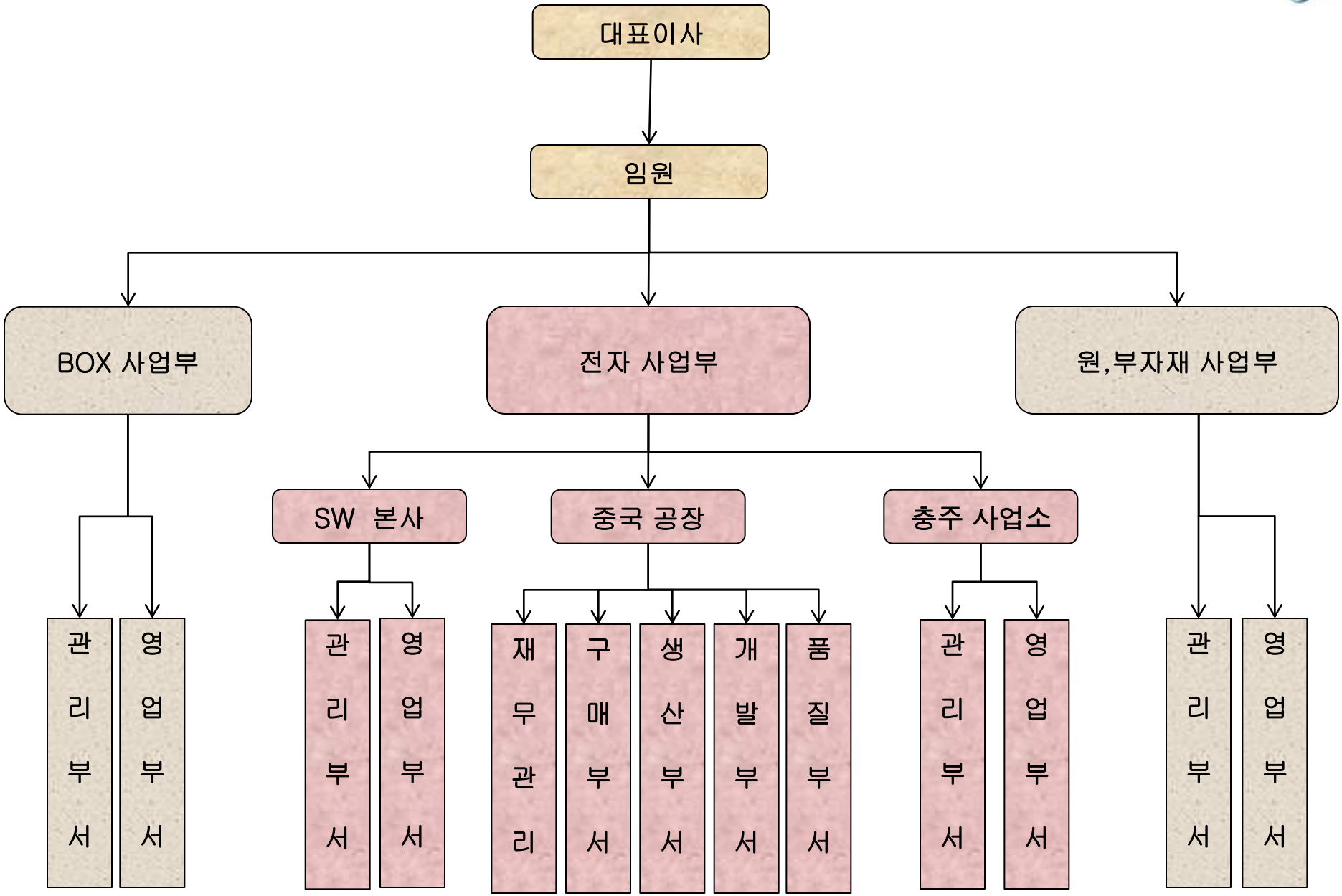
(Metal Type)

CHINA

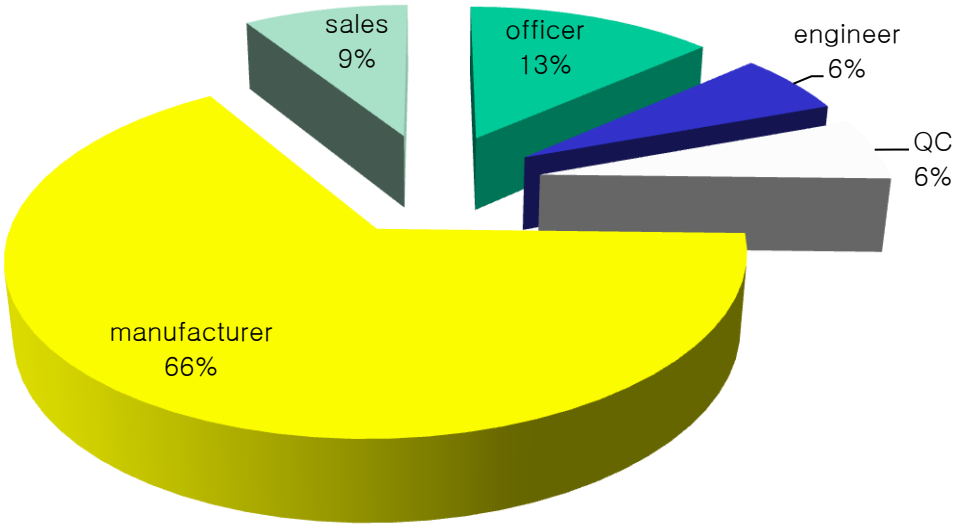
Yufeng INDUSTRIAL

(Ceramic Type)

Organization



Personnel (crystal part)



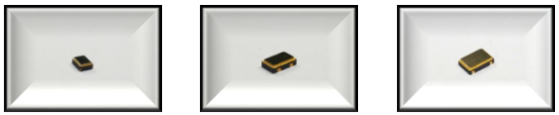
Division	officer	engineer	QC	manufacturer	sales	Total
In Korea	2	2	2		5	11
In China	7	2	2	44	1	56
Total	9	4	4	44	6	67

Product Network

- Crystal unit

- Metal OSC

- Ceramic OSC.



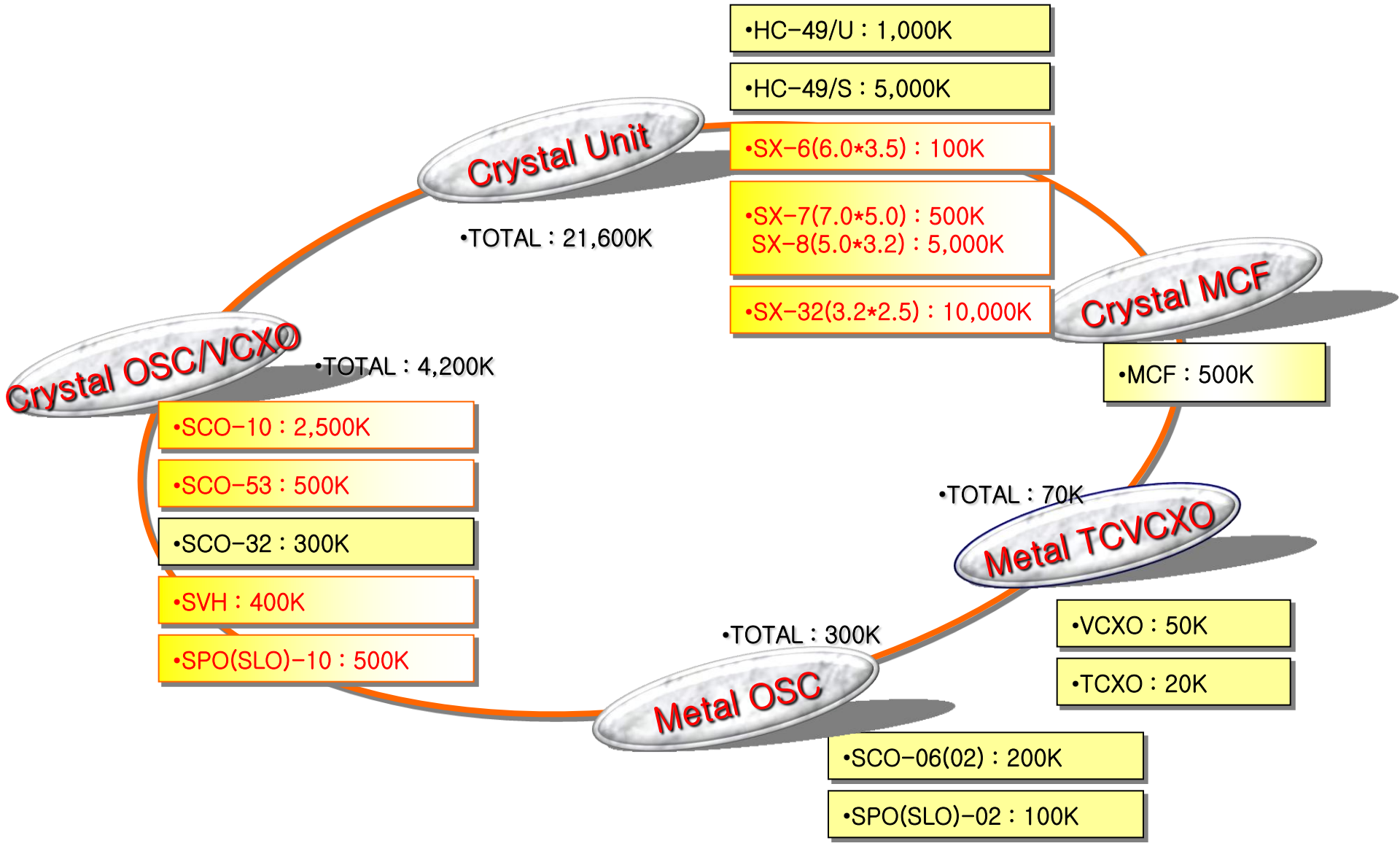
- Ceramic X-TAL

- M.C.F.

- Cylinder X-TAL

- TCXO. VCXO

Product Capacity per Month (In CHINA)



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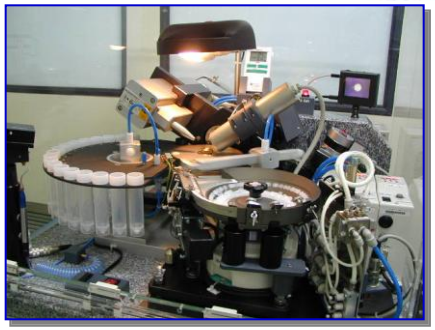

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<Wafer 접착 후 면연마>

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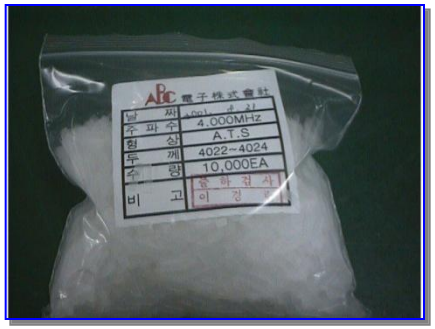

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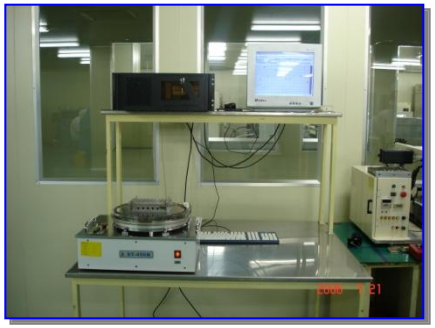
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Production Process (Metal PRODUCT)

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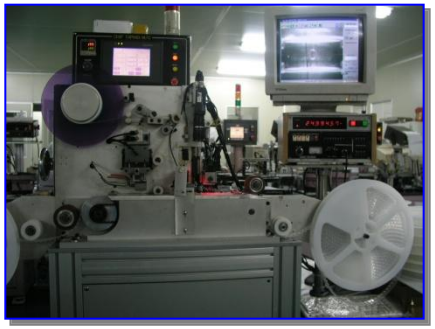
<인슐레이터삽입>



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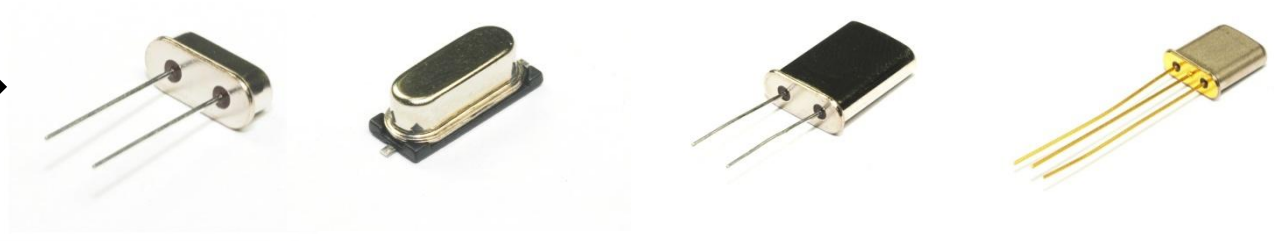


Reliability Test Process (Metal PRODUCT)

NO	Test Name	Test Procedure & Condition	Recommended Test Method
1	High Temperature Storage (HTS)	Temperature = +85°C, Duration = 168 hrs	
2	Low Temperature Storage (LTS)	Temperature = -40°C Duration = 168 hrs	
3	Humidity Test (HT)	Precondition = Reflow Sock Ta=+260±5°C 10sec 2Times(only SMD) Relative Humidity = +85°C/90~95% Duration = 168 hrs	MIL-STD-883 Method 1004
4	Thermal Shock (TS)	Temperature = -40°C to +85°C Duration = 1Hours N=15 cycles, Temp' shift shall be done within 30sec	MIL-STD-883 Method 1010
5	Aging (A)	Temperature = +85°C, Duration: 1,000 hour	MIL-O-55310
6	Terminal Strength (TS-PT) / Pull Test (Only Through-Hole)	Weight = 2 pounds (ℓb), Duration = 5 ~ 10 sec	MIL-STD-202 Method 211 Condition A
	Terminal Strength (TS-BT) / Bend Test (Only Through-Hole)	Weight = 1 pounds (ℓb) Bending Angle = 90 degree Bending Count = 3 times * The rate of bending shall be approximately 3 seconds per bend in each direction.	MIL-STD-202 Method 211 Condition C
7	Solder ability (SLD)	Precondition = 16 hours at 150°C Dry Bake is recommended but 8 hours of Steam Aging Soldering Temperature = +245 °C ± 5 °C Solder Immersion Time = 5 ± 0.5 s	MIL-STD-883 Method 2003, The test method from J-STD-002
8	Resistance to Soldering Heat (RSH)	Solder Iron = +350°C±10°C (solder iron temp) / 4~5s Dip = +260°C±5°C(solder temp) / 10 ±1s IR/convection reflow = +250°C ± 5 °C / 30±5s	MIL-STD-202 Method 210
9	Drop Test (DT)	High = 750mm onto hard wooden board Drop Time = 3 times (Only 49/S TYPE : 500mm)	
10	Vibration (V)	Vibration Frequency = 10 to 55 Hz, 1.5mm, Full wave Cycle = 2 min Direction = X.Y.Z, Time = 2 hours in each direction	MIL-STD-883 Method 2007 Condition A
11	Seal / Gross Leak (GL)	Fluorocarbon liquid at 125°C ±5°C Immersion Time = 30 sec.	MIL-STD-202 Method 112 Test Condition D
	Seal / Fine Leak (FL)	Leak rate shall be measured by using = Mass-spectrometer-type helium leak detector	MIL-STD-202 Method 112 Test Condition D

ROHS (Metal PRODUCT)

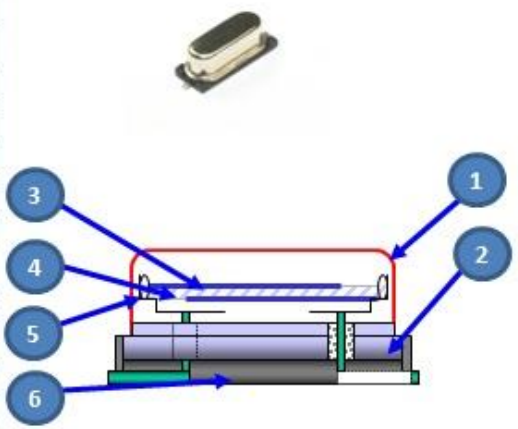
제품 내 환경 유해 물질 (ROHS, WEEE) 분석 결과

* 당사는 삼성전자 납입기준 ICP DATA 유효기간 2년을 적용 함.
* 특별 요청이 있을 경우, ICP DATA 유효기간 1년의 성적서를 제출토록 함.

SINWOON ELECTRONICS.CORP

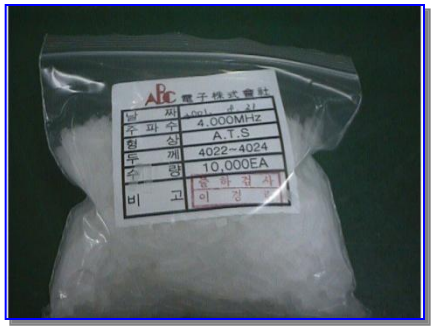
완제품	SX-1 CRYSTAL						TOTAL
품명	1) CAN	2) BASE	3) ELECTRODE	4) QUARTZ	5) SILVER EPOXY	6) INSULATOR	*
재질	C7521	SPCC	SILVER	SILICONE DIOXIE	SILVER	PPS	*
중량 (g/ea)	0.155	0.362	0.005	0.015	0.002	0.055	0.594
%	26.09427609	60.94276094	0.841750842	2.525252525	0.336700337	9.259259259	100.000
제조업체명	선명테크	jewon	유창금속	가람전자	3본드	태승화학	*
표면처리	Ni	Ni	*	*	*	*	Ni
사용의도	변색방지	변색방지	*	*	*	*	*
수량	1	1	1	1	2	1	7
유해 물질 함유량 (ppm)							TOTAL (ppm)
Pb	50.4	N.D	N.D	N.D	N.D	N.D	50.4
Cd	N.D	N.D	N.D	N.D	N.D	N.D	0
Hg	N.D	N.D	N.D	N.D	N.D	N.D	0
Cr6+	N.D	N.D	N.D	N.D	N.D	N.D	0
PBB	N.D	N.D	N.D	*	N.D	N.D	0
PBDE	N.D	N.D	N.D	*	N.D	N.D	0
PFOS(B,Cl)	N/A	N/A	N/A	N/A	N/A	N.D	N/A
SVHC	N/A	N/A	N/A	N/A	N/A	N/A	N/A
예외조항	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CASNO	7440-50-8	7439-89-6	7440-22-4	14808-60-7	7440-22-4	9016-75-5	*
성적서NO	CTSAYAA09-23960	CANEC1000991302	CTSAYAA10-06086	SH9115818	CTSAYAA09-34323	RT09R-U1659-002-E	*
DATE	2009-08-26	2010-03-18	2010-03-03	2009-06-23	2009-12-08	2009-08-20	*
분석기관	SGS	SGS	SGS	SGS	SGS	INTERTEK	*
ICP DATA							
MSDS DATA							

도 해



작 성	검 토	승 인
9/28	9/28	9/28

Production Process (Ceramic PRODUCT)



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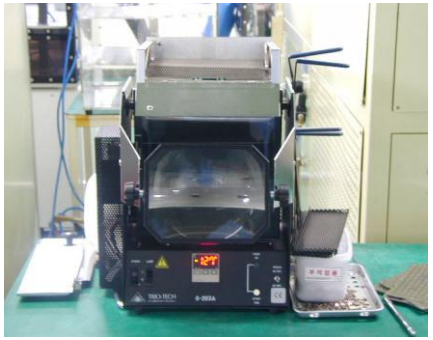

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Production Process (Ceramic PRODUCT)

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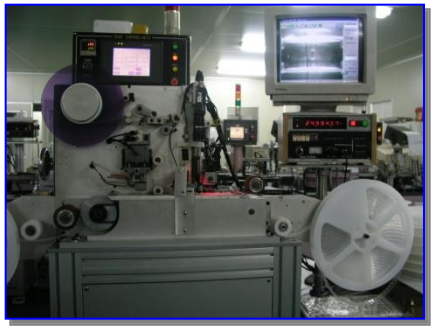

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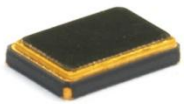

Reliability Test Process (Ceramic PRODUCT)

NO	Test Name	Test Procedure & Condition	Recommended Test Method
1	High Temperature Storage (HTS)	Temperature = +85°C Duration = 168 hrs	
2	Low Temperature Storage (LTS)	Temperature = -40°C Duration = 168 hrs	
3	Humidity Test (HT)	Precondition = Reflow Sock Ta=+260±5°C 10sec 2Times(only SMD) Relative Humidity = +85°C/90~95% Duration = 168 hrs	MIL-STD-883 Method 1004
4	Thermal Shock (TS)	Temperature = -55°C to +125°C Duration = 30 min N=15 cycles Temp' shift shall be done within 30sec	MIL-STD-883 Method 1010
5	Aging (A)	Temperature = +85°C Duration: 1,000 hours	MIL-O-55310
6	Solder ability (SLD)	Precondition = 16 hours at 150°C Dry Bake is recommended but 8 hours of Steam Aging Soldering Temperature = +245 °C ± 5 °C Solder Immersion Time = 5 ± 0.5 s	MIL-STD-883 Method 2003, The test method from J-STD-002
7	Resistance to Soldering Heat (RSH)	Solder Iron = +350°C±10°C(solder iron temp) / 4~5s Dip = +260°C±5°C(solder temp) / 10 ±1s IR/convection reflow = +250°C ± 5 °C / 30±5s	MIL-STD-202 Method 210
8	Drop Test (DT)	Hight = 1200mm onto hard wooden board Drop Time = 3 times	
9	Vibration (V)	Vibration Frequency = 10 to 55 Hz, 1.5mm, Full wave Cycle = 2 min Direction = X.Y.Z Time = 2 hours in each direction	MIL-STD-883 Method 2007 Condition A
10	Seal / Gross Leak (GL)	Fluorocarbon liquid at 125°C ±5°C Immersion Time = 30 sec.	MIL-STD-202 Method 112 Test Condition D
	Seal / Fine Leak (FL)	Leak rate shall be measured by using = Mass-spectrometer-type helium leak detector	MIL-STD-202 Method 112 Test Condition D

ROHS (CERAMIC PRODUCT)

제품 내 환경 유해 물질 (ROHS, WEEE) 분석 결과

* 당사는 삼성전자 납입기준 ICP DATA 유효기간 2년을 적용 함.
* 특별 요청이 있을 경우, ICP DATA 유효기간 1년의 성적서를 제출토록 함.

완제품	SX-32 CRYSTAL (3.2 by 2.5mm)					TOTAL
품명	1) PACKAGE	4) BLANK	3) SILVER	5) ADHESION	2) LID	*
재질	Al2O3	SiO2	Ag	Ag	Ni	*
중량 (g/ea)	0.02023	0.00034	0.00001	0.00003	0.00482	0.0254
%	79.55171058	1.337003539	0.039323634	0.117970901	18.95399135	100.000
제조업체명	KYOCERA	가람전자	유창금속	3본드	한국포토엣칭	*
표면처리	*		*	*	Ni	Ni
사용의도	*	*	*	*	납땜성강화	*
수량	1	1	1	2	1	6
유해 물질 함유량 (ppm)						TOTAL (ppm)
Pb	N.D	N.D	N.D	N.D	N.D	0
Cd	N.D	N.D	N.D	N.D	N.D	0
Hg	N.D	N.D	N.D	N.D	N.D	0
Cr6+	N.D	N.D	N.D	N.D	N.D	0
PBB	N.A	*	N.D	N.D	N.D	0
PBDE	N.A	*	N.D	N.D	N.D	0
PFOS(B,Cl)	N/A	N/A	N/A	N/A	N/A	N/A
SVHC	N/A	N/A	N/A	N/A	N/A	N/A
예외조항	N/A	N/A	N/A	N/A	N/A	N/A
CASNO	1344-28-1	14808-60-7	7440-22-4	7440-22-4	1309-37-1	*
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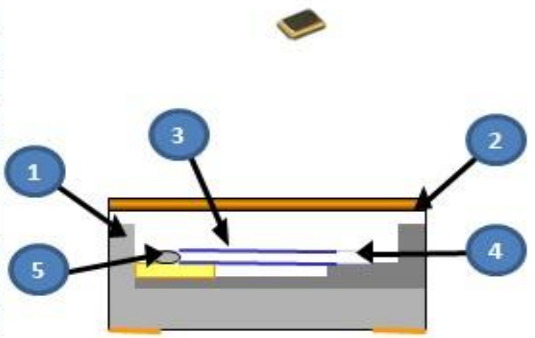
DATE	2009-06-02	2009-06-23	2010-03-03	2009-12-08	2010-04-05	*
분석기관	SGS	SGS	SGS	SGS	SGS	*
ICP DATA						
MSDS DATA						

도 해



작 성	검 토	승 인
9/28	9/28	9/28

Application