

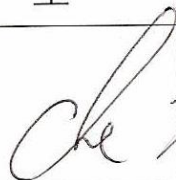



승 인 원

품 명 : Dielectric Chip Antenna
 Part No. : AMAN542012KM02
 모 델 명 : DB830

	입 안	심 사	결 정
G-PLUS			

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	07. 1. 29	07. 1. 29	07. 1. 29	07. 1. 29

2007. 01. 29

주식회사 아 모 텍

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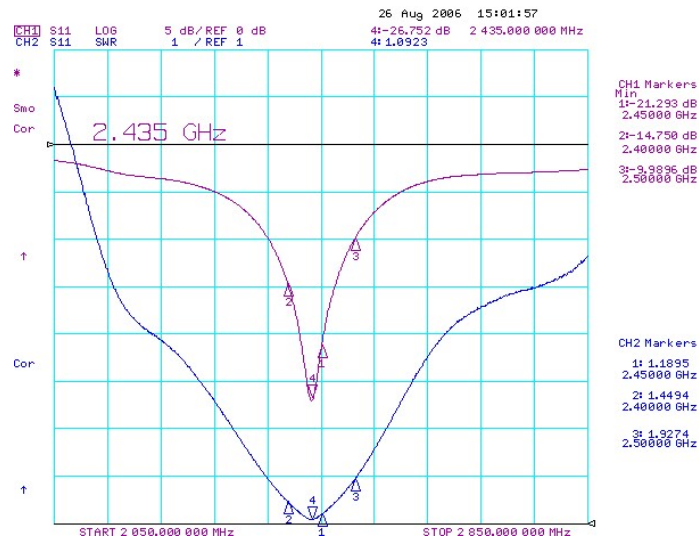
1. 제/개정 이력

날 짜	제 목	내 용	페이지
07.01.29		승인원 신규제정	

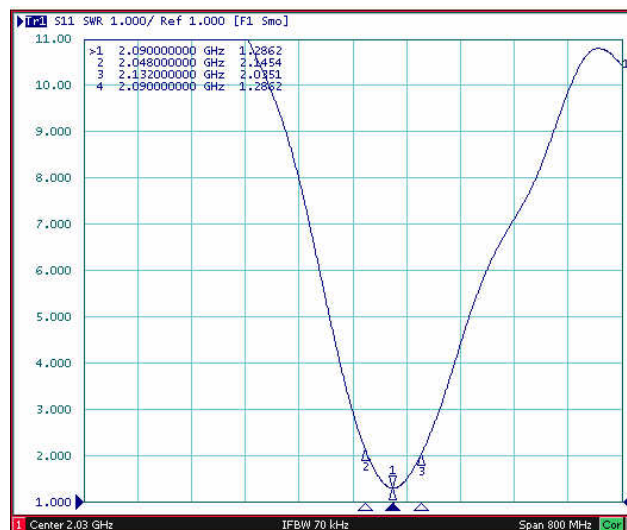
2. 제품 규격

2.1 전기적 특성

구분	항목	규격			비고
1	정재파비 1	최대 3.0:1 @2400~2500 MHz			Set 상에서 측정
2	정재파비 2	최대 4.0:1 @ 2090±42 MHz			수동 Jig 상에서 측정
3	방사이득	Avg.	H	Min -4dBi	Reference board 상에서 bluetooth 대역으로 매칭 후 측정
			E1	Min -4dBi	
			E2	Min -4dBi	
4	방사패턴	Omni-directional			
5	임피던스	공칭 50 Ω			



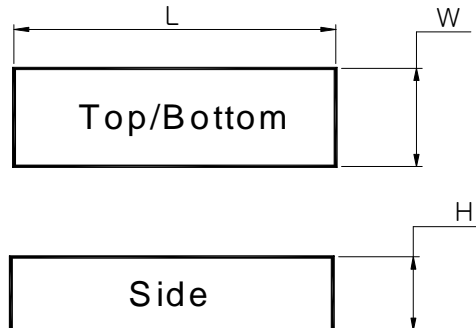
[VSWR : Set (DB830)상에서의 측정 결과]



[VSWR : 수동 Jig 상에서의 측정 결과]

2.2 기계적 특성

Dielectric Body



L(가로)	5.4
W(세로)	2.0
H(높이)	1.2

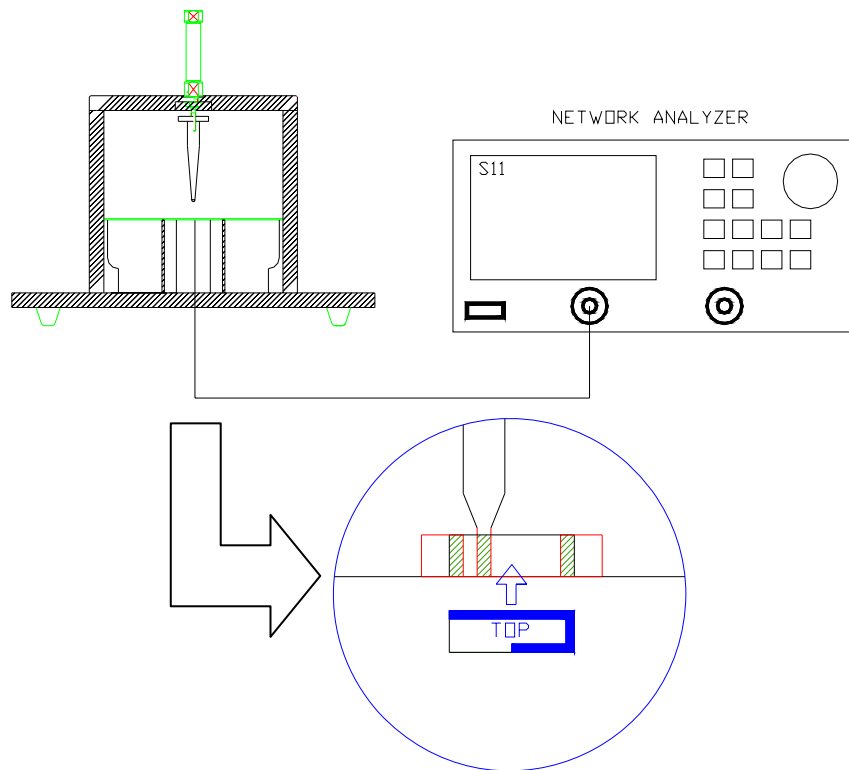
- Unit : [mm]
- General Tolerance : ± 0.15 [mm]
[외형 및 치수]

2.3 Part No. 및 Lot No.표기법

Model :	AMAN	542012	KM	02
	(1)	(2)	(3)	(4)
(1) :	AMOTECH ANTENNA			
(2) :	칩 크기(가로 X 세로 X 높이)			
(3) :	업체명, 예) G-PLUS(구 KBT Mobile) - KM			
(4) :	모델 번호(예 : 02:DB830)			

Lot :	<u>XX</u>	<u>XX</u>	<u>X</u>	<u>X</u>	<u>XX</u>
	(1)	(2)	(3)	(4)	(5)
(1) :	소체 성형년도				
(2) :	소체 성형월				
(3) :	유전율 예) 1 : 9.5, 2 : 20.5				
(4) :	소체 SIZE 예) A : 542012, B : 542015, C : 903012, D : 903015, E:903040, F : 903045, G : 402027, H : 542020, I : 601815, J : 601818, K : 802012, L : 802015, M : 144050, N : 144060, O : 163040, P : 806040				
(5) :	TYPE 별 소체의 월 생산번호				

3. 시험방법



3.1 S11 parameter

- 제품규격 참조

3.2 측정방법

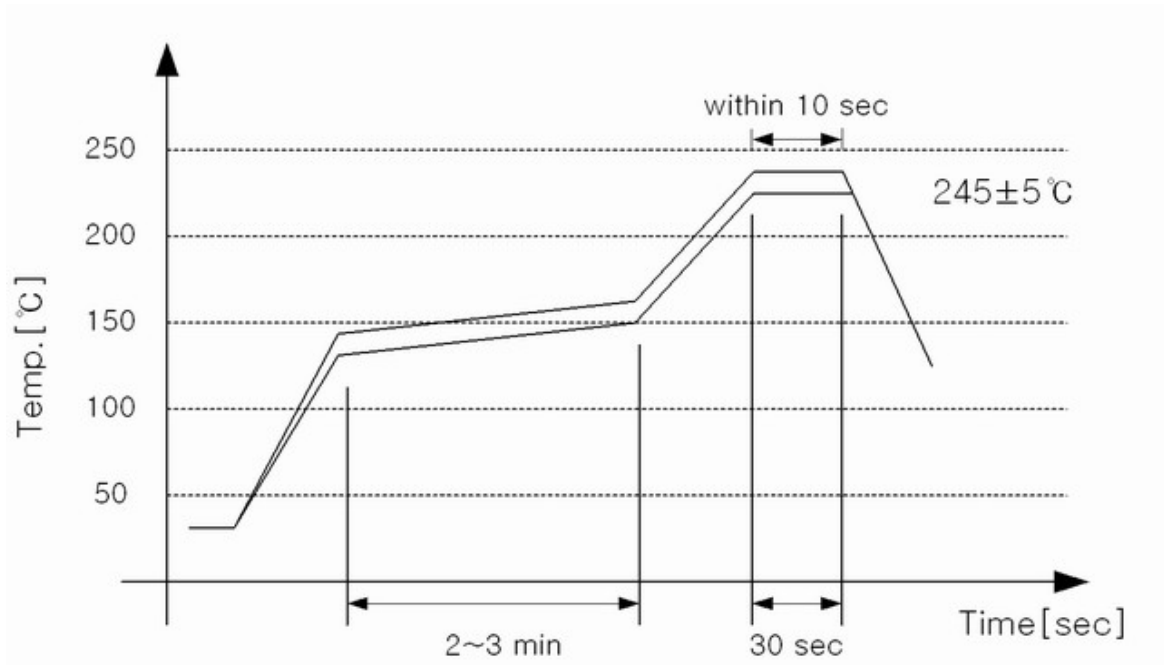
- RF Cable 까지 Calibration 을 한다.
 - Center frequency: 제품규격 참조
 - Span : 800MHz
 - Number of point : 801
- RF Cable 과 측정지그의 SMA adapter 를 연결한다.
- Format 을 VSWR(SWR)로 설정한다.
- MARKER1, MARKER2, MARKER3 을 설정하여 VSWR 값을 확인한다.
MARKER1,2,3 의 VSWR 값이 제품규격을 만족하여야 한다

4. 신뢰성 시험조건

구분	항목	테스트 조건	요구 사항
1	Drop Test	1. Phone 시료에 장착 2. 1.5mm 높이, 6 개면 3. Steel Surface (1000*1000*20mm) 4. 각 5 회 낙하	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
2	Vibration Test	1. 5-55-5 Hz, 1 Octave/min, Amp.=1.5mm, acceleration = 2g, Crossover Freq.=18 Hz	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
3	Humidity	1. 60℃, 95%RH, 48Hr	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
4	Temperature Cycle	1. -40℃(2Hr) → 2Hr → +80℃ (2Hr)→2Hr → -40℃, 50%RH 2. Cycle : 10 3. 1 Cycle = 8Hr	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
5	Thermal Shock	1. +80℃(30min)→1~2mim → -40℃ (30min) 2. cycle 횟수 : 10 회	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
6	Corrosion	1. +35℃, Sodium(5%), 48Hr	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
7	Storage Temperature	1. -40℃(48Hr) → 95%RH, 80℃(48Hr)	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
8	고온 보존	1. +85℃, 96Hr	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
9	저온 보존	1. -40℃, 96Hr	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것
10	고착 강도 (Adhesion strength)	1. SMT 되어 있는 시료에 힘 F 를 주어 PCB 에서 떨어 질 때까지 힘 F 를 증가 	1. 옆으로 미는 힘 F 에 의한 기계적 손상 없음 2. 힘의 세기 F > 5 kgf
11	Reflow (최대 내열성)	• +260℃, 10sec ※ 단품 상태로 시험	1. 외관 손상 없음 2. VSWR 특성 만족 -Pattern 과 소체에 Crack 이 없을 것

5. 납땜조건 (권고사항)

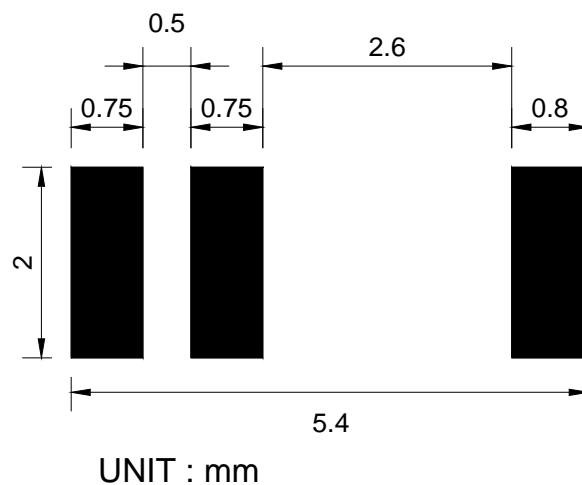
5.1 납땜온도조건 (Pb-free 조건)



안테나의 특성 저하를 막기 위해 다음과 같은 납땜 조건을 지켜야 한다.

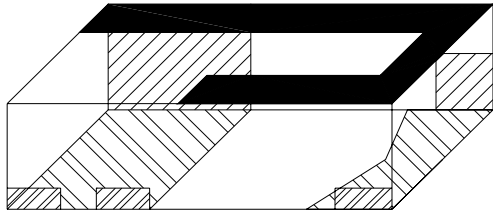
- Reflow soldering 조건으로 납땜을 진행하여야 하며, Flow soldering 을 하여서는 안 된다.
- 비활성 Flux 를 사용하여야 한다.(최대 CI 함량 0.2% 미만)
- Reflow cycle 횟수는 3 회 이내로 해야 한다.

5.2 PCB 패턴설계조건



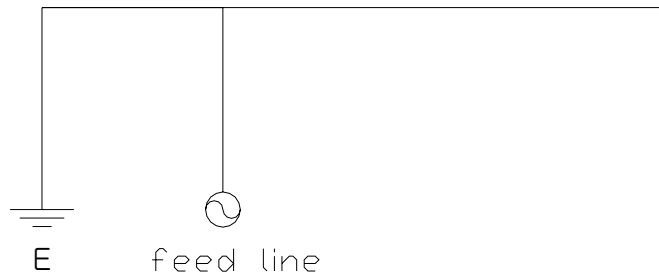
6. 구조 및 재질

6.1 재료사양



1	소체(Bulk)		산화마그네슘계 세라믹스
2	전극	TOP	Ag
		BOTTOM (일체형)	
		SIDE1	
		SIDE2	

6.2 등가회로



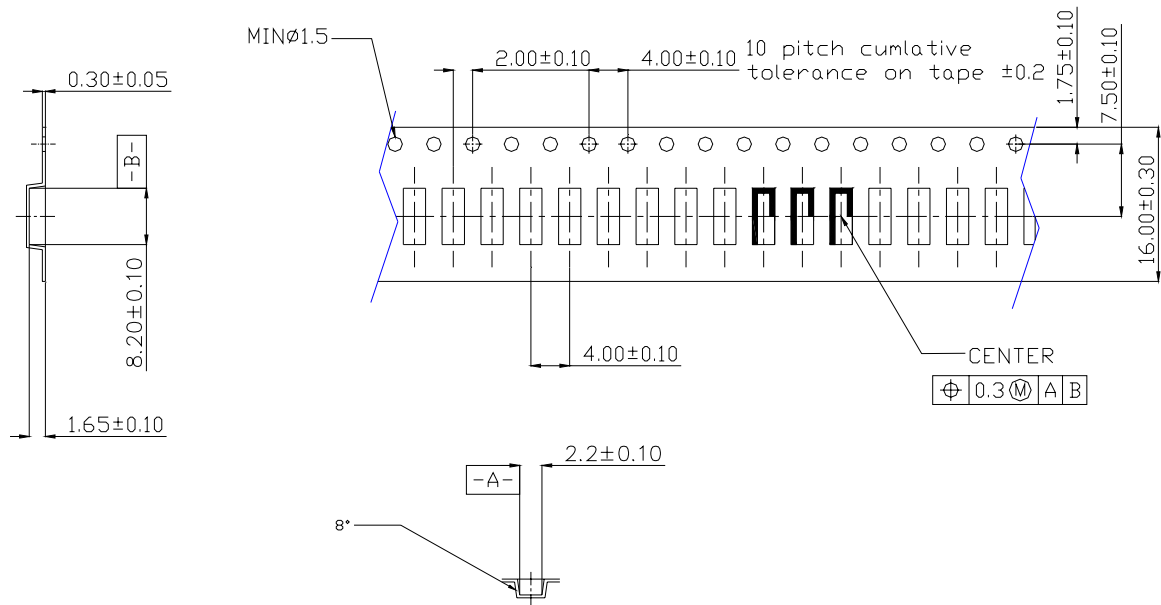
7. 주의사항

1. 보관환경은 $-5\sim 40^{\circ}\text{C}$, 상대습도 70%의 대기에서 보관되어야 함. (MSL Level 1)
2. Dielectric Chip Antenna 는 고온고습에서 사용하거나 또는 황이나 염산가스에 노출될 경우 전극 납땜성의 저하를 일으킬 수 있다.
3. Dielectric Chip Antenna 자체 무게에 의한 세라믹의 crack 을 막기 위해 기계적 충격(낙하 등)을 피해야 한다.
4. Dielectric chip Antenna 는 6 개월 이내에 사용되어야 하며 6 개월이 경과한 칩은 사용하기 전에 반드시 납땜성을 확인하여야 한다.
5. SMT 전/후 대기 중에 방치된 제품 외부패턴(Ag)의 변색은 자연적인 현상이며 제품의 기능 혹은 특성상에 영향을 미치지 아니하므로 정상품으로 간주한다.

8. 포장 사양

8.1 Carrier tape 사양

8.1.1 크기

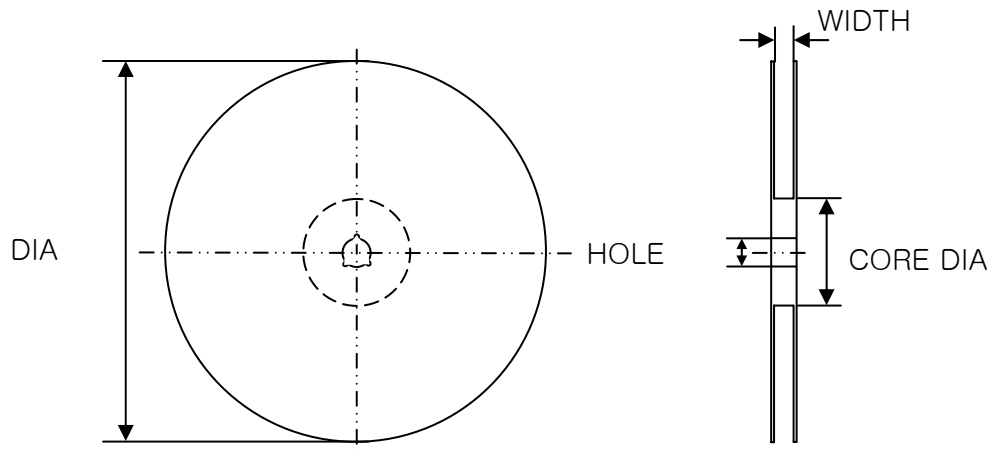


8.1.2 재질 및 표면저항

- 1) Carrier tape : $10^6 \Omega \sim 10^{11} \Omega$, 제전용
- 2) Cover tape : $10^6 \sim 10^{11} \Omega$, 제전용
- 3) Reel : $10^6 \Omega \sim 10^{11} \Omega$, 제전용

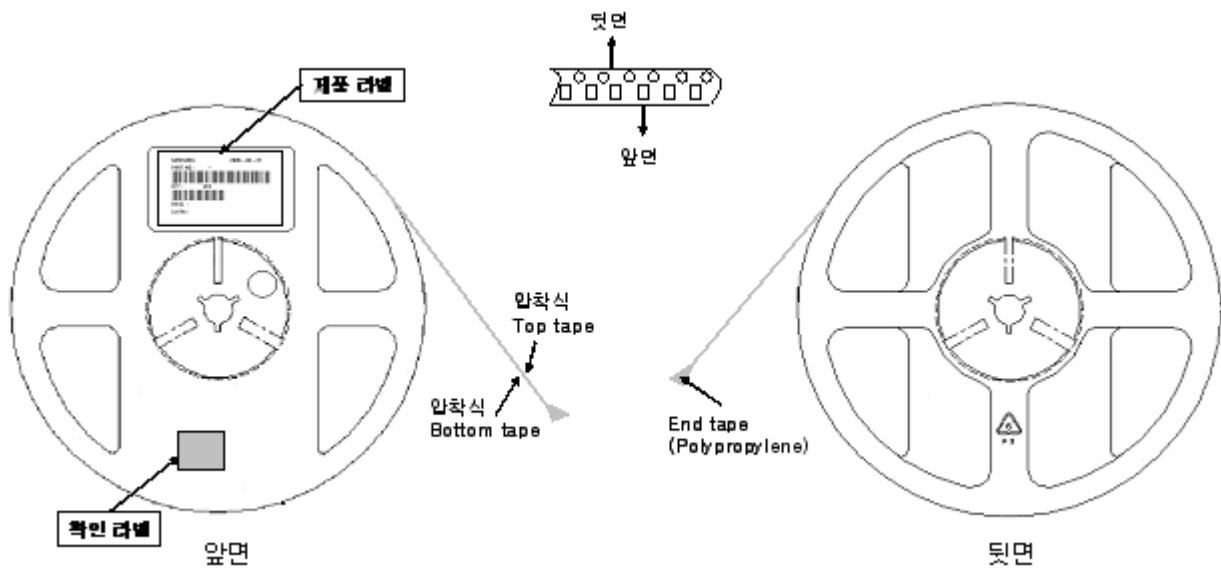
8.2 릴(Reel) 사양

8.2.1 크기



항목	DIA	WIDTH	CORE DIA	HOLE
치수(mm)	180.0 +0, -3	17.0 ± 0.3	60.0 ± 1	13.0 ± 0.5

8.2.2 라벨 부착 및 Winding 방법



8.2.3 재질

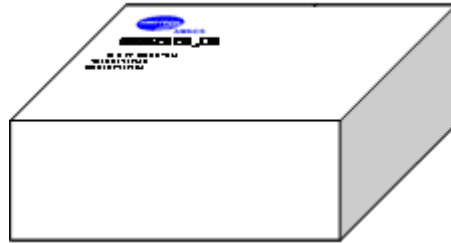
1) Plastic reel: GPPS (General Purpose Poly Styrene) resin

8.3 박스 포장 사양

8.3.1 소형 박스

크기: 185(W) x 185(D) x 68 (T) [mm]

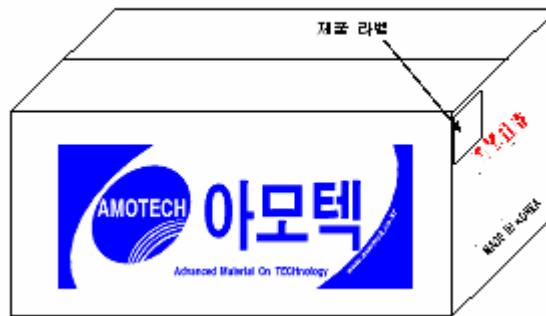
수량: 3reel (2,000ea/reel x 3 reel=6,000ea)



8.3.2 중형 박스

크기: 365(W) x 200(D) x 200 (T) [mm]

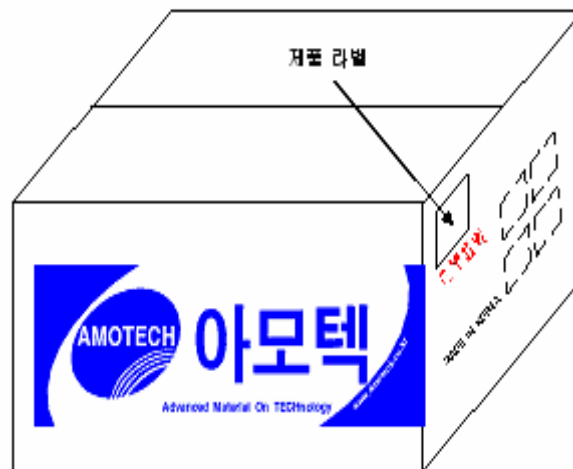
수량: 5 소형 박스 (6,000ea/소형 박스 x 5 소형 박스 = 30,000ea)



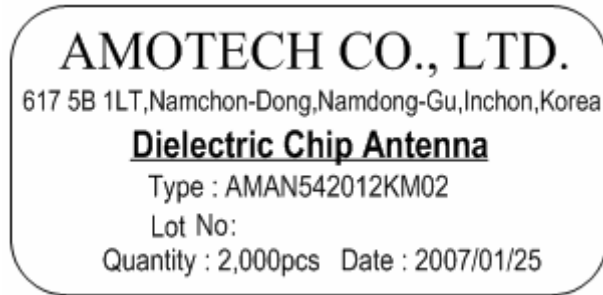
8.3.3 대형 박스

크기: 390(W) x 390(D) x 280 (T) [mm]

수량: 14 소형 박스 (6,000ea/소형 박스 x 14 소형 박스 = 84,000ea)



8.4 포장 라벨 사양



9. 관리공정도

재 료	공정도시		공정명	중점 관리 항목	관리방법	치공구 및 사용기기
	준비공정	본공정				
MMT-20(B) Powder			수입검사	<ul style="list-style-type: none"> - 유전율 : 검사 성적서 대체 - 소결 후 사이즈 확인하여 성형 조건 확정 (중량, 두께) 	수입검사성적서 성형테스트쉬트	저울 버니어캘리퍼스
Ag Paste				- 점도 확인 실시	수입검사성적서	점도계
캐리어 테잎				- 캐리어 규격에 따라 확인 실시	수입검사성적서	버니어캘리퍼스
캐리어 커버				- 규격에 준한 제품 확인 실시		
스크린 포장재 소모성 자재						
MMT-20(B) Powder			성형 공정	<ul style="list-style-type: none"> - 금형 type 확인 (예 : 5420,9030) - 성형체 중량 확인 - 성형체 두께 확인 	lot 이력 카드	프레스 저울 버니어캘리퍼스
			소결 및 적재 공정	<ul style="list-style-type: none"> - 소결 온도 프로파일 확인 	설비체크리스트 lot 이력 카드	온도 컨트롤러
				<ul style="list-style-type: none"> - 메저링 (measuring) 온도 (월 1회 실시 - 히터 및 조건 수정 때 마다 실시) 		
			가공 및 연마 공정	<ul style="list-style-type: none"> - 제품 표면의 이물질 여부 확인 	lot 이력 카드	

재 료	공정도시		공정명	중점 관리 항목	관리방법	차공구 및 사용기기
	준비공정	본공정				
		5	소결체 외관 검사	- 소결체의 가로, 세로 사이즈 측정 가로, 세로 : $5.4 \times 2.0 \pm 0.15\text{mm}$ 두께 : $1.5 \pm 0.15\text{mm}$	lot 이력 카드	버니어캘리퍼스
				- 표면의 외관 상태 (깨짐, Crack이 없음) (칩 크기: $1.0\text{mm} \times 45^\circ 2\text{개}$ 이하 일것)	전수 검사	육안 확인
Ag Paste		6	BOTTEM 인쇄 및 건조	- 스쿠지 압 - 스쿠지 속도 - Ag Paste 는 사용 전에 5~10 정도 충분히 저어 준다 - 스크린 텐션 - 스냅업(Snap off) - 건조온도 - 건조시간	설비 체크 리스트 lot 이력 카드 설비 체크 리스트	장비 셋팅 값 스펙츨러 텐션게이지 다이얼게이지 온도 컨트롤러
Ag Paste		7	TOP 인쇄 및 건조	- 스쿠지 압 - 스쿠지 속도 - Ag Paste 는 사용 전에 5~10 정도 충분히 저어 준다 - 스크린 텐션 - 스냅업(Snap off) - 건조온도 - 건조시간	설비 체크 리스트 lot 이력 카드 설비 체크 리스트	장비 셋팅 값 스펙츨러 텐션게이지 다이얼게이지 온도 컨트롤러
Ag Paste		8	SIDE1 인쇄 및 건조	- 스쿠지 압 - 스쿠지 속도 - Ag Paste 는 사용 전에 5~10 정도 충분히 저어 준다 - 스크린 텐션 - 스냅업(Snap off) - 건조온도 - 건조시간	설비 체크 리스트 lot 이력 카드 설비 체크 리스트	장비 셋팅 값 스펙츨러 텐션게이지 다이얼게이지 온도 컨트롤러

재 료	공정도시		공정명	중점 관리 항목	관리방법	치공구 및 사용기기
	준비공정	본공정				
Ag Paste		9	SIDE2 인쇄 및 건조	<ul style="list-style-type: none"> - 스퀴지 압 - 스퀴지 속도 - Ag Paste 는 사용 전에 5~10 정도 충분히 저어 준다 - 스크린 텐션 - 스냅업(Snap off) - 건조온도 - 건조시간 	설비체크리스트 lot 이력 카드 설비체크리스트	장비 셋팅 값 스펙출력 텐션게이지 다이얼게이지 온도 컨트롤러
		10	소부	<ul style="list-style-type: none"> - 소부 온도 프로파일 확인 	설비체크리스트 lot 이력 카드	온도 컨트롤러
		11	외관 검사	<ul style="list-style-type: none"> - 전극의 굽힘, 깨짐 등을 육안 검사를 실시 	lot 이력 카드	
캐리어 테잎 캐리어 커버 릴		12	선별 마킹 릴포장	<ul style="list-style-type: none"> - 측정 완료 후 양품 수율 확인 	lot 이력 카드	네트워크 아날라이저
제품 라벨 포장 박스 박스테잎		13	포장	<ul style="list-style-type: none"> - 포장 기준에 적합하게 포장 하는지 확인 - 고객 요구 사항에 맞는 라벨 부착 확인 	lot 이력 카드	
		14	최종 출하 검사	<ul style="list-style-type: none"> - 출하검사규격에 맞게 확인 	출하 성적서	

10. 유해물질성적서

10.1 제품 성분분석



Test Report No. F690501/LF-CTSGP06-03060

Date: February 16, 2006

Page 1 of 2

To: AMOTECH CO., LTD.
5BL-1L, 617
Namchon-dong
Namdong-gu,
INCHEON 405-100
Korea


The following merchandise was submitted and identified by the client as :

Commodity : Dielectric Chip Antenna
SGS File No. : GP06-03060
Received Date : February 09, 2006
Test Performing Date : February 10, 2006
Test Performed : SGS Testing Korea tested the sample(s) selected by applicant with following results
Test Results : For further details, please refer to following page(s)

Brendan Lee
Patrick An
Monet Jeong
Jinee Song
/Testing Person


Jeff Jang / Technical Mgr

SGS Testing Korea Co. Ltd.


Jason Han / Lab Director

The above certificate is the accredited test items by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

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Test Report No. F690501/LF-CTSGP06-03060

Date: February 16, 2006

Page 2 of 2

Sample No. : GP06-03060.001

Sample Description : Dielectric Chip Antenna

Style/Item No. : Dielectric Chip Antenna

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996)	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992)	1	N.D.

Picture of Sample as Received:




*** End ***

- NOTE:
- (1) N.D. = Not detected.(<MDL)
 - (2) ppm = mg/kg
 - (3) MDL = Method Detection Limit
 - (4) Estimated expanded uncertainty U with a coverage factor $k = 2$, corresponding to a level of confidence of about 95%

The above certificate is the accredited test items by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

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10.2 유전체 원료(powder)



Test Report No. F690501/LF-CTSGP05-09443

Date: April 20, 2006

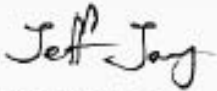
Page 1 of 2

To: AMOTECH CO., LTD.
5BL-1L, 517
Namchon-dong
Namdong-gu,
INCHEON 405-100
Korea

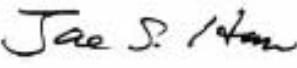
The following merchandise was submitted and identified by the client as :

Commodity	: Dielectric Ceramic Powder
SGS File No.	: GP05-09443
Received Date	: April 13, 2006
Test Performing Date	: April 14, 2006
Test Performed	: SGS Testing Korea tested the sample(s) selected by applicant with following results
Test Results	: For further details, please refer to following page(s)

Brendan Lee
Patrick An
Monet Jeong
Jinse Song
/Testing Person


Jeff Jang / Technical Mgr

SGS Testing Korea Co. Ltd.


Jason Han / Lab Director

The above certificate is the accredited test item by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the Company.

Sample No. : GP05-09443.001
Sample Description : Dielectric Ceramic Powder
Style/Item No. : MNT-20M(B)

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium(Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996), ICP	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996), ICP	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996), ICP	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992), UV	1	N.D.

Picture of Sample as Received:



*** End ***

NOTE: (1) N.D. = Not detected (<MDL)
 (2) ppm = mg/kg
 (3) MDL = Method Detection Limit
 (4) Estimated expanded uncertainty U with a coverage factor $k=2$, corresponding to a level of confidence of about 95%

The above certificate is the accredited test item by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

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10.3 Ag paste



Test Report No. F690501/LF-CTSGP06-0257

Date: January 11, 2006

Page 1 of 2

To: MICRO M CO., LTD.
Rm#503, B-dong, Bundangtechnopark
Yatap-dong
Bundang-gu
KYUNGKI-DO
Korea

The following merchandise was submitted and identified by the client as :

Commodity	: PCC11837
SGS File No.	: GP06-0257
Received Date	: January 04, 2006
Test Performing Date	: January 05, 2006
Test Performed	: SGS Testing Korea tested the sample(s) selected by applicant with following results
Test Results	: For further details, please refer to following page(s)
Buyer(s)	: SAMSUNG

Brandon Lee
Patrick An
Monet Jeong
Jinee Song
/Testing Person


Jeff Jang / Technical Mgr

SGS Testing Korea Co. Ltd.


Jason Han / Lab Director

The above certificate is the accredited test items by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

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Sample No. : GP06-0257.001
Sample Description : PCC11837
Style/Item No. : N/A
Comments : Material is silver paste.

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996)	5	12.0
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996)	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992)	1	N.D.

Picture of Sample as Received:



*** End ***

- NOTE:
- (1) N.D. = Not detected, (<MDL)
 - (2) ppm = mg/kg
 - (3) MDL = Method Detection Limit
 - (4) Estimated expanded uncertainty U with a coverage factor $k=2$, corresponding to a level of confidence of about 95%

The above certificate is the accredited test items by Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.

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10.5 캐리어 테잎



Test Report No. F690501/LF-CTSGP05-10291

Date: April 27, 2006

Page 1 of 3

To: CHEMTECH SOLUTION CO., LTD
#54D-13, Goryeom-ri
Chungbuk-myun
Pyungtak-city
GYEONGGI-DO
KOREA

The following merchandise was submitted and identified by the client as :

Commodity	: CTS Anti-Static Clear sheet
SGS File No.	: GP05-10291
Received Date	: April 20, 2006
Test Performing Date	: April 21, 2006
Test Performed	: SGS Testing Korea tested the sample(s) selected by applicant with following results
Test Results	: For further details, please refer to following page(s)

Brendan Lee
Monet Jeong
Jully Oh
Jerry Jung
(Testing Person)

Jeff Jang / Technical Mgr

SGS Testing Korea Co. Ltd.

Jason Han / Lab Director

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**Test Report No. F690501/LF-CTSGP08-10291**

Date: April 27, 2006

Page 2 of 3

Sample No. : GP05-10291.001
Sample Description : CTB Anti-Static Clear sheet
Style/Item No. : N/A
Comments : Material is MBS.

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	EN 1122(2001), US EPA 6010B(1996), ICP	0.5	N.D.
Lead (Pb)	mg/kg	US EPA 3050B(1996), US EPA 6010B(1996), ICP	5	N.D.
Mercury (Hg)	mg/kg	US EPA 3052(1996), US EPA 6010B(1996), ICP	2	N.D.
Hexavalent Chromium (Cr VI)	mg/kg	US EPA 3060A(1996), US EPA 7196A(1992), UV	1	N.D.

Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Monobromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Dibromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tribromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tetrabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Heptabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Hexabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Pentabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Octabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Nonabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Decabromodiphenyl	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Monobromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Dibromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tribromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Tetrabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Heptabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Hexabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Pentabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Octabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Nonabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.
Decabromodiphenyl ether	mg/kg	US EPA 3540C, GC/MS	5	N.D.

NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) - = No regulation
(5) ** = Qualitative analysis (No Unit)
(6) Negative = Undetectable / Positive = Detectable

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Picture of Sample as Received:

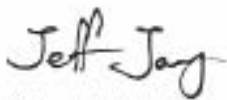
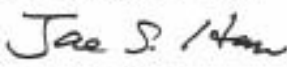


*** End ***

NOTE: (1) N.D. = Not detected (<MDL)
 (2) ppm = mg/kg
 (3) MDL = Method Detection Limit
 (4) - = No regulation
 (5) ** = Qualitative analysis (No Unit)
 (6) Negative = Undetectable / Positive = Detectable

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10.6 캐리어 커버

SGS	
Test Report No. F690501/LF-CTS080091 Date : March 7, 2006 Page 1 of 3	
To:	SMT 349-4 Gochun-Dong Eulwang-City Kyunggi-Do Korea
The following merchandise was submitted and identified by the client as :-	
Commodity	: Covertape
SGS File No.	: G-49/2006-0614/1
Received Date	: February 27, 2006
Test Performing Date	: February 28, 2006
Test Performed	: This Test was performed by SGS Taiwan Limited.
Test Result(s)	: For further details, please refer to following page(s).
SGS Taiwan Ltd /Testing Person	<div style="text-align: center;">  Jeff Jang / Technical Mgr </div>
	<div style="text-align: center;"> SGS Testing Korea Co., Ltd.  Jason Han / Director </div>
<p>This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the Company.</p>	
<div style="display: flex; justify-content: space-between;"> <div> <p>SGS Testing Korea Co., Ltd.</p> <p>100-1, Hwasan-ro, Gwanak-gu, Seoul, Korea</p> <p>Tel: +82 (0)2 488 0000 Fax: +82 (0)2 400 0000 www.sgslab.co.kr www.kr.sgs.com/gwslab</p> <p>100-1, Hwasan-ro, Gwanak-gu, Seoul, Korea 089-0000 Tel: +82 (0)52 239 8900 Fax: +82 (0)52 239 8910</p> </div> <div> <p>222 The G valley, 555 S. Hyeon-dong, Gangseo-gu, Anyang-si, Gyeonggi-do, Korea 431-880</p> <p>Tel: +82 (0)31 488 0000 Fax: +82 (0)31 400 0000 www.sgslab.co.kr www.kr.sgs.com/gwslab</p> <p>100-1, Hwasan-ro, Gwanak-gu, Seoul, Korea 089-0000 Tel: +82 (0)52 239 8900 Fax: +82 (0)52 239 8910</p> </div> </div>	
(AB 100)	Member of SGS Group (Société Générale de Surveillance)