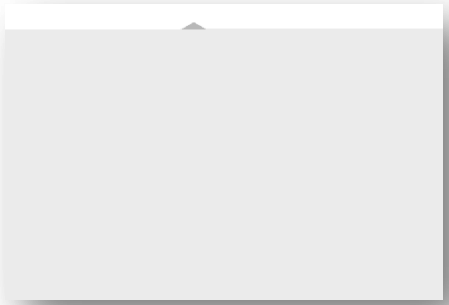
AMOTECH Co., Ltd.

Document	Datasheet
Type	Multilayer Chip Antenna
Application	2.4GHz
Part No.	ALA201510ST01
Revision	0

DATASHEET



Application

Bluetooth
Zigbee
WLAN (IEEE 802.11 b/g)
ISM 2.4GHz Wireless Devices

Features

PIFA Structure
Small Size (2.0*1.5*1.0mm^3)
Easy Optimizing
with external lumped matching components
SMT Available under Pb-free Condition
RoHS Compliant

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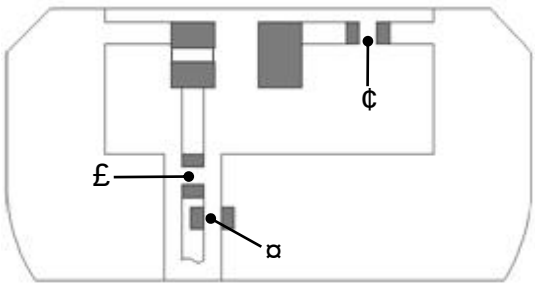
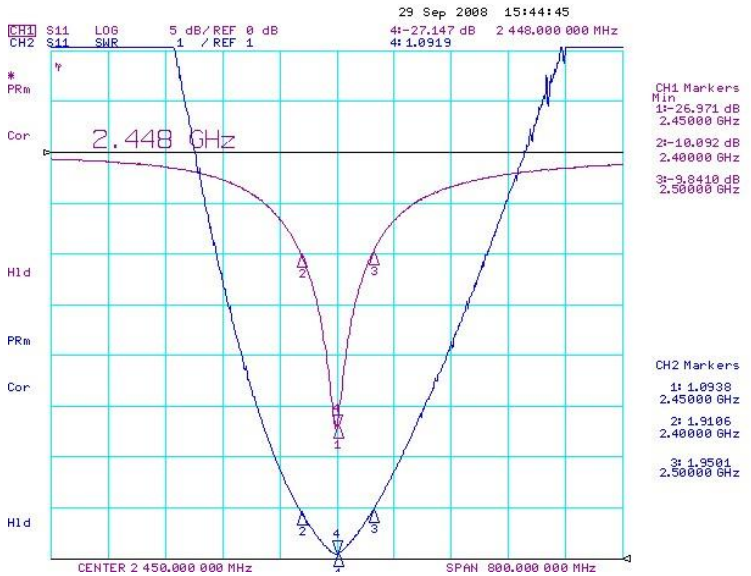
Notes
The contents of this datasheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

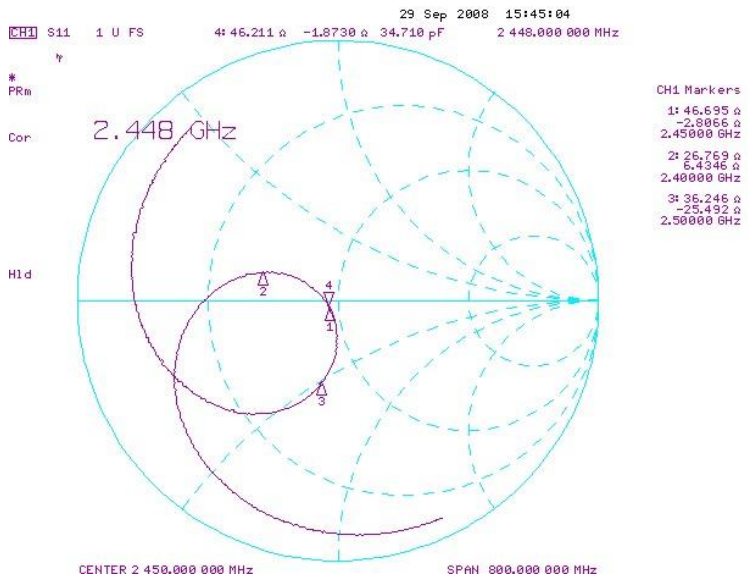
3. Measurement Result

3.1 Typical Measurement Result (VSWR/RL, Smithchart)



No	Matching Value
¢	1.2nH
£	2.2nH
¤	2.4 pF



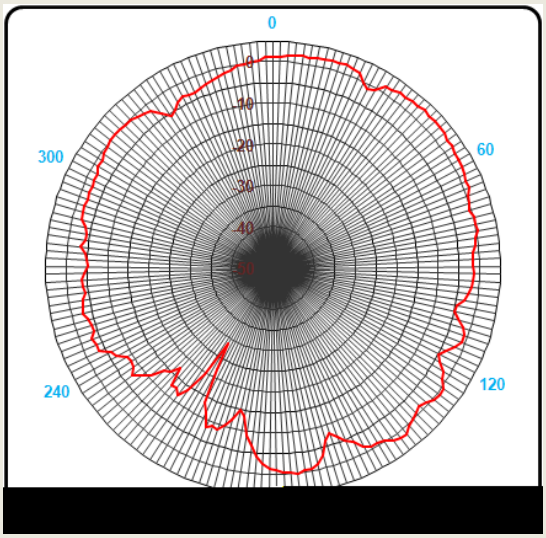


9 The results are measured on the 50x50mm^2 evaluation board(EVB).

3.2 Typical Measurement Result (Gain, Radiation Pattern)

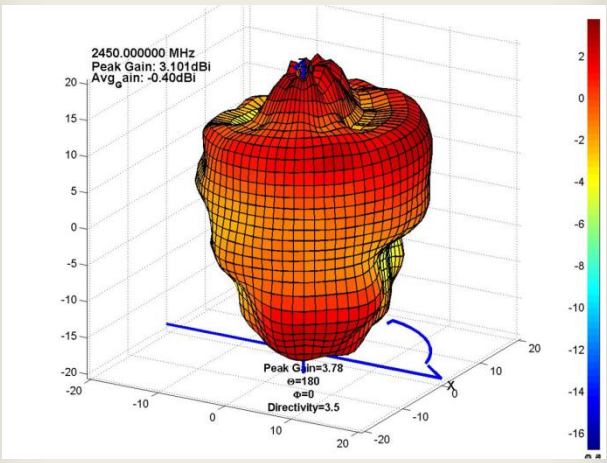
	Peak Gain (dBi)	Avg. Gain (dBi)	Total Avg. Gain (dBi)	Efficiency (%)
Azimuth	-0.57	-2.01	-0.4	91
Elevation 1	3.16	-1.03		
Elevation 2	4.67	1.53		

[Azimuth plane @2.45GHz]



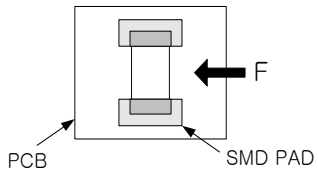
[Elevation1 plane @2.45GHz]

[Elevation2 plane @2.45GHz]

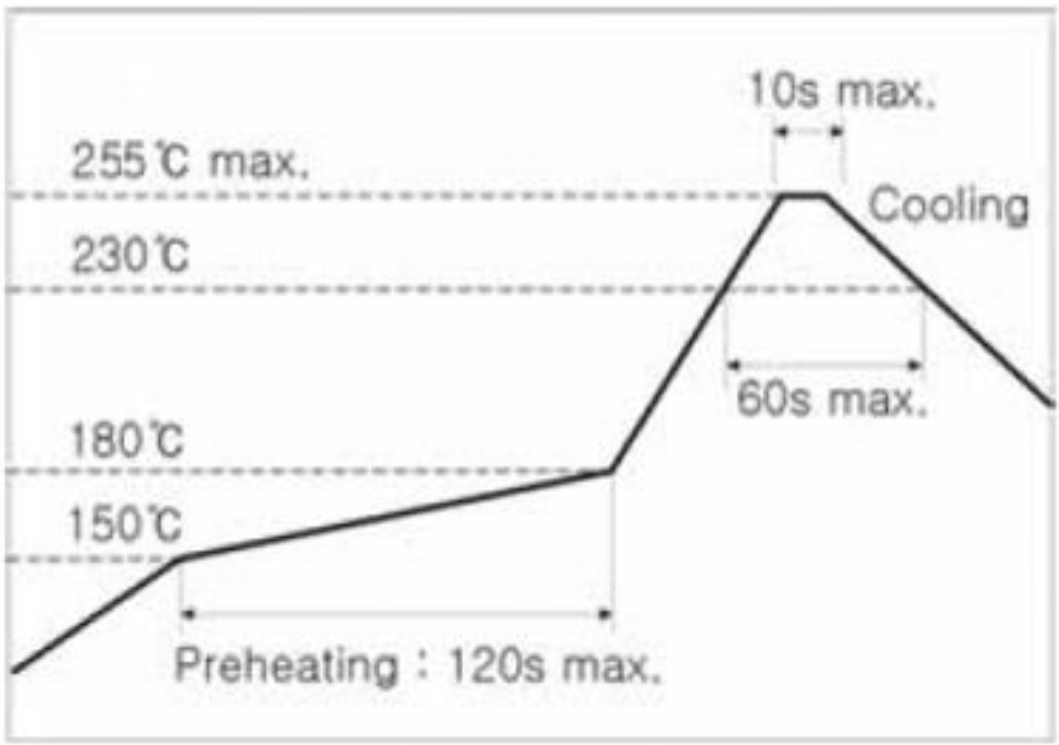


[3D Radiation Pattern]

4. Reliability

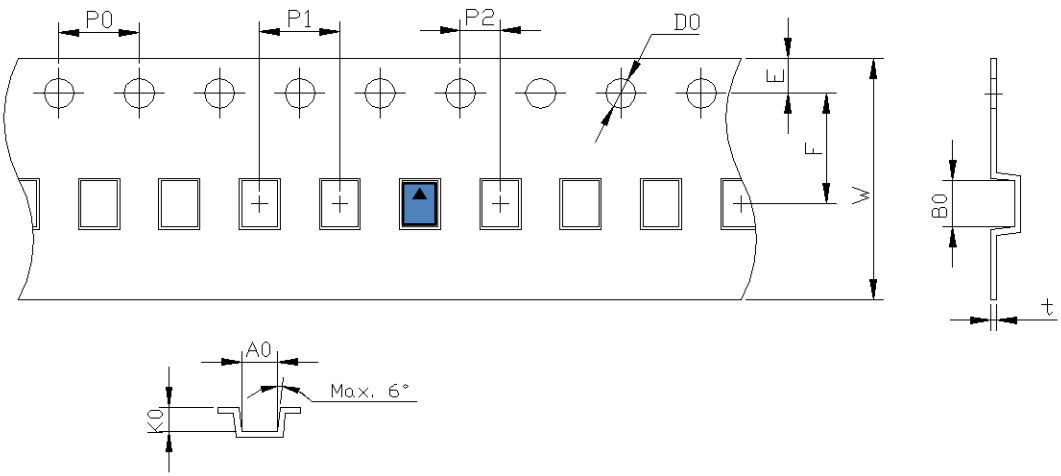
No	Item	Test Condition	Test Requirements
1	Adhesive Strength of Termination	1. Applied force on SMT chip till detached point from PCB. 	1. No mechanical damage by applied force 2. Strength (F) > 1 kgf
2	Thermal Shock (Cycle)	1. Step 1 : -40 ± 3 E, 30 min Step 2 : +125 ± 3 E, 30 min 2. Number of cycle : 30	1. No visual damage 2. Within electric spec (VSWR)
3	High Temperature Resistance	1. Temperature : +125 ± 5 E 2. Time : 1000 ± 24 hrs	1. No visual damage 2. Within electric spec (VSWR)
4	Low Temperature Resistance	1. Temperature : -40 ± 5 E 2. Time : 1000 ± 24 hrs	1. No visual damage 2. Within electric spec (VSWR)
5	Humidity	1. Humidity : 85 % RH Temperature : +85 ± 3 E 2. Time : 1000 ± 24 hrs	1. No visual damage 2. Within electric spec (VSWR)

5. Soldering Reflow Profile



6. Packaging

6.1 Carrier Tape Dimension



Item	Spec.	Item	Spec.	Item	Spec.
A0	1.80 ±0.10	P0	4.00 ±0.10	E	1.75 ±0.10
B0	2.30 ±0.10	P1	4.00 ±0.10	F	5.50 ±0.10
K0	1.20 ±0.10	P2	2.00 ±0.10	W	12.00 ±0.30
D0	1.55 ±0.05	-	-	t	0.30 ±0.10

6.2 Packaging Label

AMOTECH Co., Ltd.

5BL-1Lot, 617, Namchon-Dong, Namdong-Gu, Incheon, Korea

Multilayer Chip Antenna

P/N : ALA201510ST01

Lot No :

Quantity : 2,500 pcs Date : 2009/08/20