



## 2. Features

- \*Stable and reliable in performances
- \*Compact size
- \*RoHS compliance

## 3. Applications

- \* IEEE802.11 (b/g/n).
- \* Hand-held devices when WiFi (802.11 b/g/n) functions are needed.

## 4. Description

Unictron's PCB antenna series are specially designed for WiFi (802.11 b/g/n) applications. Based on Unictron's proprietary design and processes, this PCB antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency.

## 5. Operating Condition:

Temperature	-10 to +85 °C	(With double-sided tape)
	- 40 to +85 °C	(Without double-sided tape)
Humidity	10 to 95% RH	

## 6. Storage Condition:

Temperature	-10 to +85 °C	(With double-sided tape)
	- 40 to +85 °C	(Without double-sided tape)
Humidity	10 to 95% RH	

## 7. Electrical Specifications (Antenna on the plastic housing)

### 7-1. 2400~2484 MHz Band

Characteristics		Specifications	Unit
Outline Dimensions		30.0 x 5.0 x 0.5	mm
Working Frequency		2400~2484	MHz
Bandwidth		84Min (typical)	MHz
VSWR(@Center Frequency)*		2Max (typical)	
Impedance		50	Ω
Polarization		Linear Polarization	
Peak Gain	(@ 2442 MHz)	3.3 (typical)	dBi
Efficiency		79.3 (typical)	%

\*Center frequency will be offset to another frequency according to the conditions of user's ground plane and radome.



詠業科技股份有限公司  
Unictron Technologies Corporation  
Website:www.unictron.com

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION  
Unictron Technologies Corp.

Prepared by : Xenia

Designed by : Sam

Checked by : Chinling

Approved by : Herbert

TITLE : 30.0 x 5.0 x 0.5 (mm) WiFi PCB Substrate Antenna  
(AA273) Engineering Specification

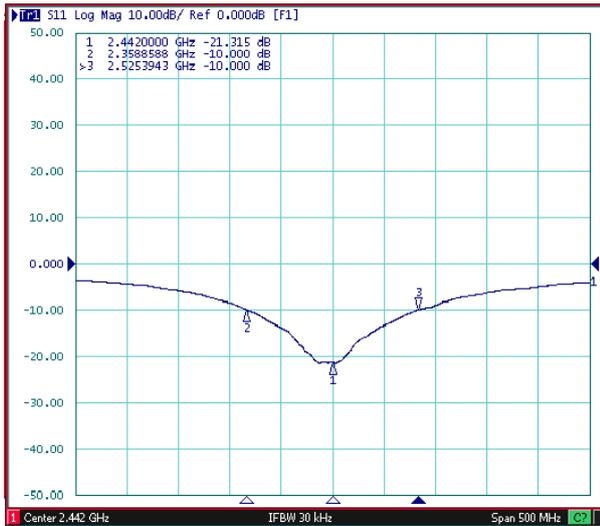
DOCUMENT  
NO.

H2B1BC2A1B225L

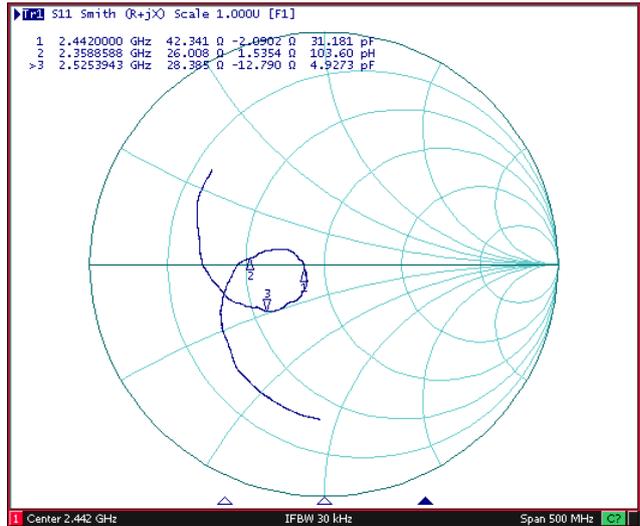
2017-04-14  
Document  
Control Center  
REV.  
A

## 7-2. Return Loss & Smith Chart

Return Loss



Smith Chart



詠業科技股份有限公司  
Unictron Technologies Corporation  
Website: www.unictron.com

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION  
Unictron Technologies Corp.

Prepared by : Xenia

Designed by : Sam

Checked by : Chinling

Approved by : Herbert

TITLE : 30.0 x 5.0 x 0.5 (mm) WiFi PCB Substrate Antenna (AA273) Engineering Specification

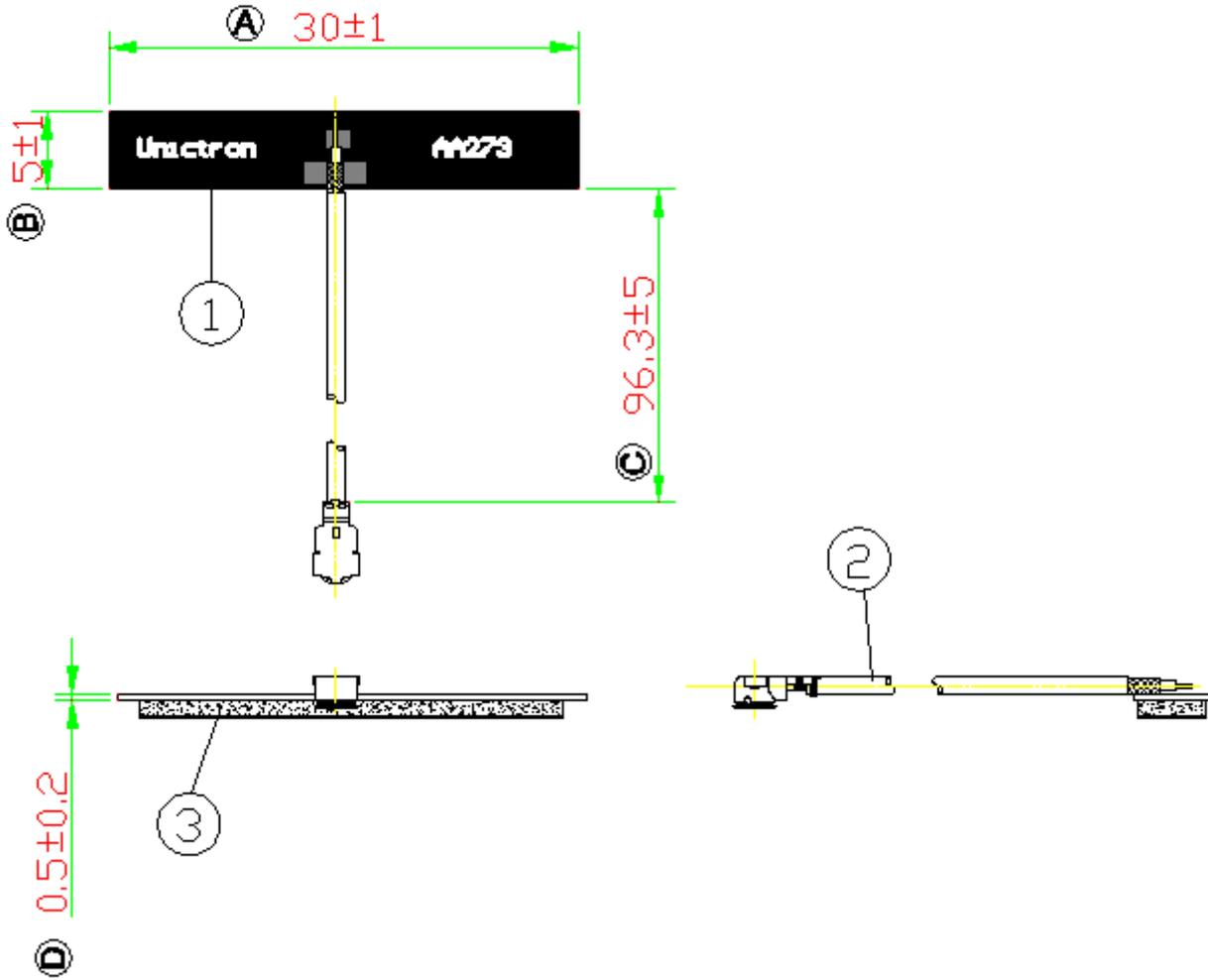
DOCUMENT NO.

H2B1BC2A1B225L

REV.

A

8. Dimensions of PCB antenna with cable (unit: mm)



NOTE:  
 1.All materials are RoHS compliant.  
 2."A~D" Critical Dimensions.  
 3."( )" Reference Dimensions.

Item	Name	Material	Color	Q'ty
1	AA273_PCB	FR4	Black	1
2	I-PEX Connector (MHF I)_ Cable1.13mm	FEP	Gray	1
3	Adhesive	PE	Black	1

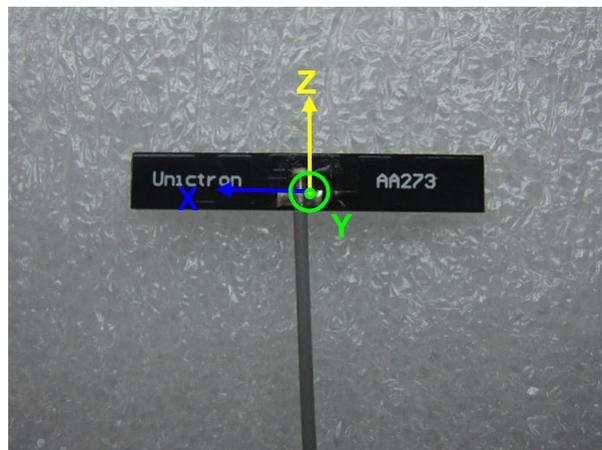
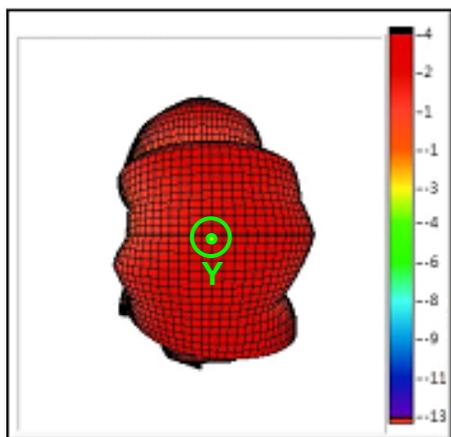
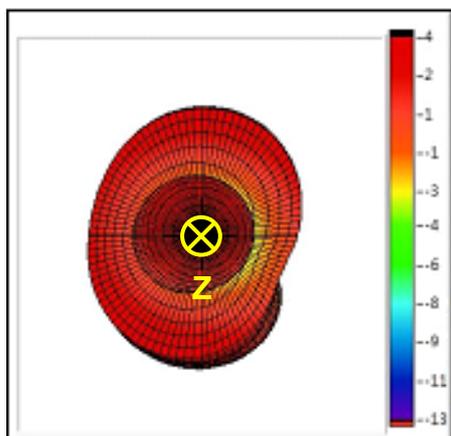
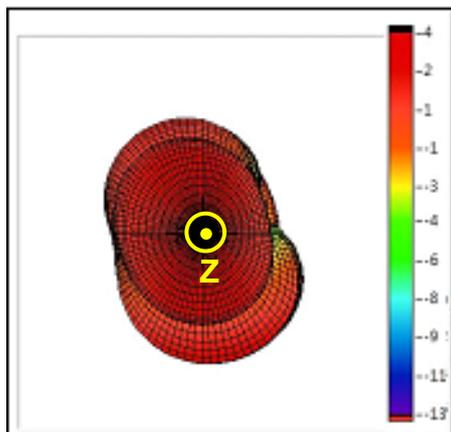
	詠業科技股份有限公司 Unictron Technologies Corporation Website:www.unictron.com	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
	2017-04-14 Document Control Center	

Prepared by : Xenia      Designed by : Sam      Checked by : Chinling      Approved by : Herbert

TITLE : 30.0 x 5.0 x 0.5 (mm) WiFi PCB Substrate Antenna (AA273) Engineering Specification	DOCUMENT NO.	H2B1BC2A1B225L	REV.
			A

## 9. Radiation Pattern

9-1.3D Gain Pattern @ 2442 MHz (unit: dBi)



詠業科技股份有限公司  
Unictron Technologies Corporation  
Website: www.unictron.com

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION  
Unictron Technologies Corp.

Prepared by : Xenia

Designed by : Sam

Checked by : Chinling

Approved by : Herbert

2017-04-14  
Document  
Control Center

TITLE : 30.0 x 5.0 x 0.5 (mm) WiFi PCB Substrate Antenna (AA273) Engineering Specification

DOCUMENT NO.

H2B1BC2A1B225L

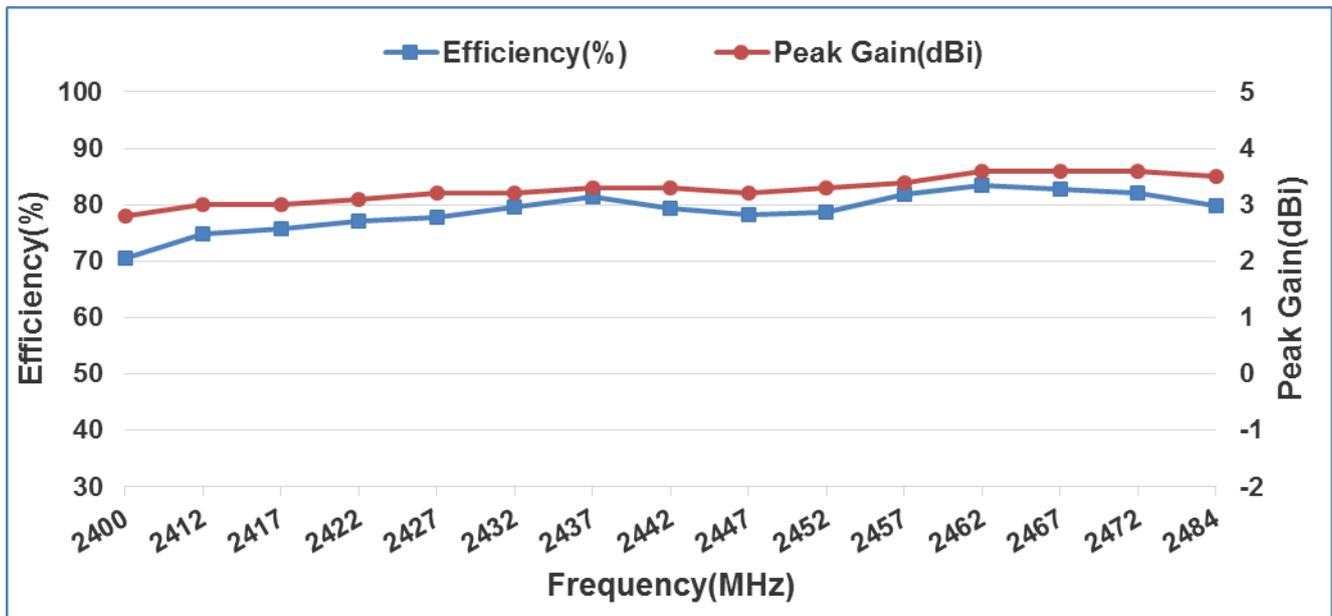
REV.

A

### 9-2. 3D Efficiency Table

Frequency (MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency (dB)	-1.5	-1.3	-1.2	-1.1	-1.1	-1.0	-0.9	-1.0	-1.1	-1.0	-0.9	-0.8	-0.8	-0.9	-1.0
Efficiency (%)	70.6	74.8	75.7	77.1	77.8	79.6	81.3	79.3	78.3	78.7	81.9	83.4	82.8	82.0	79.8
Gain (dBi)	2.8	3.0	3.0	3.1	3.2	3.2	3.3	3.3	3.2	3.3	3.4	3.6	3.6	3.6	3.5

### 9-3. 3D Efficiency vs. Frequency



詠業科技股份有限公司  
 Unictron Technologies Corporation  
 Website: www.unictron.com

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION  
 Unictron Technologies Corp.

Prepared by : Xenia

Designed by : Sam

Checked by : Chinling

Approved by : Herbert

TITLE : 30.0 x 5.0 x 0.5 (mm) WiFi PCB Substrate Antenna (AA273) Engineering Specification

DOCUMENT NO.

H2B1BC2A1B225L

REV. A