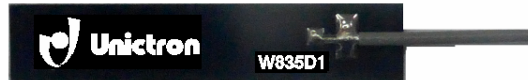


35.0 x 7.0 x 0.5 (mm) ISM PCB Antenna W835D1

Engineering Specification

1. Explanation of Product Number

H	2	B	1	S	D	1	A	1	S	0	1	0	0
				(1)	(2)	(3)	(4)	(5)					



Product Code:

(1) Product Applications:

S: polymer substrate antenna

(2) Dimensions:

D1: 35 x 7.0 x 0.5(mm)

(3) Material:

A: GF

(4) Working Frequencies

1S: 863~870 MHz

(5) Antenna Series:

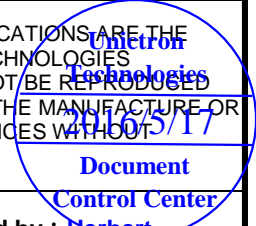
01: serial number

(Connector(MHF I)+Cable(ϕ 1.13mm,Gray),L=100mm)



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Prepared by : Xenia

Designed by : Sam

Checked by : Chinling

Approved by : Herbert

TITLE : 35.0 x7 x 0.5(mm) ISM PCB Antenna W835D1
Engineering Specification

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2. Features

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

3. Applications

- *ISM 868 band
- *Smart meters
- *Wireless alarm and security system
- *Industrial monitoring and control
- *IOT applications

4. Description

Unictron's W835D1 PCB antenna is designed for ISM 866 MHz band applications, covering frequencies 863 ~ 870 MHz. Fabricated with proprietary design and processes.

5. Electrical Specifications

(Antenna is attached on a 2.0mm-thick ABS + PC material plate)

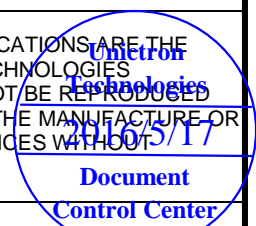
5-1. Electrical Table:

Characteristics		Specifications	Unit
Outline Dimensions		35 x 7.0 x 0.5	mm
Working Frequency		863 ~ 870	MHz
VSWR		2 Max. (typical).	
Characteristic Impedance		50	Ω
Polarization		Linear Polarization	
Peak Gain	(@ 868MHz)	1.7 (typical).	dBi
Efficiency		64.6(typical).	%



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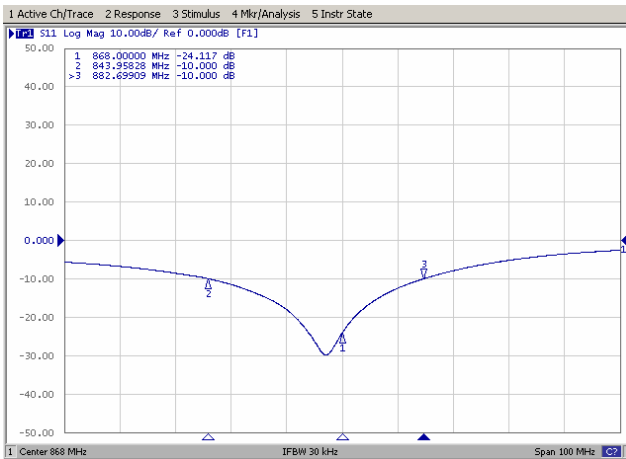
DOCUMENT
NO.

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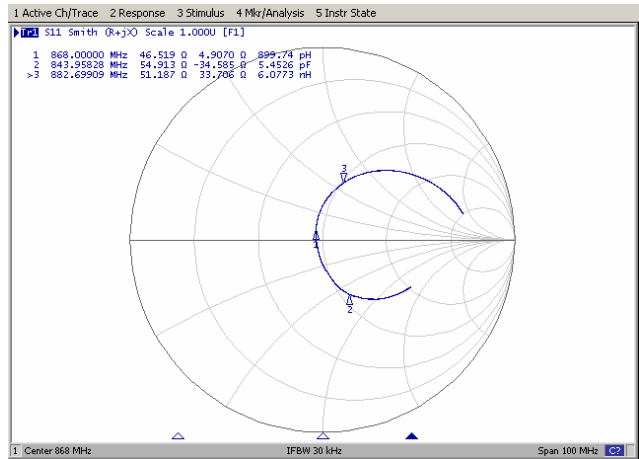
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5-2. Return Loss & Smith Chart

Return Loss

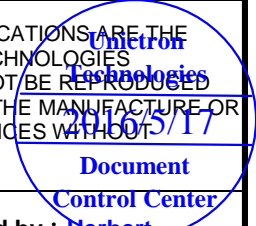


Smith Chart



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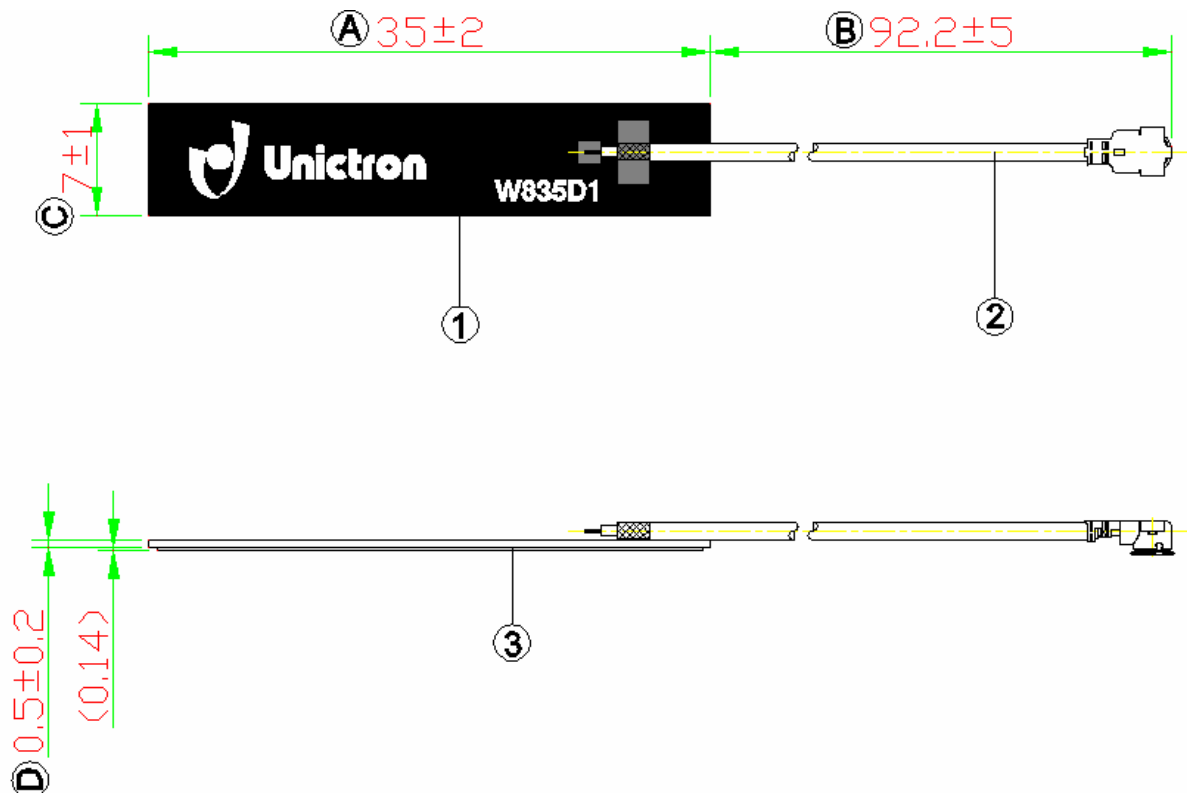
TITLE : 35.0 x7 x 0.5(mm) ISM PCB Antenna W835D1
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6. Dimensions of antenna with cable (unit: mm)



NOTE:

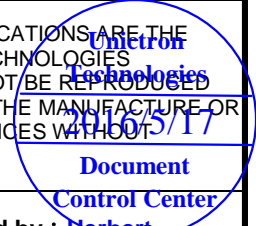
1. All materials are RoHS compliant.
2. *A~D* Critical Dimensions.
3. "()" Reference Dimensions.

Item	Name	Material	Color	Q'ty
1	PCB	FR4	Black	1
2	I-PEX Connector (MHF I)_Cable Φ 1.13mm	FEP	Gray	1
3	Adhesive Tape	-	Black	1



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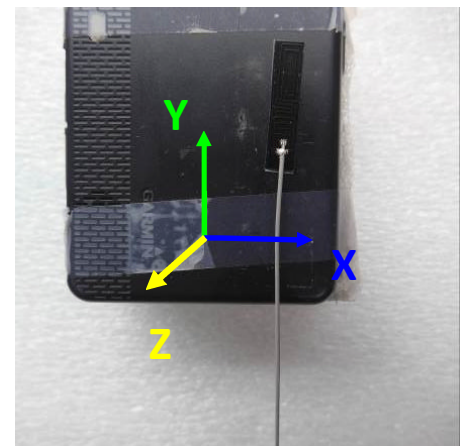
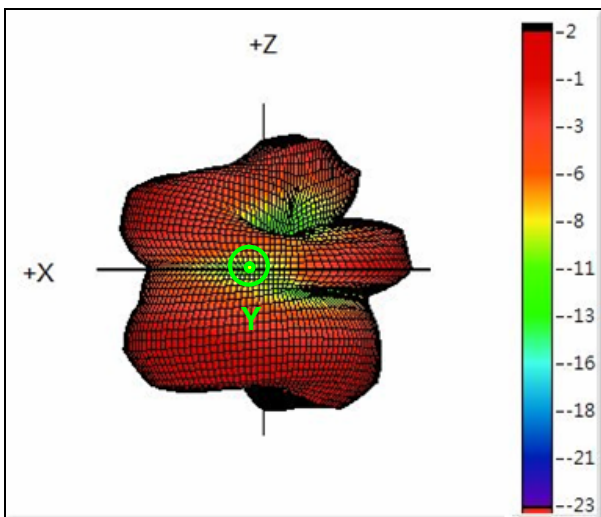
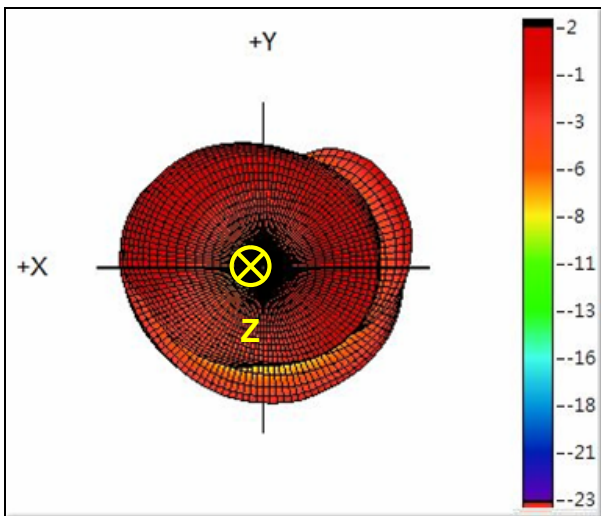
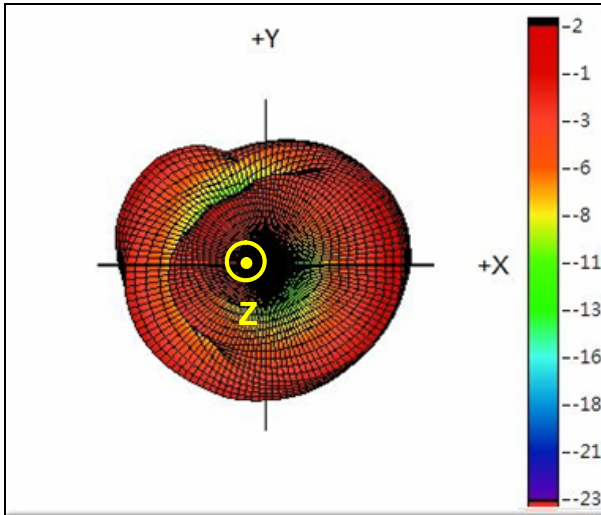


Prepared by : Xenia Designed by : Sam Checked by : Chinling Approved by : Herbert

TITLE : 35.0 x7 x 0.5(mm) ISM PCB Antenna W835D1 Engineering Specification	DOCUMENT NO.	H2B1SD1A1S0100	REV.
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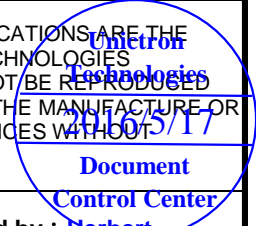
7. Radiation Pattern

7-1. 3D Gain Pattern (Radiation Pattern @ 868 MHz)



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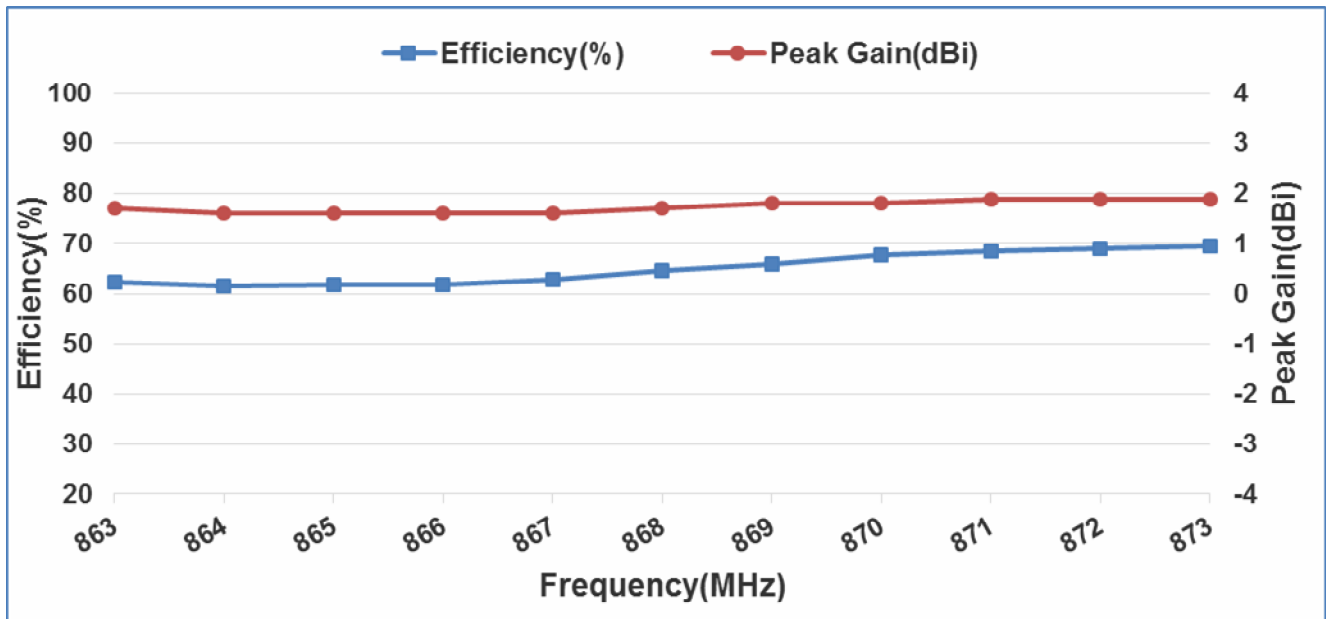
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7-2. 3D Efficiency Table

Frequency(MHz)	863	864	865	866	867	868	869	870	871	872	873
Efficiency(dB)	-2.1	-2.1	-2.1	-2.1	-2.0	-1.9	-1.8	-1.7	-1.6	-1.6	-1.6
Efficiency (%)	62.2	61.5	61.8	61.8	62.7	64.6	65.9	67.6	68.4	68.9	69.4
Peak Gain (dBi)	1.7	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.9	1.9	1.9

7-3. 3D Efficiency vs. Frequency



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