

20.0 x 7.0 x 0.5 (mm) WiFi PCB Antenna (WW20D1)

Engineering Specification

1. Explanation of Product Number

H	2	B	1	B	C	4	A	1	B	0	1	5	L
				(1)	(2)	(3)	(4)	(5)					



Product Code:

(1) Product Applications:

B : WiFi

(2) Dimensions:

C4 : 20.0 x 7.0 x 0.5 (mm)

(3) Material:

A : FR4

(4) Working Frequencies:

1B : 2400~2484 MHz

(5) Antenna Series:

01 : serial number

IPEX I Cable(ϕ 1.13 mm),L=100 mm



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Control
2016/5/30

Prepared by : Xenia

Designed by : Tom

Checked by : Chinling

Approved by : Herbert

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B

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 WW20D1 PCB antenna is designed for WiFi bands applications, covering frequencies 2400~2484 MHz. Fabricated with proprietary design and processes, WW20D1 shows excellent performance and is fully compatible.

5. Electrical Specifications

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

5-1. Electrical Table (2400~2484 MHz Band)

Characteristics		Specifications	Unit
Outline Dimensions		20.0 x 7.0 x 0.5	mm
Working Frequency		2400~2484	MHz
VSWR		2.0 Max.(typical)	
Characteristic Impedance		50	Ω
Polarization		Linear Polarization	
Peak Gain	(@2442 MHz)	4.0 (typical)	dBi
Efficiency		64 (typical)	%



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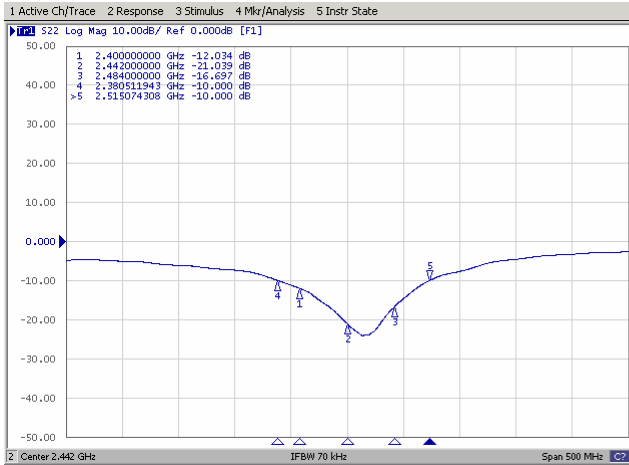
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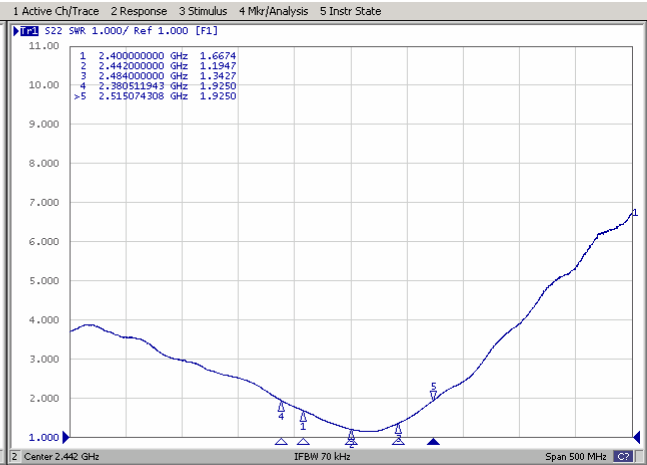
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5-2. Return Loss & VSWR

Return Loss



VSWR



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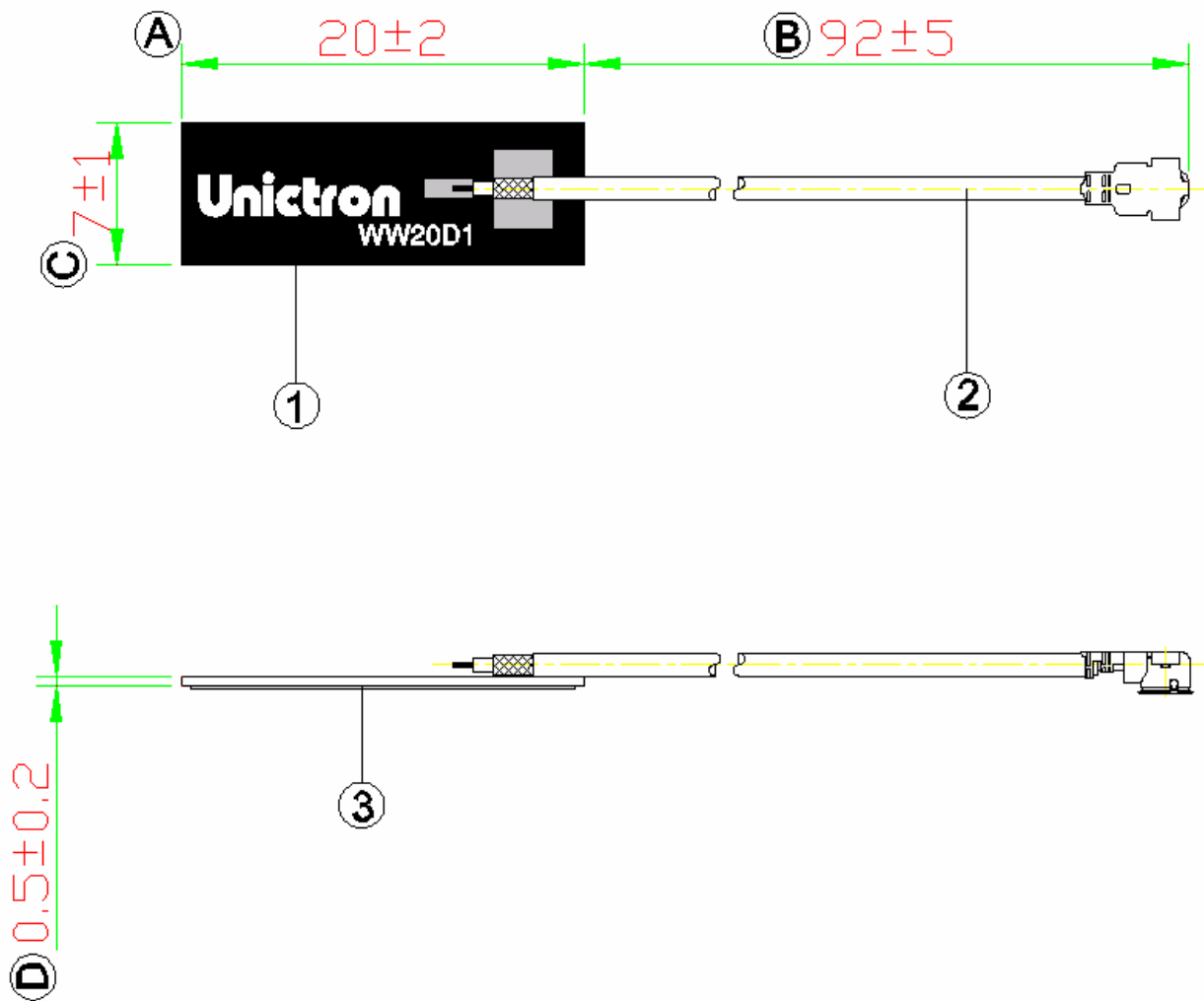
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6. Antenna Dimensions (unit: mm)



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	IPEX Connector(MHF I)_Cable OD 1.13mm	FEP	Gray	1
3	Adhesive Tape			1



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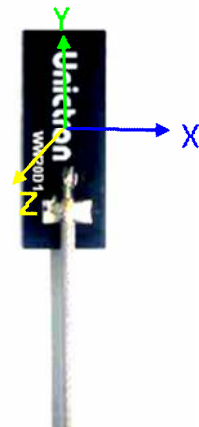
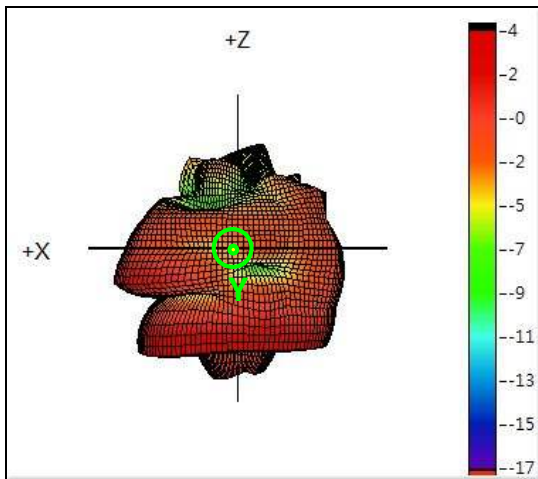
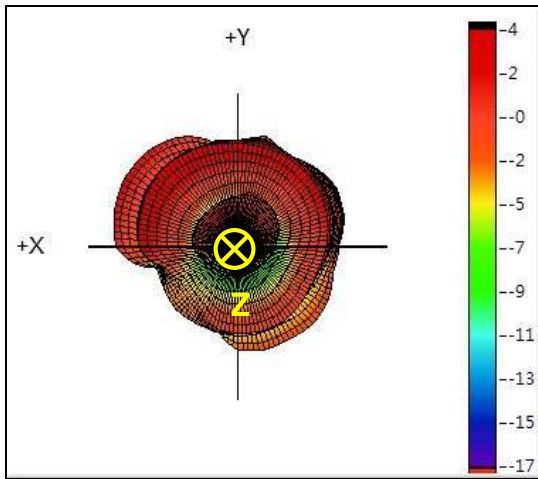
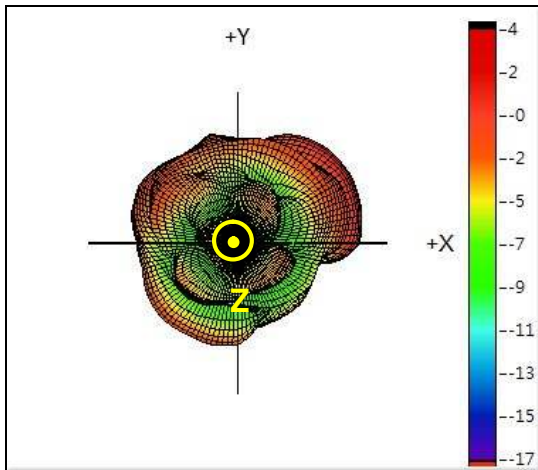
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7. Radiation Pattern

7-1. 2400~2484 MHz Band

7-1-1. 3D Gain Pattern @ 2442 MHz (unit: dBi)



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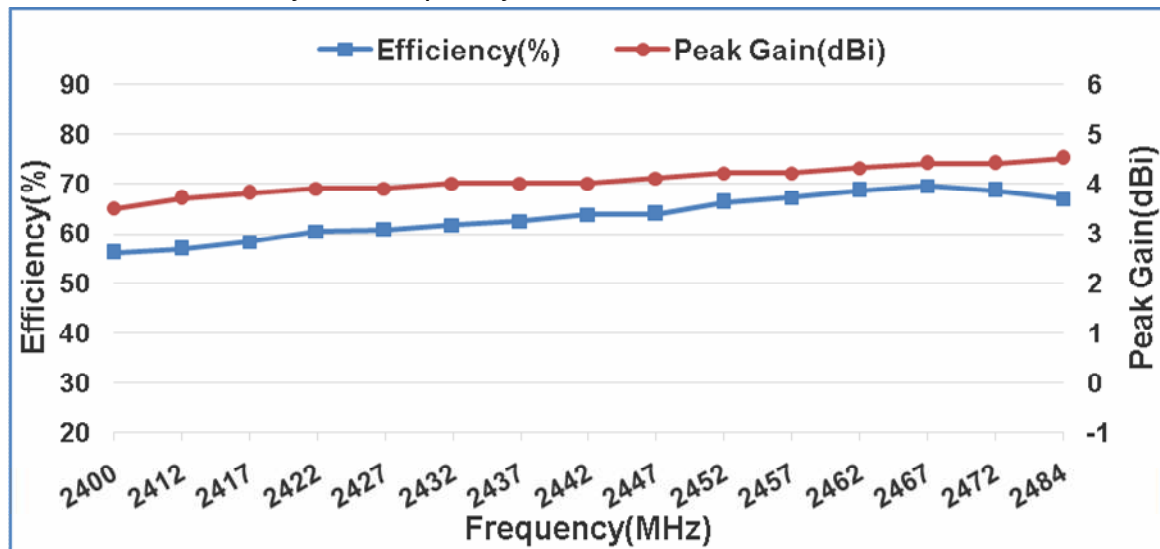
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7-1-2. 3D Efficiency Table

Frequency(MHz)	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484
Efficiency(dB)	-2.5	-2.4	-2.3	-2.2	-2.2	-2.1	-2.0	-2.0	-1.9	-1.8	-1.7	-1.6	-1.6	-1.6	-1.7
Efficiency(%)	56.2	57.0	58.4	60.5	60.9	61.7	62.5	63.8	63.9	66.2	67.1	68.6	69.4	68.6	66.9
Peak Gain(dBi)	3.5	3.7	3.8	3.9	3.9	4.0	4.0	4.0	4.1	4.2	4.2	4.3	4.4	4.4	4.5

7-1-3. 3D Efficiency vs. Frequency



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