

APPROVAL SHEET

RoHS
compliance

CUSTOMER : 大同股份有限公司
ISSUE DATE : 2020.07.08

APPROVED			
COMPANY	APPROVED BY	CHECK BY	PREPARED BY
	Herbert Chou	Mike Yang	Eva Chou
APPROVAL NO : H2B1BC4A1B0200			
MODEL : WiFi PCB Antenna(PCB+Cable)(20D7005-WW20D1)			
Customer NO :			

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	2	0	0
				(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

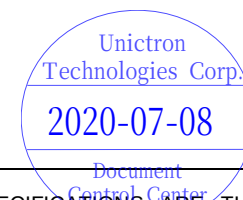
(4) Working Frequencies:

1B : 2400~2484 MHz

(5) Antenna Series:

02: serial number

IPEX I Cable(ϕ 1.13 mm),L=82 mm



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Prepared by : Jane

Designed by : Alex

Checked by : Mike

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2. Features

- * Stable and reliable in performances
- * Compact size
- * RoHS 2.0 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	(@2440 MHz)	2.4 (typical)	dBi
Efficiency		48.4 (typical)	%



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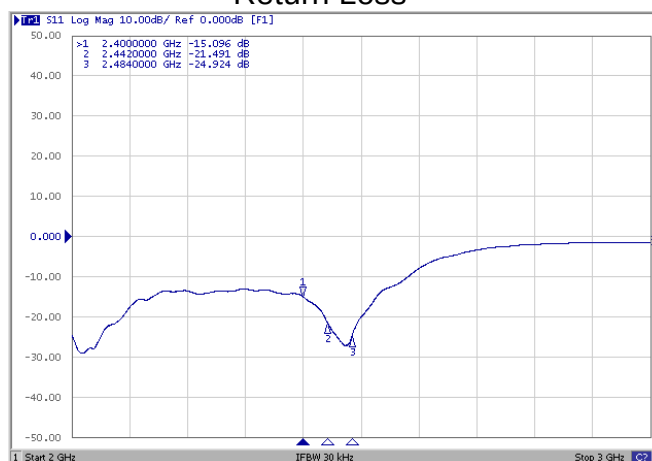
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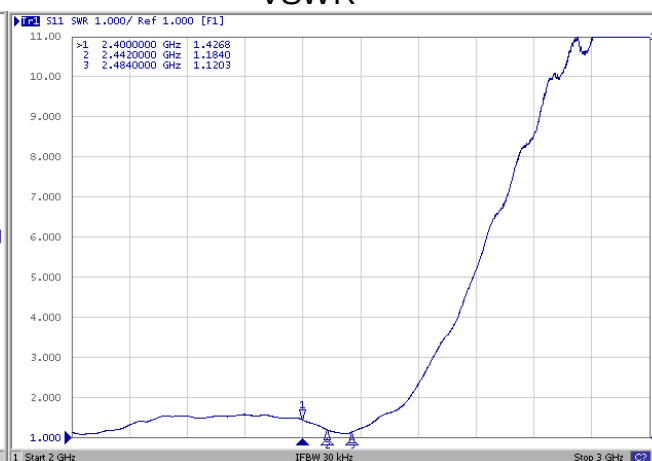
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5-2. Return Loss & VSWR

Return Loss



VSWR



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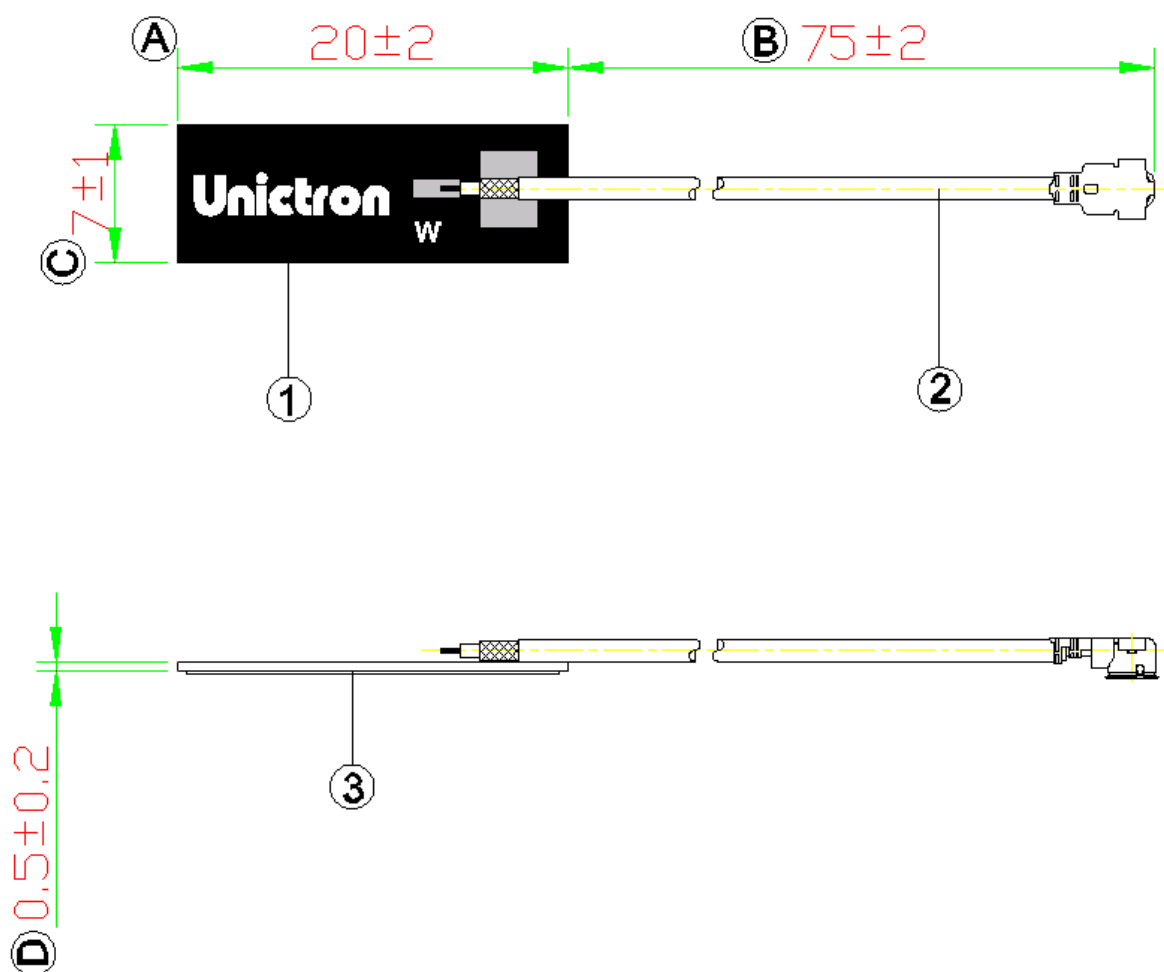
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6. Antenna Dimensions (unit: mm)



NOTE:

- 1.All materials are RoHS 2.0 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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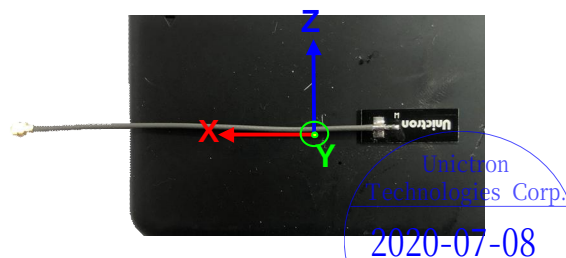
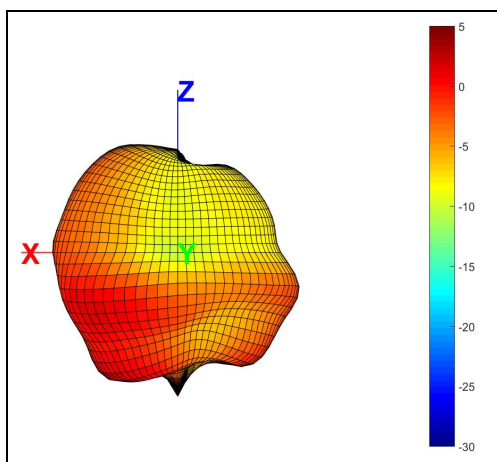
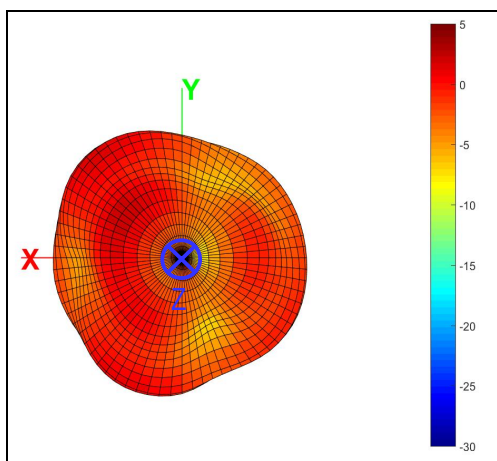
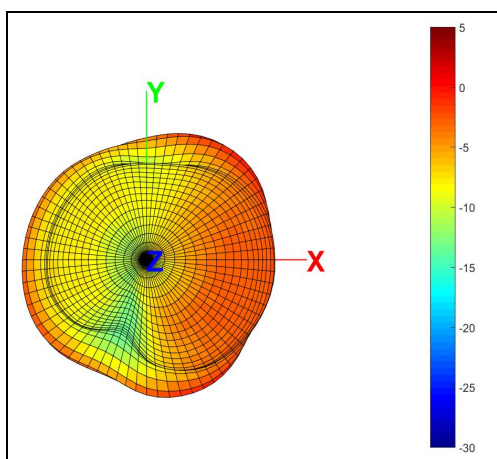
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7. Radiation Pattern

7-1. 2400~2484 MHz Band

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



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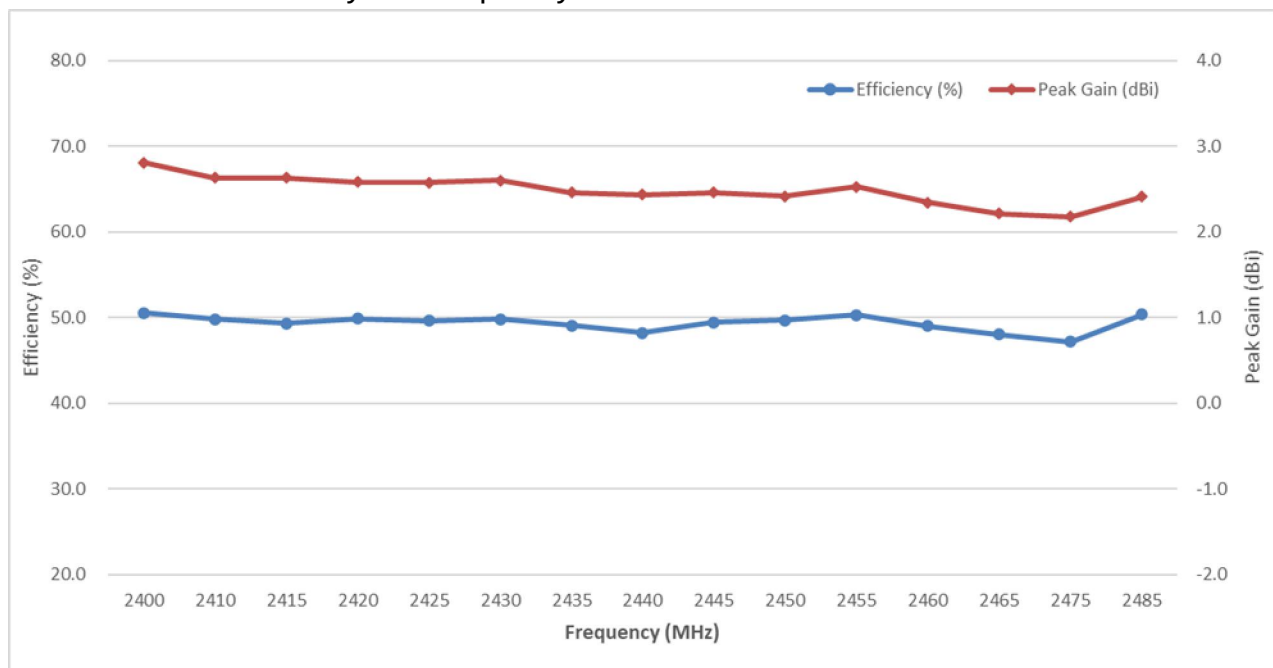
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7-1-2. 3D Efficiency Table

Frequency(MHz)	2400	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2475	2485
Efficiency(dB)	-3.0	-3.0	-3.1	-3.0	-3.0	-3.0	-3.1	-3.2	-3.1	-3.0	-3.0	-3.1	-3.2	-3.3	-3.0
Efficiency(%)	50.6	49.8	49.3	49.9	49.6	49.8	49.1	48.2	49.4	49.7	50.3	49.0	48.0	47.2	50.3
Peak Gain(dBi)	2.8	2.6	2.6	2.6	2.6	2.6	2.5	2.4	2.5	2.4	2.5	2.3	2.2	2.2	2.4

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



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