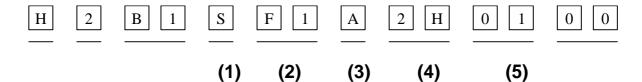
62.0 x 7.0 x 0.5 (mm) ISM PCB Antenna W462D1

Engineering Specification

1. Explanation of Product Number





Product Code:

(1) Product Applications:

S: polymer substrate antenna

(2) Dimensions:

F1: 62 x 7.0 x 0.5(mm)

(3) Material:

A: GF

(4) Working Frequencies

2H: 433 MHz

(5) Antenna Series:

01: serial number

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



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Control Center

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

TITLE: 62.0 x7 x 0.5(mm) ISM PCB Antenna W462D1

Engineering Specification

DOCUMENT NO.

H2B1SF1A2H0100

2. Features

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

3. Applications

- *ISM 433 band
- *Smart meters
- *Wireless alarm and security system
- *Industrial monitoring and control
- *IOT applications
- *LPD433

4. Description

Unictron's W462D0 FPCB antenna is designed for ISM 433 MHz band applications, covering frequencies $433.05 \sim 434.79$ 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:

Charac	teristics	Specifications	Unit
Outline Dimension	ns	62.0 x 7.0 x 0.5	mm
Working Frequen	ісу	433	MHz
VSWR		2 Max. (typical).	
Characteristic Im	pedance	50	Ω
Polarization		Linear Polarization	
Peak Gain	(@ 422 M⊔-)	-0.9 (typical).	dBi
Efficiency	(@ 433 MHz)	35.1 (typical).	%



Engineering Specification

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REV.

A

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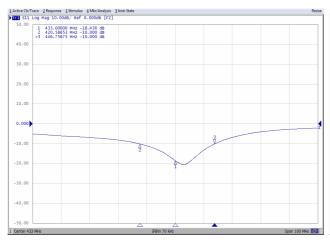
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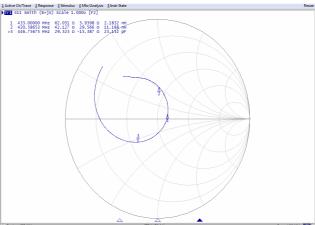
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5-2. Return Loss & Smith Chart

Return Loss

Smith Chart







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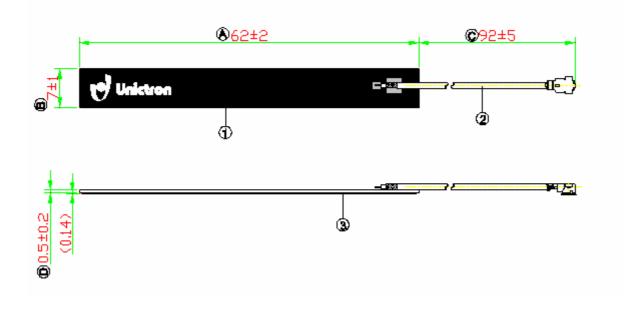
TITLE: 62.0 x7 x 0.5(mm) ISM PCB Antenna W462D1

Engineering Specification

DOCUMENT NO.

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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	FEP	Gray	1
3	Adhesive Tape			1



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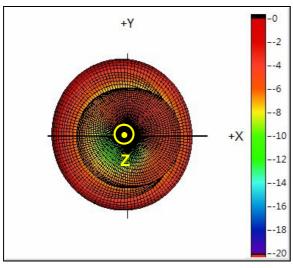
Engineering Specification

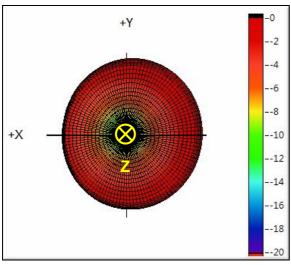
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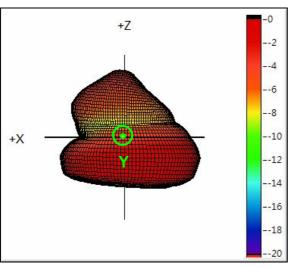
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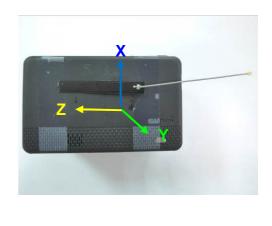
7. Radiation Pattern

7-1. 3D Gain Pattern (Radiation Pattern @ 433 MHz)











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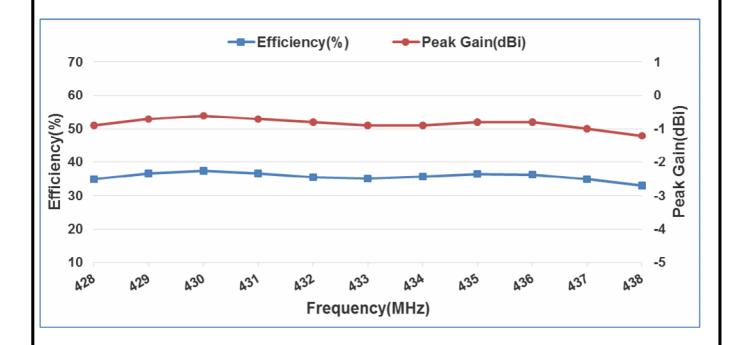
DOCUMENT NO.

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7-2. 3D Efficiency Table

Frequency(MHz)	428	429	430	431	432	433	434	435	436	437	438
Efficiency(dB)	-4.6	-4.4	-4.3	-4.4	-4.5	-4.6	-4.5	-4.4	-4.4	-4.6	-4.8
Efficiency(%)	35.0	36.7	37.4	36.6	35.6	35.1	35.7	36.5	36.3	34.9	33.1
Peak Gain(dBi)	-0.9	-0.7	-0.6	-0.7	-0.8	-0.9	-0.9	-0.8	-0.8	-1.0	-1.2

7-3. 3D Efficiency vs. Frequency





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