



Series: Internal Antenna

Description: 5GHz PCB antenna

PART NUMBER: W3919XXXX



Features:

- 4900-5925 MHz
- Size 15.9 X 7.6 X 0.45 mm
- Efficiency > 60%
- VSWR < 2
- Nominal impedance 50 Ω
- Cable and connector can be customized

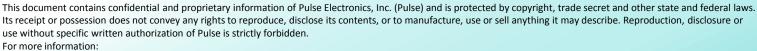
Applications:

- WiFi 5GHz
- DSRC
- ISM band 5GHz radios
- IoT, M2M

All dimensions are in mm / inches

Issue: 1714

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION



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TECHNICAL DATA SHEET

Description: 5GHz PCB antenna

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This document covers all product variants of the following product family:

W3919B0050 50mm 1.13mm OD cable U.FL compatible connector

W3919B0100 100mm 1.13mm OD cable U.FL compatible connector

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ELECTRICAL SPECIFICATIONS

Frequency 4900-5925 MHz

Nominal Impedance 50 Ω

VSWR <2

Gain 3 dBi +/- 1 dB

Efficiency 60 %

Radiation Pattern Omni

Polarization Linear

Power withstanding 2 W

Connector U.FL compatible connector

Cable type 1.13mm coaxial cable black

Cable length Optional

(*) All RF parameters measured on 2mm thick PC plate



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MECHANICAL SPECIFICATIONS

Radiator material FR4 PCB

Color Black

Adhesive 3M467

Thickness(with adhesive, no liner) 0.45 mm

PCB size(L X W X T) 15.9 X 7.6 X 0.45 mm

ENVIRONMENTAL SPECIFICATIONS

Operating temperature

-40/+85 ° C



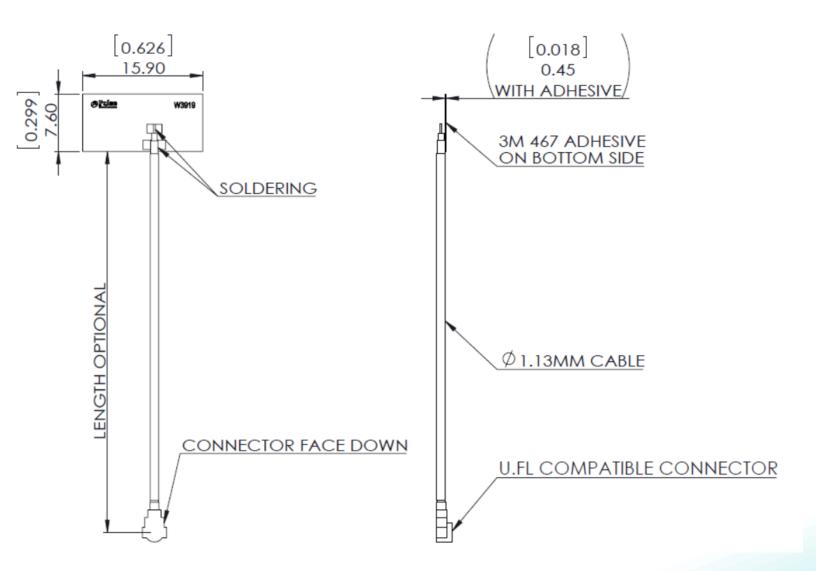




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MECHANICAL DRAWING







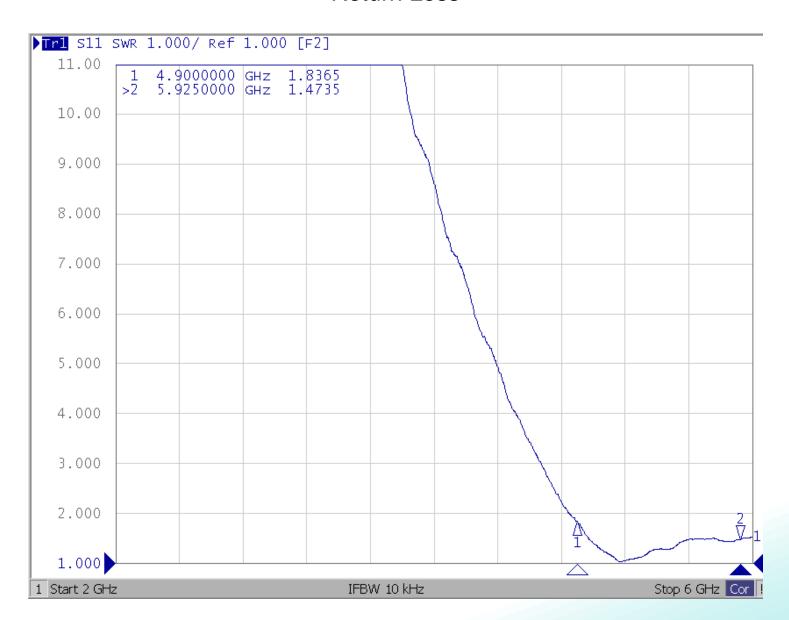
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CHARTS

(*) All RF parameters measured on 2mm thick PC plate

Return Loss







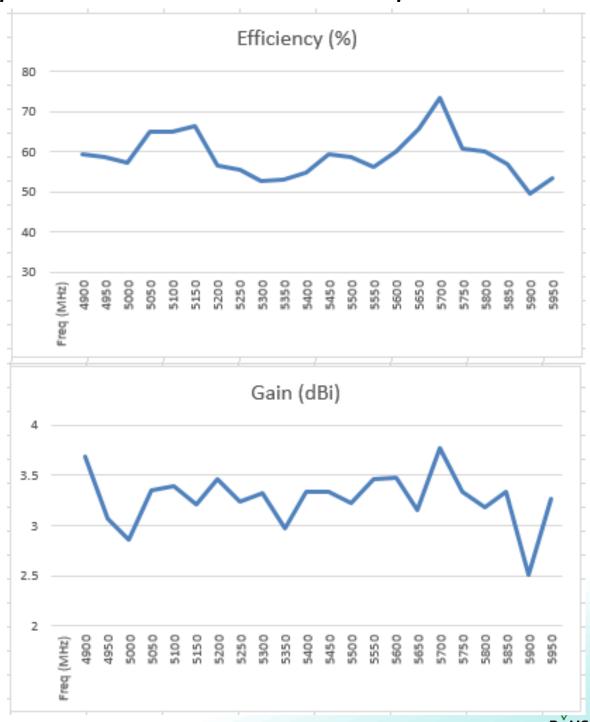


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CHARTS

Ζ Typical free space radiation pattern WIFI 5GHz (*) All RF parameters measured on 2mm thick PC plate XY Plane 0 5 30 330 Avg (dBi) = -2.93Peak (dBi) = 1.86 -10 Avg - 3 (deg) = 13060 -15 300 5500MHz -20 Avg (dBi) = -2.93Peak (dBi) = 1.75 Rower (dBm) -25 Avg - 3 (deg) = 115-30 5925MHz 90 -35 Avg (dBi) = -2.92Peak (dBi) = 2.81Avg - 3 (deg) = 65120 240

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4900MHz

5925MHz

5500MHz

210

180

150

Phi Angle



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CHARTS

Typical free space radiation pattern WIFI 5GHz (*) All RF parameters measured on 2mm thick PC plate **ZX Plane** 0 30 330 Avg (dBi) = 0.01Peak (dBi) = 3.29Avg -3 (deg) = 82. 60 -15 300 5500MHz -20 Avg (dBi) = -0.54Peak (dBi) = 3.37 -25 Rower (dBm) Avg - 3 (deg) = 75-30 5925MHz 90 35 Avg (dBi) = -1.06Peak (dBi) = 3.04Avg -3 (deg) = 62. 120 240 150 210 4900MHz 5500MHz

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5925MHz

Theta Angle (°)

180



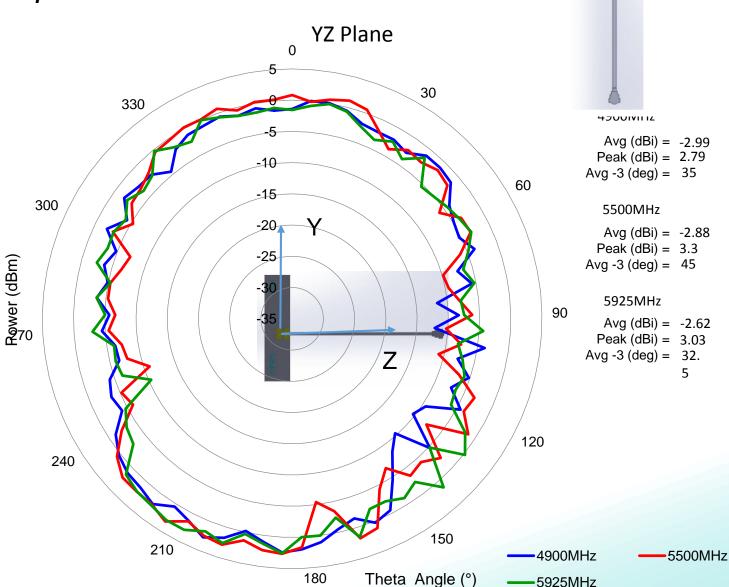
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CHARTS

Typical free space radiation pattern WIFI 5GHz

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PACKAGING

10PCS/PE bag 10 PE bag/foam bag 50 foam bag/ carton box

Total 5000PCS/Carton box



