

Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

### Features:

- Frequency: 4.9-6GHz
- Gain: 4.5dBi
- Size: 10.5 x 3.2 x 2.4 mm
- SMT compatible
- Packing: Tape&Reel
- RoHS compliant
- Mirror image pair for this antenna is W3713

### Applications:

- WiFi, ISM 5GHz
- DSRC 5.925GHz
- Tablets, Notebooks
- IoT and M2M devices
- Portable Electronics
- Security, Transportation



All dimensions are in mm / inches

Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

For more information:

Pulse Worldwide Headquarters  
12220 World Trade Drive  
San Diego, CA 92128  
USA  
Tel: 1-858-674-8100

Pulse/Larsen Antennas  
18110 SE 34<sup>th</sup> St Bldg 2 Suite 250  
Vancouver, WA 98683  
USA  
Tel: 1-360-944-7551

Europe Headquarters  
Pulse GmbH & Co, KG  
Zeppelinstrasse 15  
Herrenberg, Germany  
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.  
99 Huo Ju Road(#29 Bldg, 4<sup>th</sup> Phase  
Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998



Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

PART NUMBER: W3714

## ELECTRICAL SPECIFICATIONS

|                         |                 |
|-------------------------|-----------------|
| Frequency               | 4.9-6GHz        |
| Nominal Impedance       | 50Ω             |
| VSWR                    | 2:1             |
| Gain (Radiating element | 4.5dBi +/- 1 dB |
| Radiation Pattern       | Omni            |
| Polarization:           | Linear          |
| Power withstanding      | 5W              |

Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

PART NUMBER: W3714

## MECHANICAL SPECIFICATIONS

|                |                 |          |  |
|----------------|-----------------|----------|--|
| Material       | Phosphor bronze |          |  |
| Thickness      | 0.2             | mm       |  |
| Weight         | 0.1             | g        |  |
| Overall Length | 10.5(0.41)      | mm(inch) |  |
| Fixing system  | SMT             |          |  |

## ENVIRONMENTAL SPECIFICATIONS

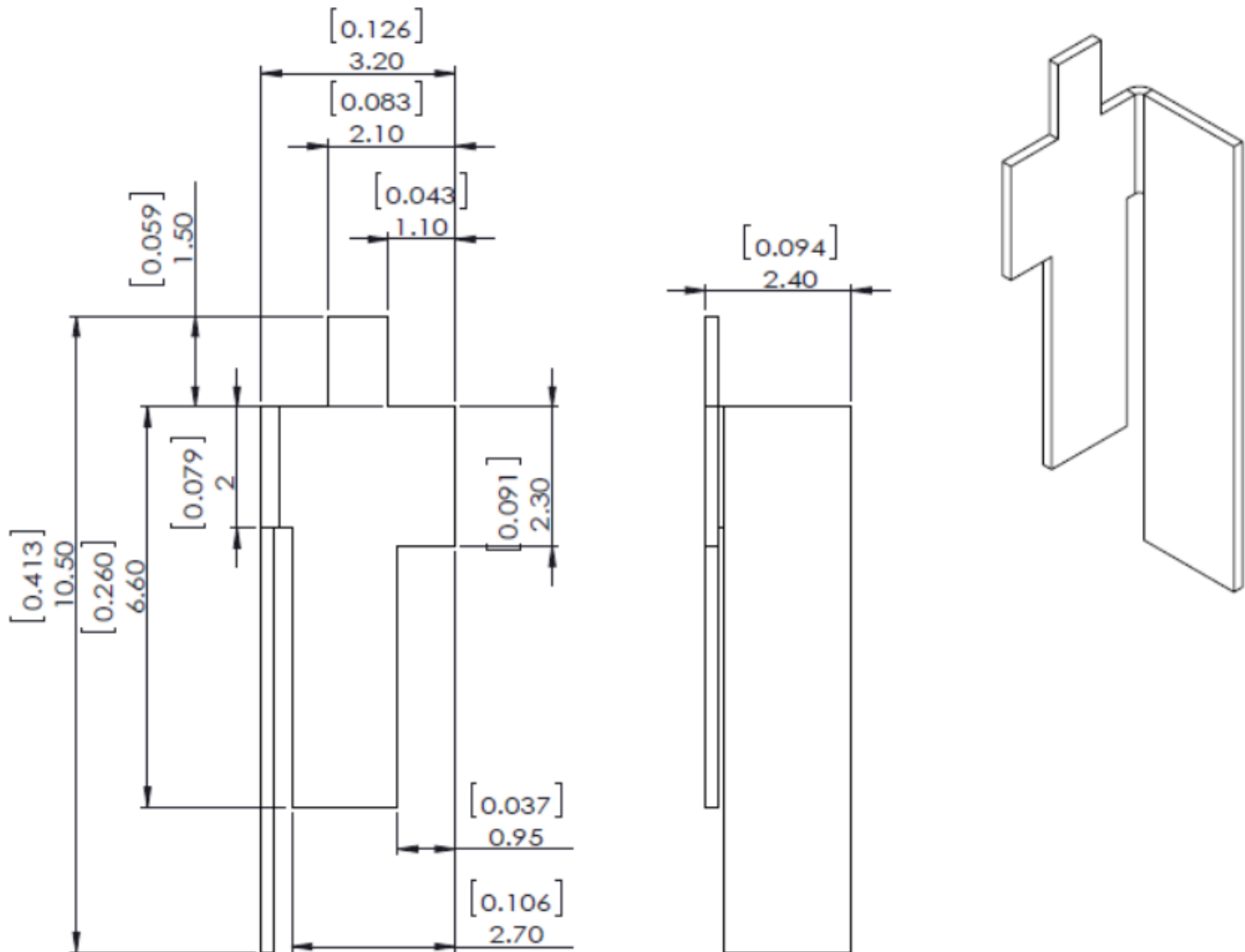
|                       |             |
|-----------------------|-------------|
| Operating temperature | -40/+85 ° C |
|-----------------------|-------------|

Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

**MECHANICAL DRAWING**



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 5GHz WiFi SMT Antenna

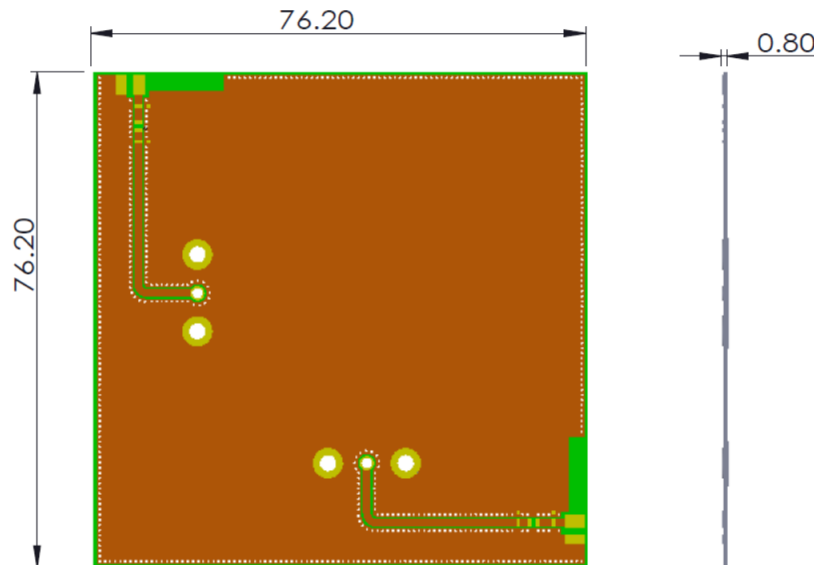
Series: Embedded Antenna

**PART NUMBER: W3714**

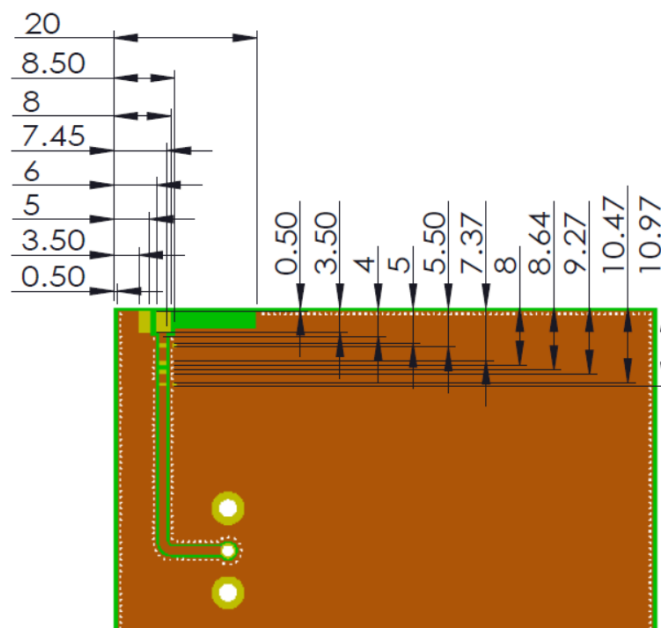
## OTHER SPECIFICATIONS

### PCB LAYOUT:

1, PCB material, FR4, size, 76.2X76.2X0.8mm



2, Clearance area (Top)



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

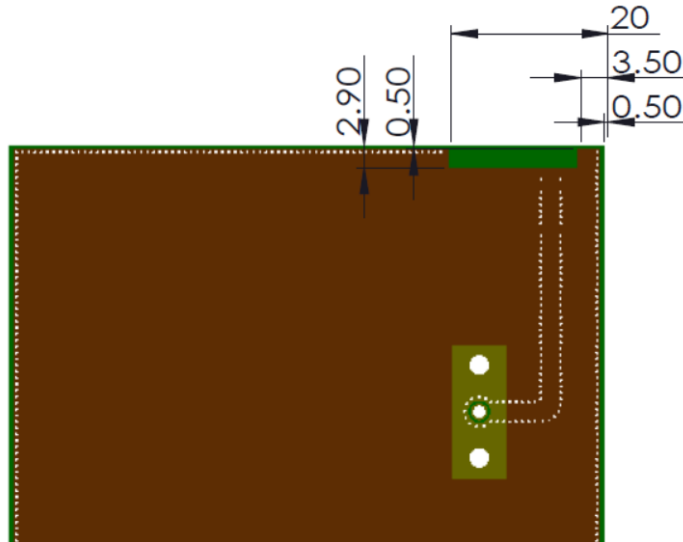
## Description: 5GHz WiFi SMT Antenna

## Series: Embedded Antenna

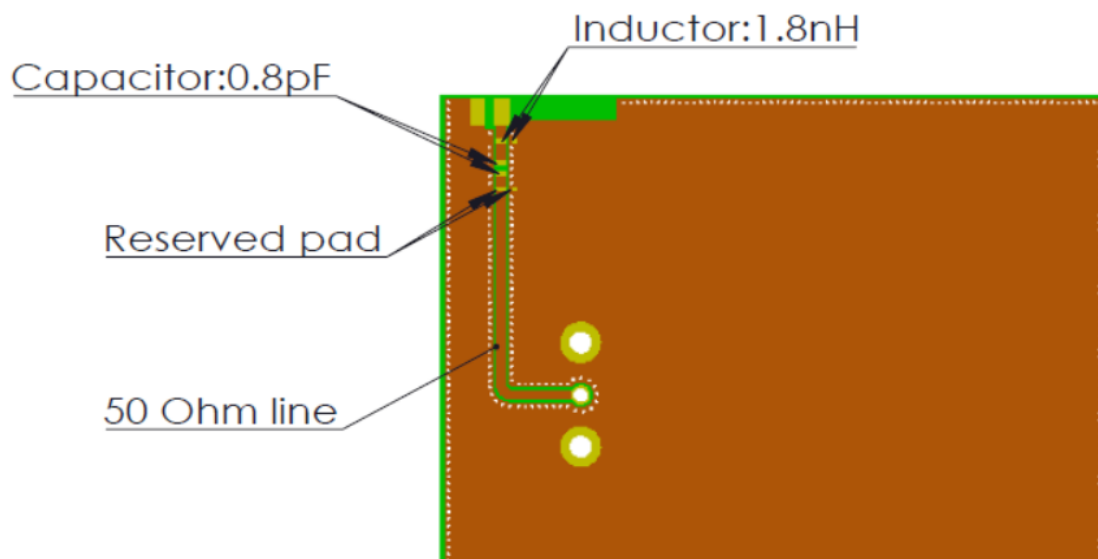
**PART NUMBER: W3714**

## OTHER SPECIFICATIONS

### 3, Clearance area (Bottom)



## 4, PCB Features



Issue: 1812

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

**CONFIDENTIAL AND PROPRIETARY INFORMATION**

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

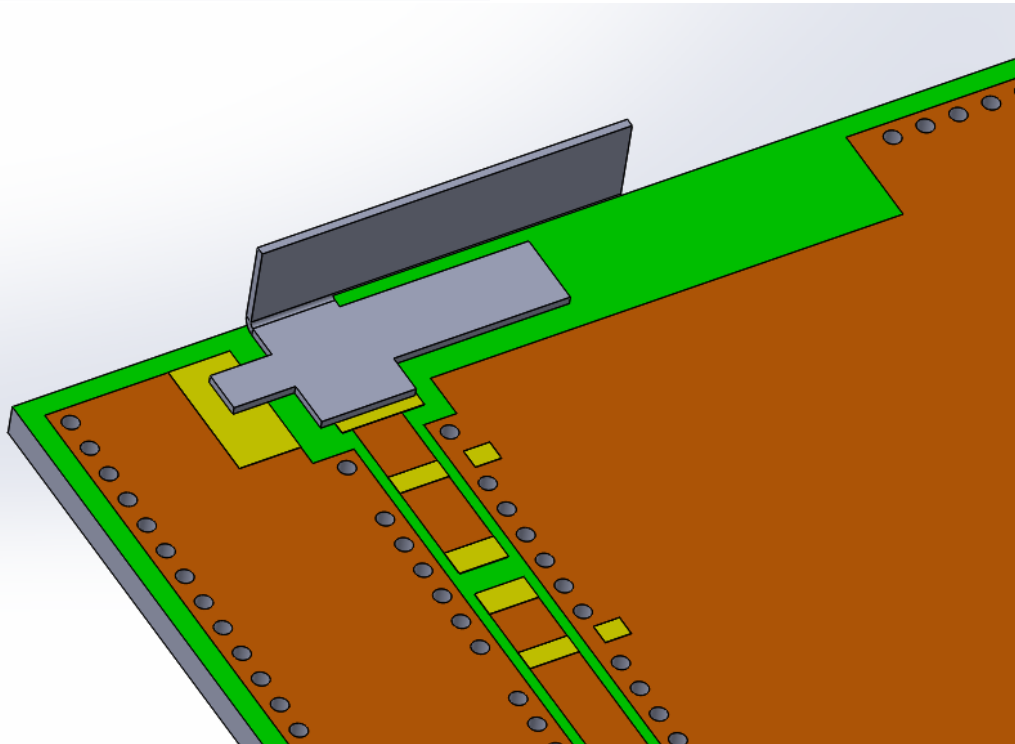
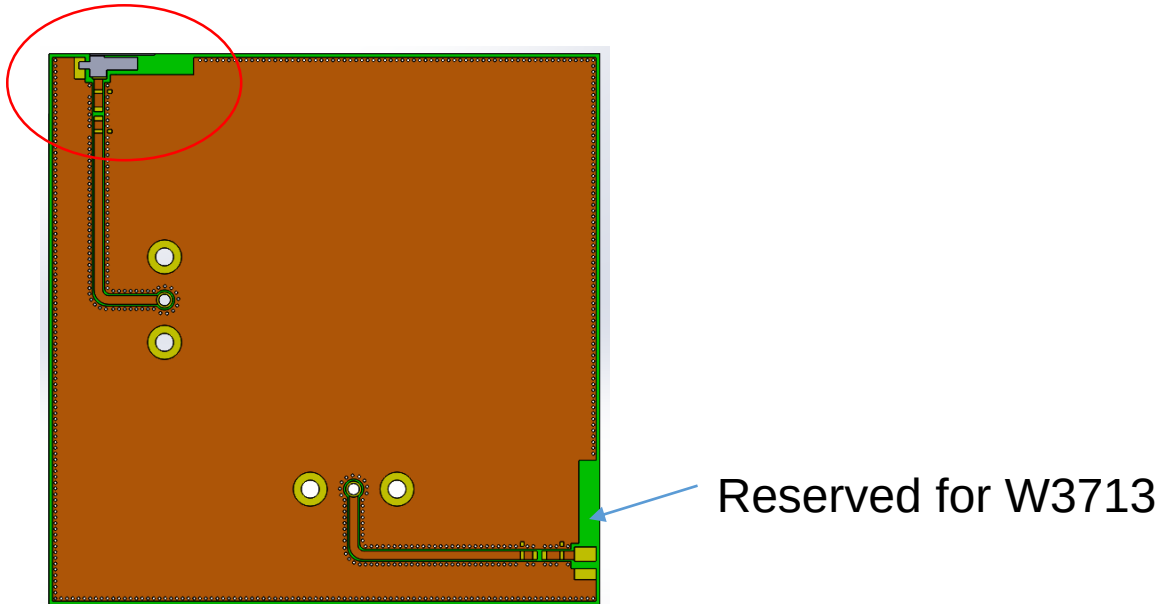
Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

## OTHER SPECIFICATIONS

5, Antenna on test PCB



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

PART NUMBER: W3714

### OTHER SPECIFICATIONS

### Recommendation for reflow soldering process

Printing stencil thickness 0,15 - 0,25 mm is recommended for the solder paste. The maximum soldering temperature should not exceed 260°C. The temperature profile recommendations for reflow soldering process is presented in the Figures 1 and 2. The reflow profile

presented in figure 1 describes minimum reflow temperatures. The reflow profile presented in figure 2 describes maximum reflow temperatures. located at the center of the coverage area.

|   | Method of heat transfer                    | Controlled hot air convection |
|---|--------------------------------------------|-------------------------------|
| 1 | Average temperature gradient in preheating | 2.5 °C/s                      |
| 2 | Soak time                                  | 2-3 minutes                   |
| 3 | Max temperature gradient in reflow         | 3 °C/s                        |
| 4 | Time above 217 °C                          | Max 30 sec                    |
| 5 | Peak temperature in reflow                 | 230 °C for 10 seconds         |
| 6 | Temperature gradient in cooling            | Max -5 °C/s                   |

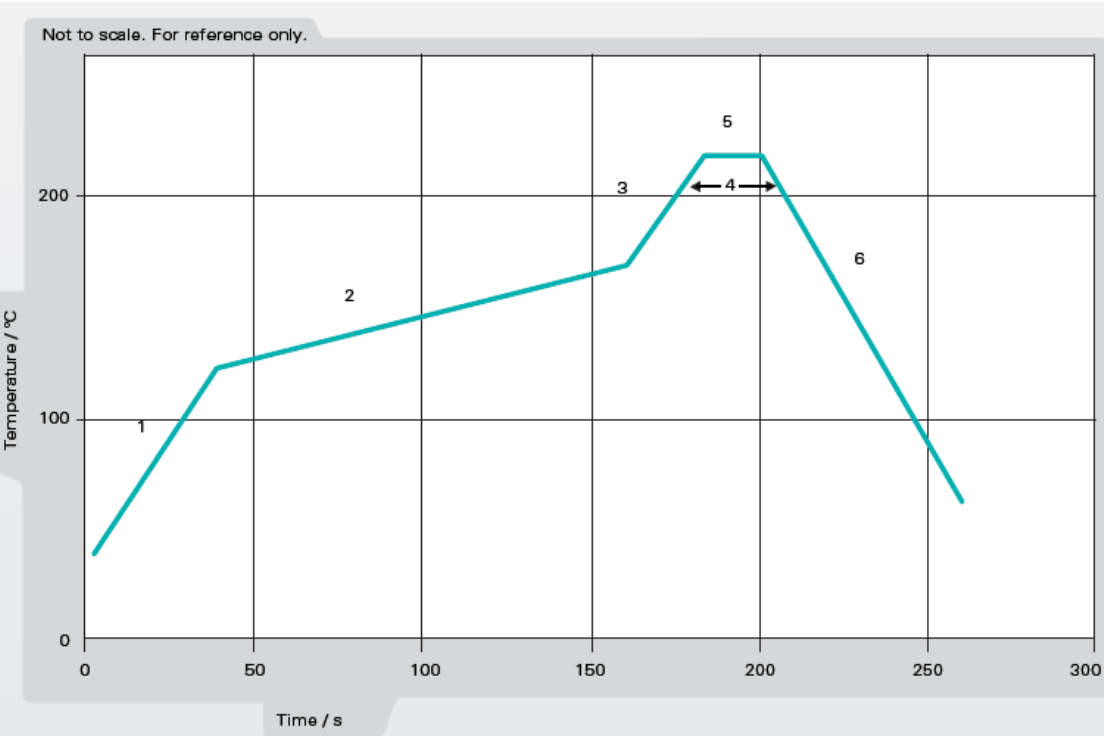


Figure 1. Minimum temperature profile recommendation for reflow soldering process

Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

## OTHER SPECIFICATIONS

|   | Method of heat transfer                    | Controlled hot air convection |
|---|--------------------------------------------|-------------------------------|
| 1 | Average temperature gradient in preheating | 2.5 °C/s                      |
| 2 | Soak time                                  | 2-3 minutes                   |
| 3 | Max temperature gradient in reflow         | 3 °C/s                        |
| 4 | Time above 217 °C                          | Max 60 sec                    |
| 5 | Time above 230 °C                          | Max 50 sec                    |
| 6 | Time above 250 °C                          | Max 10 sec                    |
| 7 | Peak temperature in reflow                 | 260 °C for 5 seconds          |
| 8 | Temperature gradient in cooling            | Max -5 °C/s                   |

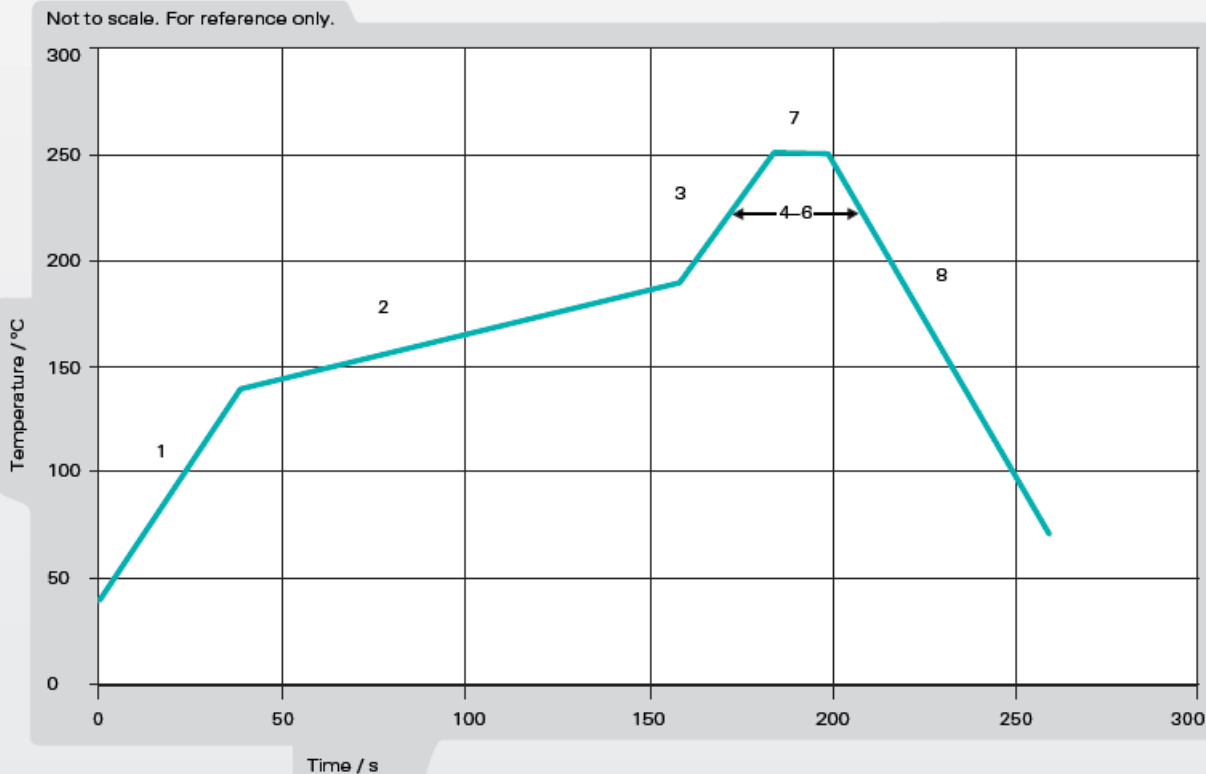


Figure 2. Maximum temperature profile recommendation for reflow soldering process

Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 5GHz WiFi SMT Antenna

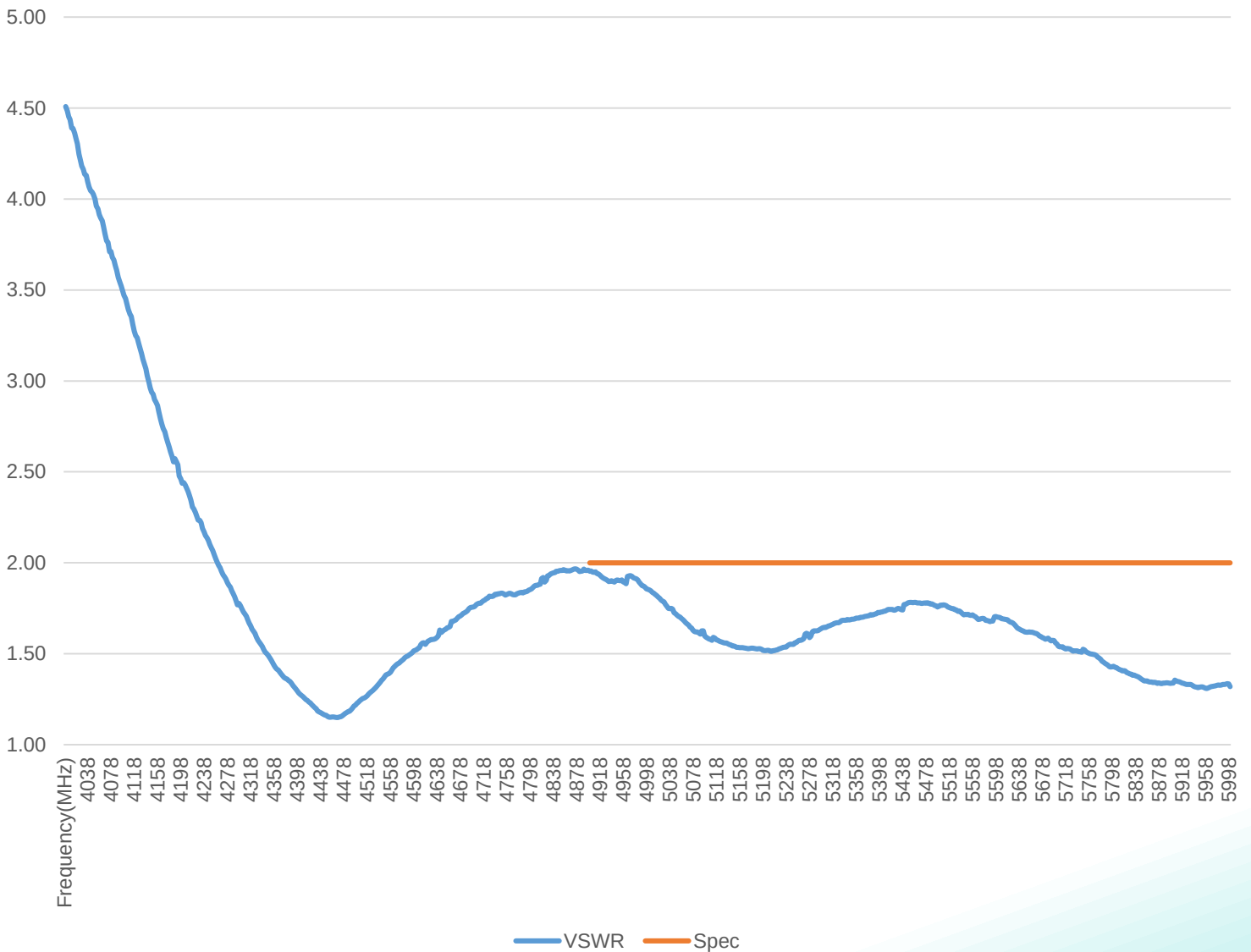
Series: Embedded Antenna

PART NUMBER: W3714

## CHARTS

### VSWR

#### VSWR



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

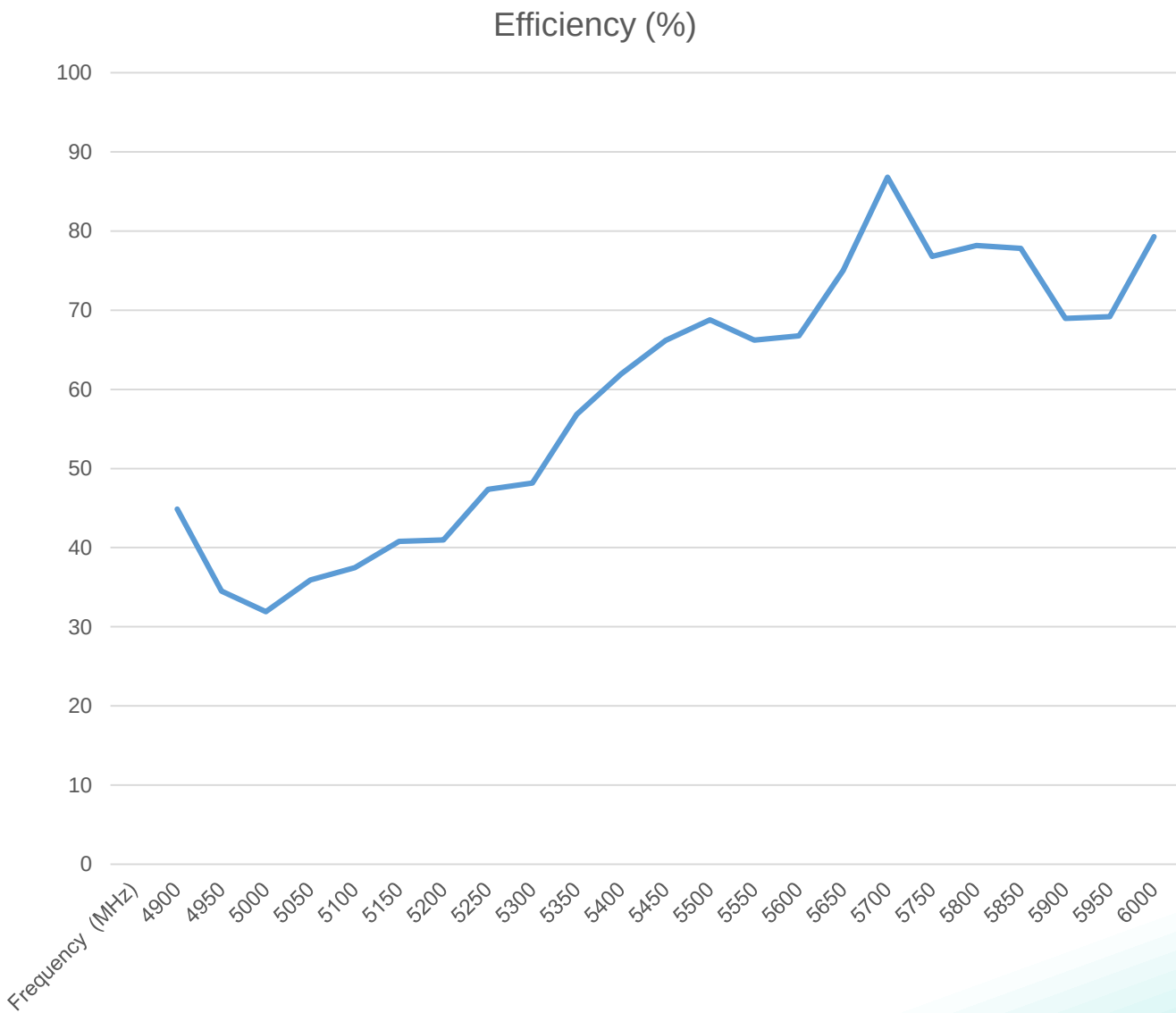
Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

PART NUMBER: W3714

CHARTS

Efficiency(%)



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



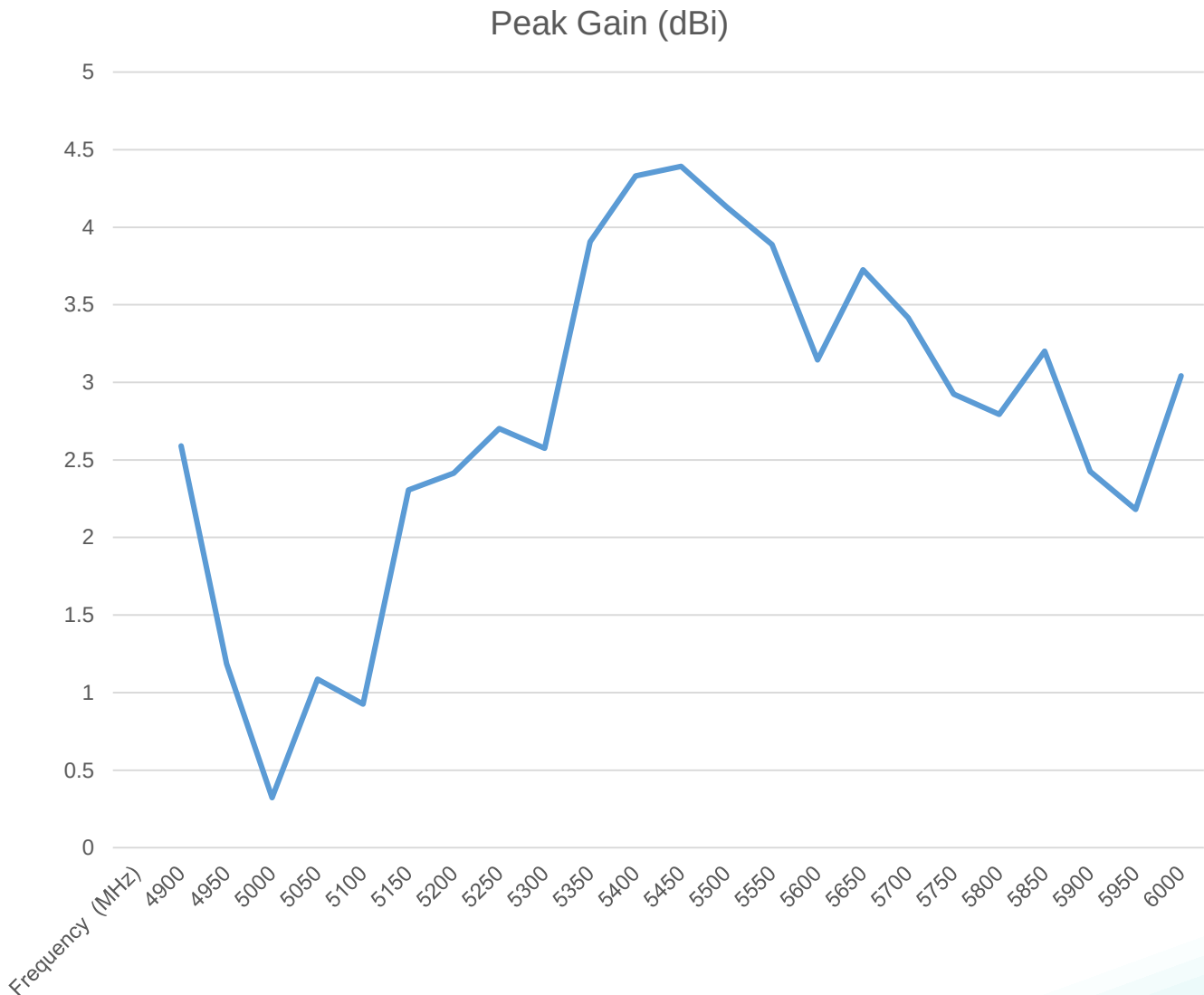
Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

## CHARTS

### Peak Gain (dBi)



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 5GHz WiFi SMT Antenna

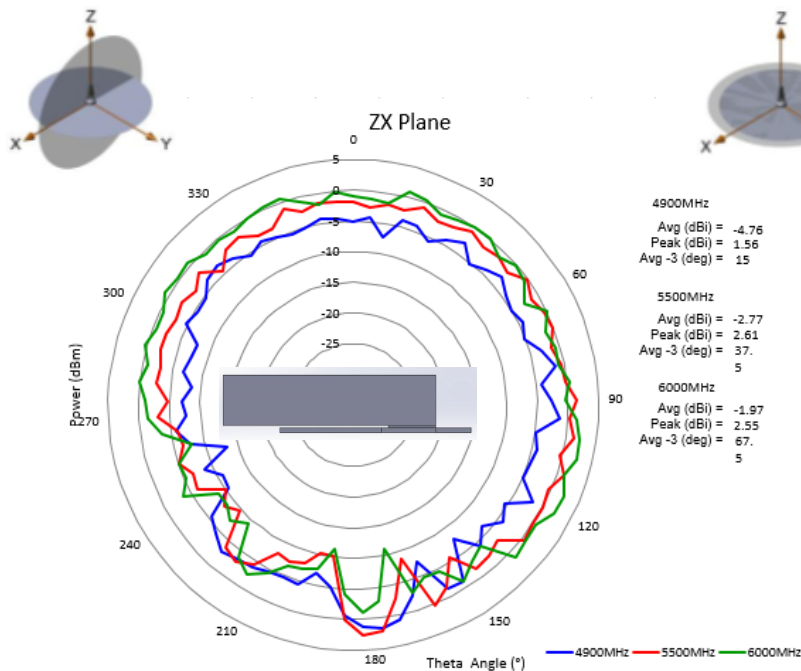
Series: Embedded Antenna

PART NUMBER: W3714

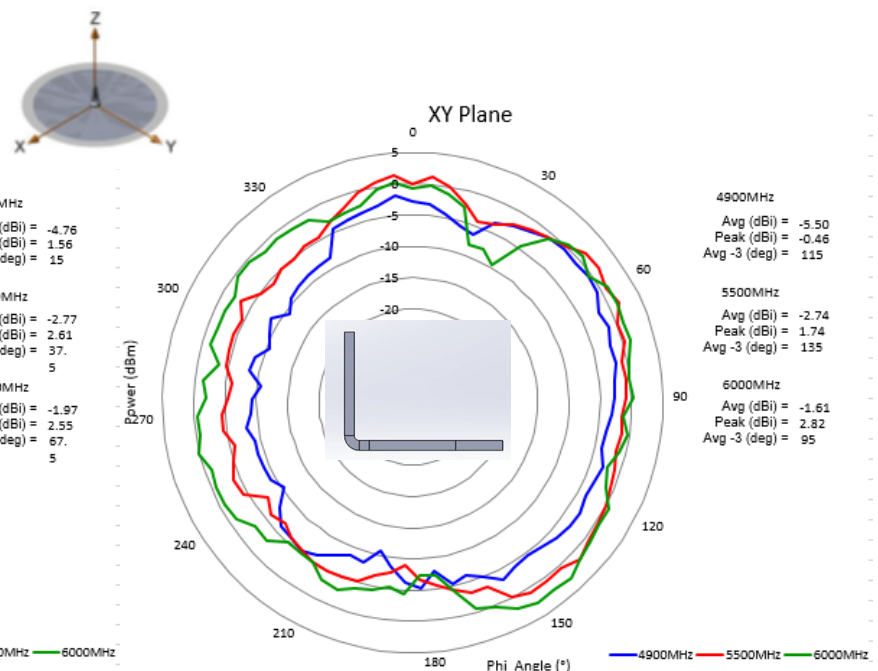
## CHARTS

### Free Space Radiation Pattern

#### Elevation Plane



#### Horizontal Plane



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 5GHz WiFi SMT Antenna

Series: Embedded Antenna

**PART NUMBER: W3714**

## PACKAGING

Tape and Reel packing:  
3000PCS/Tape and Reel  
6000PCS/ Carton box

Tape Width : 24mm  
Tape Material : Polystyrene



Issue: 1812

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)