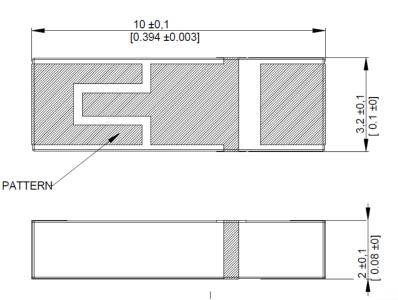


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320





All dimensions are in mm / inches

Issue: 1834

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 34th St Bldg 2 Suite 250 Vancouver, WA 98683 USA Tel: 1-360-944-7551 Europe Headquarters Pulse GmbH & Do, KG Zeppelinstrasse 15 Herrenberg, Germany Tel: 49 7032 7806 0 Pulse (Suzhou) Wireless Products Co, Inc. 99 Huo Ju Road(#29 Bldg,4th Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998



Features:

- 3 in1 –combo antenna
 - Port 1: 868/915MHz
 - Port 2: 2.4GHz
- Compact size 3.2x10x2mm
- SMT mounting on PCB
- Tape & Reel packing
- High isolation between ports >20dB

Applications:

- ISM band radios
- 868MHz, 915MHz, 2.4GHz
- IoT, M2M, set top boxes, devices requiring small embedded multiband ISM antenna



Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

ELECTRICAL SPECIFICATIONS

Frequency	ISM868/915MHz, ISM2.4GHz
Nominal Impedance	50Ω
Return Loss	<-7dB @868/915MHz
	<-5dB@2.4
Gain	1dBi +/- 1 dB@868/915MHz
	3dBi +/- 1 dB@2.4GHz
Radiation Pattern	Omni
Polarization:	Vertical
Power withstanding	2W

Issue: 1834

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



2



Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

MECHANICAL SPECIFICATIONS

Weight	0.3 g
Overall Length	10[0.39] MM[INCHES]
Over all width	3.2[0.12] MM[INCHES]
Over all thickness	2[0.08] MM[INCHES]

ENVIRONMENTAL SPECIFICATIONS

Operating temperature

-40/+85° C

Issue: 1834

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



3

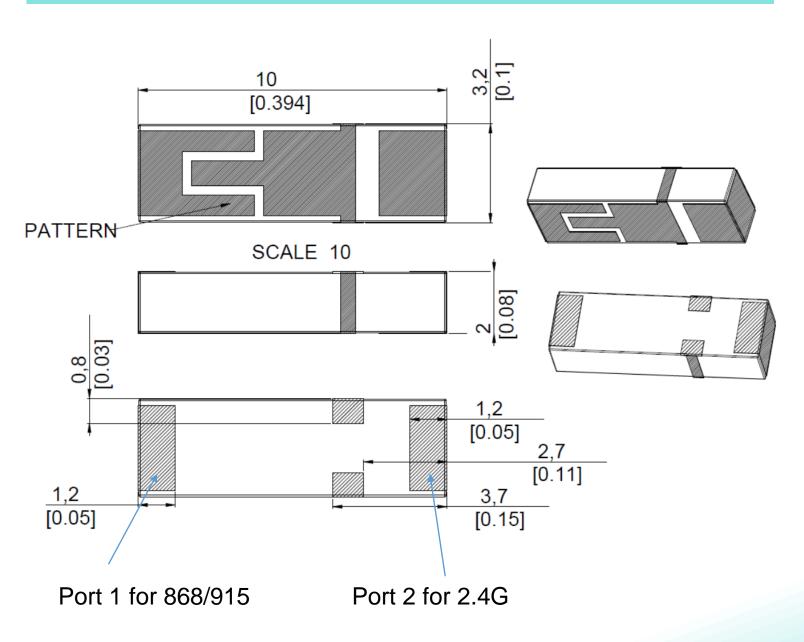


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

MECHANICAL DRAWING



Issue: 1834

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



4



Description: ISM868/915, ISM2.4G

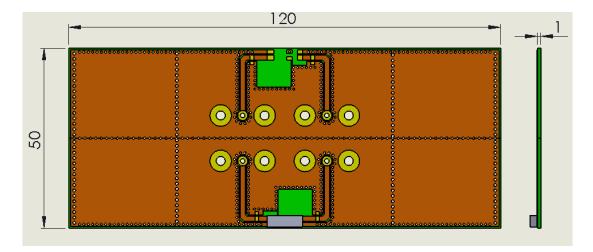
Series: Ceramic antenna

PART NUMBER: W3320

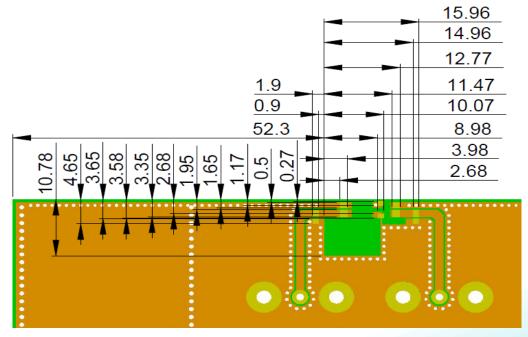
OTHER SPECIFICATIONS

PCB LAYOUT

1, PCB material, FR4, size, 120X50X1mm



2, Clearance area (Top)



Issue: 1834

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



5



Description: ISM868/915, ISM2.4G

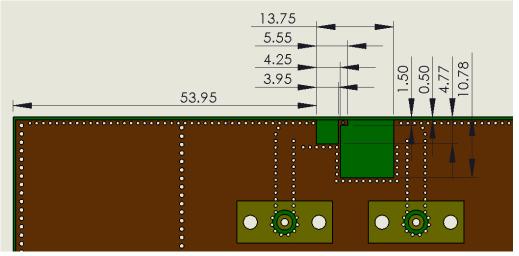
Series: Ceramic antenna

PART NUMBER: W3320

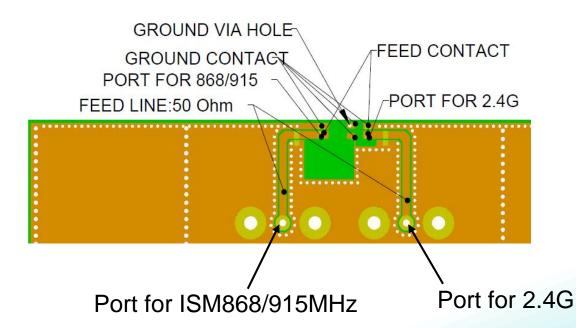
OTHER SPECIFICATIONS

PCB LAYOUT

3, Clearance area (Bottom)



4, PCB Features



Issue: 1834

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



6



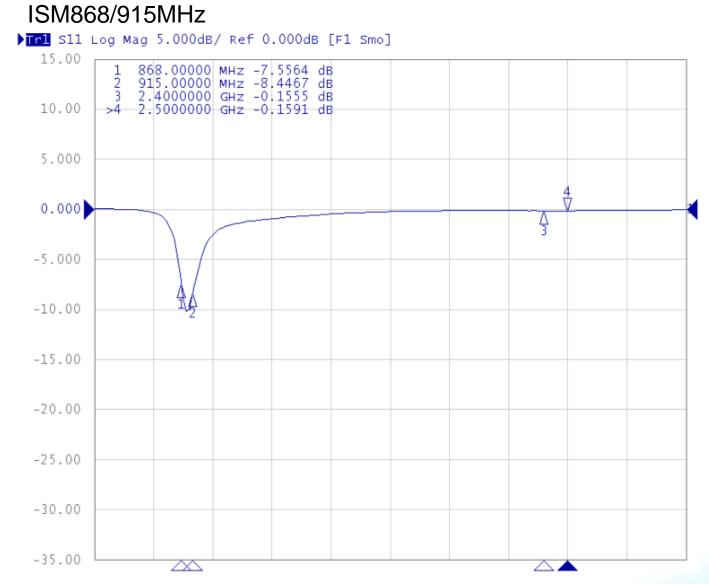
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Return Loss



Issue: 1834

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



7



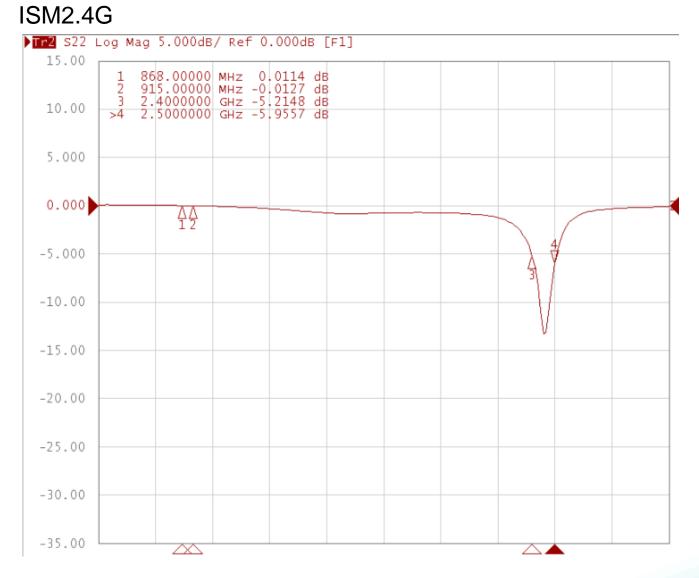
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Return Loss



Issue: 1834

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



8



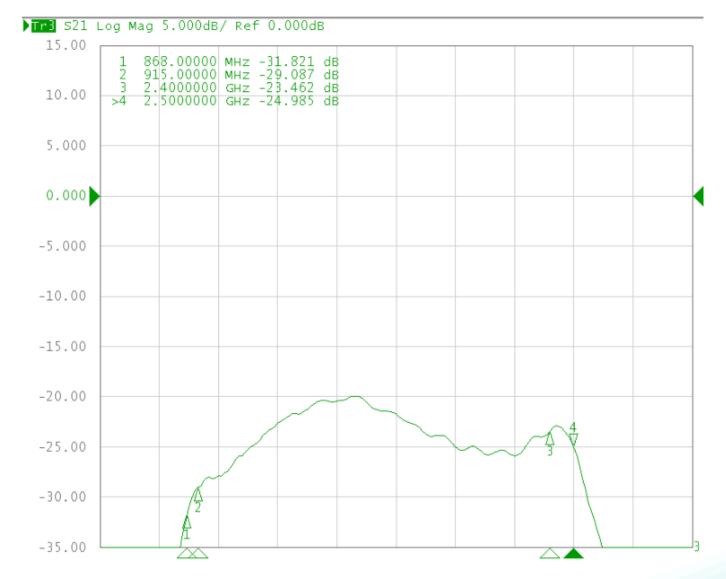
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Isolation



Issue: 1834

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



9





Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Efficiency(%)



Issue: 1834

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





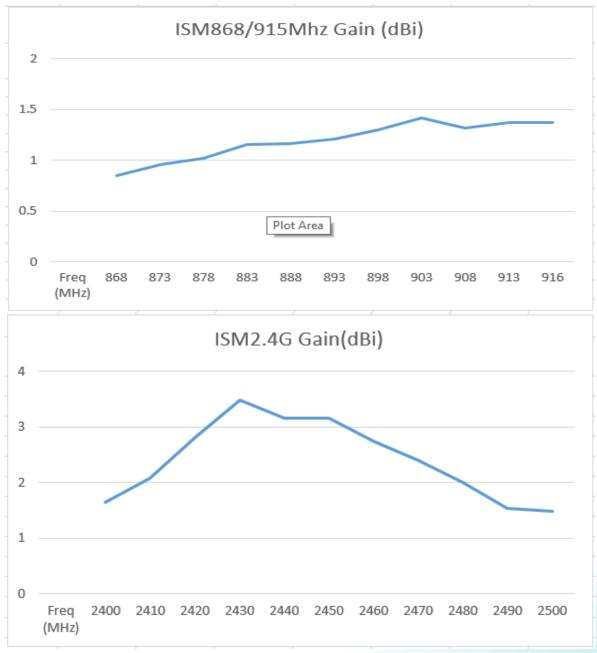
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

Gain (dBi)



Issue: 1834

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

CONFIDENTIAL AND PROPRIETARY INFORMATION



11

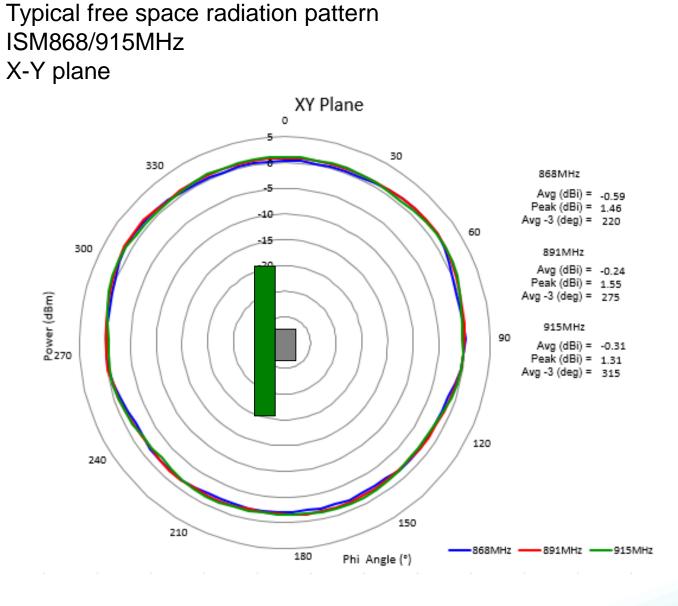


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS



Issue: 1834

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



12



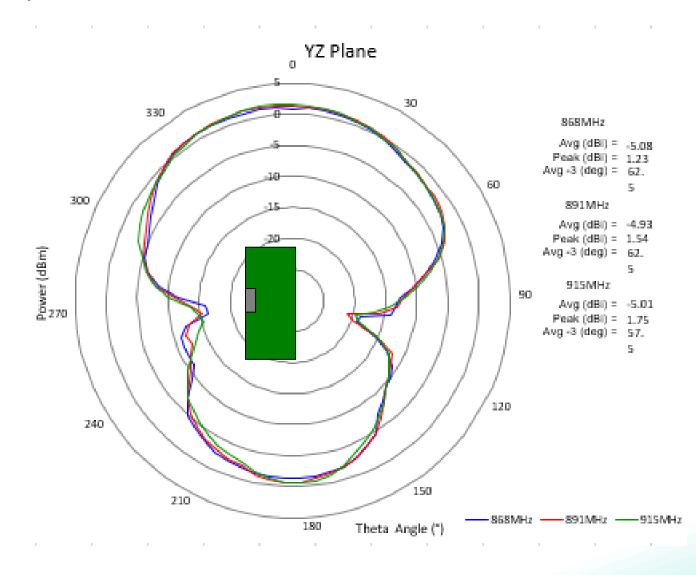
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM868/915MHz Y-Z plane



Issue: 1834

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



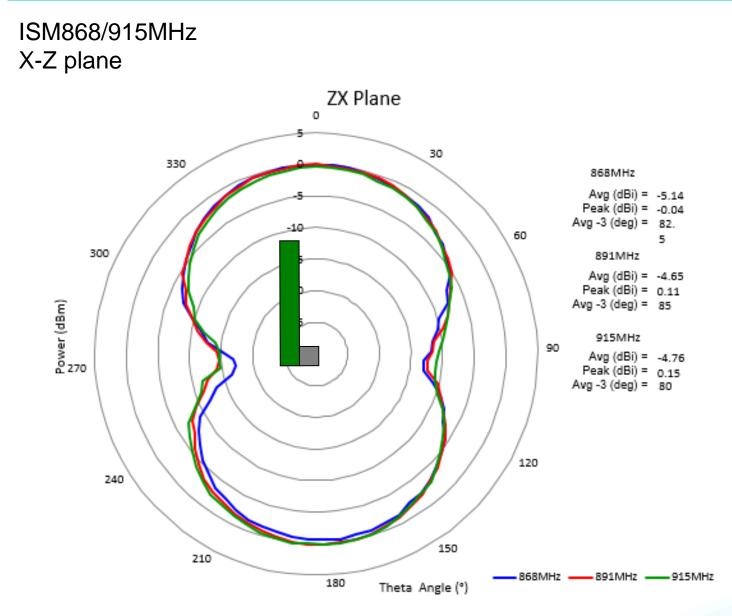


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS



Issue: 1834

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



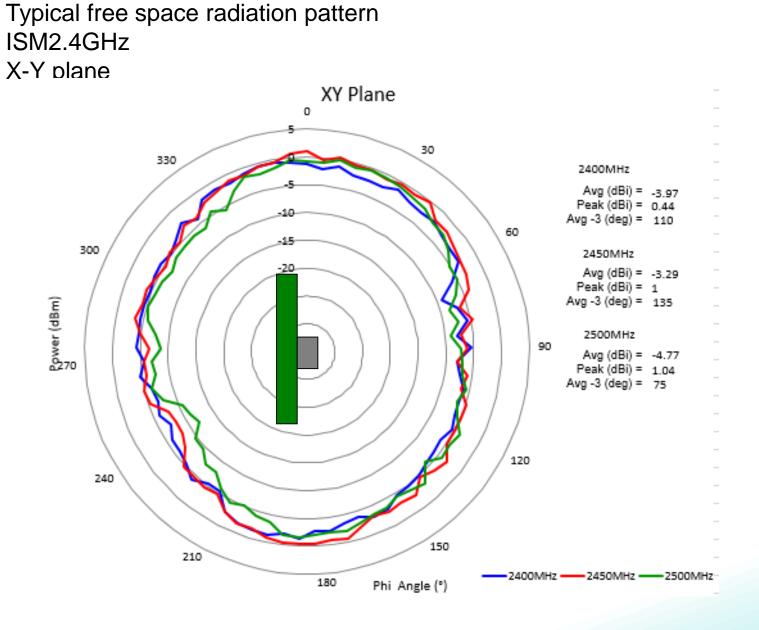


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS



Issue: 1834

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





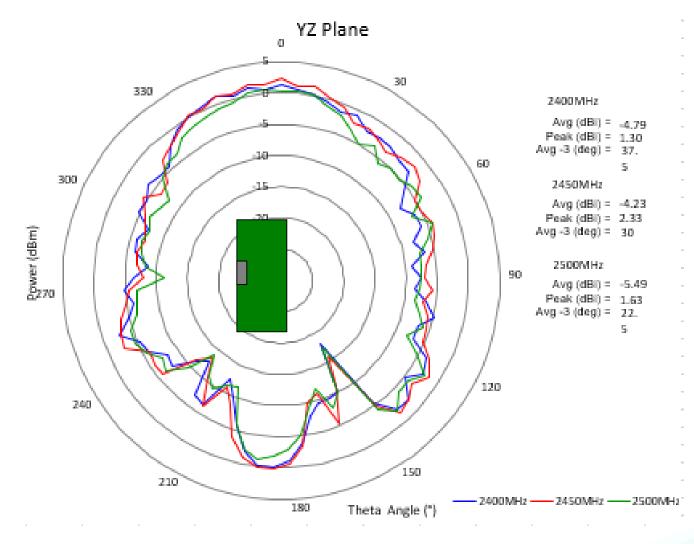
Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS

ISM 2.4GHz Y-Z Plane



Issue: 1834

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



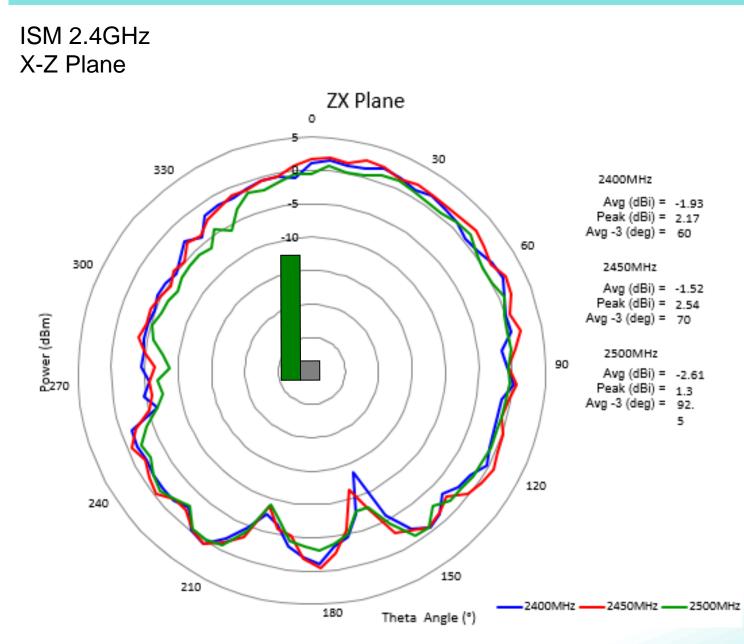


Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

CHARTS



Issue: 1834

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





Description: ISM868/915, ISM2.4G

Series: Ceramic antenna

PART NUMBER: W3320

PACKAGING

Taping package 1000PCS/Reel 3000PCS/Small box 6000PCS/Carton box



Issue: 1834

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





Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;

- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);

- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;

- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком):

- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный) Факс: 8 (812) 320-03-32 Электронная почта: ocean@oceanchips.ru Web: http://oceanchips.ru/ Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А