

# "High Frequency Ceramic Solutions"

**802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT**

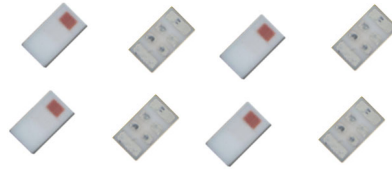
**P/N 2450AD14A5500**

Detail Specification: 11/6/2018

Page 1 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## General Specifications

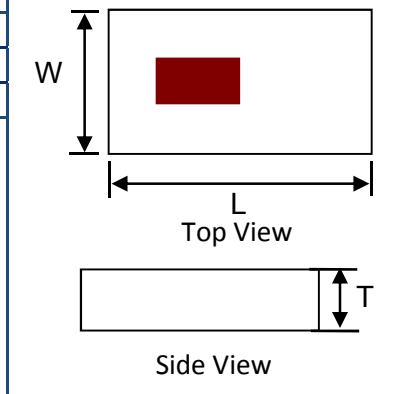
<b>Part Number</b>	2450AD14A5500		Let us help you with the antenna design, optimization, and tuning! <a href="https://www.johansontechnology.com/ipc-antenna-services">https://www.johansontechnology.com/ipc-antenna-services</a>			
<b>Frequency (MHz)</b>	2400 - 2480	5150 - 5850				
<b>Ave. Rad Efficiency</b>	60%	80%				
<b>Peak Gain (dBi typ.)</b>	1.0 dBi typ. (XZ-Total)	4.0 dBi typ. (XZ-Total)				
<b>Average Gain (dBi typ.)</b>	-3.5 dBi typ. (XZ-Total)	-2.5 dBi typ. (XZ-Total)				
<b>Return Loss (dB)</b>	6 min.	6 min.			<b>Storage Period</b>	18 months max.
<b>Impedance</b>	50 Ω				<b>Storage Temperature</b>	-40 to +85°C
<b>Input Power</b>	2 Watts max. (CW)				<b>Operating Temperature</b>	-40 to +85°C
					<b>Reel Quantity</b>	4000pcs

## Part Number Explanation

P/N Suffix	Packing Style	Bulk (loose)	Suffix = S	e.g. 2450AD14A5500S
		T & R	Suffix = T	e.g. 2450AD14A5500T
		100% Tin	Suffix = T or S	e.g. 2450AD14A5500(T or S)
	Evaluation Board	2450AD14A5500-EB1SMA & 2450AD14A5500-EB2SMA		

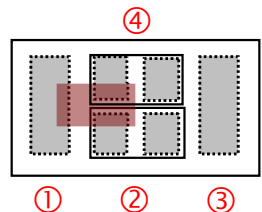
## Mechanical Dimensions

	In	mm
<b>L</b>	0.063 ± 0.004	1.60 ± 0.10
<b>W</b>	0.031 ± 0.004	0.80 ± 0.10
<b>T</b>	0.016 max.	0.40 max.



## Terminal Configuration

No.	Function
1	GND
2	FEED
3	NC
4	NC



Top View looking "through" the component

If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT

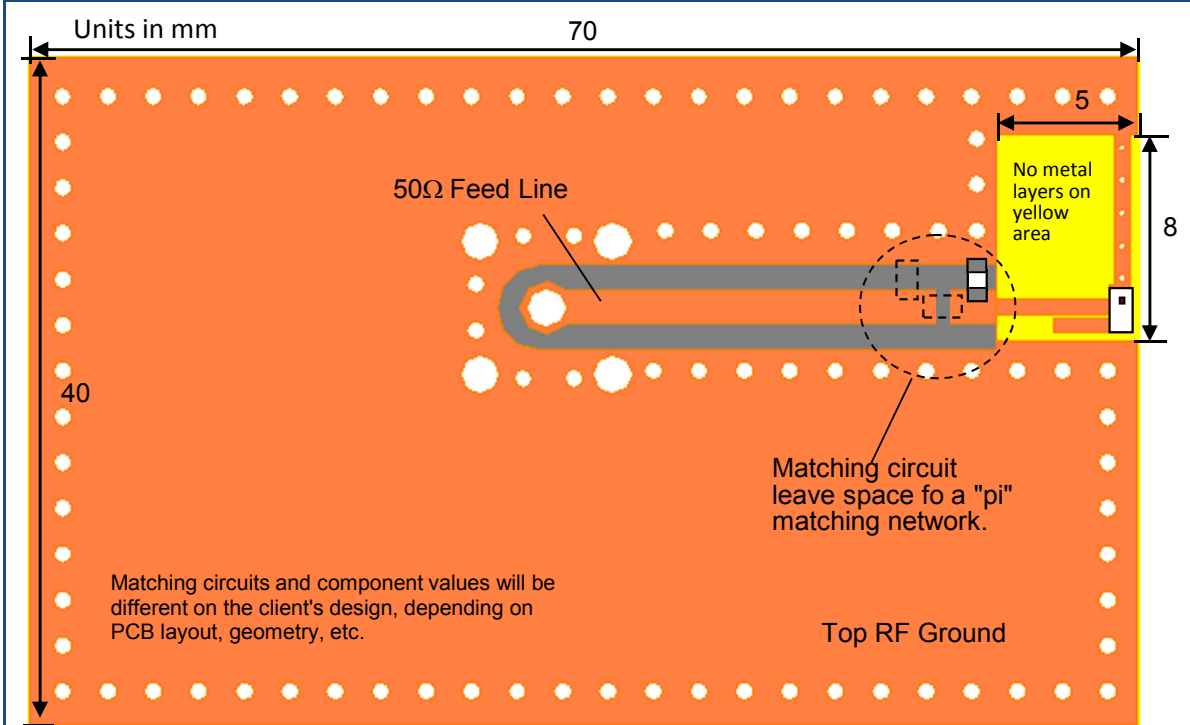
P/N 2450AD14A5500

Detail Specification: 11/6/2018

Page 2 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## Mounting Considerations 1: Evaluation Board, 65x70mm (Scenario 1 Terminal Configuration)



To order the ABOVE pre-tuned 50Ω EVB with a female SMA connector click here: <https://www.johansontechnology.com/request-a-sample>

Would you like the layout file of the above? Have antenna tuning issues? Please contact us if you have any questions regarding the implementation of this antenna in your PCB's layout. We'll be happy to guide you to maximize the antenna's performance.

If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT

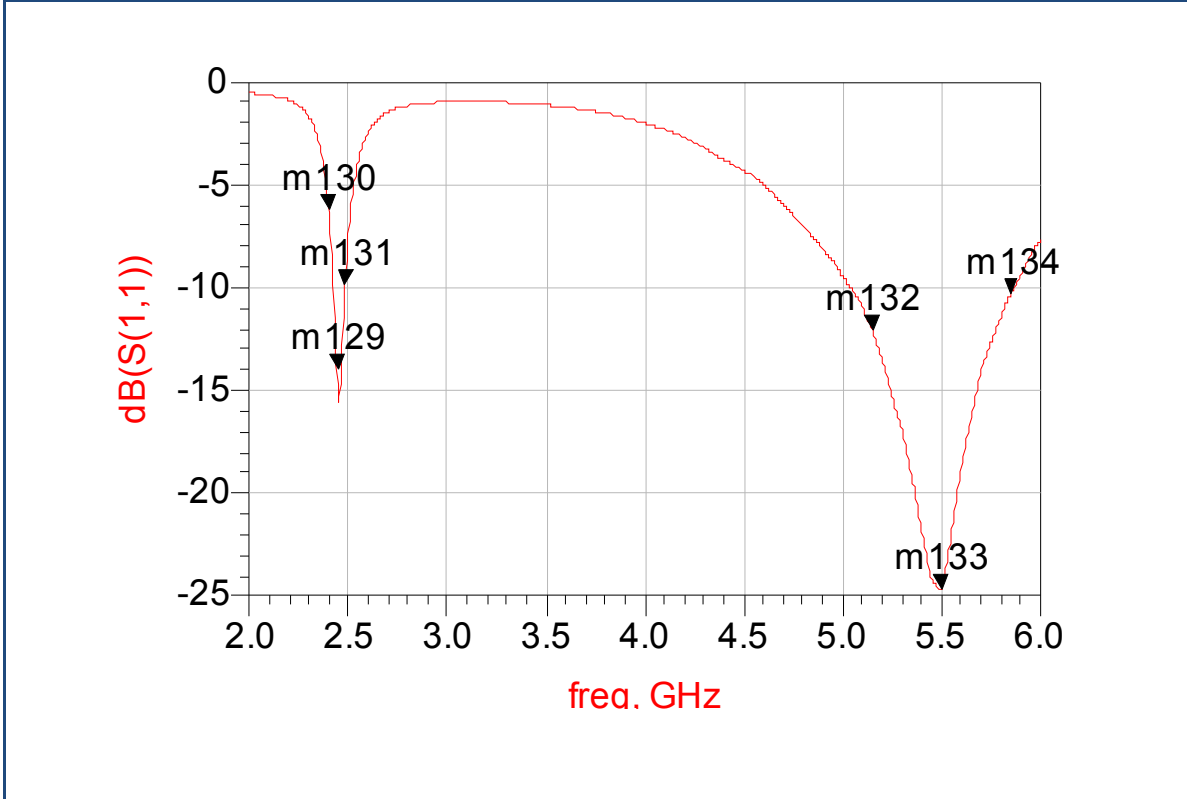
P/N 2450AD14A5500

Detail Specification: 11/6/2018

Page 3 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## Mounting Considerations 2: Typical Electrical Performance (T=25°C)



If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT

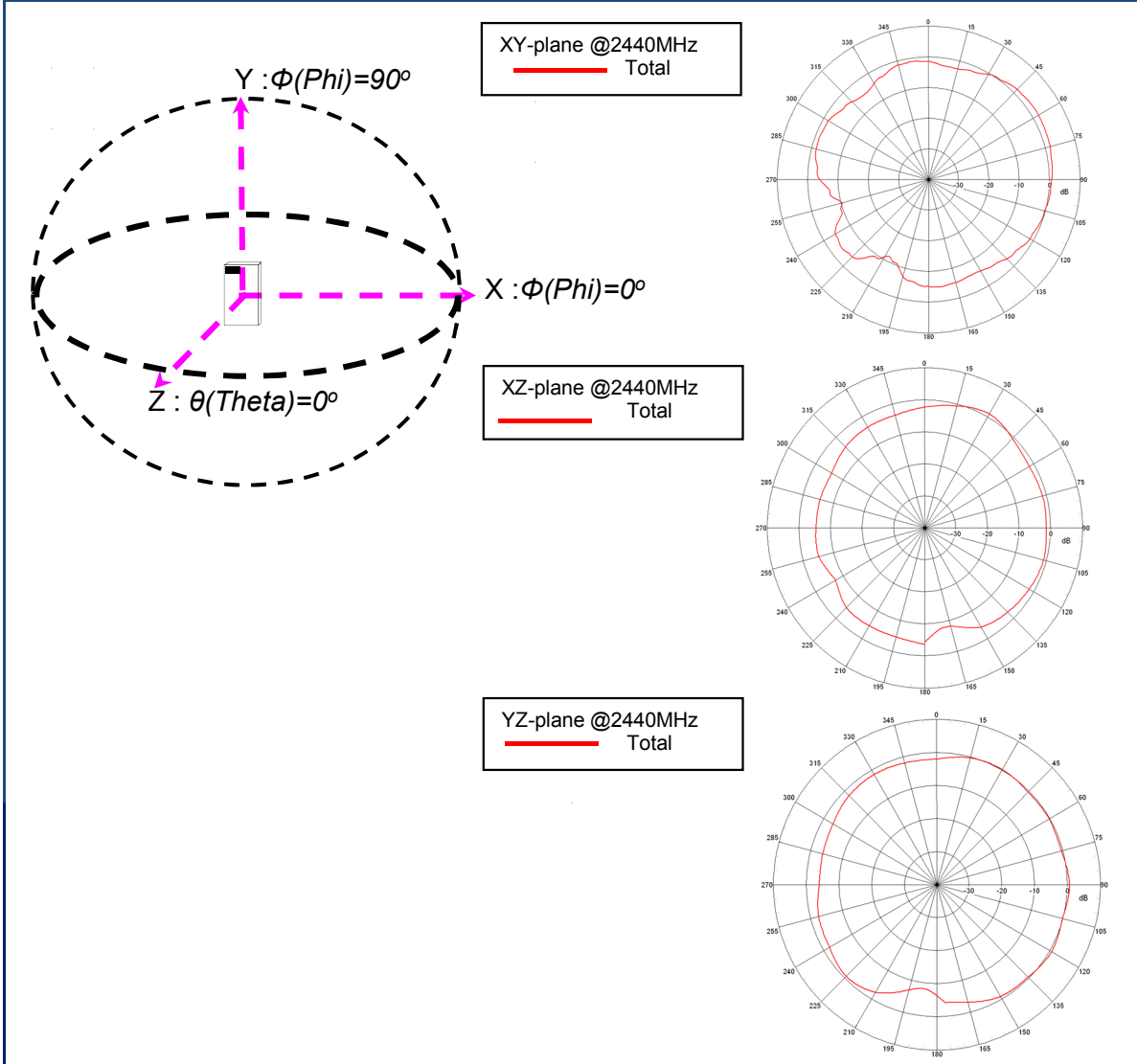
P/N 2450AD14A5500

Detail Specification: 11/6/2018

Page 4 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## Typical EM Radiation Performance @ 2.44GHz (T=25°C)



If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT

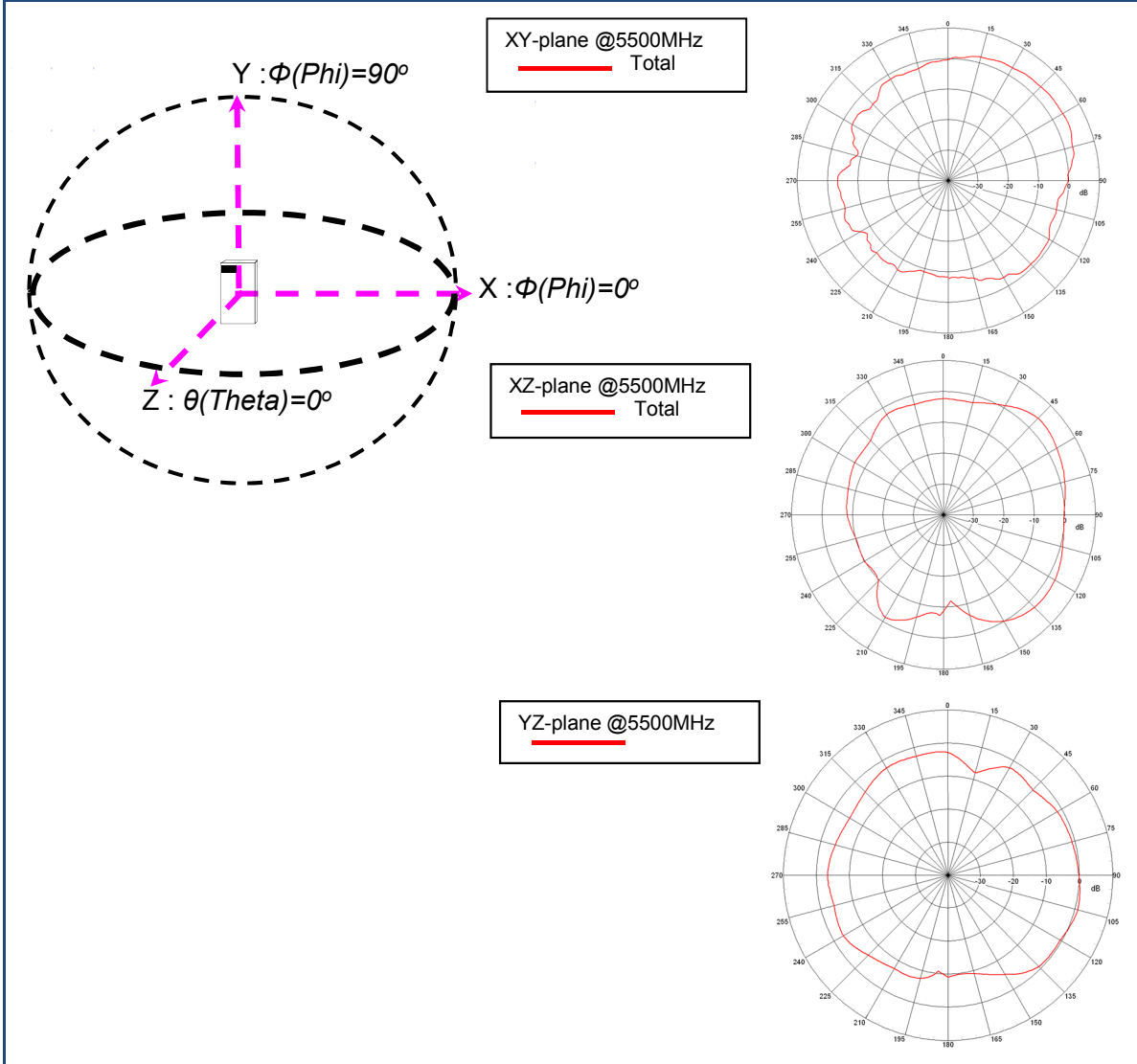
P/N 2450AD14A5500

Detail Specification: 11/6/2018

Page 5 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## Typical EM Radiation Performance @ 5.50 GHz (T=25°C)



If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.

Limited  
Web  
Version

# "High Frequency Ceramic Solutions"

802.11 Dual Band 2.45/5 GHz Mini Chip Antenna. WiFi, WLAN, IoT

P/N 2450AD14A5500

Detail Specification: 11/6/2018

Page 6 of 6

This is the Web version of this datasheet, for the full datasheet, please contact us at: <https://www.johansontechnology.com/ask-a-question>

## Antenna tuning, optimization, and validation services:

<https://www.johansontechnology.com/ipc-antenna-services>

## For more antennas and to download measured S-parameters, go to:

<https://www.johansontechnology.com/antennas>

## For more information about our diplexers:

<https://www.johansontechnology.com/diplexers>

## Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

## MSL Info

<https://www.johansontechnology.com/msl-rating>

## Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

## For layout review contact our Applications Team at:

<https://www.johansontechnology.com/ask-a-question>

## RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

Need help designing the antenna in? Use our antenna design services!

<https://www.johansontechnology.com/ipc-antenna-services>

2 Free layout reviews and if you need us to tune and characterize the antenna on your product (inside anechoic chamber) we can do that too. Small lab fee may apply for the latter.

If you'd like the complete datasheet which includes detailed gain performance, layout guidelines, application notes, small WiFi application layout, send us as message at:

<https://www.johansontechnology.com/ask-a-question>

As a bonus, you'll be assigned an RF Engineer to assist you in the design for free!

Johanson Technology, Inc. reserves the right to make design changes without notice.  
All sales are subject to Johanson Technology, Inc. terms and conditions.



<https://www.johansontechnology.com>  
4001 Calle Tecate • Camarillo, CA 93012 • TEL 805.389.1166 FAX 805.389.1821  
Ver. 2.2 2018 Johanson Technology, Inc. All Rights Reserved

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

«**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](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А