

Thin-Film Directional Couplers



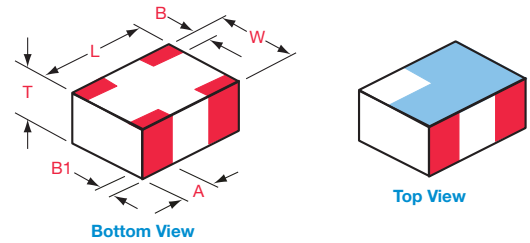
CP0603 SMD Type

GENERAL DESCRIPTION ITF (Integrated Thin-Film) TECHNOLOGY

The ITF SMD Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly. The ITF Coupler is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

DIMENSIONS:

millimeters (inches)



| | 0603 |
|----|-------------------------------------|
| L | 1.6±0.1 (0.063±0.004) |
| W | 0.84±0.1 (0.033±0.004) |
| T | 0.60±0.1 (0.028±0.004) |
| A | 0.35±0.15 (0.014±0.006) |
| B | 0.175±0.1 (0.007±0.004) |
| B1 | 0.00+0.1/0-0.0 (0.00+0.004/-0.0) |

APPLICATIONS

- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

FEATURES

- Miniature Size: 0603
- Frequency Range: 800MHz - 3GHz
- Characteristic Impedance: 50Ω
- Operating / Storage Temp.: -40°C to +85°C
- Power Rating: 3W Continuous
- Low Profile
- Rugged Construction
- Taped and Reeled

HOW TO ORDER

| | | | | | | |
|--|--|-----------------------------|--|---------------------------------|--|--|
| CP Style Directional Coupler | 0603 Size 0603 | X Type | **** Frequency MHz | X Sub Type | S Termination Code W = Sn90, Pb10 **S = Sn100 | TR Packaging Code TR = Tape and Reel |
|--|--|-----------------------------|--|---------------------------------|--|--|

**RoHS compliant

QUALITY INSPECTION

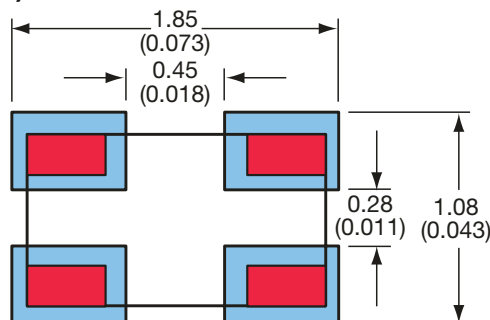
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R, 4 hours

TERMINATION

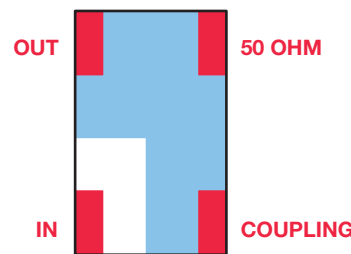
Nickel/Solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

Recommended Pad Layout Dimensions mm (inches)

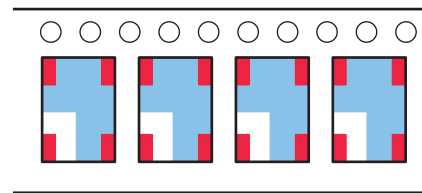


TERMINALS (Top View)

Not RoHS Compliant



For RoHS compliant products, please select correct termination style.



Orientation in tape

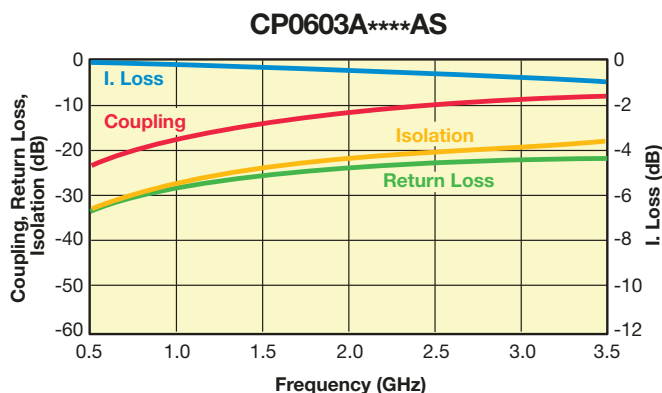
Thin-Film Directional Couplers



CP0603 SMD Type

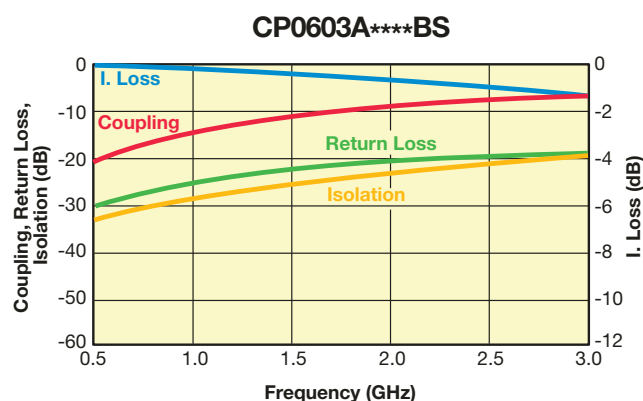
Coupler P/N CP0603A****AS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max |
|--------------|---------------|----------------------|---------------|-------------|----------|
| AMPS | CP0603A0836AS | 824 - 849 | 18.5±1 | 0.25 | 1.2 |
| | CP0603A0881AS | 869 - 894 | 18.5±1 | | |
| GSM | CP0603A0902AS | 890 - 915 | 18±1 | 0.25 | |
| | CP0603A0947AS | 935 - 960 | 17.5±1 | | |
| E-GSM | CP0603A0897AS | 880 - 915 | 18±1 | 0.4 | |
| | CP0603A0942AS | 925 - 960 | 17.5±1 | | |
| PDC | CP0603A1441AS | 1429 - 1453 | 14±1 | 0.4 | |
| PCN | CP0603A1747AS | 1710 - 1785 | 12.5±1 | 0.6 | |
| | CP0603A1842AS | 1805 - 1880 | 12±1 | | |
| PCS | CP0603A1880AS | 1850 - 1910 | 12±1 | 0.65 | |
| | CP0603A1960AS | 1930 - 1990 | 11.5±1 | | |
| PHP | CP0603A1907AS | 1895 - 1920 | 12±1 | 0.6 | |
| DECT | CP0603A1890AS | 1880 - 1900 | 12±1 | 0.6 | |
| Wireless LAN | CP0603A2442AS | 2400 - 2484 | 10±1 | 0.85 | |



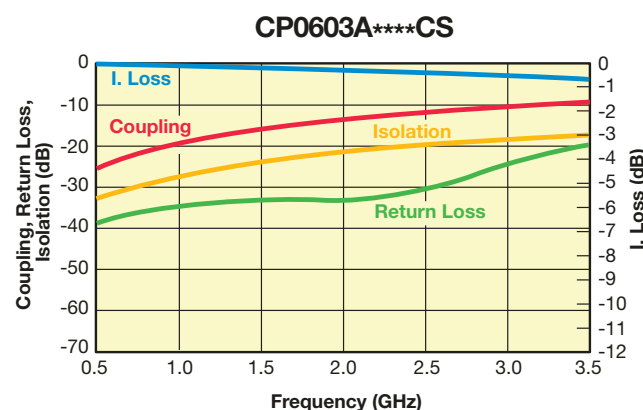
Coupler P/N CP0603A****BS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max |
|--------------|---------------|----------------------|---------------|-------------|----------|
| AMPS | CP0603A0836BS | 824 - 849 | 16±1 | 0.25 | 1.2 |
| | CP0603A0881BS | 869 - 894 | 15.5±1 | | |
| GSM | CP0603A0902BS | 890 - 915 | 15.5±1 | 0.25 | |
| | CP0603A0947BS | 935 - 960 | 15±1 | | |
| E-GSM | CP0603A0897BS | 880 - 915 | 15.5±1 | 0.55 | |
| | CP0603A0942BS | 925 - 960 | 15±1 | | |
| PDC | CP0603A1441BS | 1429 - 1453 | 11.5±1 | 0.55 | |
| PCN | CP0603A1747BS | 1710 - 1785 | 10±1 | 0.8 | |
| | CP0603A1842BS | 1805 - 1880 | 9.5±1 | | |
| PCS | CP0603A1880BS | 1850 - 1910 | 9±1 | 0.8 | |
| | CP0603A1960BS | 1930 - 1990 | 9±1 | | |
| PHP | CP0603A1907BS | 1895 - 1920 | 9±1 | 0.8 | |
| DECT | CP0603A1890BS | 1880 - 1900 | 9±1 | 0.8 | |
| Wireless LAN | CP0603A2442BS | 2400 - 2484 | 7.5±1 | 1.1 | |



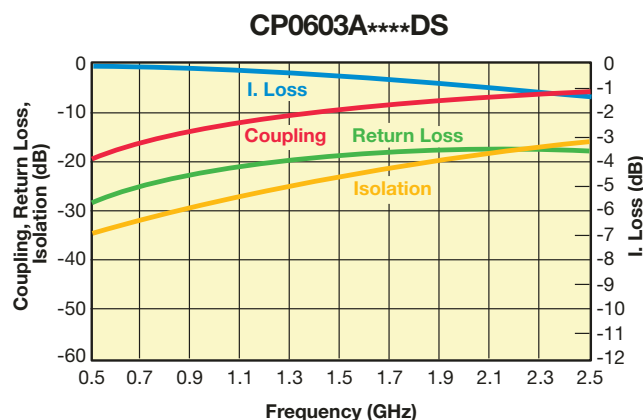
Coupler P/N CP0603A****CS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max |
|--------------|---------------|----------------------|---------------|-------------|----------|
| AMPS | CP0603A0836CS | 824 - 849 | 21±1 | 0.25 | 1.2 |
| | CP0603A0881CS | 869 - 894 | 20.5±1 | | |
| GSM | CP0603A0902CS | 890 - 915 | 20.5±1 | 0.25 | |
| | CP0603A0947CS | 935 - 960 | 20±1 | | |
| E-GSM | CP0603A0897CS | 880 - 915 | 20.5±1 | 0.40 | |
| | CP0603A0942CS | 925 - 960 | 20±1 | | |
| PDC | CP0603A1441CS | 1429 - 1453 | 16.5±1 | 0.40 | |
| PCN | CP0603A1747CS | 1710 - 1785 | 15±1 | 0.5 | |
| | CP0603A1842CS | 1805 - 1880 | 14.5±1 | | |
| PCS | CP0603A1880CS | 1850 - 1910 | 14.5±1 | 0.5 | |
| | CP0603A1960CS | 1930 - 1990 | 14±1 | | |
| PHP | CP0603A1907CS | 1895 - 1920 | 14.5±1 | 0.5 | |
| DECT | CP0603A1890CS | 1880 - 1900 | 14.5±1 | 0.5 | |
| Wireless LAN | CP0603A2442CS | 2400 - 2484 | 12.5±1 | 0.65 | |



Coupler P/N CP0603A****DS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max |
|--------------|---------------|----------------------|---------------|-------------|----------|
| AMPS | CP0603A0836DS | 824 - 849 | 15.0±1 | 0.40 | 1.2 |
| | CP0603A0881DS | 869 - 894 | 14.5±1 | | |
| GSM | CP0603A0902DS | 890 - 915 | 14.5±1 | 0.40 | |
| | CP0603A0947DS | 935 - 960 | 14±1 | | |
| E-GSM | CP0603A0897DS | 880 - 915 | 14.5±1 | 0.7 | |
| | CP0603A0942DS | 925 - 960 | 14±1 | | |
| PDC | CP0603A1441DS | 1429 - 1453 | 10.5±1 | 0.7 | |
| PCN | CP0603A1747DS | 1710 - 1785 | 9±1 | 0.9 | |
| | CP0603A1842DS | 1805 - 1880 | 8.5±1 | | |
| PCS | CP0603A1880DS | 1850 - 1910 | 8.5±1 | 1.0 | |
| | CP0603A1960DS | 1930 - 1990 | 8±1 | | |
| PHP | CP0603A1907DS | 1895 - 1920 | 8.5±1 | 1.0 | |
| DECT | CP0603A1890DS | 1880 - 1900 | 8.5±1 | 1.0 | |
| Wireless LAN | CP0603A2442DS | 2400 - 2484 | 6.5±1 | 1.5 | |



Important: Couplers can be used at any frequency within the indicated range.



Thin-Film Directional Couplers

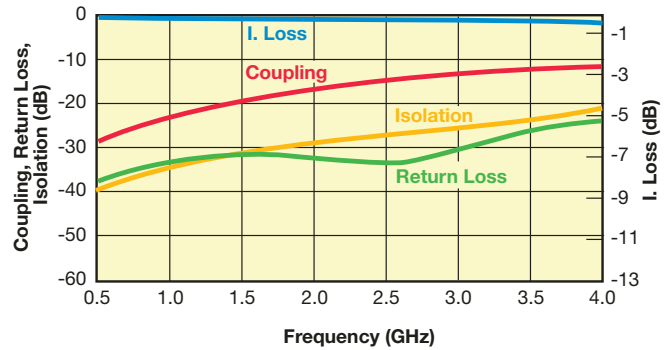


CP0603 SMD Type

Coupler P/N CP0603B****AS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max | |
|--------------|---------------|----------------------|---------------|-------------|----------|------|
| AMPS | CP0603B0836AS | 824 - 849 | 24.5±1 | 0.2 | 1.2 | |
| | CP0603B0881AS | 869 - 894 | 24±1 | | | |
| GSM | CP0603B0902AS | 890 - 915 | 24±1 | | | |
| | CP0603B0947AS | 935 - 960 | 23.5±1 | | | |
| E-GSM | CP0603B0897AS | 880 - 915 | 24±1 | | | |
| | CP0603B0942AS | 925 - 960 | 23.5±1 | | | |
| PDC | CP0603B1441AS | 1429 - 1453 | 20±1 | | | 0.25 |
| PCN | CP0603B1747AS | 1710 - 1785 | 18±1 | | | |
| PCS | CP0603B1842AS | 1805 - 1880 | 17.5±1 | | | 0.3 |
| | CP0603B1880AS | 1850 - 1910 | 17.5±1 | | | |
| PHP | CP0603B1960AS | 1930 - 1990 | 17.5±1 | | | |
| DECT | CP0603B1907AS | 1895 - 1920 | 17.5±1 | | | |
| Wireless LAN | CP0603B1890AS | 1880 - 1900 | 17.5±1 | 0.45 | | |
| | CP0603B2442AS | 2400 - 2484 | 15.5±1 | | | |

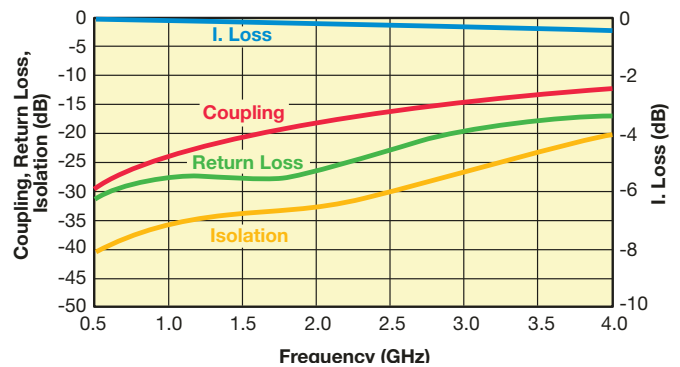
CP0603B****AS



Coupler P/N CP0603B****BS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max | |
|--------------|---------------|----------------------|---------------|-------------|----------|------|
| AMPS | CP0603B0836BS | 824 - 849 | 25.5±1 | 0.2 | 1.2 | |
| | CP0603B0881BS | 869 - 894 | 25±1 | | | |
| GSM | CP0603B0902BS | 890 - 915 | 25±1 | | | |
| | CP0603B0947BS | 935 - 960 | 24.5±1 | | | |
| E-GSM | CP0603B0897BS | 880 - 915 | 25±1 | | | |
| | CP0603B0942BS | 925 - 960 | 24.5±1 | | | |
| PDC | CP0603B1441BS | 1429 - 1453 | 21±1 | | | 0.25 |
| PCN | CP0603B1747BS | 1710 - 1785 | 19±1 | | | |
| PCS | CP0603B1842BS | 1805 - 1880 | 19±1 | | | 0.25 |
| | CP0603B1880BS | 1850 - 1910 | 18.5±1 | | | |
| PHP | CP0603B1960BS | 1930 - 1990 | 18.5±1 | | | |
| DECT | CP0603B1907BS | 1895 - 1920 | 18.5±1 | | | |
| Wireless LAN | CP0603B1890BS | 1880 - 1900 | 18.5±1 | 0.35 | | |
| | CP0603B2442BS | 2400 - 2484 | 16.5±1 | | | |

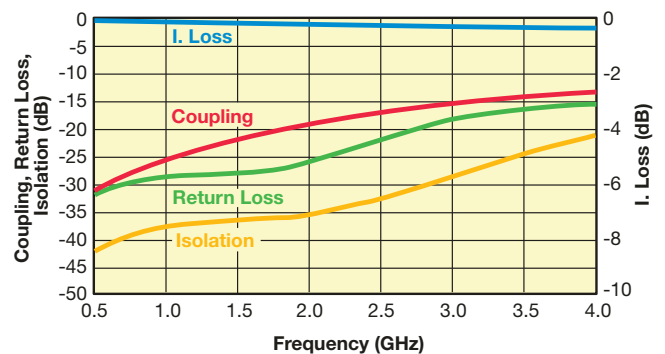
CP0603B****BS



Coupler P/N CP0603B****CS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max | VSWR max | |
|--------------|---------------|----------------------|---------------|-------------|----------|------|
| AMPS | CP0603B0836CS | 824 - 849 | 26.5±1 | 0.2 | 1.2 | |
| | CP0603B0881CS | 869 - 894 | 26±1 | | | |
| GSM | CP0603B0902CS | 890 - 915 | 26±1 | | | |
| | CP0603B0947CS | 935 - 960 | 25.5±1 | | | |
| E-GSM | CP0603B0897CS | 880 - 915 | 26±1 | | | |
| | CP0603B0942CS | 925 - 960 | 25.5±1 | | | |
| PDC | CP0603B1441CS | 1429 - 1453 | 22±1 | | | 0.25 |
| PCN | CP0603B1747CS | 1710 - 1785 | 20.5±1 | | | |
| PCS | CP0603B1842CS | 1805 - 1880 | 20±1 | | | 0.25 |
| | CP0603B1880CS | 1850 - 1910 | 20±1 | | | |
| PHP | CP0603B1960CS | 1930 - 1990 | 19.5±1 | | | |
| DECT | CP0603B1907CS | 1895 - 1920 | 20±1 | | | |
| Wireless LAN | CP0603B1890CS | 1880 - 1900 | 20±1 | 0.35 | | |
| | CP0603B2442CS | 2400 - 2484 | 18±1 | | | |

CP0603B****CS



Important: Couplers can be used at any frequency within the indicated range.

Thin-Film Directional Couplers



CP0603 SMD Type – High Directivity

Coupler P/N CP0603D****AS

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max. [dB] | Return Loss [dB] | Directivity [dB] |
|--------------|---------------|----------------------|---------------|-------------------|------------------|------------------|
| AMPS | CP0603D0836AS | 824 - 849 | 13.50 | 0.50 | 23 | 21 |
| | CP0603D0881AS | 869 - 894 | 13.00 | | | |
| GSM | CP0603D0902AS | 890 - 915 | 12.50 | 1.00 | 18 | 19 |
| | CP0603D0947AS | 935 - 960 | 13.00 | | | |
| E-GSM | CP0603D0897AS | 880 - 915 | 12.50 | 1.40 | 17 | 17 |
| | CP0603D0942AS | 925 - 960 | 7.00 | | | |
| PDC | CP0603D1441AS | 1429 - 1453 | 9.00 | 2.00 | 15 | 15 |
| PCN | CP0603D1747AS | 1710 - 1785 | 8.00 | | | |
| PCS | CP0603D1842AS | 1805 - 1880 | 7.50 | 1.40 | 16 | 17 |
| | CP0603D1880AS | 1850 - 1910 | 7.00 | | | |
| PHP | CP0603D1907AS | 1895 - 1920 | 7.00 | 1.40 | 16 | 17 |
| DECT | CP0603D1890AS | 1880 - 1900 | 7.00 | | | |
| Wireless LAN | CP0603D2442AS | 2400 - 2484 | 5.50 | 2.00 | 15 | 15 |

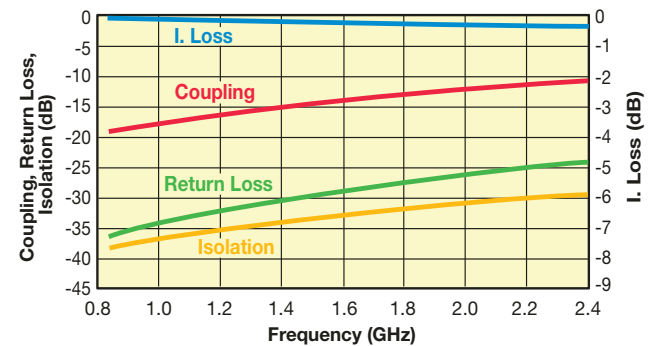
CP0603D****AS



Coupler P/N CP0603D****BW

| Application | P/N Examples | Frequency Band [MHz] | Coupling [dB] | I. Loss max. [dB] | Return Loss [dB] | Directivity [dB] |
|--------------|---------------|----------------------|---------------|-------------------|------------------|------------------|
| AMPS | CP0603D0836BS | 824 - 849 | 20.00 | 0.25 | 36 | 19 |
| | CP0603D0881BS | 869 - 894 | 19.50 | | | |
| GSM | CP0603D0902BS | 890 - 915 | 19.00 | 0.40 | 35 | 19 |
| | CP0603D0947BS | 935 - 960 | 19.00 | | | |
| E-GSM | CP0603D0897BS | 880 - 915 | 19.50 | 0.50 | 36 | 19 |
| | CP0603D0942BS | 925 - 960 | 19.00 | | | |
| PDC | CP0603D1441BS | 1429 - 1453 | 15.50 | 0.55 | 30 | 19 |
| PCN | CP0603D1747BS | 1710 - 1785 | 14.00 | | | |
| PCS | CP0603D1842BS | 1805 - 1880 | 13.50 | 0.55 | 27 | 19 |
| | CP0603D1880BS | 1850 - 1910 | 13.00 | | | |
| PHP | CP0603D1907BS | 1895 - 1920 | 13.00 | 0.55 | 27 | 19 |
| DECT | CP0603D1890BS | 1880 - 1900 | 13.00 | | | |
| Wireless LAN | CP0603D2442BS | 2400 - 2484 | 11.00 | 0.70 | 24 | 19 |

CP0603D****BS



Important: Couplers can be used at any frequency within the indicated range.



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

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- 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).



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