



# Noise Suppression Sheets

Flexield

# IFL series

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## REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

#### REMINDERS

- When mounting on live electrical parts directly, there is a fear that an insulation accident is caused, so please consider on the design in case of use.
- There is a fear that sullenness of double sided adhesive tape occurs, so please refrain from the use to a part where you wind repeatedly by which it's for the hinge part.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. When the damage occurs by having been used the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please understand that the responsibility cannot be taken.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When using these products in general purposes and standard use, it is recommended that protection circuits are used, devices are secured, and backup circuits are kept for increased safety.

# Noise Suppression Sheets

Product compatible with RoHS directive  
Halogen-free

Flexield

## Overview of IFL Series

### FEATURES

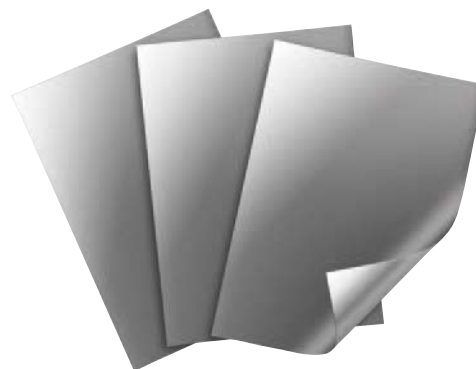
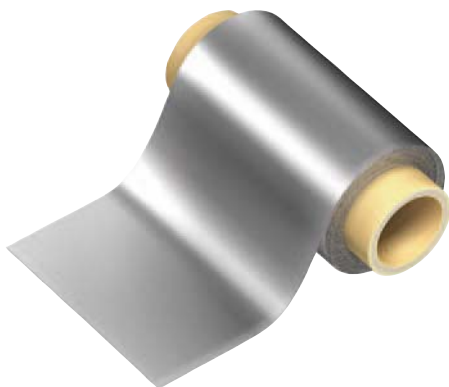
- High permeability items are lined up.
- It's also possible to load on a little gap because it's thin type.
- Has flexibility , it does not crack by impact or the like .
- It excels in shape processability and can respond to various dimensions and shapes.
- Offer by a roll shape is possible.

### APPLICATION


- Electromagnetic noise measures of various kinds of electronic equipment
- Receiver sensitivity improvement of PEN input (inductive coupling type)
- Performance improvement of RFID (on metal correspondence)

### STANDARD SHAPE LIST

| Material | Thickness<br>(mm) | Sheet<br>dimensions<br>(mm) | Roll          |               |
|----------|-------------------|-----------------------------|---------------|---------------|
|          |                   |                             | Width<br>(mm) | Length<br>(m) |
| IFL10M   | 0.025             | 300×200                     | 300           | 100           |
|          | 0.05              |                             |               |               |
|          | 0.1               |                             |               |               |
|          | 0.2               |                             |               |               |
| IFL12    | 0.05              | 300×200                     | 300           | 100           |
|          | 0.1               |                             |               |               |
|          | 0.2               |                             |               |               |
| IFL16    | 0.03              | 300×200                     | 300           | 100           |
|          | 0.05              |                             |               |               |



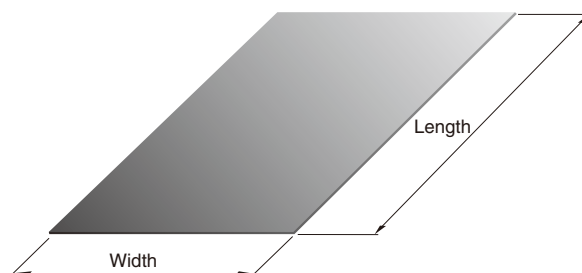
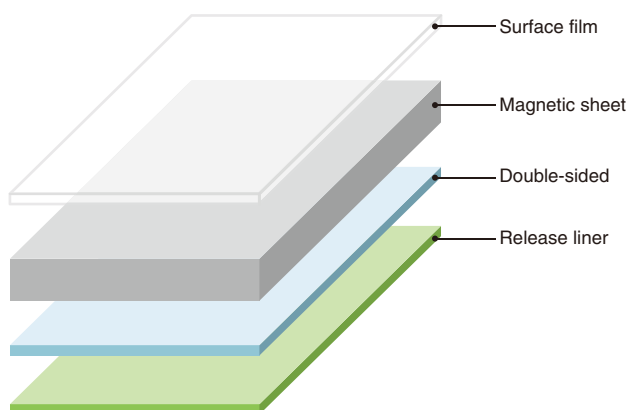
- RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

# IFL Series Sheet Type

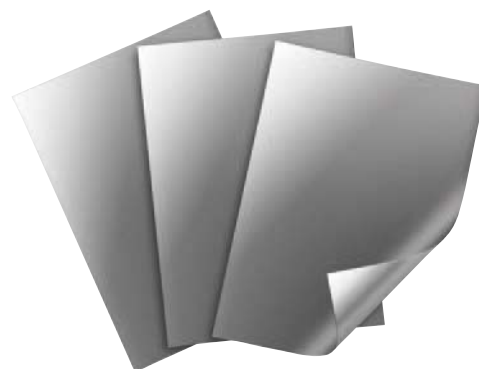
## ■ PART NUMBER CONSTRUCTION

| IFL         | 10M             | 025                              | N     |                             | B     |                                  | 300  |             | ×   | 200        |     |
|-------------|-----------------|----------------------------------|-------|-----------------------------|-------|----------------------------------|------|-------------|-----|------------|-----|
| Series name | Material symbol | Magnetic material thickness (mm) |       | Surface film thickness (mm) |       | Double-sided tape thickness (mm) |      | Length (mm) |     | Width (mm) |     |
|             | 10M             | 025                              | 0.025 | N                           | No    | N                                | No   | 300         | 300 | 200        | 200 |
|             | 12              | 030                              | 0.03  | P                           | 0.016 | B                                | 0.01 |             |     |            |     |
|             | 16              | 050                              | 0.05  | R                           | 0.038 | D                                | 0.03 |             |     |            |     |
|             |                 | 100                              | 0.10  | R: Release type             |       |                                  |      |             |     |            |     |
|             |                 | 200                              | 0.20  |                             |       |                                  |      |             |     |            |     |



## ■ STANDARD PART NUMBER LIST

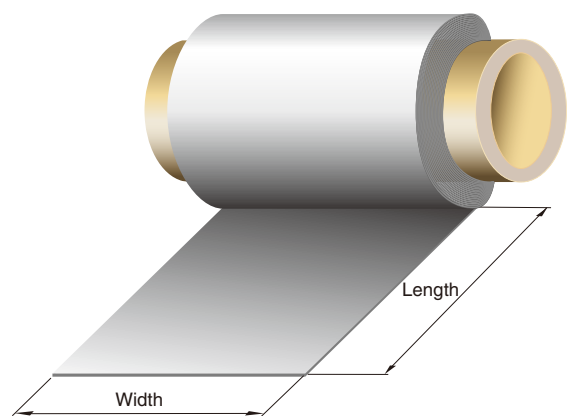
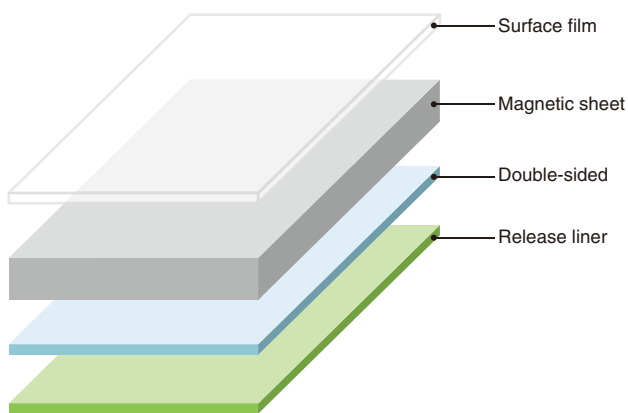
| Material | Standard dimensions (mm) | Thickness | Part number         |
|----------|--------------------------|-----------|---------------------|
| IFL10M   | 300×200                  | 0.025     | IFL10M-025NB300×200 |
|          |                          | 0.05      | IFL10M-050NB300×200 |
|          |                          | 0.1       | IFL10M-100NB300×200 |
|          |                          | 0.2       | IFL10M-200ND300×200 |
| IFL12    | 300×200                  | 0.05      | IFL12-050NB300×200  |
|          |                          | 0.1       | IFL12-100NB300×200  |
|          |                          | 0.2       | IFL12-200ND300×200  |
| IFL16    | 300×200                  | 0.03      | IFL16-030NB300X200  |
|          |                          | 0.05      | IFL16-050NB300X200  |



# IFL Series Roll Type

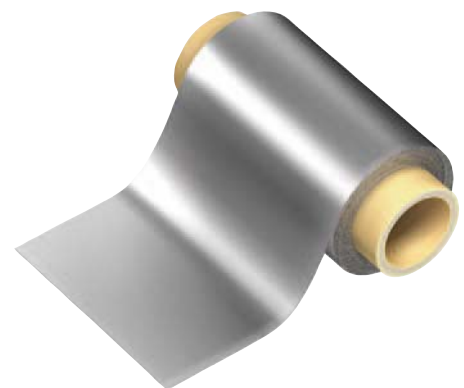
## ■ PART NUMBER CONSTRUCTION

| IFL         | 10M             | 025                              | R     |                             | N     |                                  | 1HR  |            | ×   | 300        |     |
|-------------|-----------------|----------------------------------|-------|-----------------------------|-------|----------------------------------|------|------------|-----|------------|-----|
| Series name | Material symbol | Magnetic material thickness (mm) |       | Surface film thickness (mm) |       | Double-sided tape thickness (mm) |      | Length (m) |     | Width (mm) |     |
|             | 10M             | 025                              | 0.025 | N                           | No    | N                                | No   | 1HR        | 100 | 300        | 300 |
|             | 12              | 030                              | 0.03  | P                           | 0.016 | B                                | 0.01 |            |     |            |     |
|             | 16              | 050                              | 0.05  | R                           | 0.038 | D                                | 0.03 |            |     |            |     |
|             |                 | 100                              | 0.10  | R: Release type             |       |                                  |      |            |     |            |     |



## ■ STANDARD PART NUMBER LIST

| Material | Width (mm) | Length (m) | Thickness (mm) | Part number         |
|----------|------------|------------|----------------|---------------------|
| IFL10M   | 300        | 100        | 0.025          | IFL10M-025RN1HRX300 |
|          |            |            | 0.05           | IFL10M-050RN1HRX300 |
|          |            |            | 0.1            | IFL10M-100RN1HRX300 |
| IFL12    | 300        | 100        | 0.05           | IFL12-050RN1HRX300  |
|          |            |            | 0.1            | IFL12-100RN1HRX300  |
| IFL16    | 300        | 100        | 0.03           | IFL16-030RN1HRX300  |
|          |            |            | 0.05           | IFL16-050RN1HRX300  |



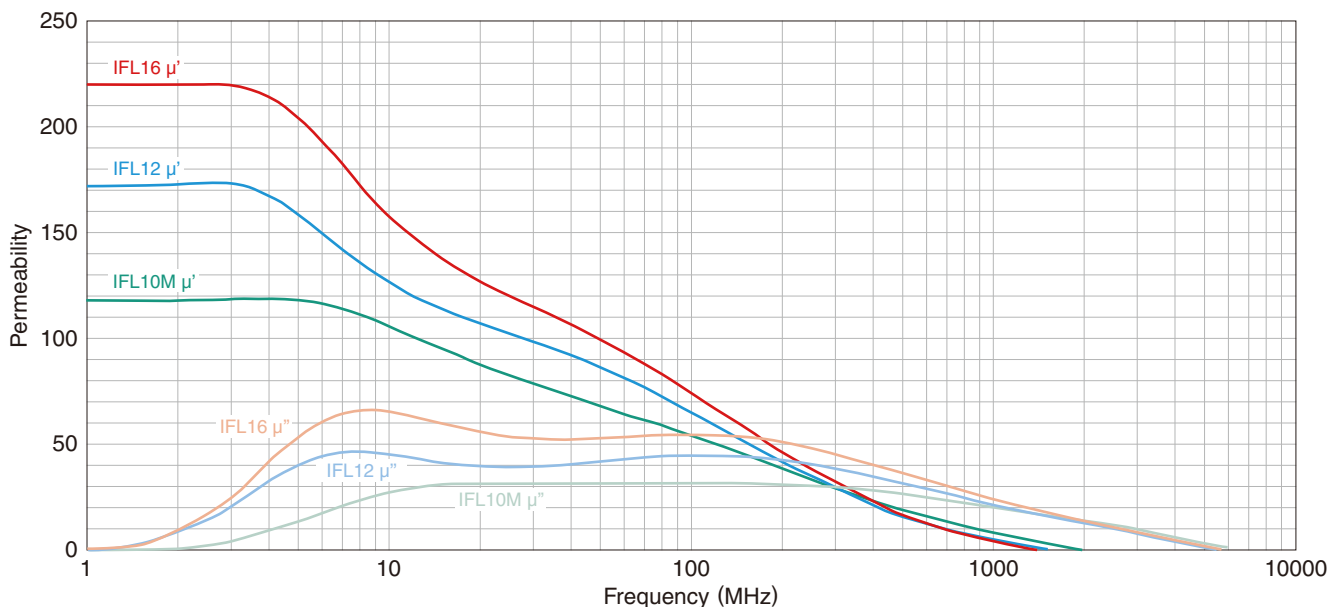
# IFL Series

## MATERIAL CHARACTERISTIC

### MATERIAL CHARACTERISTIC SPECIFICATION TABLE

| Material name | Recommended specification frequency range | Permeability (at 1MHz) | Surface resistivity ( $\Omega/\square$ )min | Thermal conductivity (W/m) | Operating temperature range ( $^{\circ}\text{C}$ ) |
|---------------|---|------------------------|---|----------------------------|--|
| IFL10M        | 10 MHz to 3 GHz                           | 120                    | 1M  | 1.5                        | -40 to +85   |
| IFL12         | 5 MHz to 3 GHz                            | 180                    | 10k   | 1.5                        | -40 to +85   |
| IFL16         | 0.5 MHz to 1 GHz                          | 220                    | 10k   | 1.5                        | -40 to +85   |

### PERMEABILITY



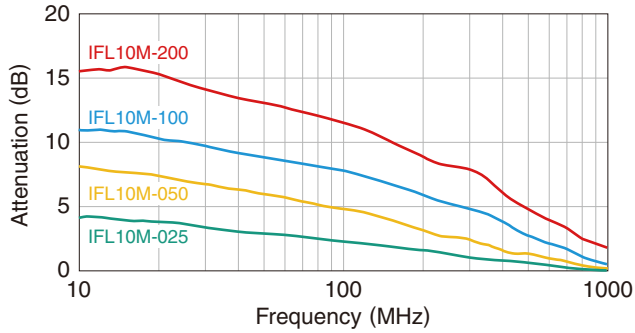
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# IFL Series

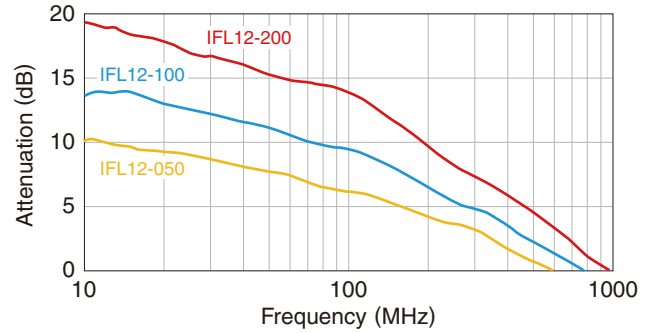
## MATERIAL CHARACTERISTIC

### NEIGHBORHOOD MAGNETIC FIELD ATTENUATION

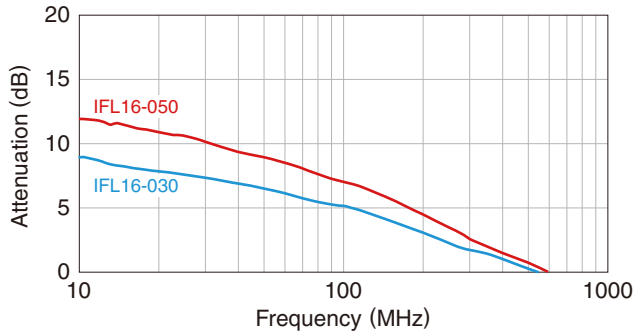
FL10M



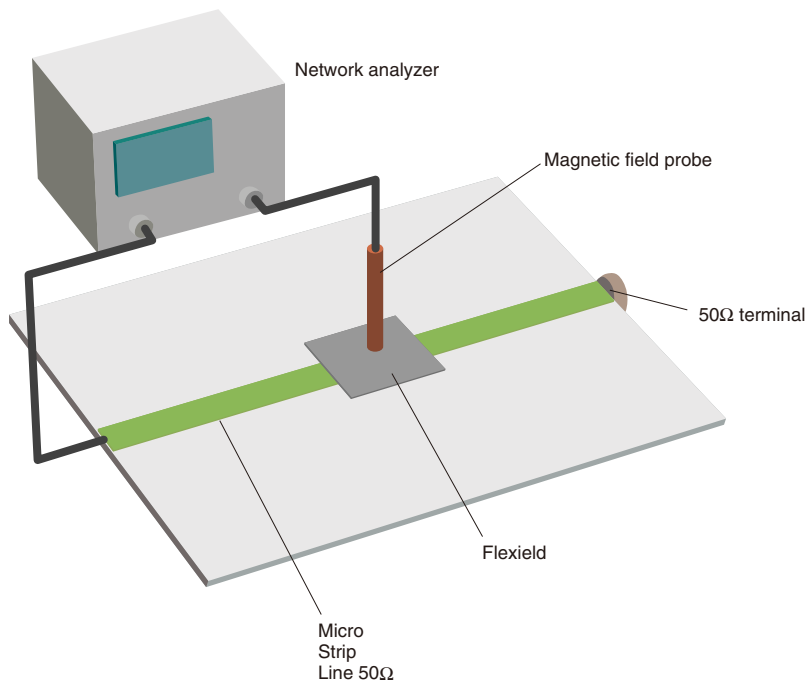
IFL12



IFL16



### NEIGHBORHOOD MAGNETIC FIELD ATTENUATION TESTING METHOD (Magnetic field measurement on the microstrip line)



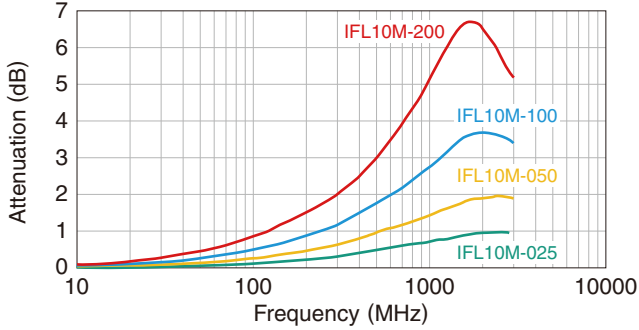
⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

# IFL Series

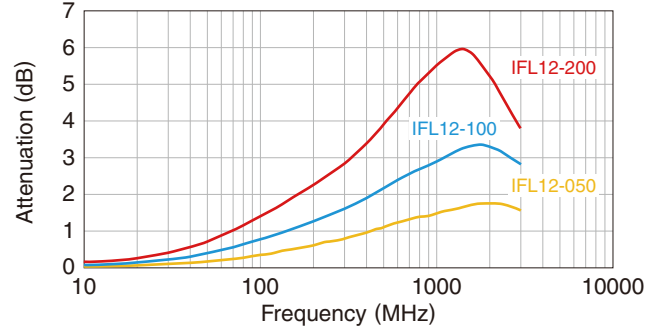
## MATERIAL CHARACTERISTIC

### TRANSMISSION ATTENUATION

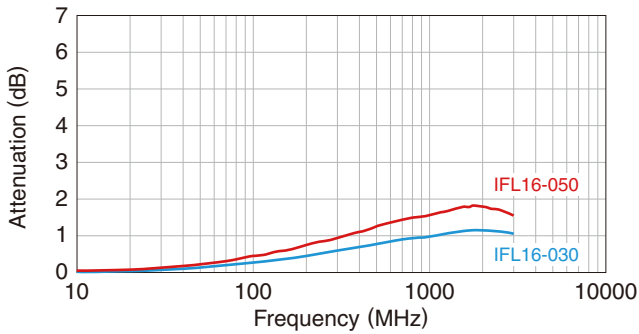
IFL10M



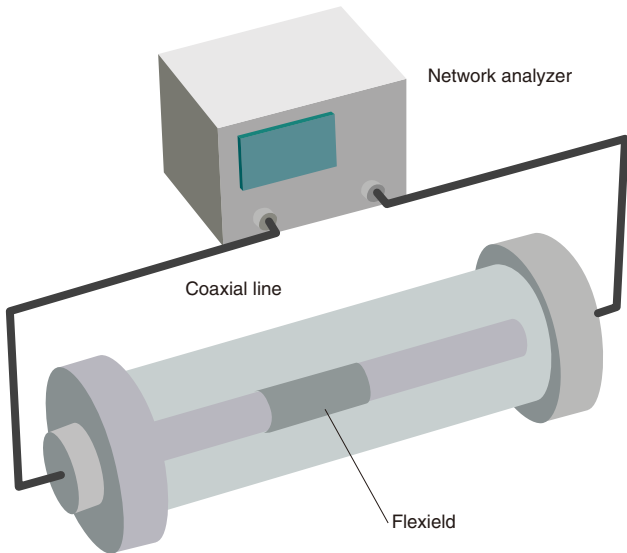
IFL12



IFL16



### TRANSMISSION ATTENUATION TESTING METHOD (Transmission measurement in a coaxial track)



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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).



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