

## Lower Voltage Ceramic Disc Capacitors 2 kV<sub>DC</sub> to 7.5 kV<sub>DC</sub>



### FEATURES

- Low losses
- High capacitance in small sizes
- High stability
- Radial leads
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### APPLICATIONS

- Lighting ballasts
- SMPS
- DC and pulse high voltage

### DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper having diameters of 0.025" (0.64 mm) or 0.032" (0.81 mm).

The capacitors may be supplied with radial kinked or straight leads having lead spacing of 0.250" (6.35 mm) or 0.375" (9.5 mm) or 0.500" (12.7 mm).

The standard tolerances are  $\pm 10\%$  or  $\pm 20\%$ .

Coating is made of resin coating or flame retardant epoxy resin in accordance with "UL 94 V-0".

### CAPACITANCE RANGE

10 pF to 0.10  $\mu$ F

### RATED VOLTAGE

2 kV<sub>DC</sub>  
3 kV<sub>DC</sub>  
6 kV<sub>DC</sub>  
7.5 kV<sub>DC</sub>

### DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

2 kV<sub>DC</sub> 3500 V<sub>DC</sub>, 2 s  
3 kV<sub>DC</sub> 5000 V<sub>DC</sub>, 2 s  
6 kV<sub>DC</sub> 10 500 V<sub>DC</sub>, 2 s  
7.5 kV<sub>DC</sub> 11 250 V<sub>DC</sub>, 2 s

### CERAMIC DIELECTRIC

C0G, U2J, R3L (Class 1)  
X7R, X5F, X5S, Y5S, Y5U, Y5V, Z5U (Class 2)

| LEAD OFFSET "LO" |                               |
|------------------|-------------------------------|
| NOMINAL          | ~ THICKNESS - 0.100"          |
| EXCEPTION        | 0.07" (1.8 mm) -565R20GAP10   |
|                  | 0.08" (2.0 mm) -565R30GASS20  |
|                  | 0.10" (2.54 mm) -565R30GASS33 |

| QUICK REFERENCE DATA       |              |               |                         |                         |                    |               |
|----------------------------|--------------|---------------|-------------------------|-------------------------|--------------------|---------------|
| DESCRIPTION                | VALUE        |               |                         |                         |                    |               |
| Ceramic Class              | 1            | 1             | 2                       | 2                       | 2                  | 2             |
| Ceramic Dielectric         | U2J, R3L     | C0G, U2J, R3L | X7R, Y5S, Y5U, Z5U, Y5V | X7R, Y5S, Y5U, Z5U, Y5V | X5F, X5S, Y5U, Z5U | X5F, Y5U, Z5U |
| Voltage (V <sub>DC</sub> ) | 3000         | 6000          | 2000                    | 3000                    | 6000               | 7500          |
| Min. Capacitance (pF)      | 10           | 10            | 100                     | 47                      | 100                | 100           |
| Max. Capacitance (pF)      | 33           | 47            | 100 000                 | 10 000                  | 10 000             | 2500          |
| Mounting                   | Through hole |               |                         |                         |                    |               |

### INSULATION RESISTANCE

2 kV<sub>DC</sub> min. 10 000 M $\Omega$   
3 kV<sub>DC</sub> min. 50 000 M $\Omega$   
6 kV<sub>DC</sub> min. 75 000 M $\Omega$   
7.5 kV<sub>DC</sub> min. 200 000 M $\Omega$

### TOLERANCE ON CAPACITANCE

$\pm 10\%$ ,  $\pm 20\%$ , - 20 % to + 80 %

### DISSIPATION FACTOR

0.2 % max. at 1 MHz; 1 V  
2.0 % max. at 1 kHz; 1 V

### CATEGORY TEMPERATURE RANGE

- 25 °C to + 85 °C

### CLIMATIC CATEGORY ACC. TO EN60068-1

25/085/21

### OPERATING TEMPERATURE RANGE

- 25 °C to + 105 °C


**DIMENSIONS** in inches (millimeters)

**ORDERING INFORMATION, CERAMIC 2 kV<sub>DC</sub>**

| C<br>(pF)          | TOL.<br>(%) | D<br>DIAMETER<br>INCH (mm) | T<br>THICKNESS<br>INCH (mm) | LS<br>LEAD SPACE<br>INCH (mm) | WIRE SIZE |              | ORDERING<br>CODE |
|--------------------|-------------|----------------------------|-----------------------------|-------------------------------|-----------|--------------|------------------|
| AWG      INCH (mm) |             |                            |                             |                               |           |              |                  |
| X7R                |             |                            |                             |                               |           |              |                  |
| 100                | ± 10        | 0.330 (8.4)                | 0.190 (4.8)                 | 0.250 (6.4)                   | 20        | 0.032 (0.81) | 564R20TST10      |
| 220                |             |                            | 0.180 (4.6)                 |                               |           |              | 564R20TST22      |
| 330                |             |                            |                             |                               |           |              | 564R20TST33      |
| 470                |             |                            | 0.170 (4.3)                 |                               |           |              | 564R20TST47      |
| 560                |             |                            | 0.185 (4.7)                 |                               |           |              | 564R20TST56      |
| 680                |             |                            | 0.170 (4.3)                 |                               |           |              | 564R20TST68      |
| 1000               |             | 0.400 (10.2)               | 0.175 (4.4)                 |                               |           |              | 564R20TSD10      |
| 1500               |             | 0.430 (10.9)               | 0.160 (4.1)                 |                               |           |              | 564R20TSD15      |
| 1800               |             | 0.460 (11.7)               | 0.170 (4.3)                 |                               |           |              | 564R20TSD18      |
| 2200               |             |                            |                             |                               |           |              | 564R20TSD22      |
| 2700               |             |                            |                             |                               |           |              | 564R20TSD27      |
| 3300               |             | 0.530 (13.5)               | 0.160 (4.1)                 |                               |           |              | 564R20TSD33      |
| 3900               |             | 0.680 (17.3)               | 0.170 (4.3)                 |                               |           |              | 564R20TSD39      |
| 4700               |             |                            |                             |                               |           |              | 0.375 (9.5)      |
| Y5S                |             |                            |                             |                               |           |              |                  |
| 1000               | ± 20        | 0.330 (8.4)                | 0.175 (4.4)                 | 0.250 (6.4)                   | 20        | 0.032 (0.81) | 564R20TSSD10     |
| 1500               |             | 0.400 (10.2)               | 0.170 (4.3)                 |                               |           |              | 564R20TSSD15     |
| 1800               |             | 0.430 (10.9)               |                             |                               |           |              | 564R20TSSD18     |
| 2200               |             | 0.460 (11.7)               |                             |                               |           |              | 564R20TSSD22     |
| 2700               |             | 0.530 (13.5)               | 0.175 (4.4)                 |                               |           |              | 564R20TSSD27     |
| 3300               |             |                            |                             |                               |           |              | 564R20TSSD33     |
| 3900               |             | 0.620 (15.7)               |                             |                               |           |              | 564R20TSSD39     |
| 4700               |             | 0.680 (17.3)               |                             | 564R20TSSD47                  |           |              |                  |
| 5600               |             | 0.720 (18.3)               | 0.170 (4.3)                 | 0.375 (9.5)                   |           |              | 564R20TSSD56     |
| 6800               |             |                            |                             |                               |           |              | 564R20TSSD68     |
| Y5U                |             |                            |                             |                               |           |              |                  |
| 1000               | ± 20        | 0.330 (8.4)                | 0.170 (4.3)                 | 0.250 (6.4)                   | 20        | 0.032 (0.81) | 564R20GAD10      |
| 1500               |             | 0.330 (8.4)                | 0.170 (4.3)                 |                               |           |              | 564R20GAD15      |
| Z5U                |             |                            |                             |                               |           |              |                  |
| 1800               | ± 20        | 0.360 (9.1)                | 0.170 (4.3)                 | 0.250 (6.4)                   | 20        | 0.032 (0.81) | 564R20GAD18      |
| 2200               |             | 0.400 (10.2)               | 0.175 (4.4)                 |                               |           |              | 564R20GAD22      |
| 2700               |             | 0.430 (10.9)               |                             |                               |           |              | 564R20GAD27      |
| 3300               |             |                            |                             |                               |           |              | 564R20GAD33      |
| 3900               |             |                            |                             |                               |           |              | 564R20GAD39      |
| 4700               |             | 0.490 (12.4)               | 0.170 (4.3)                 |                               |           |              | 564R20GAD47      |
| 6800               |             | 0.560 (14.2)               |                             | 564R20GAD68                   |           |              |                  |
| 0.010 µF           |             | 0.680 (17.3)               |                             | 0.375 (9.5)                   |           |              | 564R20GAS10      |
| Y5V                |             |                            |                             |                               |           |              |                  |
| 0.01 µF            | ± 20        | 0.620 (15.7)               | 0.170 (4.3)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R20GASS10     |
| 0.05 µF            |             | 0.950 (24.1)               | 0.174 (4.4)                 |                               | 20        |              | 564R20GASS50     |
| 0.10 µF            |             | 0.950 (24.1)               | 0.240 (6.1)                 |                               | 22        | 0.025 (0.64) | 565R20GAP10      |

**TAPE AND REEL OPTIONS**

To specify tape and reel, add two letter suffix to the ordering code (for details of the packaging code see general section of the catalog).



| ORDERING INFORMATION, CERAMIC 3 kV <sub>DC</sub> |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
|--------------------------------------------------|--------------|----------------------------|-----------------------------|-------------------------------|--------------|--------------|------------------|-------------|--|--|--|--|
| C<br>(pF)                                        | TOL.<br>(%)  | D<br>DIAMETER<br>INCH (mm) | T<br>THICKNESS<br>INCH (mm) | LS<br>LEAD SPACE<br>INCH (mm) | WIRE SIZE    |              | ORDERING<br>CODE |             |  |  |  |  |
| U2J (N750)                                       |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 10                                               | ± 20         | 0.330 (8.4)                | 0.210 (5.3)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30GAQ10      |             |  |  |  |  |
| 12                                               |              |                            | 0.210 (5.3)                 |                               |              |              | 564R30GAQ12      |             |  |  |  |  |
| 15                                               |              |                            | 0.180 (4.6)                 |                               |              |              | 564R30GAQ15      |             |  |  |  |  |
| R3L (N2200)                                      |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 22                                               | ± 20         | 0.330 (8.4)                | 0.200 (5.1)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30GAQ22      |             |  |  |  |  |
| 27                                               |              |                            | 0.190 (4.8)                 |                               |              |              | 564R30GAQ27      |             |  |  |  |  |
| 33                                               |              |                            | 0.170 (4.3)                 |                               |              |              | 564R30GAQ33      |             |  |  |  |  |
| X7R                                              |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 47                                               | ± 20         | 0.330 (8.4)                | 0.230 (5.8)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30GAQ47      |             |  |  |  |  |
| 56                                               |              |                            | 0.190 (4.8)                 |                               |              |              | 564R30GAQ56      |             |  |  |  |  |
| 68                                               |              |                            | 0.200 (5.1)                 |                               |              |              | 564R30GAQ68      |             |  |  |  |  |
| 100                                              |              |                            | 0.180 (4.6)                 |                               |              |              | 564R30GAT10      |             |  |  |  |  |
| 150                                              |              |                            | 0.190 (4.8)                 |                               |              |              | 564R30GAT15      |             |  |  |  |  |
| 220                                              |              |                            | 0.175 (4.4)                 |                               |              |              | 564R30GAT22      |             |  |  |  |  |
| 270                                              |              |                            | 0.180 (4.6)                 |                               |              |              | 564R30GAT27      |             |  |  |  |  |
| 330                                              |              |                            | 0.175 (4.4)                 |                               |              |              | 564R30GAT33      |             |  |  |  |  |
| 390                                              |              |                            |                             |                               |              |              | 564R30GAT39      |             |  |  |  |  |
| 470                                              | ± 10         | 0.330 (8.4)                | 0.180 (4.6)                 | 0.375 (9.5)                   | 20           | 0.032 (0.81) | 564R30GAT47      |             |  |  |  |  |
| 680                                              |              |                            | 0.175 (4.4)                 |                               |              |              | 564R30TST68      |             |  |  |  |  |
| 1000                                             |              |                            | 0.400 (10.2)                |                               |              |              | 0.175 (4.4)      | 564R30TSD10 |  |  |  |  |
| 1500                                             |              |                            | 0.490 (12.5)                |                               |              |              | 0.185 (4.7)      | 564R30TSD15 |  |  |  |  |
| 1800                                             |              |                            | 0.530 (13.5)                |                               |              |              | 0.180 (4.6)      | 564R30TSD18 |  |  |  |  |
| 2200                                             |              |                            |                             |                               |              |              | 0.185 (4.7)      | 564R30TSD22 |  |  |  |  |
| 2700                                             |              |                            | 0.620 (15.7)                |                               |              |              | 0.185 (4.7)      | 564R30TSD27 |  |  |  |  |
| 3300                                             |              |                            |                             |                               |              |              | 0.170 (4.3)      | 564R30TSD33 |  |  |  |  |
| 3900                                             |              |                            | 0.720 (18.3)                |                               |              |              | 0.185 (4.7)      | 564R30TSD39 |  |  |  |  |
| 4700                                             | 0.175 (4.4)  | 564R30TSD47                |                             |                               |              |              |                  |             |  |  |  |  |
| 6800                                             | 0.900 (22.9) | 0.185 (4.7)                | 564R30TSD68                 |                               |              |              |                  |             |  |  |  |  |
| Y5S                                              |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 1000                                             | ± 20         | 0.400 (10.2)               | 0.190 (4.8)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30TSSD10     |             |  |  |  |  |
| 1500                                             |              | 0.460 (11.7)               |                             |                               |              |              | 564R30TSSD15     |             |  |  |  |  |
| 1800                                             |              | 0.490 (12.4)               |                             |                               |              |              | 564R30TSSD18     |             |  |  |  |  |
| 2200                                             |              | 0.530 (13.5)               |                             |                               |              |              | 564R30TSSD22     |             |  |  |  |  |
| 2700                                             |              | 0.560 (14.2)               | 0.185 (4.7)                 | 0.375 (9.5)                   |              |              | 564R30TSSD27     |             |  |  |  |  |
| 3300                                             |              | 0.620 (15.7)               |                             |                               |              |              | 564R30TSSD33     |             |  |  |  |  |
| 3900                                             |              | 0.680 (17.3)               |                             |                               |              |              | 564R30TSSD39     |             |  |  |  |  |
| 4700                                             |              | 0.790 (20.0)               |                             |                               |              |              | 564R30TSSD47     |             |  |  |  |  |
| 5600                                             |              | 0.900 (22.9)               | 0.190 (4.8)                 |                               |              |              | 564R30TSSD56     |             |  |  |  |  |
| 6800                                             | 0.205 (5.2)  | 564R30TSSD68               |                             |                               |              |              |                  |             |  |  |  |  |
| Y5U                                              |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 680                                              | ± 20         | 0.330 (8.4)                | 0.175 (4.4)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30GAT68      |             |  |  |  |  |
| Z5U                                              |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 1000                                             | ± 20         | 0.330 (8.4)                | 0.195 (5.0)                 | 0.250 (6.4)                   | 20           | 0.032 (0.81) | 564R30GAD10      |             |  |  |  |  |
| 1500                                             |              | 0.360 (9.1)                | 0.190 (4.8)                 |                               |              |              | 564R30GAD15      |             |  |  |  |  |
| 1800                                             |              | 0.400 (10.2)               |                             |                               |              |              | 564R30GAD18      |             |  |  |  |  |
| 2200                                             |              | 0.430 (10.9)               |                             |                               |              |              | 564R30GAD22      |             |  |  |  |  |
| 2700                                             |              | 0.460 (11.7)               | 0.200 (5.1)                 |                               |              |              | 564R30GAD27      |             |  |  |  |  |
| 3300                                             |              | 0.490 (12.4)               | 0.185 (4.7)                 | 0.375 (9.5)                   |              |              | 564R30GAD33      |             |  |  |  |  |
| 3900                                             |              | 0.530 (13.5)               |                             |                               |              |              | 564R30GAD39      |             |  |  |  |  |
| 4700                                             |              | 0.620 (15.7)               |                             |                               |              |              | 564R30GAD47      |             |  |  |  |  |
| 6800                                             |              | 0.680 (17.3)               | 0.185 (4.7)                 |                               |              |              | 564R30GAD68      |             |  |  |  |  |
| 8200                                             |              |                            |                             |                               |              |              | 564R30GAD82      |             |  |  |  |  |
| 0.010 μF                                         |              | 0.720 (18.3)               |                             |                               |              |              | 564R30GAS10      |             |  |  |  |  |
| 0.020 μF                                         |              | 0.720 (18.3)               | 0.265 (6.7)                 | 22                            | 0.025 (0.64) | 565R30GASS20 |                  |             |  |  |  |  |
| 0.033 μF                                         |              | 0.900 (22.9)               | 0.240 (6.1)                 | 22                            | 0.025 (0.64) | 565R30GASS33 |                  |             |  |  |  |  |
| Y5V                                              |              |                            |                             |                               |              |              |                  |             |  |  |  |  |
| 0.010 μF                                         | ± 20         | 0.720 (18.3)               | 0.185 (4.7)                 | 0.375 (9.5)                   | 20           | 0.032 (0.81) | 564R30GASS10     |             |  |  |  |  |

## TAPE AND REEL OPTIONS

To specify tape and reel, add two letter suffix to the ordering code (for details of the packaging code see general section of the catalog).



| ORDERING INFORMATION, CERAMIC 6 kV <sub>DC</sub> |             |                            |                             |                               |           |              |                  |
|--------------------------------------------------|-------------|----------------------------|-----------------------------|-------------------------------|-----------|--------------|------------------|
| C<br>(pF)                                        | TOL.<br>(%) | D<br>DIAMETER<br>INCH (mm) | T<br>THICKNESS<br>INCH (mm) | LS<br>LEAD SPACE<br>INCH (mm) | WIRE SIZE |              | ORDERING<br>CODE |
| C0G (NP0)                                        |             |                            |                             |                               |           |              |                  |
| 10                                               | ± 20        | 0.400 (10.2)               | 0.220 (5.6)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAQ10      |
| U2J (N750)                                       |             |                            |                             |                               |           |              |                  |
| 22                                               | ± 20        | 0.460 (11.7)               | 0.240 (6.1)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAQ22      |
| R3L (N2200)                                      |             |                            |                             |                               |           |              |                  |
| 33                                               | ± 20        | 0.400 (10.2)               | 0.230 (5.8)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAQ33      |
| 47                                               |             | 0.460 (11.7)               | 0.205 (5.2)                 |                               |           |              | 564R60GAQ47      |
| X5F                                              |             |                            |                             |                               |           |              |                  |
| 100                                              | ± 20        | 0.400 (10.2)               | 0.240 (6.1)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAT10      |
| 220                                              |             |                            | 0.265 (6.7)                 |                               |           |              | 564R60GAT22      |
| X5S                                              |             |                            |                             |                               |           |              |                  |
| 330                                              | ± 20        | 0.400 (10.2)               | 0.260 (6.6)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAT33      |
| Y5U                                              |             |                            |                             |                               |           |              |                  |
| 470                                              | ± 20        | 0.400 (10.2)               | 0.265 (6.7)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAT47      |
| 560                                              |             |                            | 0.240 (6.1)                 |                               |           |              | 564R60GAT56      |
| Z5U                                              |             |                            |                             |                               |           |              |                  |
| 1000                                             | ± 20        | 0.400 (10.2)               | 0.270 (6.9)                 | 0.375 (9.5)                   | 20        | 0.032 (0.81) | 564R60GAD10      |
| 1500                                             |             | 0.460 (11.7)               | 0.280 (7.1)                 |                               |           |              | 564R60GAD15      |
| 2200                                             |             | 0.530 (13.5)               | 0.240 (6.1)                 |                               |           |              | 564R60GAD22      |
| 3300                                             |             | 0.620 (15.7)               | 0.260 (6.6)                 |                               |           |              | 564R60GAD33      |
| 4700                                             |             | 0.790 (20.0)               |                             |                               |           |              | 564R60GAD47      |
| 0.010 µF                                         |             | 0.950 (24.1)               | 0.250 (6.4)                 |                               |           |              | 564R60GAS10      |

| ORDERING INFORMATION, CERAMIC 7.5 kV <sub>DC</sub> |             |                            |                             |                               |           |              |                  |
|----------------------------------------------------|-------------|----------------------------|-----------------------------|-------------------------------|-----------|--------------|------------------|
| C<br>(pF)                                          | TOL.<br>(%) | D<br>DIAMETER<br>INCH (mm) | T<br>THICKNESS<br>INCH (mm) | LS<br>LEAD SPACE<br>INCH (mm) | WIRE SIZE |              | ORDERING<br>CODE |
| X5F                                                |             |                            |                             |                               |           |              |                  |
| 100                                                | ± 20        | 0.530 (13.5)               | 0.310 (7.9)                 | 0.500 (12.7)                  | 20        | 0.032 (0.81) | 564R75GAT10      |
| 470                                                |             | 0.620 (15.7)               | 0.270 (6.9)                 |                               |           |              | 564R75GAT47      |
| Y5U                                                |             |                            |                             |                               |           |              |                  |
| 1000                                               | + 80/- 20   | 0.620 (15.7)               | 0.320 (8.1)                 | 0.500 (12.7)                  | 20        | 0.032 (0.81) | 564R75GAD10      |
| Z5U                                                |             |                            |                             |                               |           |              |                  |
| 2500                                               | + 80/- 20   | 0.620 (15.7)               | 0.280 (7.1)                 | 0.500 (12.7)                  | 20        | 0.032 (0.81) | 564R75GAD25      |



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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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