

## 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 |
|-----------|-------------|----------------------------|-----------------------------|-------------------------------|-------------|--------------|------------------|
| 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)                   |             |              | 564R20TSD47      |
| 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)     |

**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                                             |             |                            |                             |                               |           |              | 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)               | 0.185 (4.7)                 | 564R30TSSD22                  |           |              |                  |              |              |
| 2700                                             |             | 0.560 (14.2)               |                             | 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)                 | 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)                | 0.265 (6.7)                   |           |              | 22               | 0.025 (0.64) | 564R30GAS10  |
| 0.020 μF                                         |             |                            | 0.720 (18.3)                |                               |           |              |                  |              | 565R30GASS20 |
| 0.033 μF                                         |             |                            | 0.900 (22.9)                |                               |           |              |                  |              | 0.240 (6.1)  |
| 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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**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.**

**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.**

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