

# POWER SPLITTERS/COMBINERS

50&75Ω

## 12 Way-0° 1 to 1700 MHz

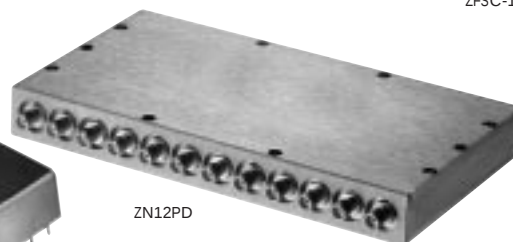
SURFACE MOUNT



JEPS-12



PSC-12



ZN12PD



ZFSC-12

| MODEL NO.       | FREQ. RANGE MHz<br>$f_L$ - $f_U$ | ISOLATION dB   |                |                | INSERTION LOSS, dB Above 10.8dB |                |                |                |                |                | PHASE UNBALANCE Degrees |           |           | AMPLITUDE UNBALANCE dB |           |           | CASE STYLE<br>Note B | COAXIAL NO.<br>bu | PRICE \$<br>Qty. (1-9) |
|-----------------|----------------------------------|----------------|----------------|----------------|---------------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------|-----------|-----------|------------------------|-----------|-----------|----------------------|-------------------|------------------------|
|                 |                                  | L<br>Typ. Min. | M<br>Typ. Min. | U<br>Typ. Min. | L<br>Typ. Max.                  | M<br>Typ. Max. | U<br>Typ. Max. | L<br>Typ. Max. | M<br>Typ. Max. | U<br>Typ. Max. | L<br>Max.               | M<br>Max. | U<br>Max. | L<br>Max.              | M<br>Max. | U<br>Max. |                      |                   |                        |
| ◆ JEPS-12-10    | 50-1000                          | 25             | 16             | —              | —                               | 23             | 14             | 1.6            | 2.5            | —              | —                       | 2.2       | 4.0       | 10                     | —         | 23        | BL372                | ix                | 109.95                 |
| PSC-12-1        | 1-200                            | 35             | 30             | 27             | 20                              | 21             | 18             | 0.5            | 0.8            | 0.8            | 1.2                     | 1.0       | 1.4       | 4                      | 8         | 16        | E10                  | bu                | 88.95                  |
| ZN12PD-17       | 800-1700                         | —              | 30             | 18             | —                               | —              | —              | 0.45           | 1.2            | —              | —                       | —         | —         | 14                     | —         | —         | UU589                | —                 | 249.00                 |
| ZFSC-12-1       | 1-200                            | 30             | 25             | 35             | 20                              | 28             | 20             | 0.8            | 1.2            | 1.1            | 1.4                     | 1.3       | 1.6       | 4                      | 8         | 16        | R67                  | —                 | 174.95                 |
| ■ ZFSC-12-1W-75 | 5-860                            | 33             | 22             | 30             | 20                              | 26             | 18             | 0.5            | 1.2            | 0.8            | 2.5                     | 1.6       | 4.2       | 2                      | 8         | 20        | R67                  | —                 | 199.95                 |
| ZFSC-12-11      | 10-300                           | 28             | 20             | 33             | 25                              | 28             | 20             | 1.1            | 1.3            | 1.1            | 1.5                     | 1.5       | 1.8       | 2                      | 4         | 6         | R67                  | —                 | 174.95                 |
| ■ ZFSC-12-1-75  | 10-200                           | 35             | 27             | —              | —                               | 27             | 20             | 0.5            | 0.8            | —              | —                       | 0.8       | 1.3       | —                      | —         | —         | R67                  | —                 | 179.95                 |
| ■ ZFSC-12-175   | 10-500                           | 23             | 20             | 24             | 20                              | 22             | 18             | 0.9            | 1.2            | 1.0            | 1.3                     | 1.2       | 2.0       | —                      | —         | —         | R67                  | —                 | 197.95                 |

L = low range [ $f_L$  to  $10 f_L$ ]

M = mid range [ $10 f_L$  to  $f_U/2$ ]

U = upper range [ $f_U/2$  to  $f_U$ ]

### NOTES:

- ◆ Aqueous washable
- Non-hermetic
- Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.
- ⊛ When only specification for M range given, specification applies to entire frequency range.
- ⊕ At low range frequency band ( $f_L$  to  $10 f_L$ ), linearly derate maximum input power by 13 dB.
- A. General Quality Control Procedures, Environmental Specifications, Hi-Rel and MIL description are given in section 0, see "Mini-Circuits Guarantees Quality" article.
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case styles & Outline Drawings".
- C. Prices and specifications subject to change without notice.
- 1. Absolute maximum power, voltage and current ratings:
  - 1a. Matched power rating,
 

|                  |          |
|------------------|----------|
| Model ZC16PD     | 10 Watt  |
| Model ZN12PD     | 5 Watt   |
| Model ZC16PD-23  | 2 Watt   |
| Model JEPS       | 0.5 Watt |
| All other models | 1 Watt   |
  - 1b. Internal load dissipation,
 

|                         |            |
|-------------------------|------------|
| Model ZC16PD, ZC16PD-24 | 2.4 Watt   |
| Model ZN12PD, ZC16PD-23 | 2 Watt     |
| Model ZC16PD-2185       | 1.75 Watt  |
| Model ZFSC-12-1W-75     | 1.5 Watt   |
| Model JEPS-16-1W-75     | 0.275 Watt |
| Model JEPS-16-1W        | 1.875 Watt |
| All other models        | 0.87 Watt  |

### NSN GUIDE

MCL NO.  
ZFSC-16-1(BNC)

NSN  
5820-01-9321



Distribution Centers NORTH AMERICA 800-654-7949 • 417 335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

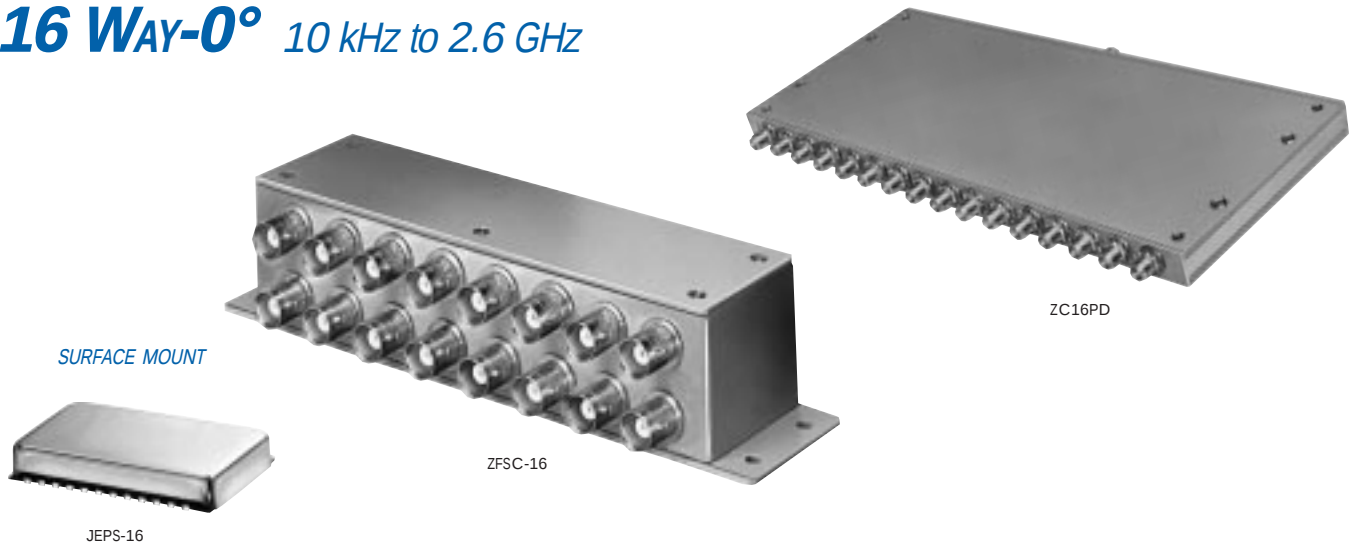
ISO 9001 CERTIFIED

INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Surface Mount □, Plug-In & Coaxial

# 16 Way-0° 10 kHz to 2.6 GHz



| NEW◆<br>◆      | MODEL NO. | FREQ. RANGE MHz<br>f <sub>L</sub> -f <sub>U</sub> | ISOLATION dB |      |      |      |      |      | INSERTION LOSS, dB<br>Above 12dB |      |      |      |      |      | PHASE UNBAL. Degrees |      |      | AMPLITUDE UNBAL. dB |      |      | VSWR (:1)    |      |      |      | CASE STYLE<br>Note B | CONNECTION | PRICE \$<br>Qty. (1-9) |
|----------------|-----------|---------------------------------------------------|--------------|------|------|------|------|------|----------------------------------|------|------|------|------|------|----------------------|------|------|---------------------|------|------|--------------|------|------|------|----------------------|------------|------------------------|
|                |           |                                                   | L            |      | M°   |      | U    |      | L                                |      | M°   |      | U    |      | L M° U               |      |      | L M° U              |      |      | S            |      | OUT  |      |                      |            |                        |
|                |           |                                                   | Typ.         | Min. | Typ. | Min. | Typ. | Min. | Typ.                             | Max. | Typ. | Max. | Typ. | Max. | Max.                 | Max. | Max. | Max.                | Max. | Max. | Typ.         | Max. | Typ. | Max. |                      |            |                        |
| JEPS-16-1W     |           | 5-1000                                            | 36           | 23   | 23   | 17   | 20   | 15   | 0.8                              | 2.0  | 1.5  | 2.5  | 3.0  | 4.2  | 8                    | 13   | 20   | 1.5                 | 1.2  | 1.8  | 1.2          | —    | 1.2  | —    | BL372                | kf         | 79.95                  |
| JEPS-16-1W-75  |           | 10-800                                            | 32           | 20   | 23   | 15   | 20   | 15   | 1.6                              | 3.5  | 1.9  | 3.5  | 2.2  | 4.0  | 10                   | 15   | 30   | 0.8                 | 1.2  | 2.1  | 1.40         | —    | 1.16 | —    | BL372                | kf         | 139.95                 |
| ZFSC-16-1      |           | 0.5-125                                           | 30           | 24   | 25   | 18   | 20   | 15   | 1.0                              | 1.2  | 1.1  | 1.3  | 1.2  | 1.4  | 1                    | 3    | 5    | 0.3                 | 0.2  | 0.5  | see Yoni for |      |      |      | R30                  | —          | 172.95                 |
| ■ ZFSC-16-1-75 |           | 1-150                                             | 30           | 25   | 30   | 25   | 25   | 20   | 0.8                              | 1.1  | 0.7  | 1.1  | 1.0  | 1.3  | 3                    | 6    | 10   | 0.4                 | 0.2  | 0.4  | Performance  |      |      |      | R30                  | —          | 182.95                 |
| ZFSC-16-3      |           | 1-30                                              | —            | —    | 45   | 28   | —    | —    | 0.5                              | 0.9  | 0.5  | 0.9  | 0.5  | 0.9  | 1                    | 2    | 3    | 0.1                 | 0.1  | 0.1  |              |      |      |      | R30                  | —          | 172.95                 |
| ◆ ZFSC-16-675  |           | 0.01-25                                           | 25           | 20   | 40   | 25   | 25   | 20   | 0.8                              | 1.1  | 0.4  | 0.8  | 1.0  | 1.6  | 1                    | 3    | 5    | 0.1                 | 0.2  | 0.4  | Data and     |      |      |      | R30                  | —          | 189.95                 |
| ZFSC-16-12     |           | 0.1-200                                           | 33           | 20   | 27   | 20   | 26   | 20   | 0.6                              | 1.5  | 0.7  | 1.0  | 0.9  | 1.5  | 2                    | 6    | 9    | 0.4                 | 0.2  | 0.4  | curves       |      |      |      | R30                  | —          | 189.95                 |
| ZC16PD-24      |           | 650-2400                                          |              |      | 25   | 14   |      |      |                                  |      | 0.8  | 2.25 |      |      | 14                   |      |      |                     | 0.9  |      | 1.20         | 1.90 | 1.10 | 1.50 | UU640                | —          | 349.00                 |
| ZC16PD-900     |           | 800-900                                           |              |      | 30   | 20   |      |      |                                  |      | 0.5  | 1.0  |      |      |                      |      |      |                     | 0.5  |      | 1.06         | 1.20 | 1.06 | 1.20 | UU179                | —          | 295.00                 |
| ZC16PD-960     |           | 890-960                                           |              |      | 28   | 20   |      |      |                                  |      | 0.5  | 1.0  |      |      |                      |      |      |                     | 0.5  |      | 1.06         | 1.30 | 1.06 | 1.20 | UU179                | —          | 295.00                 |
| ZC16PD-960W    |           | 700-1000                                          |              |      | 26   | 15   |      |      |                                  |      | 0.5  | 1.3  |      |      |                      |      |      |                     | 0.6  |      | 1.10         | 1.60 | 1.06 | 1.30 | UU179                | —          | 265.00                 |
| ZC16PD-1900    |           | 1700-1900                                         |              |      | 30   | 20   |      |      |                                  |      | 0.5  | 1.0  |      |      |                      |      |      |                     | 0.8  |      | 1.15         | 1.35 | 1.06 | 1.30 | UU179                | —          | 309.00                 |
| ZC16PD-1900W   |           | 1500-2100                                         |              |      | 30   | 15   |      |      |                                  |      | 0.7  | 1.4  |      |      |                      |      |      |                     | 0.8  |      | 1.25         | 1.60 | 1.15 | 1.35 | UU179                | —          | 319.00                 |
| ZC16PD-23      |           | 1500-2300                                         |              |      | 32   | 20   |      |      |                                  |      | 0.8  | 1.4  |      |      | 11                   |      |      |                     | 0.6  |      | 1.15         | 1.60 | 1.10 | 1.40 | UU640                | —          | 319.00                 |
| ZC16PD-2185    |           | 1800-2600                                         |              |      | 30   | 16   |      |      |                                  |      | 0.5  | 1.4  |      |      | 6                    |      |      |                     | 0.7  |      | 1.15         | 1.60 | 1.05 | 1.30 | UU179                | —          | 319.00                 |

L = low range [ $f_L$  to  $10 f_L$ ]

M = mid range [ $10 f_L$  to  $f_U/2$ ]

U = upper range [ $f_U/2$  to  $f_U$ ]

pin and coaxial connections see case style outline drawings

| PORT | SUM | #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | #12 | #13 | #14 | #15 | #16 | NOT USED | GND EXT.       | CASE GND       |
|------|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|----------|----------------|----------------|
| bu   | 5   | 7  | 8  | 1  | 2  | 31 | 32 | 25 | 26 | 22 | 30  | 19  | 27  | —   | —   | —   | —   | 11,14,21 | 4              | all other pins |
| kf   | 18  | 2  | 3  | 4  | 5  | 9  | 10 | 11 | 12 | 13 | 14  | 15  | 16  | 20  | 21  | 22  | 23  | —        | all other pins | —              |
| lx   | 18  | 2  | 3  | 4  | 5  | 8  | 9  | 10 | 11 | 14 | 15  | 22  | 23  | —   | —   | —   | —   | —        | all other pins | —              |