

# Directional Coupler

ZCDC16-02263-S+

## Typical Performance Data

| FREQ.<br>(MHz) | INSERTION<br>LOSS <sup>(1)</sup><br>(dB) | COUPLING<br>(dB) | DIRECTIVITY<br>(dB) | RETURN LOSS<br>(dB) |       |       |
|----------------|------------------------------------------|------------------|---------------------|---------------------|-------|-------|
|                |                                          |                  |                     | IN                  | OUT   | CPL   |
| 500            | 0.10                                     | 25.14            | 31.60               | 34.83               | 35.01 | 34.25 |
| 540            | 0.10                                     | 24.53            | 31.68               | 34.38               | 34.59 | 35.30 |
| 600            | 0.11                                     | 23.68            | 31.45               | 34.06               | 34.28 | 33.74 |
| 640            | 0.12                                     | 23.17            | 31.11               | 33.94               | 33.92 | 33.11 |
| 700            | 0.13                                     | 22.47            | 31.51               | 33.80               | 33.61 | 34.21 |
| 740            | 0.13                                     | 22.03            | 31.56               | 33.56               | 33.58 | 34.17 |
| 800            | 0.14                                     | 21.44            | 31.73               | 33.43               | 33.59 | 32.79 |
| 840            | 0.14                                     | 21.06            | 31.56               | 33.50               | 33.60 | 33.65 |
| 900            | 0.15                                     | 20.55            | 31.90               | 33.69               | 33.61 | 34.74 |
| 940            | 0.16                                     | 20.23            | 32.13               | 33.75               | 33.73 | 34.07 |
| 1000           | 0.16                                     | 19.80            | 32.19               | 33.85               | 33.88 | 35.12 |
| 1500           | 0.22                                     | 17.29            | 35.73               | 41.10               | 36.63 | 44.73 |
| 2000           | 0.26                                     | 16.19            | 41.57               | 40.90               | 39.05 | 39.32 |
| 2500           | 0.28                                     | 15.92            | 41.73               | 40.26               | 39.44 | 38.71 |
| 3000           | 0.29                                     | 16.08            | 36.31               | 38.82               | 36.02 | 40.45 |
| 3500           | 0.29                                     | 16.35            | 30.49               | 38.26               | 34.77 | 39.29 |
| 4000           | 0.30                                     | 16.46            | 27.18               | 48.20               | 44.69 | 34.91 |
| 4500           | 0.32                                     | 16.37            | 27.32               | 32.38               | 31.86 | 30.76 |
| 5000           | 0.34                                     | 16.24            | 32.96               | 25.51               | 24.90 | 24.67 |
| 5500           | 0.35                                     | 16.24            | 31.09               | 25.70               | 25.50 | 24.00 |
| 6000           | 0.35                                     | 16.32            | 23.38               | 35.54               | 41.96 | 32.45 |
| 6500           | 0.37                                     | 16.49            | 20.75               | 24.18               | 24.59 | 24.37 |
| 7000           | 0.38                                     | 16.50            | 21.38               | 22.86               | 22.79 | 20.48 |
| 7500           | 0.38                                     | 16.32            | 25.85               | 35.79               | 36.18 | 25.51 |
| 8000           | 0.42                                     | 16.13            | 41.75               | 22.93               | 22.97 | 28.63 |
| 8500           | 0.44                                     | 16.10            | 26.76               | 20.97               | 21.05 | 21.14 |
| 9000           | 0.41                                     | 16.05            | 21.68               | 34.21               | 34.29 | 24.50 |
| 9500           | 0.45                                     | 16.22            | 20.00               | 21.41               | 21.29 | 34.21 |
| 10000          | 0.48                                     | 16.32            | 20.55               | 19.51               | 19.39 | 22.02 |
| 10500          | 0.43                                     | 16.17            | 23.26               | 32.86               | 32.45 | 22.82 |
| 11000          | 0.48                                     | 16.03            | 26.97               | 21.66               | 21.59 | 31.14 |
| 11500          | 0.51                                     | 15.93            | 26.39               | 20.28               | 20.01 | 24.45 |
| 12000          | 0.47                                     | 15.90            | 24.05               | 37.88               | 35.86 | 22.35 |
| 12500          | 0.50                                     | 16.04            | 22.97               | 22.53               | 22.62 | 24.91 |
| 13000          | 0.51                                     | 16.23            | 23.27               | 23.50               | 23.67 | 27.66 |
| 13500          | 0.49                                     | 16.36            | 25.43               | 31.32               | 31.18 | 25.16 |
| 14000          | 0.54                                     | 16.42            | 28.98               | 20.14               | 19.90 | 26.94 |
| 14500          | 0.54                                     | 16.34            | 28.84               | 22.71               | 22.42 | 24.60 |
| 15000          | 0.53                                     | 16.20            | 24.59               | 32.35               | 33.14 | 22.60 |
| 15500          | 0.57                                     | 16.19            | 21.25               | 20.98               | 21.23 | 31.88 |
| 16000          | 0.57                                     | 16.22            | 20.09               | 24.37               | 24.75 | 23.77 |
| 16500          | 0.56                                     | 16.36            | 21.99               | 29.05               | 29.91 | 19.34 |
| 17000          | 0.60                                     | 16.39            | 33.14               | 22.03               | 21.54 | 26.35 |
| 17500          | 0.59                                     | 16.39            | 26.23               | 28.06               | 27.30 | 23.89 |
| 18000          | 0.60                                     | 16.23            | 20.27               | 26.50               | 26.73 | 18.34 |
| 18500          | 0.64                                     | 16.05            | 20.17               | 21.60               | 21.37 | 22.78 |
| 19000          | 0.64                                     | 15.82            | 25.25               | 29.04               | 26.12 | 25.81 |
| 19500          | 0.64                                     | 15.87            | 28.14               | 29.25               | 28.74 | 18.58 |
| 20000          | 0.65                                     | 15.91            | 24.84               | 27.57               | 26.37 | 21.95 |
| 20500          | 0.66                                     | 15.96            | 28.57               | 32.97               | 27.25 | 42.35 |
| 21000          | 0.70                                     | 15.88            | 32.69               | 23.05               | 22.40 | 25.64 |
| 21500          | 0.68                                     | 15.81            | 22.57               | 29.57               | 30.23 | 28.55 |
| 22000          | 0.72                                     | 15.75            | 20.87               | 24.31               | 23.94 | 29.30 |
| 22500          | 0.77                                     | 15.69            | 23.03               | 19.61               | 19.66 | 32.57 |
| 23000          | 0.72                                     | 15.82            | 23.85               | 24.59               | 25.78 | 23.73 |
| 23500          | 0.72                                     | 16.04            | 20.36               | 25.79               | 28.25 | 21.24 |
| 24000          | 0.74                                     | 16.24            | 20.97               | 24.62               | 25.71 | 33.14 |
| 24500          | 0.72                                     | 16.30            | 26.60               | 30.38               | 29.89 | 21.77 |
| 25000          | 0.74                                     | 16.30            | 24.99               | 26.49               | 25.10 | 18.77 |
| 25500          | 0.74                                     | 16.12            | 22.78               | 31.73               | 31.08 | 26.95 |
| 26000          | 0.78                                     | 16.11            | 29.18               | 21.90               | 22.67 | 24.20 |
| 26500          | 0.80                                     | 16.17            | 24.76               | 20.86               | 21.41 | 21.51 |
| 27000          | 0.78                                     | 16.26            | 18.07               | 24.98               | 26.91 | 38.87 |
| 27500          | 0.81                                     | 16.45            | 17.69               | 21.24               | 22.07 | 23.38 |
| 28000          | 0.80                                     | 16.36            | 24.38               | 22.82               | 24.78 | 23.52 |
| 28500          | 0.83                                     | 16.18            | 28.07               | 21.06               | 22.25 | 25.87 |
| 29000          | 0.89                                     | 16.07            | 20.66               | 17.96               | 17.83 | 18.70 |
| 29500          | 0.86                                     | 15.83            | 19.87               | 25.49               | 23.62 | 31.82 |
| 30000          | 0.87                                     | 15.86            | 29.07               | 23.42               | 23.26 | 21.79 |

<sup>(1)</sup> Mainline loss includes coupling loss



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