

# Directional Coupler

## ZCDC20-V24443+

### Typical Performance Data

| FREQ.<br>(MHz) | INSERTION<br>LOSS <sup>(1)</sup><br>(dB) | COUPLING<br>(dB) | DIRECTIVITY<br>(dB) | RETURN LOSS |       |       |
|----------------|------------------------------------------|------------------|---------------------|-------------|-------|-------|
|                |                                          |                  |                     | (dB)        |       |       |
|                |                                          |                  |                     | IN          | OUT   | CPL   |
| 24000          | 0.65                                     | 19.33            | 18.28               | 28.23       | 29.19 | 28.98 |
| 24500          | 0.71                                     | 19.44            | 18.36               | 19.44       | 19.68 | 21.76 |
| 25000          | 0.76                                     | 19.48            | 18.01               | 17.40       | 17.48 | 19.19 |
| 25500          | 0.74                                     | 19.44            | 17.59               | 18.98       | 18.82 | 17.46 |
| 26000          | 0.70                                     | 19.45            | 17.81               | 25.01       | 24.61 | 16.58 |
| 26500          | 0.69                                     | 19.53            | 19.31               | 30.12       | 31.51 | 17.85 |
| 27000          | 0.72                                     | 19.61            | 23.54               | 22.30       | 22.93 | 23.67 |
| 27500          | 0.74                                     | 19.60            | 37.53               | 21.22       | 21.95 | 36.46 |
| 28000          | 0.73                                     | 19.65            | 27.97               | 23.24       | 24.02 | 20.34 |
| 28500          | 0.73                                     | 19.68            | 22.56               | 27.28       | 29.25 | 17.84 |
| 29000          | 0.75                                     | 19.64            | 21.81               | 23.96       | 23.90 | 19.18 |
| 29500          | 0.75                                     | 19.59            | 24.52               | 23.70       | 23.37 | 24.29 |
| 30000          | 0.75                                     | 19.58            | 34.02               | 29.01       | 28.73 | 31.08 |
| 30500          | 0.76                                     | 19.55            | 25.09               | 33.53       | 36.71 | 30.41 |
| 31000          | 0.78                                     | 19.54            | 21.91               | 26.48       | 26.91 | 27.95 |
| 31500          | 0.79                                     | 19.52            | 21.49               | 26.21       | 25.66 | 24.53 |
| 32000          | 0.79                                     | 19.53            | 23.73               | 36.35       | 28.16 | 24.68 |
| 32500          | 0.82                                     | 19.59            | 30.73               | 25.24       | 23.38 | 35.47 |
| 33000          | 0.85                                     | 19.59            | 33.98               | 20.10       | 19.47 | 24.54 |
| 33500          | 0.86                                     | 19.67            | 24.90               | 19.85       | 19.64 | 17.74 |
| 34000          | 0.84                                     | 19.78            | 23.10               | 24.53       | 25.63 | 15.94 |
| 34500          | 0.85                                     | 19.80            | 25.45               | 23.64       | 25.92 | 17.46 |
| 35000          | 0.93                                     | 19.84            | 30.18               | 17.35       | 17.68 | 21.42 |
| 35500          | 1.00                                     | 19.89            | 24.40               | 14.92       | 15.02 | 21.77 |
| 36000          | 0.98                                     | 19.80            | 19.70               | 15.68       | 15.75 | 20.23 |
| 36500          | 0.91                                     | 19.67            | 18.08               | 21.27       | 21.13 | 23.20 |
| 37000          | 0.89                                     | 19.67            | 18.41               | 29.39       | 29.47 | 28.14 |
| 37500          | 0.98                                     | 19.84            | 21.04               | 17.29       | 17.31 | 18.49 |
| 38000          | 1.07                                     | 19.91            | 18.48               | 14.43       | 14.47 | 15.97 |
| 38500          | 1.05                                     | 19.86            | 14.44               | 15.22       | 15.26 | 17.34 |
| 39000          | 0.97                                     | 19.58            | 12.38               | 20.26       | 19.70 | 23.32 |
| 39500          | 0.95                                     | 19.35            | 12.02               | 31.39       | 24.64 | 22.83 |
| 40000          | 1.01                                     | 19.53            | 13.02               | 18.54       | 18.03 | 18.09 |
| 40500          | 1.07                                     | 19.87            | 15.61               | 15.94       | 15.91 | 17.89 |
| 41000          | 1.05                                     | 19.91            | 21.47               | 16.80       | 16.95 | 21.65 |
| 41500          | 0.99                                     | 19.83            | 28.70               | 21.82       | 22.13 | 32.31 |
| 42000          | 0.98                                     | 19.81            | 25.68               | 29.60       | 31.77 | 28.53 |
| 42500          | 1.00                                     | 19.80            | 23.10               | 23.89       | 24.57 | 27.62 |
| 43000          | 1.01                                     | 19.76            | 21.97               | 23.35       | 23.39 | 37.30 |
| 43500          | 1.01                                     | 19.70            | 19.23               | 28.07       | 28.71 | 33.88 |
| 44000          | 1.02                                     | 19.64            | 16.53               | 37.47       | 34.77 | 30.27 |

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