



Directional Couplers

75Ω 5 to 1500 MHz

FEATURES

- Very broadband, multi-octave, 75Ω
- Very flat 9,10,12,13,16 and 18dB coupling
- Temperature stable LTCC base
- All welded construction
- Micro-miniature leadless package 150" x .150" x .150"



MINI-CIRCUITS DESIGNER'S KITS
SPEED UP
THE SOLUTION



K2-DBTC+ ELECTRICAL SPECIFICATIONS

(kit includes 6 models, 5 of each model, total 30 pieces)

| Model | Freq. (MHz) f_L - f_U | Coupling (dB) | | Mainline Loss* (dB) | | | | | | | | Directivity (dB) | | | | | | | | VSWR (:1) | Power Input (W) | | |
|---------------|------------------------------|---------------|--------------|---------------------|------|------|------|------|------|-------|------|------------------|------|------|------|------|------|-------|------|-----------|-----------------|-----|-------|
| | | Nom. | Max Flatness | L | | M | | U | | U_1 | | L | | M | | U | | U_1 | | | L | MU | U^1 |
| | | | | Typ. | Max. | Typ. | Max. | Typ. | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | | | | |
| DBTC-9-4-75+ | 5-1200 | 9.3±0.5 | ±0.7 | 1.3 | 1.8 | 1.4 | 1.9 | 1.5 | 2.1 | 1.8 | 2.4 | 20 | 16 | 19 | 16 | 18 | 15 | 17 | 12 | 1.5 | 0.5 | 0.5 | 0.5 |
| DBTC-10-4-75+ | 5-1000 | 10.5±0.5 | ±0.7 | 1.5 | 2.2 | 1.4 | 2.0 | 1.5 | 2.0 | — | — | 21 | 16 | 20 | 13 | 16 | — | — | — | 1.3 | 0.5 | 1.0 | — |
| DBTC-12-4-75+ | 5-1200 | 12±0.5 | ±0.6 | 1.1 | 1.8 | 1.1 | 1.4 | 1.2 | 1.6 | 1.3 | 1.9 | 19 | 17 | 18 | 15 | 17 | 10 | 13 | 8 | 1.3 | 0.5 | 1.0 | 1.0 |
| DBTC-13-5-75+ | 5-1000 | 13.2±0.5 | ±0.6 | 0.9 | 1.4 | 1.0 | 1.5 | 1.1 | 1.6 | — | — | 21 | 17 | 19 | 14 | 18 | — | — | — | 1.3 | 0.5 | 1.0 | — |
| | 1000-1500 | 13.6±0.5 | ±0.8 | — | — | — | — | — | — | 1.4 | 2.2 | — | — | — | — | — | — | 17 | — | 1.3 | — | — | 1.0 |
| DBTC-16-5-75+ | 5-1000 | 16.3±0.5 | ±0.7 | 1.2 | 2.0 | 1.0 | 1.5 | 1.1 | 1.6 | — | — | 22 | 16 | 21 | 13 | 20 | — | — | — | 1.3 | 0.5 | 1.0 | — |
| | 1000-1500 | 16.8±0.7 | ±0.7 | — | — | — | — | — | — | 1.3 | 1.9 | — | — | — | — | — | — | 19 | — | 1.3 | — | — | 1.0 |
| DBTC-18-4-75+ | 5-1000 | 18.2±0.5 | ±0.7 | 0.8 | 1.5 | 0.8 | 1.4 | 1.0 | 1.6 | — | — | 25 | 16 | 21 | 14 | 15 | — | — | — | 1.3 | 1.0 | 1.0 | — |

L = 5-50MHz, M = 50-500MHz, U = 500-1000MHz, for DBTC-13-5-75+ & DBTC-16-5-75+: U_1 = 1000-1500MHz, for DBTC-9-4-75+ & DBTC-12-4-75+: U_1 = 1000-1200MHz

Protected under U.S. Patents 6,140,887 & 6,784,521

* Includes theoretical power loss due to coupling.