



PRODUCT DESCRIPTION

RFS' CDS*-43 series of Directional Couplers have been designed for a variety of wireless applications in the frequency band from 555 to 6000MHz. The units couple off a defined fraction of a RF signal from 5 to 30 dB (depending on the model number) with minimal reflections or loss. The broad frequency range is ideally suited for multi-band distributed antenna systems or in combination with RADIAFLEX® radiating cables.



FEATURES / BENEFITS

- **Broadband 555MHz-6000MHz**
- 4.3-10 Female Interface
- PIM Optimized Design (163dBc @2x43dBm)
- Low Insertion Loss
- High Power Handling
- Small Size, Low Weight

TECHNICAL FEATURES

ELECTRICAL SPECIFICATIONS

| | | |
|--------------------------|-----|--|
| Frequency Range | MHz | 555-6000 |
| VSWR | | 1.20:1@555-2700MHz, 1.25:1@2700-3800MHz, 1.30:1@3800-6000MHz |
| Power Rating | W | 300 |
| PIM 3rd @2*43 dBm | dBc | 163 |
| Input Impedance | Ohm | 50 |

MECHANICAL SPECIFICATIONS

| | | |
|-------------------------------|---------|---------------|
| Connectors | | 4.3-10 Female |
| Number of Input Ports | | 1 |
| Number of Output Ports | | 2 |
| Net Weight ±10% | kg (lb) | 0.34 (0.75) |
| Temperature Range | °C | -25 to +65 |
| IP Level | | IP66 |
| RoHS | | Compliant |



MODEL NUMBER SPECIFICATIONS

| Model Number | | CDS5-43-555/6000 | CDS6-43-555/6000 | CDS8-43-555/6000 | CDS10-43-555/6000 |
|--------------------|---------|---|---|--|-----------------------------------|
| Coupling Loss | dB | 5.0 | 6.0 | 8.0 | 10.0 |
| Coupling Tolerance | dB | 5.0±1.15 | 6.0±1.2 | 8.0±1.2 | 10.0±1.25 |
| Isolation | dB | 25@555-2700MHz 23@2700-3800MHz 21@3800-4900MHz 17@4900-6000MHz | 26@555-2700MHz 24@2700-3800MHz 22@3800-4900MHz 18@4900-6000MHz | 28@555-2700MHz 24@2700-4900MHz 22@4900-6000MHz | 30@555-2700MHz 26@2700-6000MHz |
| Insertion Loss | dB | 2.45 | 1.9 | 1.25 | 0.8 |
| Dimensions, L*W*H | mm (in) | 156.5*60*29.5 (6.16*2.36*1.16) | 156.5*60*23.5 (6.16*2.36*0.93) | 156.5*60*23.5 (6.16*2.36*0.93) | 159*62*22 (6.26*2.44*0.87) |

MODEL NUMBER SPECIFICATIONS

| Model Number | | CDS13-43-555/6000 | CDS15-43-555/6000 | CDS20-43-555/6000 | CDS30-43-555/6000 |
|--------------------|---------|--|---|-----------------------------------|--|
| Coupling Loss | dB | 13.0 | 15.0 | 20.0 | 30 |
| Coupling Tolerance | dB | 13.0±1.3 | 15.0±1.35 | 20.0±1.4 | 30.0±1.55 |
| Isolation | dB | 33@555-2700MHz 30@2700-4900MHz 27@4900-6000MHz | 34@555-3800MHz 32@3800-4900MHz 28@ 4900-6000MHz | 38@555-4900MHz 32@4900-6000MHz | 46@555-2700MHz 43@2700-4900MHz 39@4900-6000MHz |
| Insertion Loss | dB | 0.6 | 0.5 | 0.3 | 0.3 |
| Dimensions, L*W*H | mm (in) | 159*62*22 (6.26*2.44*0.87) | 159*62*22 (6.26*2.44*0.87) | 159*62*22 (6.26*2.44*0.87) | 159*62*22 (6.26*2.44*0.87) |

External Document Links

[LINK to VEX FILES](#)

Notes