PRODUCT DATASHEET

CDS30E-555/6000

Broadband Directional Coupler for Wireless & Indoor Application, Support 555-6000MHz with 30dB

PRODUCT DESCRIPTION

RFS' CDSE 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**
- N Female Interface
- PIM Optimized Design (160dBc @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	160
Input Impedance	Ohm	50

MECHANICAL SPECIFICATIONS

Connectors		N 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

All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering

MODEL NUMBER SPECIFICATIONS

Model Number		CDS5E-555/6000	CDS6E-555/6000	CDS8E-555/6000	CDS10E-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		CDS13E-555/6000	CDS15E-555/6000	CDS20E-555/6000	CDS30E-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

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