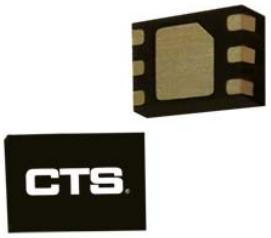
Preliminary Data Sheet
VFDC100-010
Directional Coupler
650 MHz – 4.0 GHz

CTS Valpey Corporation
MICROWAVE PRODUCTS

Features

- Highly repeatable monolithic design
- Excellent directivity
- Broad frequency coverage
- Low insertion loss / Low VSWR
- Power handling: 4 watts
- Miniature 1.5 x 2.0 mm SLP package



RoHS 6/6

Applications

- Wireless communications
- WLAN / WiMax
- SAT Radio
- ISM band equipment

Description

The **VFDC100-010** is a miniature monolithic directional coupler for the 650 – 4000 MHz band. The device offers very low insertion loss, low VSWR and excellent directivity. The **VFDC100-010** is offered in an easy to use 1.5 x 2.0 mm surface mount leadless package and comes available in tape and reel.

Electrical Specifications

Frequency Range (MHz)	Coupling (dB)	Insertion Loss (dB)	VSWR (:1)			Directivity (dB)	Application
			Input	Output	Coupled		
698 - 798	21.8	0.13	1.04	1.04	1.18	33	LTE700
824 - 849	21.3	0.13	1.04	1.04	1.18	34	UMTS 850; Amps
869 - 894	20.9	0.14	1.04	1.04	1.18	34	
880 - 915	20.6	0.14	1.04	1.04	1.18	34	UMTS 900;GSM; EGSM
925 - 960	20.2	0.14	1.04	1.04	1.18	35	
1429 - 1453	16.7	0.21	1.06	1.05	1.22	38	PDC
1710 - 1785	14.9	0.26	1.04	1.04	1.22	34	UMTS; DCS; PCN
1805 - 1880	14.5	0.27	1.03	1.04	1.22	34	
1850 - 1910	14.4	0.28	1.03	1.04	1.24	33	PCS
1880 - 1900	14.4	0.28	1.03	1.04	1.24	33	
1895 - 1920	14.3	0.28	1.03	1.04	1.24	33	DECT
1920 - 1980	14.1	0.29	1.02	1.04	1.25	33	PHP
1930 - 1990	14.0	0.29	1.02	1.04	1.25	33	WCDMA; UMTS2100
2110 - 2170	13.3	0.32	1.02	1.03	1.25	32	
2300 - 2400	12.5	0.36	1.02	1.02	1.25	31	WiMax; SAT Radio
2400 - 2485	12.2	0.38	1.02	1.02	1.25	31	WLAN
2495 - 2690	11.5	0.42	1.04	1.05	1.25	31	LTE; WiMax
3400 - 3800	9.1	0.76	1.22	1.22	1.25	35	WiMax; WLL

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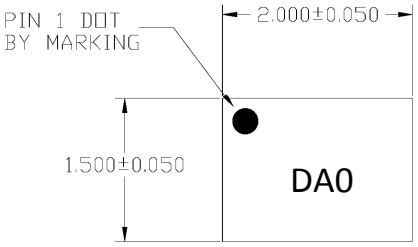
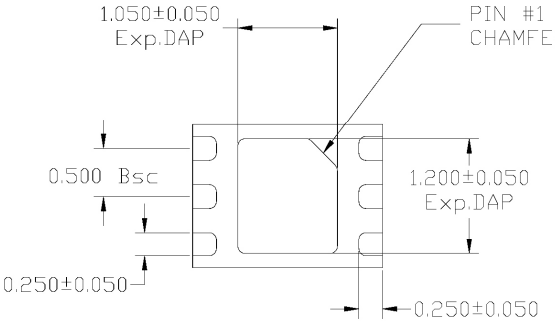
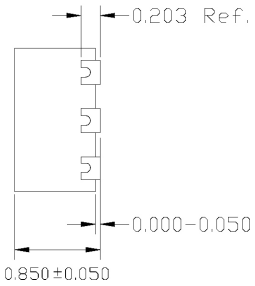
Outline Drawing



TOP VIEW

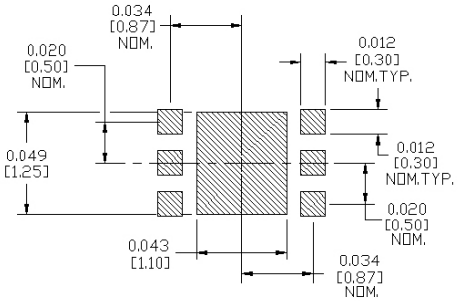


BOTTOM VIEW



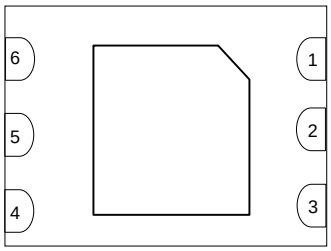
SIDE VIEW

Land Pattern



TOP VIEW
SUGGESTED PCB LAND PATTERN

Pin Out



BOTTOM VIEW

Pin #	Connection
1	OUT
2	GND
3	IN
4	COUPLED
5	GND
6	GND
Center Pad	GND