

The TDC0350B20 is a low profile, high performance 20dB directional coupler. It is designed for DCS & PCS applications. This component is suitable for feed-forward amplifier and signal sampling circuits where low insertion loss, high directivity is required. It can be used in power applications up to 200 Watts.

Parts have been subjected to rigorous qualification testing and they are using materials with coefficients of thermal expansion (CTE) compatible with common substrates such as FR4, G-10, RF-35, R04350B and polyimide.

### Features:

- . 100-525 MHz
- . DCS & PCS
- . Low Insertion Loss
- . High Directivity
- . Low VSWR
- . Good Repeatability
- . CTE compatible with FR4, G-10, RF-35, R04350B and polyimide
- . Immersion gold, prevent surface oxidation & scratch
- . RoHS Compliant
- . Tape & Reel Package available

### Electrical Specifications

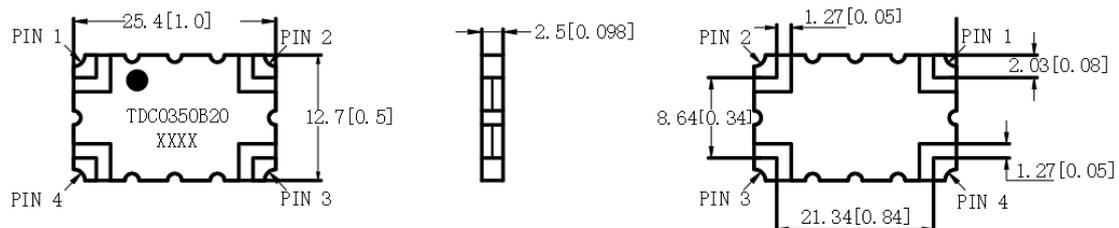
Frequency	Forward Coupled	Insertion Loss	VSWR	Directivity
MHz	dB	dB Max	Max:1	dB Min
100-525	22.0±4.0	0.10	1.2	25.0
Power	Size	Thickness	Operating Temp.	
Avg.CW.Watts	mm	mm	°C	
200	25.4*12.7	2.5	-55 to+105	

### Mechanical Outline

TOP VIEW

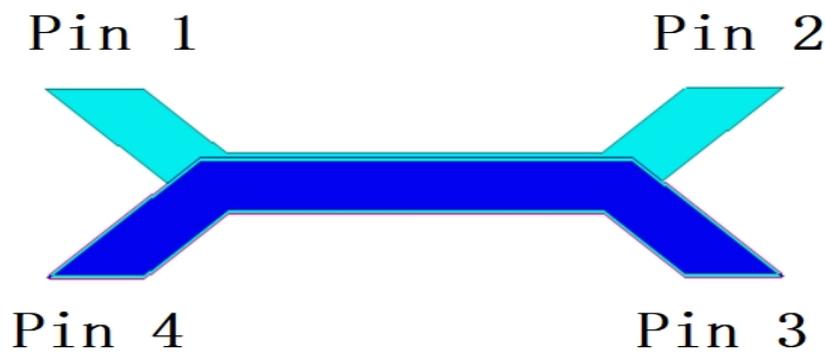
SIDE VIEW

BOTTOM VIEW



**Hybrid Coupler Pin Configuration**

The TDC0350B20 has an orientation marker to denote Pin 1. Once port one has been identified the other ports are known automatically. Please see the chart below for clarification:



Pin 1	Pin 2	Pin 3	Pin 4
Input	Transmission	Isolate	Coupling
Transmission	Input	Coupling	Isolate

**Typical Performance Data**

Frequency	MHz	100	140	180	240	300	360	420	480	525
Coupling	dB	-25.93	-23.29	-21.51	-19.75	-18.83	-18.57	-18.97	-20.27	-22.08
Transmission	dB	-0.01	-0.03	-0.04	-0.06	-0.07	-0.08	-0.08	-0.07	-0.05
Insertion Loss	dB	-0.01	-0.02	-0.03	-0.03	-0.03	-0.04	-0.04	-0.03	-0.04
Directivity	dB	-26.31	-26.55	-26.91	-27.08	-27.27	-27.58	-27.92	-28.56	-28.97
VSWR	Input	/	1.00	1.00	1.01	1.01	1.01	1.02	1.02	1.03
	Transmission	/	1.00	1.00	1.00	1.00	1.01	1.01	1.02	1.02
	Isolate	/	1.11	1.14	1.16	1.18	1.17	1.13	1.07	1.02
	coupling	/	1.11	1.14	1.16	1.18	1.16	1.13	1.07	1.02

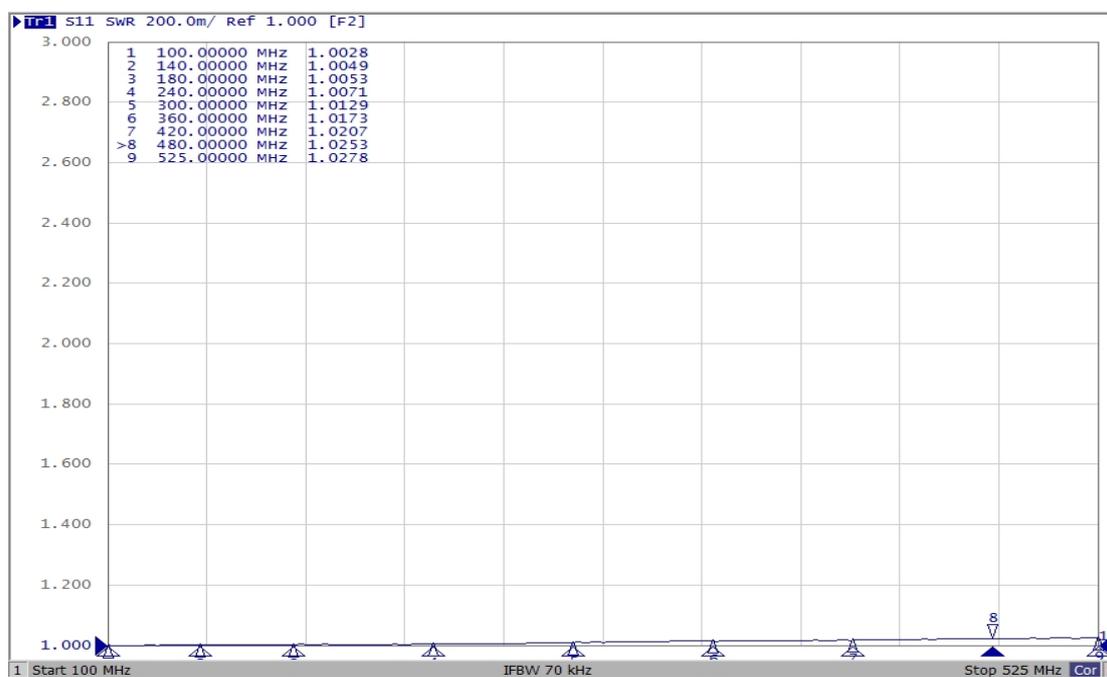


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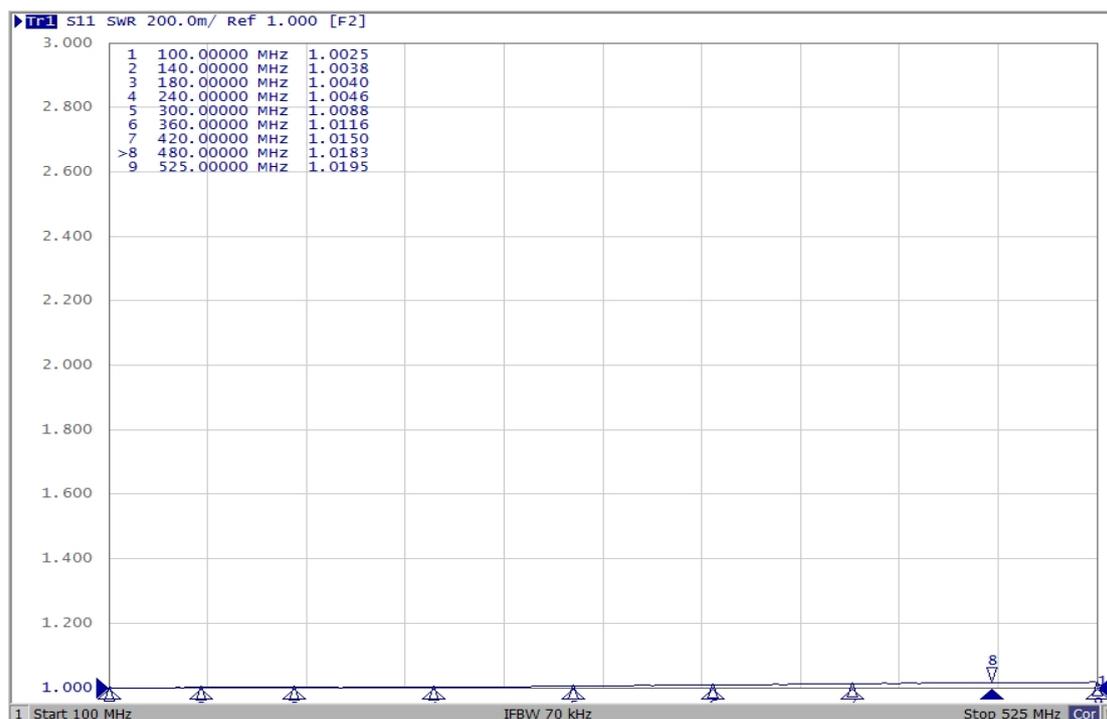
## Directional Coupler

Rev A1.0

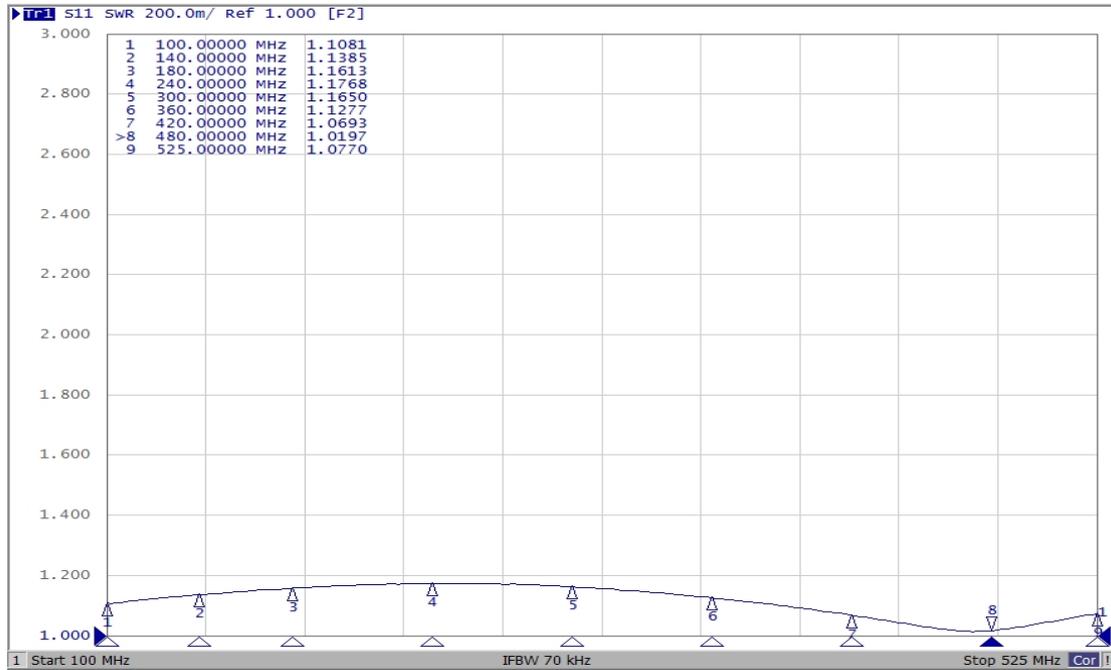
Port 1 驻波:



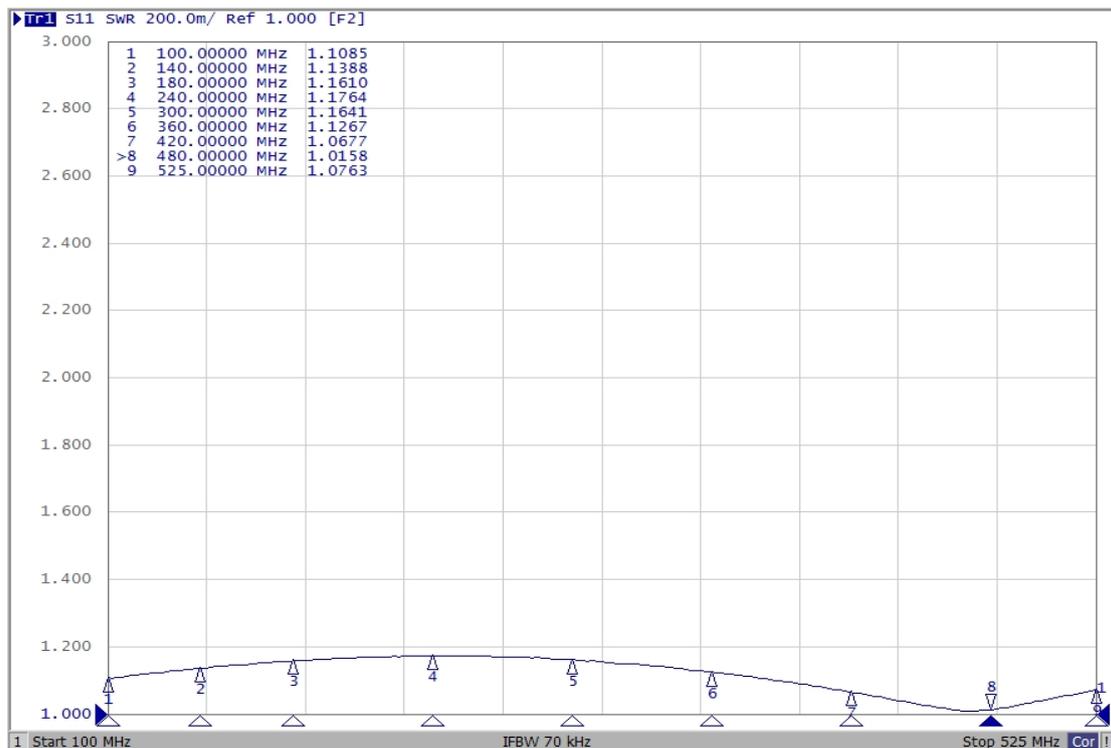
Port 2 驻波:



### Port 3 驻波:



### Port 4 驻波:



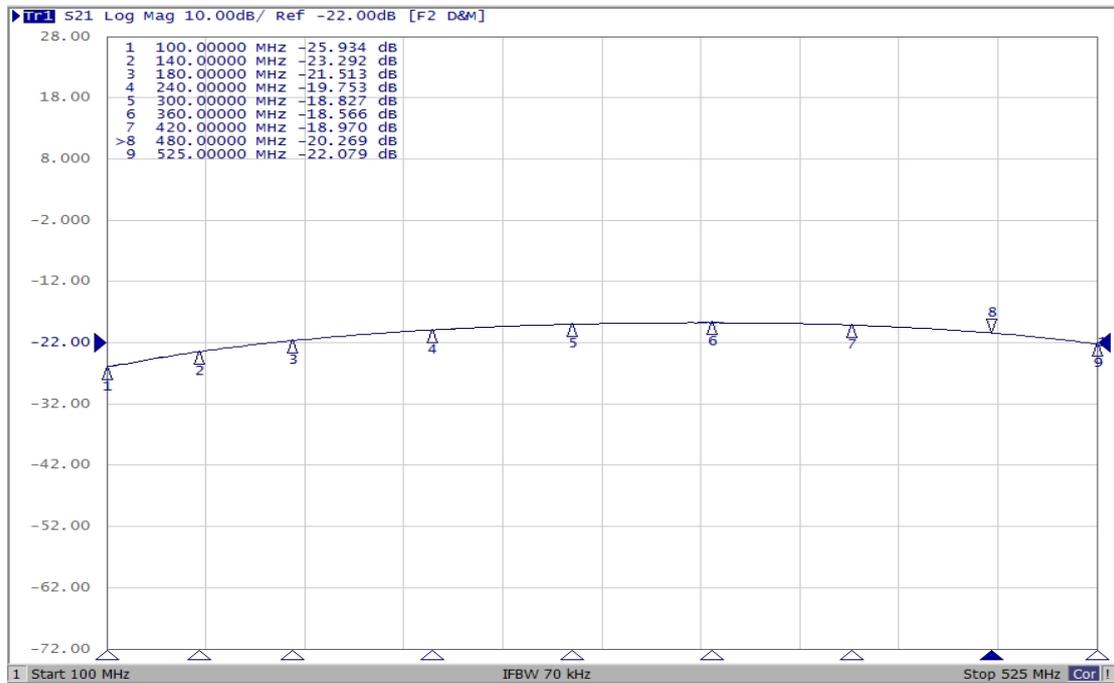


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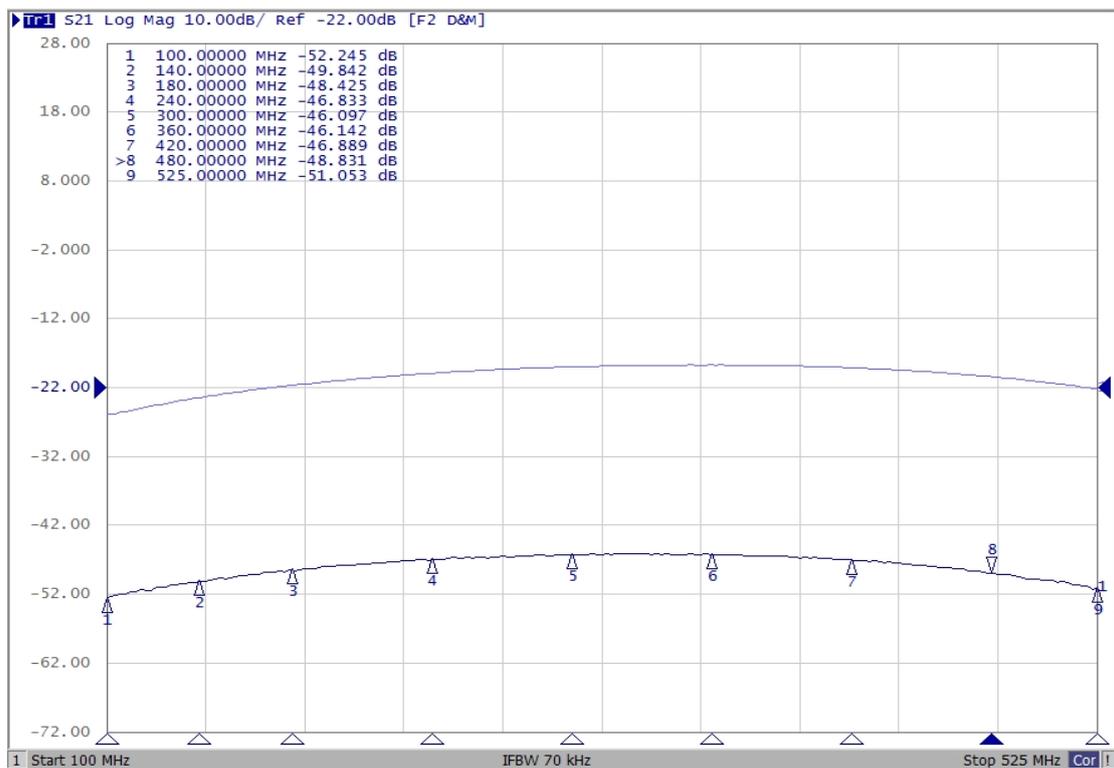
## Directional Coupler

Rev A1.0

Coupling (dB):



Isolation (Port 1 feeding):



### Transmission (dB):

