

The TDC0275W42 is a low profile, high performance 42dB 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 300 Watts.

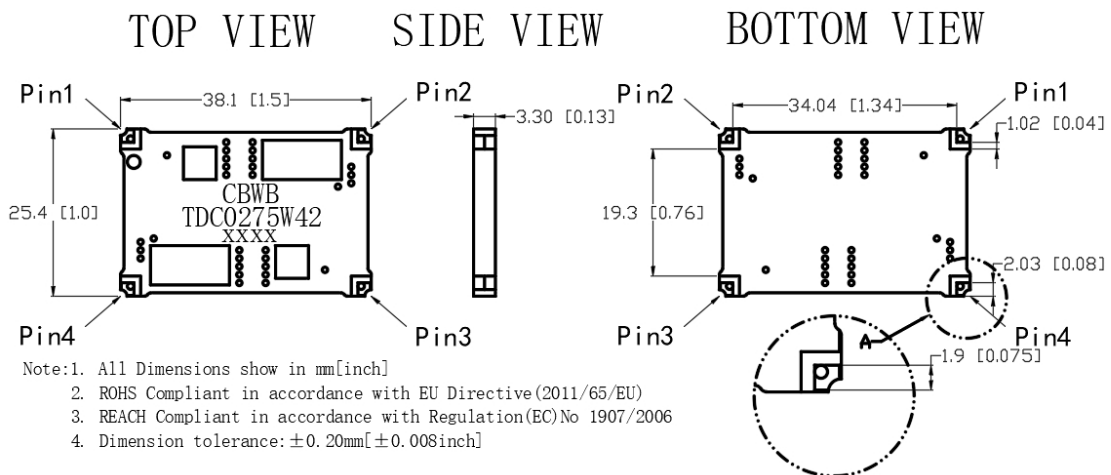
Parts have been subjected to rigorous qualification testing and they are using materials with coefficients fo thermal expansion(CTE) compatible with common substrates such as FR4, G-10, RF-35, R04350B and polyimide.

### Features:

- . 30-520 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

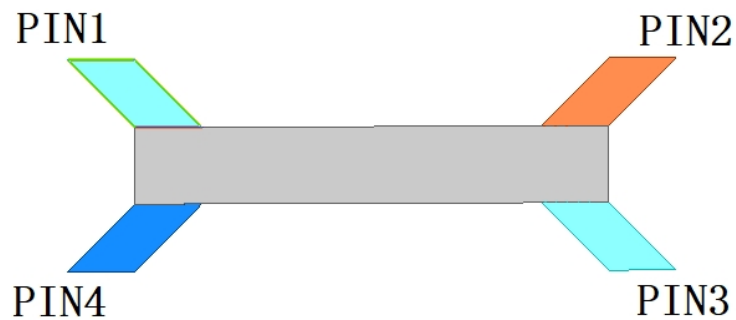
### Electrical Specifications

Frequency	Forward Coupled	Insertion Loss	VSWR	Directivity
MHz	dB	dB Max	Max:1	dB Min
30-200	42±1.6	0.10	1.1	28.0
200-520	42±1.0	0.25	1.1	28.0
Power	Size	Thickness	Operating Temp.	
Avg.CW.Watts	mm	mm	°C	
300	38.1*25.4	3.3	-55 to+105	



### Hybrid Coupler Pin Configuration

The TDC0275W42 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:

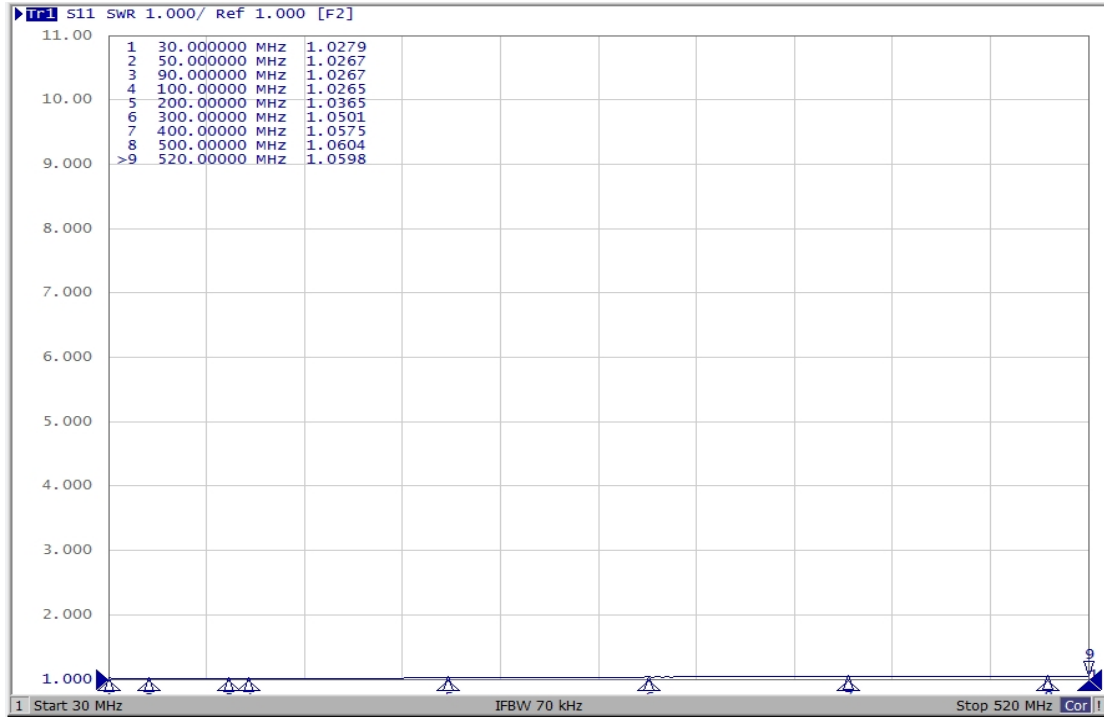


PIN1	PIN2	PIN3	PIN4
Input	Reflected Coupled	Transmission	Forward Coupled
Transmission	Forward Coupled	Input	Reflected Coupled

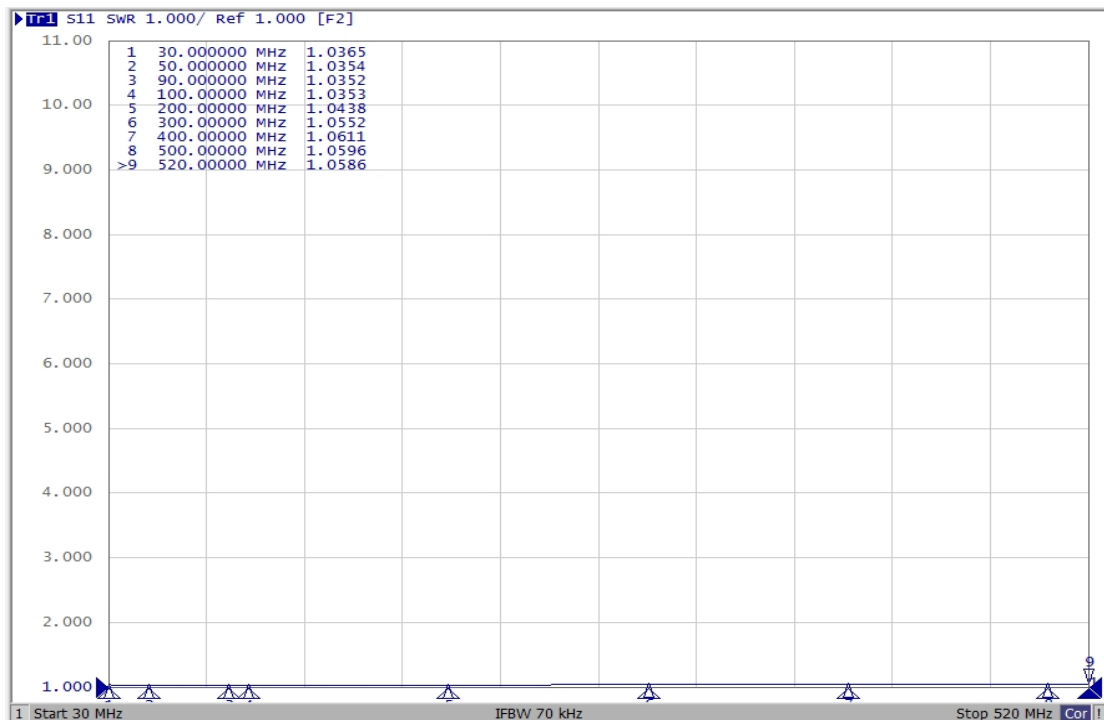
### Typical Performance Data

Frequency	MHz	30	50	90	100	200	300	400	500	520
Coupling	dB	-43.45	-41.51	-40.55	-40.55	-41.30	-41.77	-41.84	-41.72	-41.74
Insertion Loss	dB	-0.024	-0.028	-0.038	-0.041	-0.074	-0.138	-0.184	-0.233	-0.239
Directivity	dB	-33.94	-32.97	-31.57	-35.54	-30.35	-31.76	-31.55	-31.79	-32.09
VSWR	Input	/	1.03	1.03	1.03	1.04	1.05	1.06	1.06	1.06
	Output	/	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.05

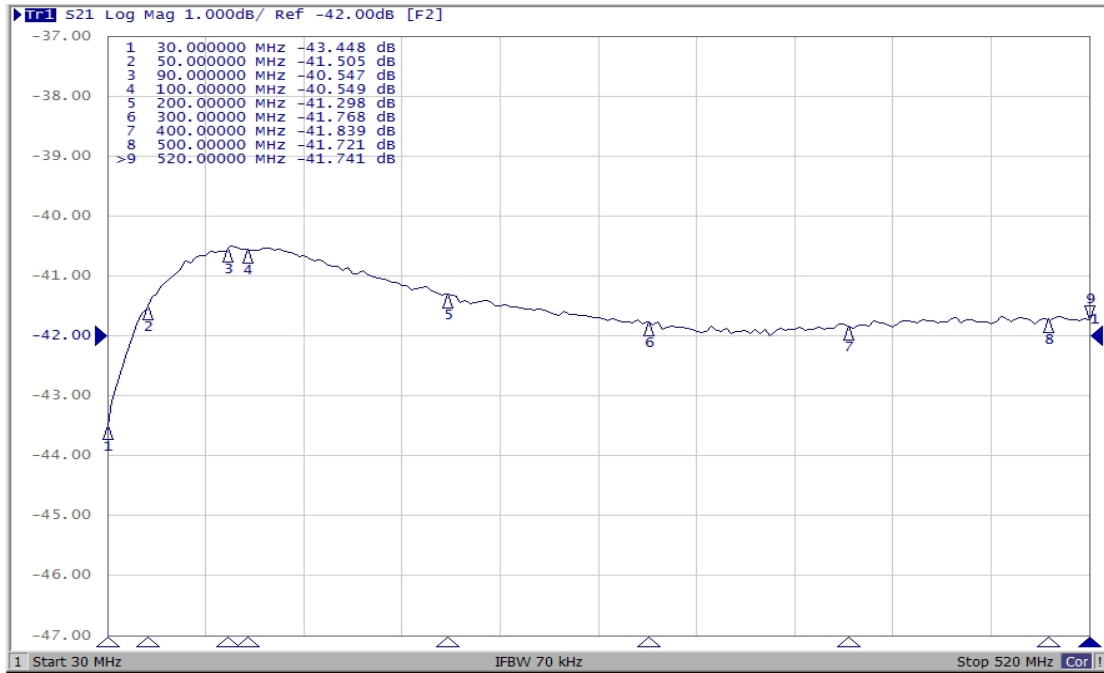
### 输入端驻波:



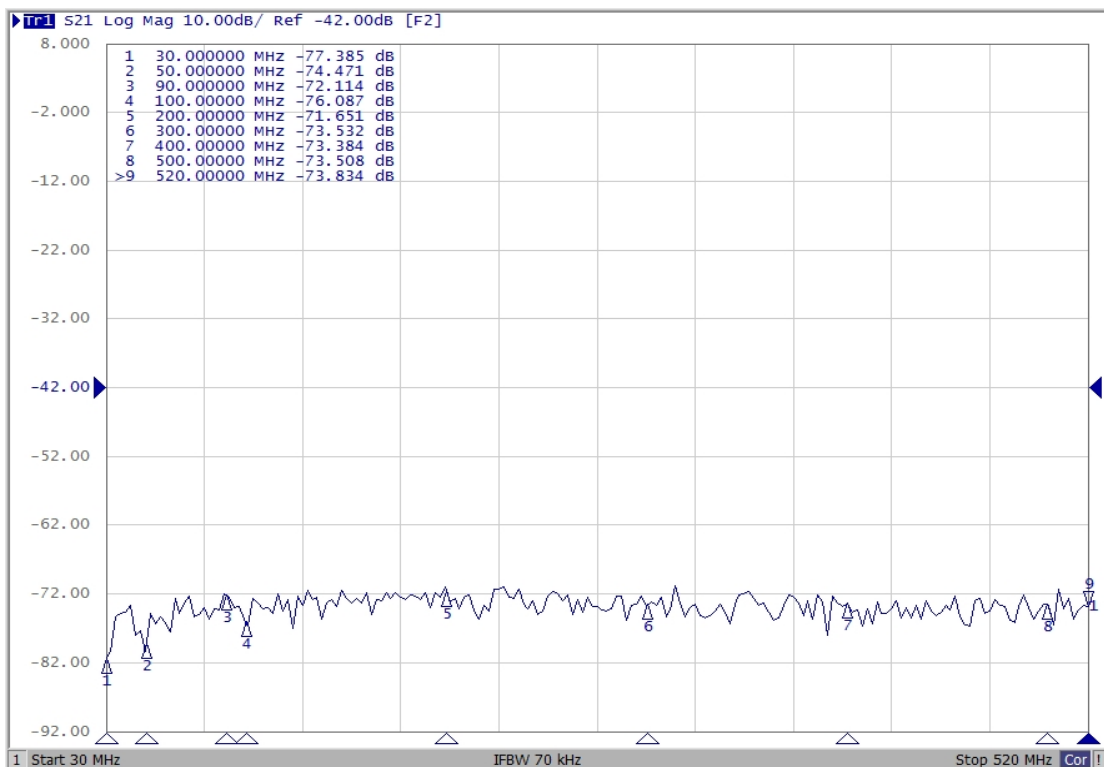
### 传输端驻波:



### 耦合值:



### 隔离值:





# TDC0275W42

## Directional Coupler

Rev A1.0

### 直通损耗:

