

D-SS-18-T Series Optical Delay Line & Optical Simulator



Abstract

Depended on Microwave- photonic technology, D-SS-18-T series optical delay line & optical simulator delivers unmatched performance for radar testing, signal processing, phased antenna array, antenna simulation and phase noise testing. It works effectively in the whole S/C/X/Ku band, with less insertion loss, high dynamic range, strong electro- magnetic isolation and triple transit signals that are immeasurable.

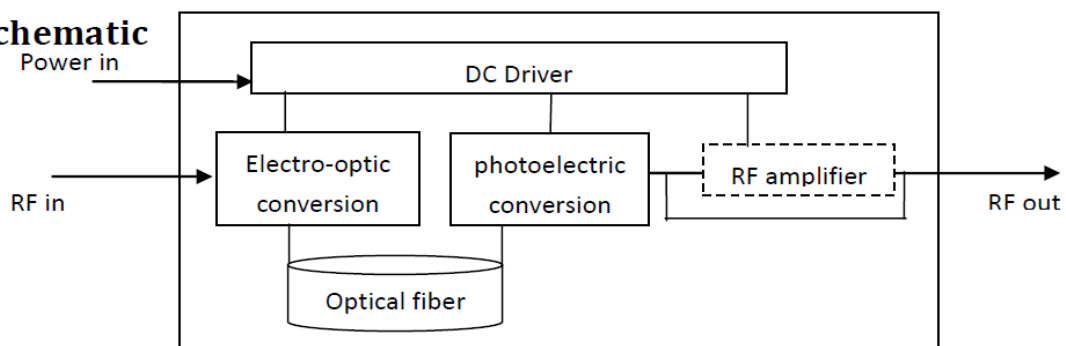
Features

- ✘ **Bandwidth to 18GHz**
- ✘ **High dynamic range**
- ✘ **Wide temperature application**
- ✘ **Low amplitude response**

Applications

- ✘ **Radar testing/calibration**
- ✘ **Signal processing**
- ✘ **Electronic war**
- ✘ **Phased antenna array**
- ✘ **Antenna simulation**

Schematic



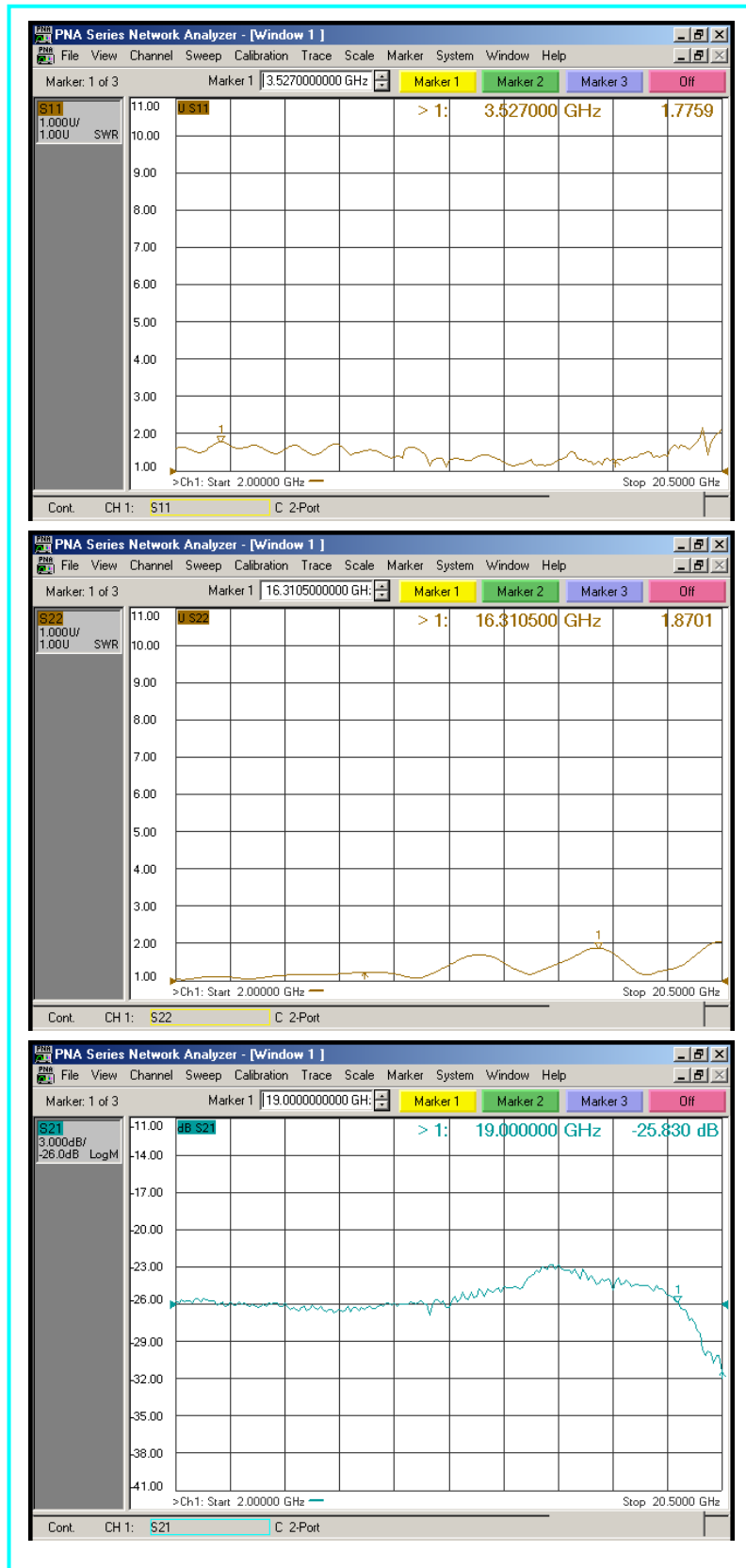
Electrical / Optical Characteristics

Parameter	Parameter Values			Unit	Remark
	Min	Typical	Max		
Frequency Range	2	-	18	GHz	
Amplitude Flatness	-	±2	±2.5	dB	
Time Delay	0.01	-	150	us	Customized
Delay Accuracy	-5‰	-	+5‰	-	
Insertion Loss	0	20	30	dB	Customized
Input VSWR	-	1.8	2.2	-	
Output VSWR	-	1.8	2.2	-	
Impedance	-	50	-	Ω	
Input 1 dB Compression	-	+13	+17	dBm	
Spurious Signal Rejection Ratio	60	-	-	dBc	
Noise Figure	-	50	60	dB	5us, 25°C
Operate Temperature	-55	-	+85	°C	See Ordering Information
Storage Temperature	-55	-	+85	°C	
Relative Delay vs. Temperature	-	-	7	ppm/°C	
Insertion Loss vs. Temperature	-	2	4	%/°C	

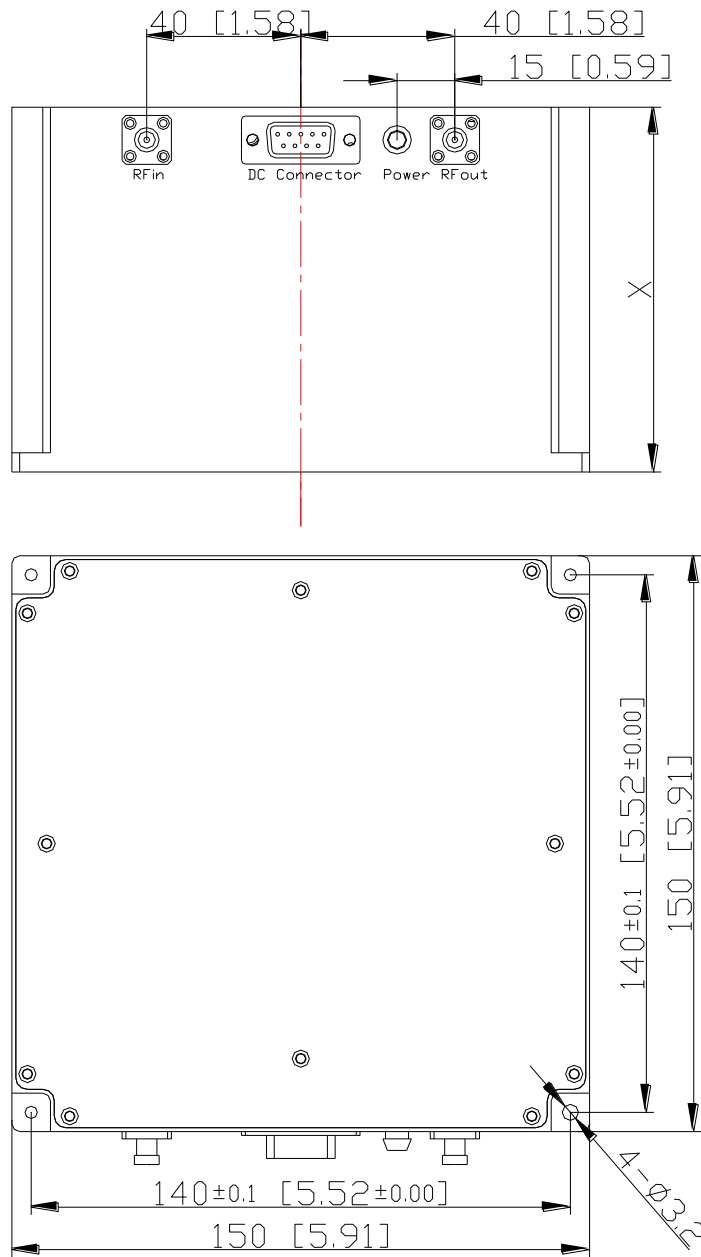
Connector Description & Power Supply

Pin	1、2	3、4、5	6、7	8、9
Voltage	NC	GND	+12V	NC
Current Rating	-	-	0.3	-
Max Current			1	

Typical Response Curves (25°C)



Dimension and Pins (Unit: inch)



RF Connector: SMA-K (Customized)

DC Connector: DE-9PS (Customized)

X:							
Product Type	D-SS-18-T-G						Remark
Time Delay (us)	8	20	35	50	60	80	Standard
X (mm)	37	52	70	85	98	120	
Product Type	D-SS-18-T-P						Remark
Time Delay (us)	8	35	60	80	110	150	Compact
X (mm)	20	47	60	70	85	105	

Ordering Information

Product Type	Packages	Quality Levels	Operate Temperature	Storage Temperature
D-SS-18-T-G-I	Standard	Industry-grade	-20°C~70°C	-40°C~80°C
D-SS-18-T-G-M		Military-grade	-40°C~70°C	-50°C~80°C
D-SS-18-T-G-S		Special Military-grade	-55°C~85°C	-55°C~85°C
D-SS-18-T-P-I	Compact	Industry-grade	-20°C~70°C	-40°C~80°C
D-SS-18-T-P-M		Military-grade	-40°C~70°C	-50°C~80°C
D-SS-18-T-P-S		Special Military-grade	-55°C~85°C	-55°C~85°C