SHF Communication Technologies AG

Data Sheet

SHF 2000 DEL

GPIB Delay Line

Data Sheet Version 2.0

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1 Introduction

The delay line SHF 2000 DEL is a computer controlled motorized mechanical trombone line with a maximum delay variation of 160 ps. It can either be tuned by push button operation or by GPIB/IEC-bus control.

A precision linear potentiometer is used to track the trombone position, eliminating any possible gear backlash.

2 Summary of features

- Wide band operation up to more than 20 GBit/s
- 0…160 ps delay variation
- Repositioning error less than 0.4 ps
- Ruggedized 2.9 mm male input and output connectors
- High efficiency switching power supply
- All functions microprocessor controlled
- External GPIB control

Options

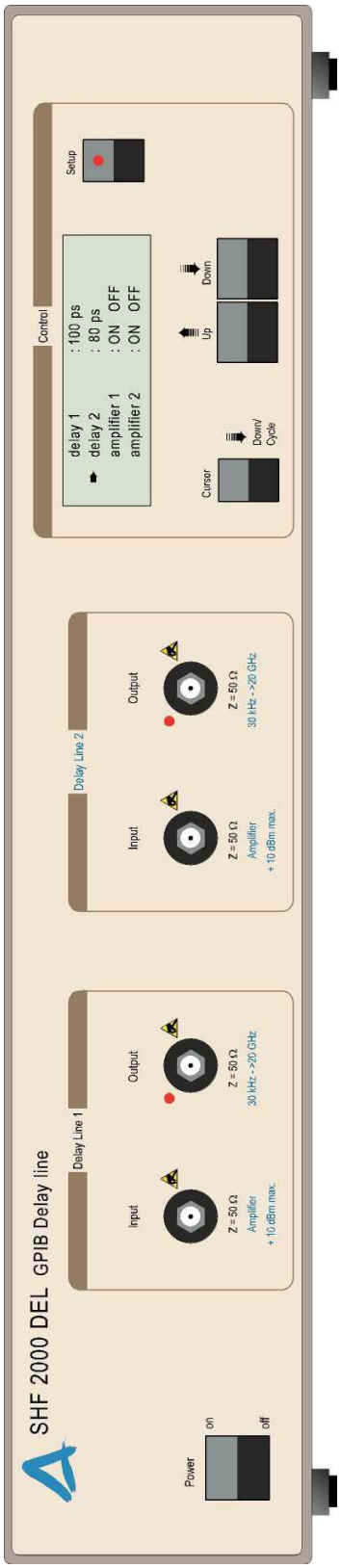
- Time domain optimized amplifier between the delay line and output port
- Second delay line
- Second delay line with amplifier fitted
- Outputs can be individually disabled

3 Specifications

Maximum input power	10 dBm (equiv. to 2 V_{pp})
Impedance	50 Ω
Clock delay range	0…160 ps
Delay resolution	1 ps
Positioning error	± 0.4 ps
Input/output return loss	>15 dB <8 GHz, >12 dB <16 GHz, >6 dB <20 GHz
Insertion loss (without amplifier):	<1.2 dB <6 GHz, <1.7 dB <12 GHz, <2.2 dB <20 GHz
Power Supply	90 V…135 V, 180 V…270 V, 47 Hz…63 Hz
Power consumption	60 W max
Weight	9.5 kg
Dimensions (W × H × D)	472 × 110 × 365 mm
Operating temperature	+10…35°C
Storage temperature	–20…+70°C

SMA connectors, 50 Ω

4 Front Panel



5 Block Diagram