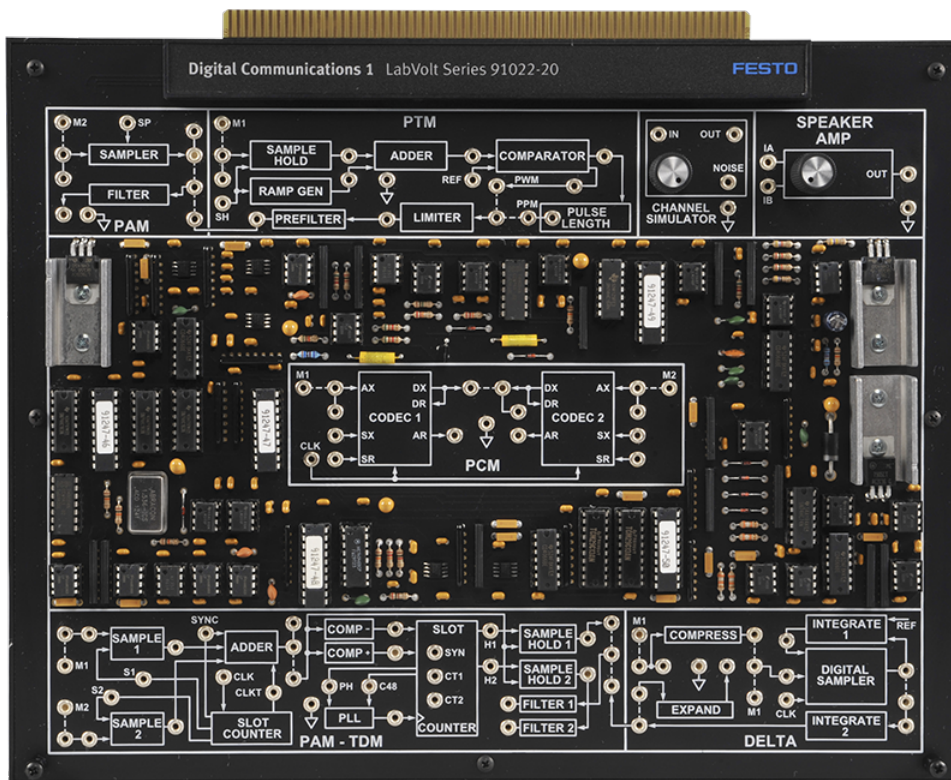


Digital Communications 1 FACET Board 581123 (91022-20)



LabVolt Series

Datasheet



Festo Didactic
en
06/2023

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General Description

The Digital Communications 1 module enables students to configure, operate, and troubleshoot the following circuits:

- Pulse-Amplitude Modulation
- PAM Time-Domain Multiplexing
- Pulse-Time Modulation (PWM and PPM)
- Pulse-Code Modulation and Time-Division Multiplexing of PCM Signals
- Delta Modulation
- Channel Effects

Each circuit block contains a modulator for transmission and a demodulator for reception.

Students learn the operation and function of the following:

- Sampler
- Sample/Hold
- Adder
- Ramp Generator
- Comparator
- Limiter
- Filter
- CODEC
- PLL
- Compressor
- Expander
- Integrator
- Differentiator
- Latched Compare
- Speaker Amplifier
- Channel Simulator

Topic Coverage

- Concepts of Digital Communications, Circuit Board Familiarization
- PAM Signal Generation, Demodulation, PAM TDM Transmission and Reception
- PTM Signal Demodulation and Generation
- PCM Signal Generation and Demodulation, Signal Time-Division Multiplexing
- DM Transmitter, Receiver and Noise
- Channel Bandwidth and Noise
- Troubleshooting Basics and Troubleshooting Digital Communications 2 Circuits

Features & Benefits

- Each circuit block contains a modulator for transmission and a demodulator for reception.
- Built-in channel simulator and speaker amp circuitry
- The channel simulator circuit block enables students to investigate the effects of noise and channel bandwidth on pulse and digital modulation signals
- The speaker amp circuit block permits students to connect a speaker and listen to the signals.
- Communication signals are synchronized for easy display

Optional Manual(s)

Qty	Description	Model number
1	Digital Communications 1 (Workbook) _____	589706 (91581-P0)
1	Digital Communications 1 (Workbook (Instructor)) _____	580811 (91581-R0)

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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Festo Didactic SE

Rechbergstrasse 3
73770 Denkendorf
Germany

P. +49(0)711/3467-0
F. +49(0)711/347-54-88500

Festo Didactic Inc.

607 Industrial Way West
Eatontown, NJ 07724
United States

P. +1-732-938-2000
F. +1-732-774-8573

Festo Didactic Ltée/Ltd

675 rue du Carbone
Québec QC G2N 2K7
Canada

P. +1-418-849-1000
F. +1-418-849-1666

www.labvolt.com

www.festo-didactic.com