

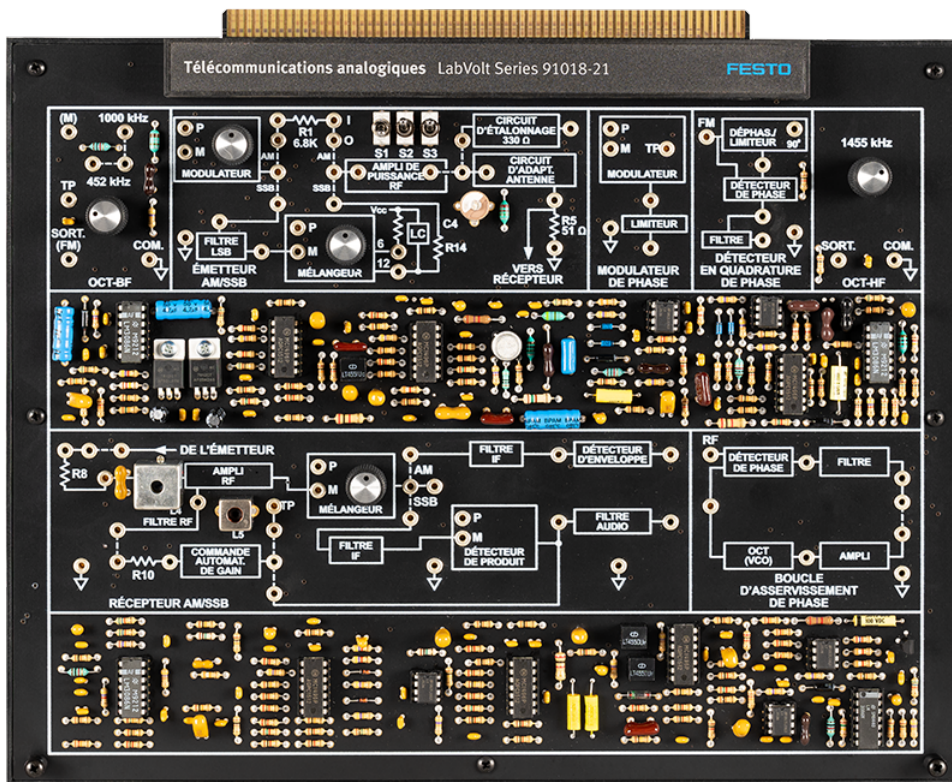
# Analog Communications FACET Board

## 581084 (91018-20)



LabVolt Series

Datasheet



Festo Didactic  
en  
03/2025

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## General Description

With the Analog Communications circuit board, students can configure, operate, and troubleshoot the following circuits:

- Amplitude Modulation (AM) Transmitter and Receiver
- Single-Sideband (SSB) Transmitter and Receiver
- Frequency Modulator (FM)
- Phase Modulator (PM)
- Quadrature Detector (FM demodulation)
- Phase-Locked Loop (PLL)
- PLL FM Detector

Students learn the functions of oscillators, filters, amplifiers, LC networks, modulators, limiters, mixers, and detectors in communication circuits. Circuit modifications and faults provide students with the opportunity to develop troubleshooting skills. An optional unit covers the use of a Spectrum Analyzer.

## Topic Coverage

- Analog Communication Concepts and Circuit Board Familiarization
- Amplitude Modulation, RF Power Amplifier, Balanced Modulator, RF Stage
- Mixer, IF Filter, Envelope Detector, Balanced Modulator, LSB Filter, RF Power Amplifier, Mixer, RF Stage
- Mixer and RF Power Amplifier
- RF Stage, Mixer, and IF Filter
- Product Detector and Automatic Gain Control
- Frequency and Phase Modulation
- Demodulation (Quadrature Detector)
- PLL Circuit and Operation, FM Detection with a PLL
- Troubleshooting Basics and Troubleshooting Analog Communication Circuits

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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