



Analog Communication Trainer

Category: Electronic Engineering · Model reference: MZM-3006



SPECIFICATIONS

Description:

- Design and implementation of second order active filters and RF oscillators.
- Design and implementation of AM and FM modulator and demodulator.
- Design and implementation of DSB/SC and SSB modulator and demodulator.
- Design and implementation of TDM and FDM multiplexer and DE multiplexer.
- Design and implementation of frequency converter and signal recovery

Features:

- Textbook includes the theoretical and practical details.
- Textbook includes the expected results for reference.
- Problem discussion attached together with answers for instructor
- Only need oscilloscope to obtain the measured results

MODULE

MODULE ONE:

1. Chapter1. : Second Order Active Filters Experiment:

- Second Order Active Low-pass Filter
- Second Order Active High-pass Filter
- Second Order Active Band-pass Filter
- Second Order Active Band-stop Filter

2. Chapter2. : RF Oscillators Experiment:

- Colpitts Oscillator
- Hartley Oscillator
- Crystal Oscillator Voltage Controlled
- Oscillator

MODULE TWO:

3. Chapter3: AM Modulator Experiment:

- Transistor AM Modulator
- MC1496 AM Modulator

4. Chapter4: AM Demodulator Experiment:

- Diode Detector
- Product Detector

MODULE THREE:

5. Chapter 5: DSB-SC and SSB Modulator Experiment:

- DSB-SC Modulator
- SSB Modulator

6. Chapter 6: DSB-SC and SSB Demodulator

Experiment:

- Product detector of DSB-SC Demodulator
- Product detector of SSB Demodulator

MODULE FOUR:

7. Chapter 7: FM Demodulator Experiment:

- MC4046
- FM Demodulator
- LM565 FM Demodulator

8. Chapter 8: FM Modulator

Experiment:

- MC4046 FM Modulator
- LM566 FM Modulator

MODULE FIVE:

9. Chapter 9: TDM Multiplexer Experiment:

- Waveform Generator
- TDM Multiplexer

10. Chapter 10: TDM DE multiplexer Experiment:

- TDM DE multiplexer

MODULE SIX

11. Chapter 11: FDM Multiplexer Experiment:

- FDM Signal Generator
- DSB-SC Modulated Signal Generator
- FDM Multiplexer

12. Chapter 12: FDM Demodulator Experiment:

- FDM DE multiplexer

MODULE SEVEN:

13. Chapter 13: Analog-to-digital Converter Experiment:

- ADC0804 Analog-to-digital Converter
- ADC0809 Analog-to-digital Converter

14. Chapter 14: Digital-to-analog Converter

Experiment:

- R-2R Network DAC
- DAC 0800 Converter

MODULE EIGHT:

15. Chapter15. : Frequency Converter Experiment:

- Frequency Multiplier
- Up/Down Frequency Converter

16. Chapter16. : Signal Recovery Experiment:

- Carrier Signal Recovery Circuit
- Clock Recovery Circuit

MODULE NINE:

DC POWER SUPPLY

Features:

1. Tipple Bipolar Voltage Output
 - DC 0 – 15V
 - DC + 5V
 - DC + 12V
2. Constant & Variable Voltage operation
3. Low Ripple and Noise

Function Generator

Features:

1. Two Signal Output Port
2. Frequency Range
 - 0 - 10Hz
 - 0 - 100kHz
 - 0 - 1kHz
 - 0 – 10kHz
3. Overload Protection
4. Waveform: Sine, Triangle, Square, TTL Pulse
5. Amplitude: 10Vpp
6. Built-in-6-Digit Frequency Counter
7. Two Large 0.5" LED Display

Send Enquiry **Your Name**

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