
Product Name : Microwave Communication Trainer	Product Code : Communication0001
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Description :

Microwave Communication Trainer

Technical Specification :

Microwave Communication Trainer

Features : Microwave Communication Trainer helps the students to train themselves about experiment in microwave components design and manufacturing & measurement applying microstrip line theory and microwave device design theory.

For these experiment, standard devices and others with software program are supplied

Functions : Communication using the Microwave system

- Measurement in Microwave system
- FSK Modulation & Demodulation in microwave band
- File transfer & data transmission
- Understanding of the microstrip line design theory
- Understanding of the basic theory of microwave devices
- Design & simulation of microwave devices

Training Contents :

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- Introduction to Microwave Communication Trainer
 - FSK Modulator
 - R F Amplifier
 - Antenna
 - Low Noise Amplifier
 - Power Divider
 - Band Pass Filter
 - Detector
 - FSK Demodulator
 - Microwave Communication experiments

General Specifications :

- Frequency Band : 2.4 GHz ~ 2.5 GHz
- Modulation : FSK
- Bit Rate : 4800 ~ 14400 Bps
- Output Power : +4.5dbm
- Impedance : 50 ohms
- Substrate material : Rogers RO4003C
- PCB thickness : 0.508 mm
- Dielectric constant : 3.3

Module Specifications :

Base band transmitter :

Frequency band : 2.4 ~ 2.5 GHz

Gain : 26 dB

Noise figure : 2.5 dB

Input p1 dB : -25dBm

Power divider :

Type : 2 way, Wilkinson

Frequency band : 2.4 ~ 2.5 GHz

Return loss : 14 dB

Insertion loss : 0.5 dB

Band pass filter (2.4 GHz) :

Type : Edge-coupled

Center frequency : 2.4 GHz

Return loss : 10 dB

Insertion loss : 7.0 dB

Band pass filter (2.5 GHz) :

Type : Edge-coupled

Center frequency : 2.5 GHz

Return loss : 10 dB

Insertion loss : 7.0 dB

R F amplifier :

Frequency band : 2.4 ~ 2.5 GHz

Gain : 15 dB

Input : -5dBm

Antenna & Receiving :

Type : YAGI (PCB type)

Center frequency : 2.45 GHz

Gain : 9 dBi

VSWR : 1.5 : 1

Components Device :

FSK Modulator : 1 ea

FSK Demodulator : 1 ea

R F Amplifier : 2 ea

Detector : 2 ea

Band Pass Filter 2.4 GHz : 1 ea

Band Pass Filter 2.5 GHz : 1 ea

Power Divider : 1 ea

Low Noise Amplifier : 1 ea

YAGI antenna : 2 ea

DC Power Adaptor (1.2V / 1.5A) : 2 ea

DC Power Cable : 2 ea

RS 232C Cable : 2 ea

R F Cable : 3 ea

Carrying Bag : 1 ea

Antenna Cable : 2 ea

Antenna Supporter : 2 set

SMA Adaptor : 6 ea

50 Ohm Terminator : 1 ea

Software program : 1 ea

Answer sheet in CD : 1 ea

Program CD : 1 ea

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