Product name:	Product code:
Microwave Communication Trainer	Communication0001



Description

Microwave Communication Trainer

Technical specification

- 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

Microwave Communication Trainer

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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 :