

## GSM Cell Phone Trainer (ED-7206)

### EXPERIMENTAL DATA:

- Introduction to GSM Trainer hardware and software modules
- Hands-on use of GSM Trainer Software Interface
- Making and receiving calls using AT commands
- Retrieving and managing call logs via AT command set
- Sending and receiving SMS messages through command control
- Adjusting audio volume settings using AT commands
- Accessing and editing phonebook entries stored on SIM
- Monitoring network registration and clock configuration
- Generating DTMF tones for dual-tone signaling applications
- Running custom software applications through GSM trainer integration



### DESCRIPTION:

The GSM Cell Phone Trainer (ED-7206) by EDIDAC Training Solution USA is a comprehensive hands-on training platform developed for academic and industrial applications in mobile communication. This advanced educational tool allows learners and engineers to explore the internal functioning of GSM-based mobile systems and modem-level communication. The system provides real-time interaction through standard AT commands, allowing users to send, receive, and control GSM functions using a computer interface. With full SIM card functionality and a PC-based software environment, it becomes an ideal platform to understand mobile network protocols, SMS services, call functions, signal parameters, and modem communication in a detailed and interactive way.

This trainer supports GSM 900/1800 MHz bands and offers excellent signal sensitivity and selectivity, emulating a real-world mobile environment. It is designed to simulate network behaviour and facilitate a deep understanding of telecom protocols, digital communication, and mobile electronics. The setup is ideal for engineering institutions, vocational training centers, and technical labs looking to provide an in-depth curriculum in wireless communication and GSM modem operations.

## SPECIFICATIONS:

- GSM modem operation supporting 900 / 1800 MHz frequency bands.
- SIM card slot compatible with standard EGSM interface.
- Exceptional receiver sensitivity:  $< -104$  dBm (EGSM) and  $< -102$  dBm (DCS).
- Superior selectivity performance:  $>+9$  dBc @ 200 KHz and  $>+41$  dBc @ 400 KHz.
- High dynamic range of 63 dB for clear signal reception.
- Low intermodulation distortion: better than  $-43$  dBm.
- Power output: 33 dBm  $\pm 2$  dB for EGSM and 30 dBm  $\pm 2$  dB for DCS.
- Minimum output levels: 5 dBm (EGSM) and 0 dBm (DCS) with  $\pm 5$  dB tolerance.
- Phase error at maximum output power is less than  $5^\circ$  RMS.
- Frequency stability with maximum error of  $\pm 0.1$  ppm.
- Gold-plated 2mm interconnect pins for long-term durability.
- Comes complete with USB cable, SMA-connected GSM antenna, hands-free kit, experiment manual, and driver software CD.

## DIMENSIONS AND WEIGHT:

- L x W x H (mm): 250 X 250 X 120 approx.
- Weight: 10 kg approx.

## TECHNICAL DATA:

- Supported Bands: GSM 900 / 1800 MHz (Dual-band support)
- SIM Interface: EGSM Standard
- EGSM Receiver Sensitivity: Less than  $-104$  dBm
- DCS Receiver Sensitivity: Less than  $-102$  dBm
- Selectivity at 200 KHz: Greater than  $+9$  dBc
- Selectivity at 400 KHz: Greater than  $+41$  dBc
- Dynamic Range: 63 dB
- Intermodulation Performance: Better than  $-43$  dBm
- Maximum Transmit Power (EGSM): 33 dBm  $\pm 2$  dB
- Maximum Transmit Power (DCS): 30 dBm  $\pm 2$  dB
- Minimum Output Power (EGSM): 5 dBm  $\pm 5$  dB
- Minimum Output Power (DCS): 0 dBm  $\pm 5$  dB
- Noise Levels (925–935 MHz):  $< -67$  dBm
- Noise Levels (935–960 MHz):  $< -79$  dBm
- Noise Levels (1805–1880 MHz):  $< -71$  dBm
- Phase Error: Less than  $5^\circ$  RMS at peak power
- Frequency Error: Within  $\pm 0.1$  ppm
- Interconnection Pins: Gold plated, 2mm standard

## SCOPE OF DELIVERY:

- 1 x USB cable
- 1 x GSM Antenna with SMA connector
- 1 x Hands-free headset
- 1 x Software CD
- 1 x User manual

