3G NETWORKING TRAINER
MODEL - 3G100

SIGMA

This trainer has been designed to understand 3G technology.

USB Socket — 3G Module — 2.4GHz Signal — 3G Module — USB Socket
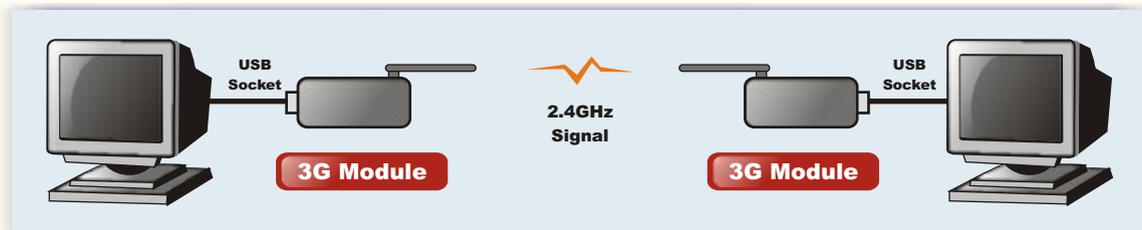
SPECIFICATIONS

(A) COMPUTER SYSTEMS: (Optional) -
1. Server - P-IV 80 GB HD-256 MB RAM - 1 No
2. Client - P-IV 80 GB HD-256 MB RAM - 1 No.

(B) 3G Modem - 2 Nos.
* Provides UMTS High-speed data (up to 384 kbps) connectivity to mobile users
* Provides GPRS/GSM data (up to 85.6 kbps) connectivity
* Provides transparent handover between UMTS and GSM/GPRS networks
* Compatible with Microsoft Windows
* Supports IPSec client software for end to end secure corporate data exchange and synchronization over VPN
* Interface :- USB or PCMCIA card bus
* External Interfaces: Miniature External Antenna Connection, two colour status LED
* SIM card interface: Low profile, 6 contact connector on bottom side of card. Compliant with 3GPP 31.101 and 31.102
* Memory: Flash technology for easy upgrade
* UMTS Air Interface (EMEA):
- EMEA: 2100 Mhz
- UE Power Class 3 (+24 dBm)
- High Speed packet-switched data
- GSM/GPRS Air Interface (North America & EMEA)
- 850/ 900/1800/1900 Mhz
- Operating Systems: Windows 2000/XP
- AT Interface 3GPP TS27.005, ATD*99# support, unimodem extensions
- separate PCSC port for SIM access to enable EAP-SIM authentication in WLAN   applications
- separate diagnostics port

(C)   3G Router - 1 No.
        3G Router - 1 No.

(D)   SIM Cards with GPRS and data service - 2 Nos.
        Pre-paid with Local service provider for Rs. 500/- airtime only.
        Recharging/renewal has to be done by customer afterwards.

(E)   3G Software to transfer data from on computer to other computer.

(F)   All parts are soldered on single pin TAGS on single PCB of size 12" x9" with complete circuit diagram screen printed in multi colour

EXPERIMENTS

1. To understand theory of 3G technologies
2. To understand 3G Protocols
3. To understand different types of 3G Networks
4. To study different types of 3G devices
5. To study 3G adaptor and interfacing methods.
6. To study Installation procedure
7. To configure and install 3G devices - IRQ, I/O port address, Memory address
8. To install 3G Software
9. To test 3G installation
10. To connect two computers through 3G and transfer data between them.
11. To send SMS through 3G
12. To demonstrate and understand different types of faults