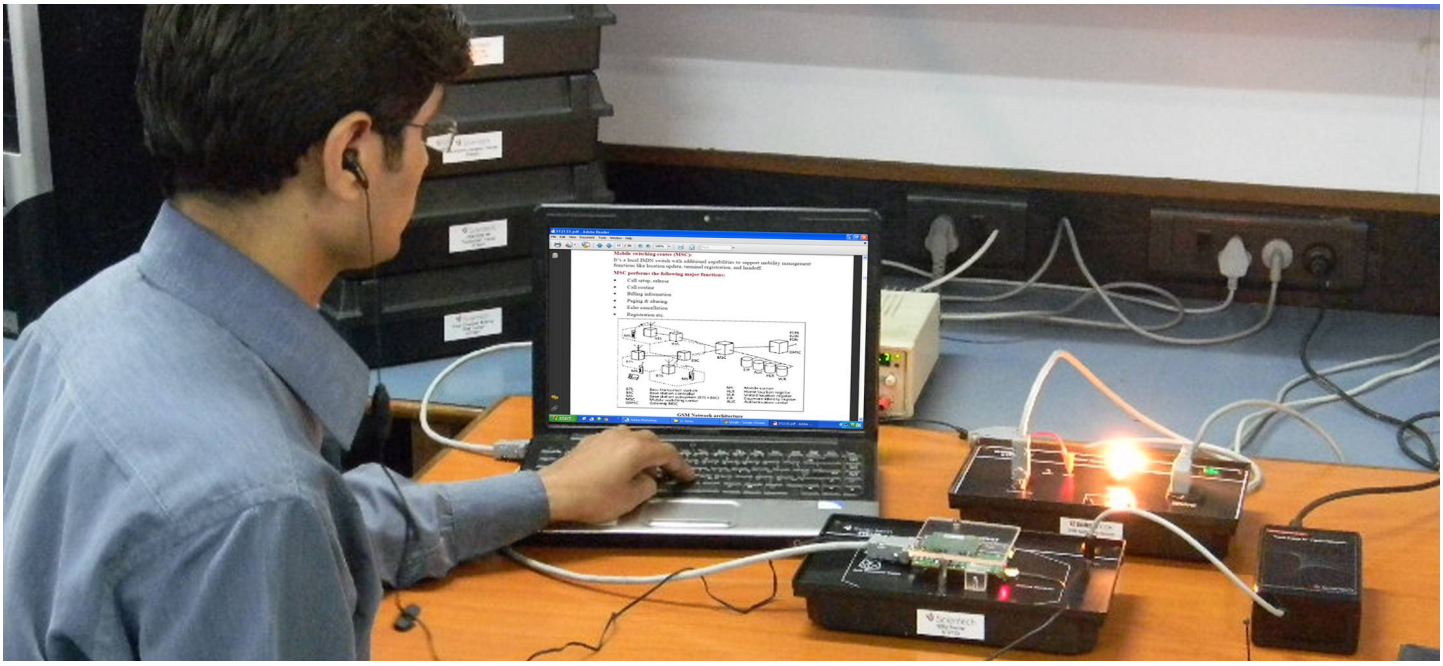
Global System for Mobile Communication

Scientech 2133



Scientech 2133 Global System for Mobile Communication platform is a modem or mobile equipment for transmission of voice and data calls as well as SMS (Short Message Service) in GSM Network.

To control the GSM modem there is an advanced set of AT commands according to GSM ETSI (European Telecommunications Standards Institute) 07.07 and 07.05 implemented. The GSM standard has established itself across continents.

The platform is well suited for studying AT commands by camping to real networks using SIM card.

Features

- **Operate on Windows and Linux platform**
- **USB Interface for communication**
- **Best suitable for IoT gateway application**
- **External connector to interface with any microcontroller**
- **Easy understanding of AT commands**
- **Real time operation**
- **Built in network status LED**
- **Audio interface connector**
- **Simple / Easy operation**
- **External antenna**
- **Application module relay interface for AC device (optional)**

Scope of Learning

- GSM Theory & Standards
- Understanding of GSM technology, its network, GSM capability & data services.
- Understanding RF environment & study of GSM network by actually connecting to the GSM environment by any service provider.
- GSM based application development
- Command Level study
- Real Time study of GSM 07.05 & 07.07 Commands in various Categories :

  -Modem & SIM card related

  - Network registration

  - Call control

  - Call setting

  - Call information

  - Phone Book

  - Serial link control

  - Message setting

  - GPRS related

  - Storing/restoring

  - Error message handling & survey

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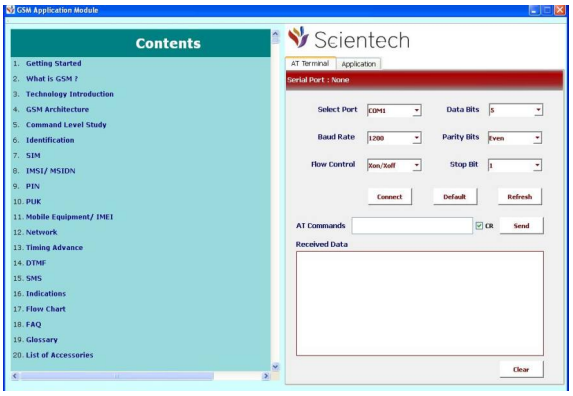
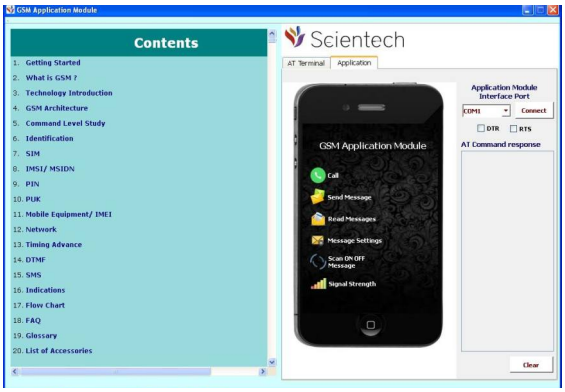
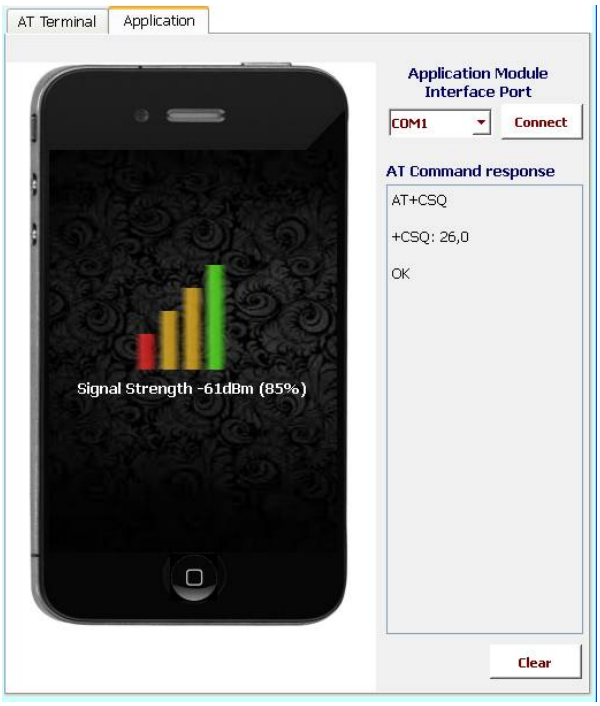
Technical Specifications

GSM capability	: GSM 900 / 1800/850/1900 MHz E - GSM
GSM data services	: Asynchronous, Transparent & Non Transparent modes. 14.4 kbits / s
SIM Interface	:3 V
RF characteristics :	
Receiver	
EGSM Sensitivity	: < -104 dBm
DCS Sensitivity	: < -102 dBm
Selectivity @ 200 KHz	: >+9 dBc
Selectivity @ 400 KHz	: >+41 dBc
Dynamic range	: 63 dB
Intermodulation	: >-43 dBm
C-channel rejection	: ≥ 9 dBc
Transmitter	
Maximum output power (EGSM)	: 33 dBm ± 2 dB
Maximum output power (DCS)	: 30 dBm ± 2 dB
Minimum output power (EGSM)	: 5 dBm ± 5 dB
Minimum output power (DCS 1800)	: 0 dBm ± 5 dB
Noise in 925 - 935 MHz	: < -67 dBm
Noise in 935 - 960 MHz	: < -79 dBm
Noise in 1805 - 1880 MHz	: < -71 dBm
Phase error at peak power	: < 5° RMS
Frequency error	: ± 0,1ppm max.
Power supply(module)	: 12 VDC 1Amp.
Current consumption	: Max 500 mA
Power Supply	: 110V - 260 V AC, ±10%, 50/60Hz
Operating Conditions	: 0-40°C, 80% RH
Weight	: 360 grm. approximately
Dimensions (mm)	: W 255 x D 155 x H 80
Included Accessories :	
USB Cable with Hands Free	: 1 no.
Antenna with Coaxial Cable 30 cm:	1 no.







Subject to change

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