



# Understanding Dual SIM Mobile Phone

Nvis 1027



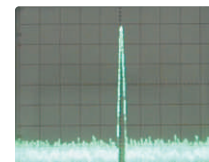
**Nvis 1027 Understanding Dual SIM Mobile Phone** TechBook is a unique, self contained, easy to operate, training platform that demonstrates the complete arrangement of a 2G Dual SIM GSM handset to understand the working of the mobile phone.

Nvis 1027 Understanding Dual SIM Mobile Phone TechBook is the perfect product for today's global technical professional. One of the main features of the TechBook is its real time signals. This realistic classroom training TechBook introduces the user to the fundamental of 2G Dual SIM GSM mobile equipment and clears the concept of underlying GSM technology in simple way. The Keypad of mobile handset, SIM sockets and User Interface section of the mobile phone i.e. Vibrator, Buzzer, Microphone, Speaker, Hands free port and display LEDs have been exposed onboard with switched faults creation facility and 58 test points for signal observation and detailed study. Also its attractive features and self explanatory multicolored chart containing useful technical information will help user in creating a full understanding of dual SIM mobile phone system.

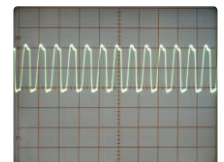
## Features

- Real time mobile operation
- Operates on dual band frequency network (GSM 900/ DCS 1800)
- Colour TFT display
- Full understanding of Dual SIM mobile phone working
- Provides study of all sections in Dual SIM mobile phone
- Tx/ Rx frequency measurement and band verification
- 2G technology GMSK signal
- Detail study of User Interface Control signals
- Detail study of Dual SIM operation
- Battery identification and charging study
- Switched faults

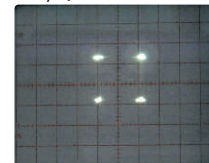
Tx/Rx RF signal



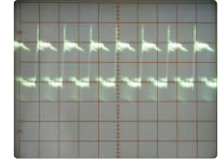
SIM Clock



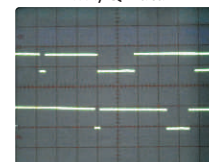
Tx I/Q Data in XY mode



PWM Buzzer signal



Tx I/Q Data



GSM/DCS Enable signal





# Understanding Dual SIM Mobile Phone

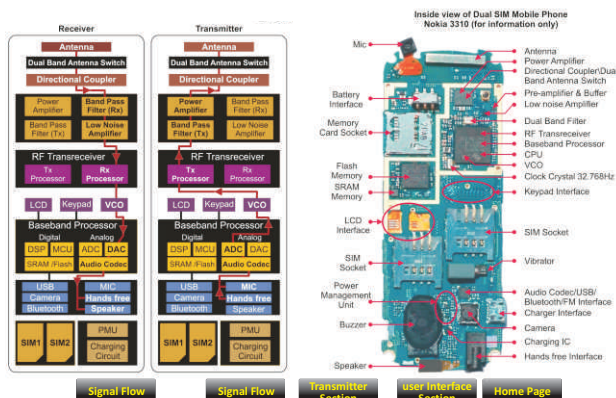
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### Scope of Learning

#### Study and observe

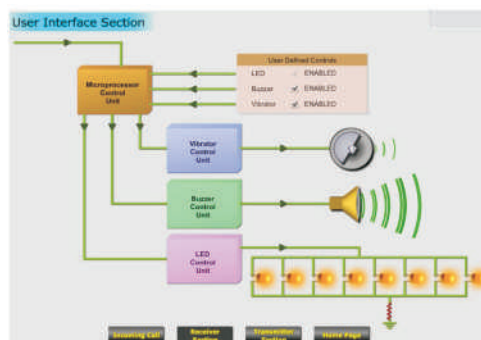
- Transmitted/Received RF signals
- Tx IQ/ Rx IQ signals
- Signal constellation of GMSK signal (Rx I/Q)
- Signal constellation of GMSK signal (Tx I/Q)
- Measure Battery voltages the Battery charging phenomena
- Analyze the Buzzer section
- Analyze the vibrator section
- Analyze the LED control section
- Analyze MIC & Speaker section
- Analyze the Hands Free section (MIC/Speaker)
- Measurement voltages of Power management unit
- Observe signals of LCD display section
- Analyze Microprocessor Control unit
- Switch faults in User Interface Section
- Analyze the 'Partially ON' mode of phone while charging
- Switch faults in Battery section
- Switch faults in LCD display section
- Row/ Column configuration of key matrix
- Switch faults in Keypad section
- Study of SIM card detection with and without inserting SIM card
- Study of switch faults in SIM interface section
- Analyze that a mobile is powered On at the alarm set time
- Analyze the active mode of a mobile phone
- Analyze the acting dead mode of a mobile phone
- Analyze the sleep mode of a mobile phone

#### Mobile phone working presentation software



### Technical Specifications

<b>Cellular system</b>	: EGSM/GSM 900; DCS1800 (2G-Dual Band)
<b>Rx Frequency band</b>	: EGSM 900 – 925 to 935 MHz GSM 900 – 935 to 960 MHz DCS 1800 – 1805 to 1880 MHz
<b>Tx Frequency band</b>	: EGSM 900 – 880 to 890 MHz GSM 900 – 890 to 915 MHz DCS 1800 – 1710 to 1785 MHz
<b>Output Power</b>	: +5... +33dBm/3.2mW... 2 W
<b>Channel spacing</b>	: 200 KHz
<b>Display</b>	: TFT, 256K colours, 128X168 Pixels, 2.0"
<b>SIM support</b>	: Smart Dual SIM, Dual stand by (both GSM)
<b>Battery type</b>	: Li-Ion 1000mAh
<b>CPU</b>	: 208 MHz
<b>Sound</b>	: Speaker and Earphone Jack (3.5mm)
<b>On board sections</b>	: Keypad, Dual SIM, Charging Circuit, User interface: Buzzer, Vibrator, Mic, Speaker, Hands free port and display LEDs
<b>Test points</b>	: 58 nos.
<b>Switched fault</b>	: 35 nos
<b>Features that can be set</b>	: Screen saver, Ring tones, Logos, SMS etc.
<b>Power Consumption</b>	: 3.6VA (approximately)
<b>Power Supply</b>	: 100 - 260V AC, 50/60 Hz
<b>Fuse</b>	: 1 A
<b>Dimension (mm)</b>	: W 326 x D 252 113 x H 52
<b>Weight</b>	: 2.5 Kg (approximately)
<b>Operating Condition</b>	: 0-40°C, 85% RH
<b>Included Accessories</b>	
TechBook Power Supply	-1no.
Patch cord 16"	-2 nos.
Hands free kit	-1 no.
Mains cord	-1 no.
Battery (Li-Ion 1000mAh)	-1 no.
<b>Optional Accessories</b>	
Switchable Probe 60MHz for low signal location area	- 2 nos.



Designed & Manufactured in India by

**Nvis Technologies Pvt. Ltd.**

141-A, Electronic Complex, Pardesipura, Indore-452010, India.

© +91-731-4211500, info@nvisitech.com, www.NvisTech.com