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Triotrace Test System



TTS-S75(R)

Approved GSM Test
Technology

Datasheet

TTS-S75(R)

General Features

- Weight: 99 g
- Dimensions: 103 x 47 x 18.5 mm
- TFT colour display:
 - 132 x 176 pixels,
 - 262144 colours
- Li-Ion battery (820 mAh)
 - Standby time: 300 h
 - Talktime: 300 min
 - Charging time: Less than 2 h for 100%
- 1.3-megapixel camera with integrated LED flash
- 24 MB internal memory
- Integrated RS-MMC slot for up to 1GB
- Interfaces: USB 2.0, Bluetooth®

- TTS-S75 supports GSM 900 / 1800 /1900
TTS-S75R additionally supports GSM-R
- GPRS class 10 up to 53.6 Kbps
- EDGE up to 384 Kbps
- CSD up to 14.4 Kbps, fax group 3, class 2
- Voice coding:
 - half rate, full rate, enhanced full rate
 - adaptive multi rate
- MMS, EMS, SMS, cell broadcast, instant messaging
- Mobile Internet access (WAP 2.0)
- E-mail client SMTP, POP3

ETCS L2 Features

The ETCS L2 test extension is available as optional feature. The additional data sheet 'TTS Extension ETCS L2' provides more details.

Triotrace PC Application

- Trace log recording
- Online/offline protocol analysis



TTS Features

Two serial ports over USB for simultaneous trace information and data transfer (CSD/GPRS) or AT-Cellular-Commands.

GSM Traces

- Radio environment information
- Received level
- Idle and transfer parameters
- Serving / neighbour cell frequency
- Cell reselection parameters
- Mobility management information
- Authentication
- Ciphering
- Location (Cell Identity, LAC, MCC, MNC)
- Protocol messages monitoring
- Layer 2: LAPD-m
- Layer 3: RR, MM, CM
- Quality of Service
- Downlink signalling
- RLC and Handover Counter
- Codec state (HR, FR, EFR,AMR)
- DTX state

GPRS Traces

- GPRS Mobility management information
- Identity
- SNDCP compression
- GPRS Session management information
- PDP QoS
- IP Address
- Location: Cell Identity, RAC, LAC, MCC, MNC
- RLC/MAC information
- Packet channel information:
 - frequency,
 - timing advance
 - time slots
- Protocol messages monitoring
- RLC/MAC: control blocks, data blocks
- GMM/SM: GPRS attach, PDP activation
- Quality of Service
- RLC throughput, Block error rate,
Block retransmission rate
- LLC throughput, frame retransmission rate

GSM/GPRS forcing functions

- Channel
- Band
- Voice Codec

Scanning capabilities

- single ARFCN
- set of frequencies
- complete band