Anritsu Protocol Conformance Test for TD-SCDMA

ME78070A
TD-SCDMA Protocol Conformance Test System
Anritsu Protocol Conformance Test for TD-SCDMA
Product Introduction
Agenda

- Overview
- Capability
- Test Cases
- System Configuration
The TD-SCDMA Protocol Conformance Test System (PCTS) is an integrated solution for verifying that mobile terminals meet the 3GPP standard for TD-SCDMA, and to gain acceptance by China Mobile. The system will initially offer a test package containing TD-SCDMA/GERAN inter-working test cases from 3GPP TS 34.123-1 and 51.010-1, covering 3GPP Release 4, 5 (HSDPA) and 7 (HSUPA). This is the first and only test system designed specifically for TD-SCDMA Conformance Tests.

A combination of its test case coverage and robust execution environment means customers can:

- Perform pre-acceptance testing for TD-SCDMA/2G inter-working
- Provide Repeatable & Reliable test results
- Create test sequences efficiently using the Graphical User Interface
The PCT is an upper layer software tool for UE protocol conformance test with an easy to use graphical interface.

Providing 50+ TD-SCDMA/GERAN Inter-working test cases, approved by China Mobile.

Intelligent test sequencer, remote control & UE control interface provide advanced automation capability.

Integrated protocol analyser for analysis and debug.
Ease Of Use

- **Intelligent Test Sequencer** to schedule tests using Drag and Drop Graphical Interface
- **Conformance Test Package** providing over 50 test cases for TD-SCDMA/GERAN inter-working approved by China Mobile

- Creation of PICS/PIXIT data automatically, and modification of deviations manually
- Analyse results by pass/fail verdict, and easily re-run failed tests
Results Analysis

- **Protocol Analyser** shows time-stamped events at all layers of the protocol stack for analysis
- Ability to view TTCN logs
- **Detailed Analysis** of any message highlights difference in expected and received data.
Test Cases

- Initially, the system will offer a package of 54 TD-SCDMA/GERAN inter-working test cases
- Test cases are defined by 3GPP in TS 34.123-1 and 51.010-1
- The test cases cover 3GPP Release 4, 5 (HSDPA) and 7 (HSUPA)
- They are implemented in TTCN-2 by ETSI STF160 team, funded by 3GPP RAN WG5
- All test cases in the Anritsu system will be verified and approved by 3GPP RAN WG5 following the existing working procedure
- They will also be approved by China Mobile to be used for UE acceptance purposes on their network
- The system is capable of running other test cases from 34.123-1. Anritsu’s plan to develop further test cases is dependent on requirements from China Mobile
ME78070A Configuration for TD-SCDMA

- **System Platform**
  - Platform hardware (system racks, PSU, cables, etc.), and commissioning
  - PCT software application (including GUI, remote control interface, protocol analyser)

- **Installation/Re-Setup**
  - Test System Installation or Re-configuration

- **Test Hardware**
  - 3 x MD8470A each with:
    - 1 TD-SCDMA cell
    - 1 GERAN cell

- **Test Package**
  - Over 50 test cases for TD-SCDMA/GERAN inter-working approved by China Mobile
  - Test cases are from 3GPP TS 34.123-1 and 51.010-1

- **One-year Support**
  - Hardware and software
ME78070A Flexible Configurations

Standard Configuration

- 1 year Support
- Test Package of 50+ TD-SCDMA/GERAN Inter-working test cases
- 3 x MD8470A
  1xTD-SCDMA & 1xGERAN cell in each unit
- Installation/Re-setup
- PCT Software Application
- Platform Hardware (Multi SS Controller kit, System Rack Kit, Calibration kit)

Valid Configurations in use

1 Unit

- 1 x MD8470A
  1xTD-SCDMA & 1xGERAN
  Installation/Re-setup
  PCT Software Application

- Test Package of 50+ TD-SCDMA/GERAN Inter-working test cases
- MD8470A Support 1 year
- PCT Support 1 year
- TC Support 1 year

Optional

3 Units

- Test Package of 50+ TD-SCDMA/GERAN Inter-working test cases
- 3 MD8470As
  1xTD-SCDMA & 1xGERAN
  Installation/Re-setup
  PCT Software Application

- MD8470A Support 1 year
- PCT Support 1 year
- TC Support 1 year

- 1 x MD8470A
  1xTD-SCDMA & 1xGERAN
  Installation/Re-setup
  PCT Software Application

- MD8470A Support 1 year
- PCT Support 1 year
- TC Support 1 year

- 1 x MD8470A
  1xTD-SCDMA & 1xGERAN
  Installation/Re-setup
  PCT Software Application

- MD8470A Support 1 year
- PCT Support 1 year
- TC Support 1 year

System Units | Test Cases (%)
-------------|-------------
1 MD8470A (TDx1, GSMx1) | 39 (73%)
3 MD8470As (TDx1, GSMx1) | 54 (100%)
Note