# TETRA Interoperability Certificate

## Motorola Solutions, Dimetra IP R8.2, SwMI – Motorola Solutions, MTP6750, Terminal

**Krakow, April 2014**

| | | | |
|---|---|---|---|
| **Latest Certified SwMI SW Release:** | 8.2 | **Latest Certified Terminal SW Release:** | MR10.7 |
| **Latest Certified SwMI HW Release:** | Dimetra IP R8.2 | **Latest Certified Terminal HW Release:** | PT952ACE |

**ISCTI (Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione) certifies, that the Motorola Solutions, Dimetra IP R8.2, SwMI and the Motorola Solutions, MTP6750, terminal have been subject to interoperability testing for the "certified" features listed on second page of this certificate, in accordance with the TETRA Interoperability Profiles, TIP compliance Test Plan and related TETRA interoperability requirement tables.**

**The table lists all the available TETRA interoperability profiles, and summarizes the main functionalities of every profile according to the TETRA interoperability requirement tables.**

**A feature is "Certified" when it has been successfully tested during the last test session with one of the testing method described in the TETRA process document part 1 (TPD001-01).**

**A breakdown into the feature details is given in the Feature Compliance Overview section of this certificate.**

**This certificate has been issued following a fully witnessed multi test session between Motorola Solutions and Motorola Solutions on April 2014. Detailed test results are listed in the Test Report associated to this Certificate. Details and explanation about the procedure used to provide verdicts are in the TIC process TPD001-01.**

**This v3 Certificate has been re-issued, because it has been recognized that the change of declarations for group addressed Full Callout was in contradiction with the TIC process. The result of the Callout tests 3.1.1 and 3.1.2 are not valid because the Callout host application simulator which was used to support the testing was not TIP compliant. To reflect this fact the test result "Not Applicable" (N/A) was applied to these two tests.**

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**Date of issue**

**24 March 2016**

**v 3**

# Certified features

| Tetra Association TTR001-01:Core | |
|---|---|
| Registration | Certified |
| Group Management | Certified |
| Group call | Certified |
| Individual call | Certified |
| Status messages | Certified |
| Pre-emptive Priority Call | Certified |
| Emergency Call | Certified |
| Cell Re-selection | Certified |
| PSTN interconnect | Certified |
| MS-ISDN Numbering | - |
| In Call Signalling | Certified |
| Subscriber Class Procedures | Certified |
| Common Secondary Control Channels | Certified |
| BS Fallback Operation | Certified |
| Energy Economy Mode | Certified |
| Transmit Inhibit | Certified |
| Mixed band operation | Certified |
| **Tetra Association TTR001-02:SDS** | |
| SDS Type 1, 2 or 3 | - |
| SDS-TL | Certified |
| Store and Forward | Certified |
| **Tetra Association TTR001-03:DGNA** | |
| Support for individually addressed DGNA | - |
| Support for group addressed DGNA | Partial |
| Tolerance of unsupported DGNA functions | - |

| Tetra Association TTR001-04:Auth | |
|---|---|
| SwMI Initiated (non-mutual) Authentication | Certified |
| SwMI Initiated Authentication made Mutual by MS | Certified |
| TEI Query | - |
| **Tetra Association TTR001-05:PD** | |
| Context Management | Certified |
| Single Slot Packet Data | Certified |
| Multi Slot Packet Data | Certified |
| TEDS | - |
| Mixed band operation | Certified |
| **Tetra Association TTR001-09:AL** | |
| Ambience Listening | Certified |
| Interaction with Transmit Inhibit | Certified |
| **Tetra Association TTR001-10:E2EE** | |
| E2EE Voice Call | Certified |
| **Tetra Association TTR001-11:AIE** | |
| Security Class 2 Air Interface Encryption | Certified |
| Security Class 3 Air Interface Encryption | Certified |
| Security Class 3G Air Interface Encryption | Certified |
| Change of CMG and GSKO | Certified |
| Key Status demand | Certified |
| Change of Security Class for Fallback operation | Certified |
| Change of Security Class (other than for Fallback operation) | Certified |
| Key Management for Secure Direct Mode Operation | Certified |

| Tetra Association TTR001-12:SI | |
|---|---|
| MS initiated Service Interaction | Certified |
| SwMI initiated Service Interaction | Certified |
| Call Waiting | - |
| **Tetra Association TTR001-13:ED** | |
| Enable and temporary disable of an MS | Certified |
| Permanent disable of an MS | Certified |
| **Tetra Association TTR001-14:TKD** | |
| Delivery of Authentication Data | Certified |
| Delivery of SCK | Certified |
| Delivery method | Certified |
| **Tetra Association TTR001-17:RUA** | |
| Radio User Assignment | Certified |
| **Tetra Association TTR001-19:LIP** | |
| Location Information Protocol | Certified |
| **Tetra Association TTR001-21:Callout** | |
| Full Callout | Certified |
| Simple Callout | - |
| Interaction with other services and events | - |
| Callout Test and Callout Availability | - |
| Callout Text and Callout Pre-Coded Status | Certified |
| Storage of Callout Information | Certified |

# Feature Compliance Overview

The first pages of this certificate provide an indication about the main interoperable TETRA features for each TIP specification (as described in the TIC-RT). The main interoperable TETRA features result depend on a set of sub-feature, the outcomes associated to each sub-feature are directly derived from the analysis of the performed test cases.

The results associated to each feature and sub-feature are shown in the "Feature compliance report" table below. The main features are indicated with grey background and the associated sub-features (or second level features) have light blue background.

The outcome assigned to a sub-feature as shown on page 2, is derived by the Feature compliance report tables.

| Outcome | Definition |
|---|---|
| **Certified** | All required tests have been performed and passed |
| **Partial** | Not all the required tests have been performed but none have failed |
| **-** | Feature cannot be certified e.g. it is not supported by at least one product, no tests were performed, or some tests were performed but at least one failed |

The outcome is derived from the verdict assigned to a sub feature which is the result of an analysis of the test case results listed in the Test Report. The verdict assigned to each sub-feature is derived from one or several test case results or test steps result, the TETRA Interoperability requirement tables (TIC-RTs) indicate the link between sub-features and test cases for the certified set of equipment capabilities (see Test Report).

| Verdict | Definition |
|---|---|
| **Passed** | All mandated tests or steps of tests linked to this functionality (as per TIC-RT indication) are compliant with the TIP specification relevant to this feature. |
| **Incomplete** | Not all Mandated tests (as per TIC-RT indication) have been executed |
| **Failed** | At least one of mandated test or steps of tests linked to this functionality failed to match the TIP specification relevant to this feature. |

The verdict associated to the feature gives also indication about the method used to test that feature. The allowed testing Methods are listed in the table below, a complete description of the procedures and constraints associated to each of them can be found in the "TPD001-01 TETRA Interoperability Certification Process Description" document.

| Testing Method | Description |
|---|---|
| **Complete** | All mandated tests associated to the feature have been executed |
| **Spot** | Only a selection of the mandatory test cases associated to the feature has been executed during the test session. These tests are a subset of the tests performed on an equivalent software which has been "completely" tested against the same functionality on a different equipment, see manufacturer declaration in the associated Test Report |
| **Regression** | Only a selection of the mandatory test cases associated to the feature has been executed during the test session. These tests are a subset of the tests performed on a previous version of the same software which has been "completely" tested in a previous test session against the same functionality, see manufacturer definition in the associated Test Report |
| **Regression on spot** | The regression method has been applied on the verdicts based on the spot testing method |
| **Witnessed** | The TIP heading lines in the Feature Compliance Report indicate whether each TIP is partially or fully witnessed by the Certification Body.<br>Additionally, for a partially-witnessed TIP, the number of witnessed test cases that passed is shown for each the feature and sub-feature. There may have been some un-witnessed passed tests and they will have been found to be successful based on the log file evaluation. |

Depending on equipment capabilities declared by the manufacturer, some features or sub features cannot be tested. The following table describes meaning of the used abbreviation:

| Indication | Definition |
|---|---|
| **Not supported** | The SwMI and/or MS do not support the minimum features required to verify these items |

ISCTI has made every effort to ensure that every result has been correctly evaluated in accordance

with the relevant TIPs, Test Plans and TIC-RTs. ISCTI has no liability for the test results, or towards the manufacturers.

The table on the following page lists HW and SW releases of SwMI and Terminal under test in the last four test sessions and the used TIP specifications, Test Plans and TIC-RTs.

This Certificate and Certificates from previous test sessions are available on the TETRA + Critical Communications Association web site (http://www.tandcca.com/interop/page/12476).

The feature results are shown in the tables below.

## Information on equipment under test and document references

| Test Session Date/Place | Motorola Solutions Krakow April 2014 | Motorola Krakow December 2013 | | |
|---|---|---|---|---|
| SwMI Type | Dimetra IP R8.2 | Dimetra IP R7.1 | | |
| SwMI HW Release | Dimetra IP R8.2 | Dimetra IP R7.1 | | |
| SwMI SW Release | 8,2 | 7.1 | | |
| Terminal Type | MTP6750 | MTP6750 | | |
| Terminal HW Release | PT952ACE | PT952ACE | | |
| Terminal SW Release | MR10.7 | MR10.7 | | |
| SwMI Callout Application simulator SW Realese | 1.1 | | | |
| TIP Specs and TIP Compliance Test Plans | | | | |

| | | | | |
|---|---|---|---|---|
| Core | TTR001-01 v6.0.0<br>IOP001-01 v3.0.0<br>TIC-RT001-01 v260 | TTR001-01 v6.0.0<br>IOP001-01 v3.0.0<br>TIC-RT001-01 v26**0** | | |
| SDS | TTR001-02 v2.1.1<br>IOP001-02 v2.0.0<br>TIC-RT001-02 v213 | TTR001-02 v2.0.1<br>IOP001-02 v2.0.0<br>TIC-RT001-02 v213 | | |
| DGNA | TTR001-03 v2.0.0<br>IOP001-03 v2.0.1<br>TIC-RT001-03 v222 | TTR001-03 v2.0.0<br>IOP001-03 v2.0.1<br>TIC-RT001-03 v221 | | |
| Auth | TTR001-04 v3.0.0<br>IOP001-04 v2.0.0<br>TIC-RT001-04 v223 | TTR001-04 v3.0.0<br>IOP001-04 v2.0.0<br>TIC-RT001-04 v223 | | |
| PD | TTR001-05 v3.0.0<br>IOP001-05 v3.0.5<br>TIC-RT001-05 v305 | TTR001-05 v3.0.0<br>IOP001-05 v3.0.5<br>TIC-RT001-05 v303 | | |
| AL | TTR001-09 v2.0.0<br>IOP001-09 v1.1.0<br>TIC-RT001-09 v122 | TTR001-09 v2.0.0<br>IOP001-09 v1.1.0<br>TIC-RT001-09 v122 | | |
| E2EE | TTR001-10 v2.0.0<br>IOP001-10 v1.1.4<br>TIC-RT001-10 v122 | TTR001-10 v2.0.0<br>IOP001-10 v1.1.0<br>TIC-RT001-10 v122 | | |
| AIE | TTR001-11 v3.0.3<br>IOP001-11 v3.0.2<br>TIC-RT001-11 v325 | TTR001-11 v3.0.3<br>IOP001-11 v3.0.2<br>TIC-RT001-11 v323 | | |
| SI | TTR001-12 v1.0.0<br>IOP001-12 v1.0.0<br>TIC-RT001-12 v127 | TTR001-12 v1.0.0<br>IOP001-12 v1.0.0<br>TIC-RT001-12 v127 | | |
| ED | TTR001-13 v2.0.0<br>IOP001-13 v1.0.0<br>TIC-RT001-13 v146 | TTR001-13 v2.0.0<br>IOP001-13 v1.0.0<br>TIC-RT001-13 v146 | | |
| TKD | TTR001-14 v1.0.3<br>IOP001-14 v1.0.0<br>TIC-RT001-14 v117 | | | |
| RUA | TTR001-17 v1.0.1<br>IOP001-17 v1.0.0<br>TIC-RT001-17 v108 | | | |

| | | | | |
|---|---|---|---|---|
| LIP | TTR001-19 v1.0.0<br>IOP001-19 v1.0.0<br>TIC-RT001-19 v105 | | | |
| Callout | TTR001-21 v1.0.0<br>IOP001-21 v1.0.0<br>TIC-RT001-21 v103 | | | |

# Feature compliance report

| Test Session | Motorola Solutions Krakow April 2014 | Motorola Krakow December 2013 | | |
|---|---|---|---|---|
| **Core** | | | | |
| Registration | PASSED Regression 2_pass_of_4 | PASSED Complete 3_pass_of_3 | | |
| ITSI attach | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| SwMI initiated location updating | PASSED Regression 1_pass_of_2 | PASSED Complete 1_pass_of_1 | | |
| LA timer based Periodic location updating | Not Supported | Not Supported | | |
| De-registration | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Group Management | PASSED Regression 4_pass_of_11 | PASSED Complete 9_pass_of_9 | | |
| Single group attachment | PASSED Regression 2_pass_of_5 | PASSED Complete 4_pass_of_4 | | |
| Multiple group attachment | PASSED Regression 2_pass_of_4 | PASSED Complete 3_pass_of_3 | | |
| MS initiated group detachment | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| SwMI initiated group management | Not Supported | Not Supported | | |
| Group call | PASSED Regression 3_pass_of_9 | PASSED Complete 9_pass_of_9 | | |
| Normal group call | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Late entry | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Priority Group scanning | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Call setup modifications | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Resource Queuing based on Call Priority | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Broadcast Call | Not Supported | Not Supported | | |

| | | | | |
|---|---|---|---|---|
| Limited coverage notification | Not Supported | | | |
| Individual call | PASSED Regression 2_pass_of_7 | PASSED Complete 7_pass_of_7 | | |
| Simplex individual call | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Duplex individual call | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Call setup modifications | Not Supported | Not Supported | | |
| Resource Queuing based on Call Priority | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Indication of imminent call disconnection | Not Supported | Not Supported | | |
| Status messages | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Individual addressed Status transfer | Not Supported | Not Supported | | |
| Group addressed Status transfer | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Pre-emptive Priority Call | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Pre-emption of Resources | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Pre-emption of Busy Users | Not Supported | Not Supported | | |
| Emergency Call | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Pre-emption of Resources | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Pre-emption of Busy Users | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Call setup modifications | Not Supported | Not Supported | | |
| Call disconnection by non-call owner | Not Supported | Not Supported | | |
| Cell Re-selection | PASSED Regression 3_pass_of_16 | PASSED Complete 16_pass_of_16 | | |
| Undeclared | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Unannounced | PASSED Regression 1_pass_of_7 | PASSED Complete 7_pass_of_7 | | |
| Announced - with Call Restoration | PASSED Regression 2_pass_of_8 | PASSED Complete 8_pass_of_8 | | |
| Announced - without Call Restoration | Not Supported | Not Supported | | |
| Expedited | Not Supported | Not Supported | | |

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|---|---|---|---|---|
| PSTN interconnect | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| TETRA Originated Call | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| PSTN Originated Call | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| DTMF over-dial | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Emergency Telephone Calls | Not Supported | Not Supported | | |
| MS-ISDN Numbering | | | | |
| MS ISDN - Voice Call | Not Supported | Not Supported | | |
| MS-ISDN Status | Not Supported | Not Supported | | |
| In Call Signalling | PASSED Regression 1_pass_of_5 | PASSED Complete 5_pass_of_5 | | |
| Slow Signalling on Traffic Channel (SACCH) | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Fast Signalling on Traffic Channel (FACCH) | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Subscriber Class Procedures | PASSED Complete 2_pass_of_2 | Incomplete 3_pass_of_5 | | |
| Cell Selection based on Subscriber Class | PASSED Complete 2_pass_of_2 | Incomplete 1_pass_of_2 | | |
| Subscriber Class Delivery during Location Update | Not Supported | Not Supported | | |
| Use of Preferred Subscriber Classes | Not Supported | Incomplete 2_pass_of_3 | | |
| Common Secondary Control Channels | PASSED Regression Spot 1_pass_of_7 | PASSED Complete 7_pass_of_7 | | |
| One C-SCCH per cell | PASSED Regression Spot 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Two C-SCCH per cell | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Three C-SCCH per cell | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| BS Fallback Operation | PASSED Regression 4_pass_of_9 | PASSED Complete 9_pass_of_9 | | |
| Switch to/from BS Fallback Operation | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Roaming with BS Fallback Operation | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Services with BS Fallback Operation | PASSED Regression 3_pass_of_5 | PASSED Complete 5_pass_of_ | | |
| Energy Economy Mode | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |

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|---|---|---|---|---|
| Energy Economy Mode Operation | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Transmit Inhibit | PASSED Regression 4_pass_of_8 | PASSED Complete 8_pass_of_8 | | |
| TXI Activation & De-Activation | PASSED Regression 2_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| TXI Activation & De-Activation with TxI Status available to the Dispatcher | PASSED Regression 2_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Receipt of group addressed service during TXI | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Mixed band operation | Regression 0_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Mixed band operation, inter-cell | Regression 0_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Mixed band operation, intra-cell | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Mixed band operation, Full | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| **Short Data Service (SDS)** | | | | |
| SDS Type 1, 2 or 3 | | | | |
| SDS Type 1 | Not Supported | Not Supported | | |
| SDS Type 2 | Not Supported | Not Supported | | |
| SDS Type 3 | Not Supported | Not Supported | | |
| SDS-TL | PASSED Regression 3_pass_of_8 | PASSED Complete 8_pass_of_8 | | |
| Individually Addressed | PASSED Complete 2_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Group Addressed | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Using MS-ISDN dialling | Not Supported | Not Supported | | |
| Using UCS2 coding scheme | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Using 7-bit coding scheme | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Using 8-bit Latin 1 coding scheme | Regression 0_pass_of_1 | PASSED Complete 2_pass_of_2 | | |
| Using 8-bit Latin 5 coding scheme | Not Supported | Not Supported | | |
| Using 8-bit Latin 9 coding scheme | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |

| | | | | |
|---|---|---|---|---|
| Store and Forward | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Individually Addressed | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Group Addressed | Not Supported | Not Supported | | |
| **Dynamic Group Number Assignment (DGNA)** | | | | |
| Support for individually addressed DGNA | FAILED Regression 6_pass_of_11 | PASSED Complete 6_pass_of_6 | | |
| Support for individually addressed DGNA assignment without attachment | PASSED Regression 1_pass_of_3 | PASSED Complete 4_pass_of_4 | | |
| Support for individually addressed DGNA assignment with attachment as selected group | PASSED Complete 3_pass_of_3 | Not Supported | | |
| Support for individually addressed DGNA assignment with attachment as scanned group | FAILED Complete 2_pass_of_3 | Not Supported | | |
| Support for individually addressed DGNA assignment with rejected attachment | Not Supported | Not Supported | | |
| Support for individually addressed assigment for pre-programmed group | FAILED Regression 0_pass_of_5 | PASSED Complete 4_pass_of_4 | | |
| Support for group addressed DGNA | Regression Incomplete 1_pass_of_6 | Incomplete 3_pass_of_6 | | |
| Support for group addressed DGNA assignment | Incomplete 1_pass_of_3 | Incomplete 1_pass_of_3 | | |
| Management of 'group assignment lifetime' | Regression Incomplete 0_pass_of_2 | Incomplete 1_pass_of_2 | | |
| Support for group addressed DGNA deassignment | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |

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|---|---|---|---|---|
| Tolerance of unsupported DGNA functions | | | | |
| MS tolerance of unsupported individual addressed DGNA signalling | Not Supported | Not Supported | | |
| MS tolerance of unsupported group addressed DGNA signalling | Not Supported | Not Supported | | |
| **Authentication** | | | | |
| SwMI Initiated (non-mutual) Authentication | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Attach with authentication | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Roaming with authentication | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| SwMI rejects MS during authentication | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| MS rejects SwMI during authentication | Not Supported | Not Supported | | |
| SwMI Initiated Authentication made Mutual by MS | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Attach with authentication | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Roaming with authentication | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| TEI Query | | | | |
| TEI Query Operation | Not Supported | Not Supported | | |
| **Packet Data** | | | | |
| Context Management | PASSED Regression 4_pass_of_11 | PASSED Complete 11_pass_of_11 | | |
| Context Activation | PASSED Regression 2_pass_of_7 | PASSED Complete 7_pass_of_7 | | |

| | | | | |
|---|---|---|---|---|
| User authentication | PASSED Regression 2_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Single Slot Packet Data | PASSED Regression 3_pass_of_10 | PASSED Complete 10_pass_of_10 | | |
| Data Transfer | PASSED Regression 2_pass_of_7 | PASSED Complete 7_pass_of_7 | | |
| Cell re-selection | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Multi Slot Packet Data | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Data Transfer | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| TEDS | | | | |
| TEDS with Context Activation | Not Supported | Not Supported | | |
| TEDS Data Transmission, using LLC Optimisation | Not Supported | Not Supported | | |
| TEDS Data Transmission, not using LLC Optimisation | Not Supported | Not Supported | | |
| TEDS Cell Reselection, using LLC Optimisation | Not Supported | Not Supported | | |
| TEDS Cell Reselection, not using LLC Optimisation | Not Supported | Not Supported | | |
| Mixed band operation | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Mixed band operation, inter-cell | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Mixed band operation, intra-cell | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Mixed band operation, Full | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| **TETRA Ambience Listening (SS-AL)** | | | | |
| Ambience Listening | PASSED Regression 2_pass_of_5 | PASSED Complete 5_pass_of_5 | | |

| | | | | |
|---|---|---|---|---|
| SS-AL Call Setup | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| MS initiated SS-AL disconnection | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| No Indication to affected user | PASSED Regression 2_pass_of_5 | PASSED Complete 5_pass_of_5 | | |
| Interaction with Transmit Inhibit | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| AL can override TxI | Not Supported | Not Supported | | |
| AL cannot override TxI | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| **End to End Encryption** | | | | |
| E2EE Voice Call | PASSED Regression 3_pass_of_8 | PASSED Complete 8_pass_of_8 | | |
| Individual (P2P) call | PASSED Regression 2_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Group (P2MP) call | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Clear Voice Override (CVO): Acceptance | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Clear Voice Override (CVO): User Initiated | Not Supported | Not Supported | | |
| Clear Voice Override (CVO): Automatic | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| **Air Interface Encryption** | | | | |
| Security Class 2 Air Interface Encryption | PASSED Regression 7_pass_of_20 | FAILED Complete 19_pass_of_20 | | |
| Location Updating and AI Signalling Protection | PASSED Regression 2_pass_of_7 | PASSED Complete 7_pass_of_7 | | |
| TM-SCK provisioning during location updating | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Communications between parties using encryption | PASSED Complete 2_pass_of_2 | PASSED Complete 2_pass_of_2 | | |

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|---|---|---|---|---|
| Communications between clear and encrypted parties | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Communications between encrypted parties on a channel designated to operate in clear | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| OTAR of TM-SCK | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Change of TM-SCK | PASSED Regression 1_pass_of_4 | FAILED Complete 3_pass_of_4 | | |
| Packet Data with Class 2 Air Interface Encryption | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Security Class 3 Air Interface Encryption | PASSED Regression 8_pass_of_21 | Incomplete 20_pass_of_21 | | |
| Clear Location Updating and AI Signalling Protection | Regression 0_pass_of_3 | Incomplete 8_pass_of_9 | | |
| Encrypted Location Updating and AI Signalling Protection | PASSED Regression 1_pass_of_5 | | | |
| DCK Forwarding at MS request | Not Supported | Not Supported | | |
| DCK Forwarding by SwMI (without MS request) | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| DCK Retrieval | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| CCK provisioning during location updating | Regression 0_pass_of_3 | Incomplete 3_pass_of_4 | | |
| Communications between parties using encryption | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Communications between clear and encrypted parties | PASSED Regression 2_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Communications between encrypted parties on a channel designated to operate in clear | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| OTAR of CCK | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |

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|---|---|---|---|---|
| Change of CCK | PASSED Regression 2_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| Packet Data with Class 3 Air Interface Encryption | PASSED Complete 2_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Security Class 3G Air Interface Encryption | PASSED Regression 3_pass_of_9 | Incomplete 8_pass_of_9 | | |
| GCK Key Association setting | Regression 0_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Communications between parties using encryption | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Communications between clear and encrypted parties | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| OTAR of GCK | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Change of GCK | PASSED Regression 2_pass_of_3 | Incomplete 2_pass_of_3 | | |
| Management of CMG and GSKO | Regression 0_pass_of_5 | PASSED Complete 5_pass_of_5 | | |
| OTAR and change of CMG and GSKO | Regression 0_pass_of_5 | PASSED Complete 5_pass_of_5 | | |
| Key Status demand | PASSED Regression 2_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| SCK Key Status demand | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| GCK Key Status demand | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| GSKO Key Status demand | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Change of Security Class for Fallback operation | PASSED Regression 1_pass_of_12 | PASSED Complete 12_pass_of_12 | | |
| Seamless change to Security Class 2 for BS Fallback operation | PASSED Regression 1_pass_of_10 | PASSED Complete 10_pass_of_10 | | |

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|---|---|---|---|---|
| Non-seamless change to Security Class 2 for BS Fallback operation | Not Supported | Not Supported | | |
| Provisioning of TM-SCK for fallback to Security Class 2 operation | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Change to Security Class 1 for BS Fallback operation | Not Supported | Not Supported | | |
| Change of Security Class (other than for Fallback operation) | PASSED Regression 2_pass_of_5 | PASSED Complete 5_pass_of_5 | | |
| Change between Security Class 3 and Security Class 3G | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Change between Security Class 2 and Security Class 3 | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Change from Security Class 3G to Security Class 2 | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Key Management for Secure Direct Mode Operation | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| OTAR of DM-SCK | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Change of DM-SCK | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| **Service Interaction** | | | | |
| MS initiated Service Interaction | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| MS initiated Circuit Mode Call during another Circuit Mode Call | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| MS initiated Circuit Mode Call during Packet Mode Transfer | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| MS initiated Packet Mode Transfer during Circuit Mode Call | Not Supported | Not Supported | | |

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|---|---|---|---|---|
| SwMI initiated Service Interaction | PASSED Regression 2_pass_of_6 | PASSED Complete 6_pass_of_6 | | |
| SwMI initiated Circuit Mode Call during another Circuit Mode Call | PASSED Regression 1_pass_of_4 | PASSED Complete 4_pass_of_4 | | |
| SwMI initiated Circuit Mode Call during Packet Mode Transfer | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| SwMI initiated Packet Mode Transfer during Circuit Mode Call | Not Supported | Not Supported | | |
| Call Waiting | | | | |
| Call Waiting in Individual Call | Not Supported | Not Supported | | |
| Call Waiting in Group Call | Not Supported | Not Supported | | |
| **Enable Disable** | | | | |
| Enable and temporary disable of an MS | PASSED Regression 3_pass_of_8 | PASSED Complete 8_pass_of_8 | | |
| Enable and temporary disable of an MS without authentication | PASSED Regression 1_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Enable and temporary disable of an MS with authentication | Not Supported | Not Supported | | |
| Registration of a temporary disabled MS | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |
| Rejection of applicable invalid enable/disable requests | PASSED Regression 1_pass_of_3 | PASSED Complete 3_pass_of_3 | | |
| Removable SIMs do not affect the subscriber or equipment that has been enabled/disabled | Not Supported | Not Supported | | |
| Disabling of an MS during a call or while on the PDCH | PASSED Complete 1_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Permanent disable of an MS | Regression 0_pass_of_2 | PASSED Complete 2_pass_of_2 | | |

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|---|---|---|---|---|
| Permanent disable of an MS with authentication | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| Permanently Disabled MS cannot send air interface signalling | Regression 0_pass_of_1 | PASSED Complete 1_pass_of_1 | | |
| **Key Delivery** | | | | |
| Delivery of Authentication Data | PASSED Complete 2_pass_of_2 | | | |
| Authentication Key Delivery | PASSED Complete 1_pass_of_1 | | | |
| ITSI Delivery | PASSED Complete 1_pass_of_1 | | | |
| Delivery of SCK | PASSED Complete 2_pass_of_2 | | | |
| SCK Delivery to SCK delivery | Not Supported | | | |
| SCK Delivery to SwMI | PASSED Complete 1_pass_of_1 | | | |
| SCK Delivery to SCK loading | PASSED Complete 1_pass_of_1 | | | |
| Delivery method | PASSED Complete 3_pass_of_3 | | | |
| Plain text on physical media | PASSED Complete 3_pass_of_3 | | | |
| Encrypted text on physical media | Not Supported | | | |
| Electronic transfer | Not Supported | | | |
| **RUA** | | | | |
| Radio User Assignment | PASSED Complete 14_pass_of_14 | | | |
| Radio User Assignment at Location Updating | PASSED Complete 6_pass_of_6 | | | |

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|---|---|---|---|---|
| Dispatcher initiated Radio User Assignment | PASSED Complete 2_pass_of_2 | | | |
| Radio User Dis-assignment | PASSED Complete 6_pass_of_6 | | | |
| **LIP** | | | | |
| Location Information Protocol | PASSED Complete 10_pass_of_10 | | | |
| LIP over SDS | PASSED Complete 5_pass_of_5 | | | |
| LIP over Packet Data | PASSED Complete 1_pass_of_1 | | | |
| Time based reporting | PASSED Complete 5_pass_of_5 | | | |
| Distance based reporting - NOT TESTABLE | Not Supported | | | |
| Reporting using Long reports | PASSED Complete 1_pass_of_1 | | | |
| Reporting Enable & Disable | Not Supported | | | |
| Temporary reporting control | Not Supported | | | |
| Trigger modification | Not Supported | | | |
| Immediate Location Reporting | PASSED Complete 1_pass_of_1 | | | |
| Reporting Lifetimes | Not Supported | | | |
| Error Reporting | PASSED Complete 2_pass_of_2 | | | |
| **Callout** | | | | |
| Full Callout | PASSED Complete 13_pass_of_13 | | | |

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|---|---|---|---|---|
| Individually Addressed Full Callout with request for Terminal Receipt message and with request for User Receipt message | PASSED Complete 2_pass_of_2 | | | |
| Group Addressed Full Callout without request for Terminal Receipt message and without request for User Receipt message | N/A | | | |
| Using current selected group during Full Callout | N/A | | | |
| Full Callout with immediate change to Callout Group | PASSED Complete 1_pass_of_1 | | | |
| Full Callout with change to Callout Group on non-rejecting user response | PASSED Complete 1_pass_of_1 | | | |
| Full Callout with rejecting User Receipt message | PASSED Complete 1_pass_of_1 | | | |
| Full Callout with timeout for User Receipt message | PASSED Complete 1_pass_of_1 | | | |
| Callout Incident Information messages | PASSED Complete 2_pass_of_2 | | | |
| Group Call to Callout Group | PASSED Complete 4_pass_of_4 | | | |
| End of Full Callout | PASSED Complete 3_pass_of_3 | | | |
| Simple Callout | | | | |
| Individually Addressed Callout with request for Terminal Receipt message and with request for User Receipt message | Not Supported | | | |

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|---|---|---|---|---|
| Individually Addressed Callout with request for Terminal Receipt message and without request for User Receipt message | Not Supported | | | |
| Group Addressed Callout without request for Terminal Receipt message and without request for User Receipt message | Not Supported | | | |
| Group Addressed Callout without request for Terminal Receipt message and with request for User Receipt message | Not Supported | | | |
| Simple Callout with rejecting User Receipt message | Not Supported | | | |
| Simple Callout with timeout for User Receipt message | Not Supported | | | |
| Interaction with other services and events | FAILED Complete 25_pass_of_27 | | | |
| Interaction with previous Callout | PASSED Complete 2_pass_of_2 | | | |
| Interaction with emergency call | PASSED Complete 3_pass_of_3 | | | |
| Interaction with non-emergency call | PASSED Complete 11_pass_of_11 | | | |
| Interaction with data and status | FAILED Complete 8_pass_of_11 | | | |
| Interaction with local services | Not Supported | | | |
| Manual exit | PASSED Complete 1_pass_of_1 | | | |
| Callout Test and Callout Availability | | | | |

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|---|---|---|---|---|
| Callout Test | Not Supported | | | |
| Callout Availability | Not Supported | | | |
| Callout Text and Callout Pre-Coded Status | PASSED Complete 7_pass_of_7 | | | |
| Callout Text | PASSED Complete 4_pass_of_4 | | | |
| Concatenated Callout Text | PASSED Complete 3_pass_of_3 | | | |
| Callout Pre-Coded Status | Not Supported | | | |
| Storage of Callout Information | PASSED Complete 2_pass_of_2 | | | |
| Viewing Callout information from previous Callout(s) | PASSED Complete 1_pass_of_1 | | | |
| Deletion of Callout information from previous Callout(s) | PASSED Complete 1_pass_of_1 | | | |

## Annex A

**List of Revisions of the Certificate**

| Date | Ver. | Modification |
|---|---|---|
| 8 October 2014 | 1 | First published version |
| 22 October 2014 | 2 | updating:<br>"A SwMI declaration is changed to reflect the inability to support group addressed Full Callout as per the TIP specification" consequently has changed the number of "Full Callout" tests on "Feature compliance report" Table. |
| 24 March 2016 | 3 | Re-instated the SwMI group addressed Full Callout declaration, to "yes" as the process only allows declaration changes in case of human errors. This case was not a human error, the fault was in the Callout host application simulator. The following updates have been done:<br>"Feature compliance report" table outcomes from "Not Supported" to "N/A" for "Group Addressed Full Callout without request for Terminal Receipt message and without request for User Receipt message" and for "Using current selected group during Full Callout". |

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