TETRA Interoperability Certificate

Cassidian, Tetra System Rel.6.0, SwMI – Motorola, MTM5400, Terminal

Helsinki, December 2012

Latest Certified SwMI SW Release:	Rel6.0 10.3-0 CD9	**Latest Certified Terminal SW Release:**	MR10.3TEDS
Latest Certified SwMI HW Release:	M98F2	**Latest Certified Terminal HW Release:**	MT953C

ISCTI (Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione) certifies, that the Cassidian, Tetra System Rel.6.0, SwMI and the Motorola, MTM5400, 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 multiple test session between Cassidian and Motorola on December 2012. 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.

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Date of issue

14 January 2013

V2

Certified features

Tetra Association TTR001-05:PD	
Context Management	Certified
Single Slot Packet Data	Certified
Multi Slot Packet Data	-
TEDS	Certified
Mixed band operation	-

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 white 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
Verified	The CB has verified that the identified number of tests were successfully passed based on the log file evaluation. In addition some of the tests may have been witnessed by the CB.

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	**Cassidian, Helsinki, December 2012**			
SwMI Type	Tetra System Rel.6.0			
SwMI HW Release	M98F2			
SwMI SW Release	Rel6.0 10.3-0 CD9			
Terminal Type	MTM5400			
Terminal HW Release	MT953C			
Terminal SW Release	MR10.3TEDS			
TIP Specs and TIP Compliance Test Plans				
PD	TTR001-05 v3.0.0 IOP001-05 v3.0.5 TIC-RT001-05 v303			

Feature compliance report

Test Session	Cassidian Helsinki December 2012			
TETRA Packet Data				
Context Management	PASSED Complete 7_pass_of_7			
Context Activation	PASSED Complete 7_pass_of_7			
User authentication	Not Supported			
Single Slot Packet Data	PASSED Complete 10_pass_of_10			
Data Transfer	PASSED Complete 7_pass_of_7			
Cell re-selection	PASSED Complete 3_pass_of_3			
Multi Slot Packet Data				
Data Transfer	Not Supported			
TEDS	PASSED Complete 18_pass_of_18			
TEDS with Context Activation	PASSED Complete 2_pass_of_2			
TEDS Data Transmission	PASSED Complete 7_pass_of_7			
TEDS Cell Reselection	PASSED Complete 9_pass_of_9			
Mixed band operation				
Mixed band operation, inter-cell	Not Supported			
Mixed band operation, intra-cell	Not Supported			
Mixed band operation, Full	Not Supported			

Annex A

List of Revisions of the Certificate		
Date	**Ver.**	**Modification**
9 January 2013	1	First published version
14 January 2013	2	updating: - Updated Number of “Passed” for TEDS sub-feature on page 6

IOP Test Engineer

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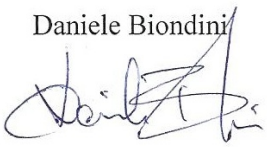

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