



TETRA SwMI Interoperability Certificate

10 September 2002

Frequentis/Damm (Motorola Compact TETRA)

Telelaboratoriet (TDC Mobil A/S) has witnessed that the Frequentis/Damm infrastructure is operating in accordance with

TTR 001-02 v1.0.1 (Aug 2001), TETRA Interoperability Profile (TIP)
version 3 Part 2: Short Data Service

for the following features:

Features	Tested (Yes/No)
• MS to MS SDS types 1-3	Yes
• MS to Group SDS types 1-3	No
• MS to MS SDS type 4 without using SDS-TL	No
• MS to Group SDS type 4 without using SDS-TL	No
• MS to MS SDS type 4 using SDS-TL	Yes
• MS to Group SDS type 4 using SDS-TL	Yes

The tests have been performed on Frequentis/Damm infrastructure (Motorola Compact TETRA) during the period 15th-18th April 2002 with hardware release CTS200/CTS100 and software release 1.1.

The test results for the tested features can be found in table 1 of this certificate.

Authorised IOP test engineer

Telelaboratoriet, TDC Mobil A/S

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Telelaboratoriet (TDC Mobil A/S) has made every effort to ensure that tests have been made correctly, and in accordance with TIP V3 Short Data Service. Telelaboratoriet (TDC Mobil A/S) has no liability for the test results, or towards the manufacturers.

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Information about the equipment used for testing

The tests performed during 15th-18th of April 2002 were performed using the following terminals:

Manufacturer	Terminal Type	Software/Hardware Release No.
Nokia	THR 850	SW: 322 30-0 HW: THR-3
Motorola	MTP700	SW: R76.02.01 HW: H47QCM6TZ5AN
Cleartone	CM9000P	SW: TMP 36G4A HW: 1.5
Teltronic	MDT-400	SW: 02.02b18 HW: 00.03.00.01

The testing was performed at the premises of Frequentis.

Additional information about the tests performed

The tests for the Nokia THR850, Motorola MTP700, Cleartone CM9000P and Teltronic MDT-400 terminals were performed in the 380-400 MHz band. The SwMI was operating with the following configuration:

MCC	232
MNC	8
Colour code	47
LA11 carrier frequency (BS Tx)	391.2625 MHz
PSTN gateway	16777184
Subscriber classes	FFFF ₁₆

The test for the Teltronic MDT-400 terminal was performed in the 410-430 MHz band. The SwMI was operating with the following configuration:

MCC	232
MNC	8
Colour code	47
LA21 carrier frequency (BS Tx)	422.5000 MHz
PSTN gateway	16777184
Subscriber classes	FFFF ₁₆



Test Results

The table indicates whether or not tests addressing a specific requirement of the TIP specification have been performed, whether or not the requirement is applicable for the combination of the SwMI and the terminal, and the result of the test if executed. Each entry of the table may take one of six values: -: No test performed, N/A: Not applicable, P: Pass, F: Fail, I: Inconclusive or NTA: No test case being available. NTA will only be allocated if both SwMI and terminal has indicated that they support (comply with) the corresponding feature (requirement); if either has indicated the feature (requirement) as not being supported then the entry will be N/A. In case of all entries of a row being N/A it should be assumed that this feature is not supported by the SwMI.

The test results have been derived from examining the behaviour of a live system. The verdicts indicated are based on the log evaluation of the information exchange between the SwMI and the terminals indicated in the table. The verdicts reflect the fact that at the time of the IOP testing it was or it was not possible to demonstrate a behaviour that was in accordance with the related requirement.

Table 1: Tests performed during the period 15th-18th of April 2002

Abbreviations:

- : Not performed.
- N/A: Not applicable
- P: Pass
- F: Fail
- I: Inconclusive
- NTA: No test case available

Frequentis/Damm SwMI	Nokia THR 850	Cleartone CM9000P	Motorola MTP700	Teltronic ¹ MDT-400	Teltronic ² MDT-400
7 User defined data type 1, 2 and 3 (Test case Number index)					
7 Type 1	NTA	NTA	NTA	NTA	NTA
7 Type 2	NTA	NTA	NTA	NTA	NTA
7 Type 3 (5.1)	N/A	P ³	N/A	P	P
8 User defined data type 4 without SDS-TL					
8.1 User defined data type 4 with SDS-TL					
8.1.2 MS to MS, Standard Report	NTA	NTA	NTA	NTA	NTA
8.1.2 MS to MS, Standard Report with Store and Forward	NTA	NTA	NTA	NTA	NTA
8.1.3 MS to MS, Short Report	NTA	NTA	NTA	NTA	NTA
8.2 Text messaging					
8.2.1.4 No acknowledgement requested (5.3)	P	P ⁴	-	P	P
8.2.1.4 MS to MS, Standard report (5.2)	P	P	-	P ⁵	-
8.2.2 MS to MS, Short report (5.2)	-	-	P	-	P

Comments:

- 1) The terminal is tested in lower frequency band (380-400 MHz).
- 2) The terminal is tested in high frequency band (410-430 MHz).
- 3) The test is supposed to be performed with mixed terminals (manufacturers) as originating MS and destination MS, but only Cleartone terminals supporting this functionality were available at the time of testing.
- 4) The test is performed with a 33 character long text message where the expected length is 120 character.
- 5) Both Delivery Report and Consumed Report are exchanged between the Teltronic MS and the destination MS.

Test setup description

All tests are carried out on a single site system with one carrier using standard antenna configurations.

