



IST doc.10 rev.1

# TETRA Terminal Interoperability Certificate

January 2004

**NOKIA**

Manufacturer	Type	Software/Hardware Release No.	Period of testing
<b>Nokia</b>	<b>THR 880</b>	<b>SW: 6.15-3 HW: THR-4</b>	<b>03-04/02/2004</b>

ISCTI (Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione) has witnessed that the Nokia THR 880 Terminal is operating in accordance with:

## TETRA Interoperability Profile:

TETRA MoU, TTR001-01, Core, Ver. 3.0.13, June 2001  
TETRA MoU, TTR001-02, SDS, Ver. 1.0.1, August 2001  
TETRA MoU, TTR001-04, Authentication, Ver. 1.0.0, November 2000  
TETRA MoU, TTR001-05, Packet Data, Ver. 1.0.0, November 2000

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

Authorised IOP test engineer  
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Radio Office Manager  
(Ing. A. La Padula)



## Information on the equipments used for testing in the Jan. 2004 IOP Test Session

The tests were performed using the following SwMI:

Manufacturer	Type	Software/Hardware Release No.
Teltronic	Nebula	SW: Rel.3.07 HW: Rel.00.03.01.07

## Additional information about the test performed

The tests were performed in the LA1 and LA2 sites. The SwMI was operating with the following configuration:

MCC	214
MNC	13
Colour code	47
LA1 carrier frequency (BS Tx)	394,575 MHz
LA2 carrier frequency (BS Tx)	396,425 MHz
PSTN gateway telephone number	16777184
Subscriber classes	FFFF <sub>16</sub>

**Note:** TIP compliance testing focuses on functionality on the OSI model layers two, three and higher and therefore is frequency band independent.



## IOP Test Plans used for testing

The following Test Plans were used in the Test Session:

TETRA MoU, IOP001-01, Core, Ver. 1.1.0

TETRA MoU, IOP001-02, SDS, Ver. 1.1.0

TETRA MoU, IOP001-04, Authentication, Ver. 1.1.0

TETRA MoU, IOP001-05, Packet Data, Ver. 1.1.0

## Test Results

The test results are shown in the tables below.

Test results and the certificates from previous IOP test session are available on TETRA MoU web site (<http://www.tetramou.com/interoperability>).

Tables indicate whether or not tests addressing a specific requirement of the TIP specification have been performed, whether or not the requirement is applicable for the SwMI, and the result of the test if executed. Each entry of the table may take one of seven values:

-	No test performed.
<b>N/A</b>	Not applicable for the SwMI
<b>No</b>	Not supported by Terminal
<b>NTPA</b>	No Test Plan/case Available
<b>P</b>	Pass
<b>F</b>	Fail
<b>I</b>	Inconclusive

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 following tables. The verdicts reflect the fact that at the time of the IOP testing it was/was not possible to demonstrate a behaviour that was in accordance with the related requirement.

ISCTI has made every effort to ensure that tests are in accordance with the relevant TIPs. ISCTI has no liability for the test results, or towards the manufacturers.



<b>Teltronic SwMI</b>		<b>Nokia THR880</b>
<b>CORE TTR001-01</b>		
<b>6</b>	<b>Registration</b>	
6.1	<b>ITSI attach</b> ITSI attach without group attachment – 1.1	-
6.2	<b>ITSI attach including group attachment</b> ITSI attach including group attachment – 1.2	No
6.2	<b>ITSI attach including group attachment</b> MS initiated Multiple group attachment during MS registration – 2.2.1	No
6.3	<b>Roaming &amp; periodic location updating</b> Cell re-selection without communication activity – 7.1.1	P
6.4	<b>SwMI initiated location updating</b> SwMI initiated location updating without group reporting – 1.3.1	N/A
6.4	<b>SwMI initiated location updating</b> SwMI initiated location updating with group reporting – 1.3.2	N/A
6.5	<b>De-registration</b> De-registration – 1.4	-
<b>7</b>	<b>Individual call</b>	
7.1	<b>Call set-up</b>	
7.1.1	<b>Hook signalling</b> Individual hook call set-up – 4.1.1	No
7.1.1	<b>Hook signalling</b> Individual call set-up, resource queuing – 4.1.3	No
7.1.1	<b>Hook signalling</b> Duplex call set-up – 4.2.1	-
7.1.1	<b>Hook signalling</b> Duplex call set-up, resource queuing – 4.2.2	P
7.1.1	<b>Hook signalling</b> MS-ISDN Individual call – 9.1	N/A
7.1.2	<b>Direct through-connect</b> Individual call set-up, resource queuing – 4.1.3	P
7.1.2	<b>Direct through-connect</b> MS-ISDN Individual call – 9.1	N/A
7.1.2	<b>Direct through-connect</b> Individual direct call set-up – 4.1.2	-
7.1.3	<b>Call set-up Modifications</b>	
7.1.3.1.4	<b>Point to point' to 'point to multipoint'</b> Emergency call set-up, P2P to P2MP call modification – 6.2.2	N/A
7.1.3.2.1	<b>Direct to hook</b> Call set-up Modification by called party, Direct to hook – 4.3.1	-
7.1.3.2.3	<b>Duplex to simplex</b> Call set-up modification by Called Party, duplex to semiduplex – 4.3.2	-
7.2	<b>Transmission control</b>	
7.2.1	<b>End of transmission</b> Individual hook call set-up – 4.1.1	No
7.2.1	<b>End of transmission</b> Individual direct call set-up – 4.1.2	-
7.2.2	<b>Request to transmit</b> Individual hook call set-up – 4.1.1	No
7.2.2	<b>Request to transmit</b> MS-ISDN Individual call – 9.1	N/A
7.2.2	<b>Request to transmit</b> Individual direct call set-up – 4.1.2	-
7.2.3	<b>Request to transmit (in the presence of an active talker)</b> Pre-emptive speech item request, non pre-emptive transmission request queuing – 4.1.4	P
7.2.3	<b>Request to transmit (in the presence of an active talker)</b> Pre-emptive speech item request, non pre-emptive transmission request rejection – 4.1.5	N/A
7.2.3	<b>Request to transmit (in the presence of the an active talker)</b> MS-ISDN Individual call – 9.1	N/A
7.3	<b>Call Maintenance</b> Queuing during Individual call restoration, Transmitting – 7.3.4.1	N/A
7.3	<b>Call Maintenance</b> Queuing during Individual call restoration, Receiving. (Announced Type 3) – 7.3.4.2	N/A



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7.3	<b>Call Maintenance</b> Queuing during Individual call restoration, Receiving (Unannounced) – 7.3.4.3	N/A
7.3	<b>Call Maintenance</b> Queuing during Individual call restoration, Communication inactivity. (Announced Type 3) – 7.3.5.1	N/A
7.3	<b>Call Maintenance</b> Queuing during Individual call restoration, Communication inactivity (Unannounced) – 7.3.5.2	N/A
7.3	<b>Call Maintenance</b> Queuing during Duplex call restoration (Announced type 3) – 7.4.2	N/A
7.4	<b>Call disconnection</b> Individual hook call set-up – 4.1.1	No
7.4	<b>Call disconnection</b> Individual direct call set-up – 4.1.2	-
7.4	<b>Call disconnection</b> Duplex call set-up – 4.2.1	-
7.5	<b>Emergency individual call</b> Emergency individual call. Resource pre-emption – 6.2.1	P
7.5.1	<b>Emergency speech item request</b> Emergency individual call. Resource pre-emption – 6.2.1	P
7.5.2	<b>Emergency individual call modification</b> Emergency call set-up, P2P to P2MP call modification – 6.2.2	N/A
8	<b>Group management</b>	
8.1	<b>General Requirements</b> Status to scanned group – 5.1.2.3	P
8.2.5	<b>Class of usage values 101<sub>2</sub>, 011<sub>2</sub>, 010<sub>2</sub>, High, normal, low priority scanned</b> Status to scanned group – 5.1.2.3	P
8.2.7	<b>Selected group and SwMI initiated attachment/detachments</b> SwMI initiated Temporary 1 group detachment and re-attachment of selected group – 2.4.2	N/A
8.2.7	<b>Selected group and SwMI initiated attachment/detachments</b> SwMI initiated Temporary 1 group detachment and re-attachment of the non-selected group – 2.4.3	N/A
8.4	<b>Attachment of the selected group</b> MS initiated single group attachment of the selected group by an MS, which can operate without a selected group, attachment accepted – 2.1.1	-
8.4	<b>Attachment of the selected group</b> MS initiated single group attachment of the selected group, by an MS, which can operate without a selected group, rejection – 2.1.3	-
8.4	<b>Attachment of the selected group</b> Null group attachment as the selected group – 2.1.5	-
8.4	<b>Attachment of the selected group</b> Change of selected group – 2.1.6	-
8.5	<b>Multiple group attachment</b> MS initiated single group attachment of other than selected group, attachment accepted – 2.1.2	P
8.5	<b>Multiple group attachment</b> MS initiated single group attachment of other than selected group, rejection – 2.1.4	P
8.5	<b>Multiple group attachment</b> MS initiated Multiple group attachment, rejection of some of the attached groups – 2.2.5	P
8.5	<b>Multiple group attachment</b> MS initiated Multiple group attachment with attachment to selected group – 2.2.2	P
8.5	<b>Multiple group attachment</b> MS initiated Multiple group attachment during MS registration – 2.2.1	P
8.5	<b>Multiple group attachment</b> Ms initiated Multiple group attachment with no selected group – 2.2.3	P
8.5	<b>Multiple group attachment</b> MS initiated Multiple group attachment, only the attachment of the selected group is accepted – 2.2.4	N/A
8.6	<b>MS initiated detachment</b> MS initiated group detachment of the selected group – 2.3.1	P



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8.6	<b>MS initiated detachment</b> MS initiated group detachment of the selected group and an attached group – 2.3.2	P
8.7	<b>SwMI initiated group attachment and detachment</b>	
8.7.1	<b>SwMI initiated detachment</b> SwMI initiated group detachment with another value than Temporary 1 detachment and attachment – 2.4.1	N/A
8.7.1	<b>SwMI initiated detachment</b> SwMI initiated Temporary 1 group detachment and re-attachment of selected group – 2.4.2	N/A
8.7.1	<b>SwMI initiated detachment</b> SwMI initiated Temporary 1 group detachment and re-attachment of the non-selected group – 2.4.3	N/A
8.7.2	<b>SwMI initiated attachment</b> SwMI initiated group detachment with another value than Temporary 1 detachment and attachment – 2.4.1	N/A
8.7.2	<b>SwMI initiated attachment</b> SwMI initiated Temporary 1 group detachment and re-attachment of the non-selected group – 2.4.3	N/A
8.7.2	<b>SwMI initiated attachment</b> SwMI initiated Temporary 1 group detachment and re-attachment of selected group – 2.4.2	N/A
8.7.4	<b>SwMI initiated location updating with group report request</b> SwMI initiated location updating with group reporting – 1.3.2	N/A
8.7.5	<b>SwMI initiated registration without group report request</b> SwMI initiated location updating without group reporting – 1.3.1	N/A
9	<b>Group call</b>	
9.1	<b>Call set-up</b> Normal Group call – 3.1	-
9.1	<b>Call set-up</b> Group Call set-up, resource queuing – 3.3	-
9.1	<b>Call set-up</b> MS-ISDN group call – 9.2	N/A
9.1	<b>Call set-up</b> Group scanning – 3.8	P
9.1.2	<b>Call set-up modifications</b> Group call-SwMI changes requested call priority – 3.7	N/A
9.2.1	<b>End of transmission</b> Normal Group call – 3.1	-
9.2.1	<b>End of transmission</b> Group scanning – 3.8	P
9.2.2	<b>Request to transmit</b> Normal Group call – 3.1	-
9.2.2	<b>Request to transmit</b> MS-ISDN group call – 9.2	N/A
9.2.2	<b>Request to transmit</b> Pre-emptive speech item request, non pre-emptive transmission request queuing – 3.4	-
9.2.2	<b>Request to transmit</b> Group scanning – 3.8	P
9.2.2	<b>Request to transmit</b> Pre-emptive speech item request, non pre-emptive transmission request rejection – 3.5	N/A
9.3	<b>Call disconnection</b> Normal Group call – 3.1	-
9.3	<b>Call disconnection</b> Group call disconnection by call owner MS – 3.6	P
9.4	<b>Late entry</b> Late entry – 3.2	-
9.5	<b>Emergency group call</b>	
9.5	<b>Emergency group call</b> Emergency call set-up to busy group, speech item interruption – 6.1.1	P
9.5	<b>Emergency group call</b> Emergency group call resource pre-emption – 6.1.2	P
9.5	<b>Emergency group call</b> Pre-emption during group call restoration. Transmitting (Announced Type 3) – 7.2.5	N/A
9.5.1	<b>Emergency speech item request</b> Emergency call set-up to busy group speech item interruption – 6.1.1	P
9.5.2	<b>Emergency group call modification</b> Emergency call set-up, P2MP to P2P call modification – 6.1.3	N/A



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<b>10</b>	<b>Cell re-selection</b>	
<b>10.1</b>	<b>Undeclared cell re-selection</b> Cell re-selection without communication activity – 7.1.1	<b>P</b>
<b>10.2</b>	<b>Cell re-selection with call restoration</b>	
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Group call restoration, Receiving (Unannounced) – 7.2.2	<b>P</b>
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Queuing during Group call restoration, Receiving (Unannounced) – 7.2.4	<b>P</b>
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Queuing during Individual call restoration, Receiving (Unannounced) – 7.3.4.3	<b>P</b>
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Queuing during individual call restoration, Communication inactivity (Unannounced) – 7.3.5.2	<b>P</b>
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Individual call restoration, Receiving (Unannounced) – 7.3.2.2	<b>P</b>
<b>10.2.1</b>	<b>Unannounced cell re-selection</b> Individual call restoration, Communication inactivity (Unannounced) – 7.3.3.2	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Group call restoration, Transmitting. (Announced Type 3) – 7.2.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Queuing during group call restoration, Transmitting (Announced type 3) – 7.2.3	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Pre-emption during group call restoration. Transmitting. (Announced type 3) – 7.2.5	<b>N/A</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Individual call restoration, Transmitting party – 7.3.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Individual call restoration. Receiving (Announced Type 3) – 7.3.2.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Queuing during Individual call restoration, Communication inactivity. (Announced Type 3) – 7.3.5.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Queuing during individual call restoration, Transmitting – 7.3.4.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Queuing during Individual call restoration, Receiving (Announced Type 3) – 7.3.4.2	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Individual call restoration, Communication inactivity (Announced Type 3) – 7.3.3.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Duplex call restoration (Announced Type 3) – 7.4.1	<b>P</b>
<b>10.2.2</b>	<b>Announced cell re-selection Type without Preferred Neighbour Selected</b> Queuing during Duplex call restoration (Announced Type 3) – 7.4.2	<b>P</b>
<b>10.2.3</b>	<b>Announced cell re-selection Type with Preferred Neighbour Selected</b> Group call announced cell-reselection with preferred neighbour selected and with call restoration, Transmitting – 7.2.7	<b>N/A</b>



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10.2.3	<b>Announced cell re-selection Type with Preferred Neighbour Selected</b> Individual call, Announced cell re-selection with Preferred Neighbour Selected and with Call Restoration Transmitting – 7.3.6	N/A
10.3	<b>Cell re-selection without call restoration</b>	
10.3.1	<b>Announced Type with Preferred Neighbour Selected and without Forward Registration</b> Group call, Announced cell re-selection without Call Restoration, (Seamless Hand-over) without Forward Registration Transmitting – 7.2.6	N/A
10.3.1	<b>Announced Type with Preferred Neighbour Selected and without Forward Registration</b> Duplex call, Announced cell-re-selection without Call Restoration (Seamless Handover), without Forward Registration – 7.4.3	N/A
10.3.2	<b>Announced Type with Preferred Neighbour Selected and with Forward Registration</b> Individual call, Announced cell re-selection without Call Restoration with Forward Registration, Transmitting – 7.3.7	N/A
10.3.2	<b>Announced Type with Preferred Neighbour Selected and with Forward Registration</b> Group call, Announced cell re-selection without Call Restoration with Forward Registration, Transmitting – 7.2.8	N/A
11	<b>Short data service</b>	
11.1.1	<b>Service Overview</b> MS-ISDN addressed individual Status message – 9.3	N/A
11.1.1	<b>Service Overview</b> MS-ISDN addressed group Status message – 9.4	N/A
11.1.3.1	<b>MS to Wireline Dispatcher with Status Acknowledge</b> Status transfer to Dispatcher – 5.1.2.2	N/A
11.1.3.2	<b>MS to MS/Group with General Status Acknowledge</b> Status transfer to group – 5.1.2.1	P
11.1.3.2	<b>MS to MS/Group with General Status Acknowledge</b> Individual addressed status transfer – 5.1.1	P
11.1.3.2	<b>MS to MS/Group with General Status Acknowledge</b> Status to scanned group - 5.1.2.3	P
11.1.3.2	<b>MS to MS/Group with General Status Acknowledge</b> MS-ISDN addressed group Status message – 9.4	N/A
11.1.3.2	<b>MS to MS/Group with General Status Acknowledge</b> MS-ISDN addressed individual Status message – 9.3	N/A
12	<b>Telephone call</b>	
12.2	<b>Call Set-up</b>	
12.1	<b>Gateway addresses</b> TETRA-originated call set-up – 8.1	-
12.2.1	<b>MS Originated, Late Through-Connect</b> TETRA-originated call set-up – 8.1	-
12.2.2	<b>MS Originated, Early Through-Connect</b> TETRA-originated call set-up – 8.1	-
12.2.3	<b>MS Originated, Call Queued</b> TETRA-originated call set-up queuing – 8.2	-
12.2.4	<b>MS terminated</b> PSTN originated call – 8.3	P
12.4	<b>DTMF Over dial</b> TETRA-originated successful DTMF over-dial – 8.4	-
12.4	<b>DTMF Over dial</b> TETRA-originated unsuccessful DTMF over-dial – 8.5	N/A
12.5	<b>Disconnect Causes</b> TETRA-originated call set-up – 8.1	-





<b>Teltronic SwMI</b>		<b>Nokia THR880</b>
12.5	<b>Disconnect Causes</b> TETRA-originated call set-up queuing – 8.2	-
12.5	<b>Disconnect Cause</b> PSTN originated call – 8.3	<b>P</b>
12.6	<b>Emergency telephone call</b> Emergency call to emergency number – 6.3.1	<b>P</b>
<b>14</b>	<b>Layer 2 operation</b>	
14.1.1.2	<b>Traffic channel (TCH)</b> Usage of SACCH during group call – 10.2	-
14.1.1.2	<b>Traffic channel (TCH)</b> Usage of SACCH during individual call – 10.4	-
14.1.1.4	<b>Up-link FACCH and down-link TCH</b> Usage of FACCH during group call – 10.1	<b>P</b>
14.1.1.4	<b>Up-link FACCH and down-link TCH</b> Usage of FACCH during individual call – 10.3	<b>P</b>
<b>SDS TTR 001-02</b>		
<b>6</b>	<b>Service Overview</b>	
6.1	<b>Addressing</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>
6.1	<b>Addressing</b> MS-ISDN addressed group SDS-TL message – 9.6 Core	<b>N/A</b>
<b>7</b>	<b>User defined data Type 1, 2 and 3</b>	
7	<b>User defined data Type 1, 2 and 3</b> Individual addressed SDS Type 1 transfer – 1.1.1	<b>No</b>
7	<b>User defined data Type 1, 2 and 3</b> Individual addressed SDS Type 2 transfer – 1.2.1	<b>No</b>
7	<b>User defined data Type 1, 2 and 3</b> Individual addressed SDS Type 3 transfer – 1.3.1	<b>No</b>
<b>8</b>	<b>User defined data Type 4</b>	
8.1	<b>User defined data Type 4</b> SDS-TL message to scanned group (without acknowledgement) – 1.4.3	<b>P</b>
8.1.2	<b>MS to MS, Standard Report</b> Individual addressed text messaging using SDS-TL, (with acknowledgement) – 1.4.1	<b>P</b>
8.1.2	<b>MS to MS, Standard Report</b> Group addressed text messaging using SDS-TL, (without acknowledgement) – 1.4.2	<b>P</b>
8.1.2	<b>MS to MS, Standard report</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>
8.1.2	<b>MS to MS, Standard report</b> Usage of FACCH during group call – 10.1 Core	<b>P</b>
8.1.2	<b>MS to MS, Standard report</b> MS-ISDN addressed group SDS-TL message – 9.6 Core	<b>N/A</b>
8.1.2	<b>MS to MS, Standard report</b> Usage of SACCH during group call – 10.2 Core	-
8.1.2	<b>MS to MS, Standard report</b> Usage of SACCH during individual call – 10.4 Core	-
8.1.2	<b>MS to MS, Standard report</b> Usage of FACCH during individual call – 10.3 Core	<b>P</b>
8.1.3	<b>MS to MS, Short Report</b> Individual addressed text messaging using SDS-TL, (with acknowledgement) – 1.4.1	<b>P</b>
8.1.3	<b>MS to MS, Short Report</b> Group addressed text messaging using SDS-TL, (without acknowledgement) – 1.4.2	-
8.1.3	<b>MS to MS, Short report</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>



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8.1.3	<b>MS to MS, Short report</b> Usage of FACCH during individual call – 10.3 Core	<b>P</b>
8.1.3	<b>MS to MS, Short report</b> Usage of SACCH during individual call – 10.4 Core	-
<b>8.2</b>	<b>Text messaging</b>	
8.2.1.2	<b>Text Length</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>
8.2.1.2	<b>Text Length</b> MS-ISDN addressed group SDS-TL message – 9.6 Core	<b>N/A</b>
8.2.1.3	<b>Data Coding Scheme</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>
8.2.1.3	<b>Data Coding Scheme</b> MS-ISDN addressed group SDS-TL message – 9.6 Core	<b>N/A</b>
8.2.1.4	<b>PDU Contents</b> Usage of FACCH during group call – 10.1 Core	<b>P</b>
8.2.1.4	<b>PDU Contents</b> MS-ISDN addressed individual SDS-TL message – 9.5 Core	<b>N/A</b>
8.2.1.4	<b>PDU Contents</b> Usage of SACCH during group call – 10.2 Core	-
8.2.1.4	<b>PDU Contents</b> MS-ISDN addressed group SDS-TL message – 9.6 Core	<b>N/A</b>
8.2.1.4	<b>PDU contents Report</b> Group addressed text messaging using SDS-TL, (without acknowledgement) – 1.4.2	<b>P</b>
8.2.1.4	<b>PDU contents</b> SDS-TL message to scanned group (without acknowledgement) – 1.4.3	<b>P</b>
<b>AUTHENTICATION TTR 001-04</b>		
<b>7</b>	<b>Authentication functions</b>	
7.1	<b>SwMI initiated authentication</b> Successful ITSI attach with authentication – 1.1.1	<b>P</b>
7.1	<b>SwMI initiated authentication</b> Rejected registration, authentication failure – 1.1.2	<b>P</b>
7.1	<b>SwMI initiated authentication</b> Successful roaming location update with authentication – 1.1.3	<b>P</b>
<b>PACKET DATA TTR 001-05</b>		
<b>7</b>	<b>Packet Data functions</b>	
<b>7.1</b>	<b>Context Activation</b>	
7.1.1	<b>TE IPCP Initiated, Static Address (TE supplied)</b> Packet Data context activation, static IP address – 1.1.1	<b>P</b>
7.1.2	<b>TE IPCP Initiated, Dynamic Address</b> Packet Data context activation, Dynamic IP address – 1.1.2	<b>P</b>
7.1.3	<b>User Authentication using PAP</b> Packet Data context activation, with PAP user authentication – 1.1.3	<b>P</b>
7.1.3	<b>User Authentication using PAP</b> Packet Data context activation, APN index selected – 1.1.5	<b>N/A</b>
7.1.4	<b>User Authentication using CHAP</b> Packet Data context activation, with CHAP user authentication – 1.1.4	<b>N/A</b>
7.1.5	<b>Failed user authentication</b> Packet Data context activation rejected, PAP user authentication – 1.1.7	<b>P</b>
7.1.5	<b>Failed user authentication</b> Packet Data context activation rejected, CHAP user authentication – 1.1.8	<b>N/A</b>
7.1.6	<b>Provisioning Reject</b> Packet Data context activation, activation rejected – 1.1.6	<b>P</b>



<b>Teltronic SwMI</b>		<b>Nokia THR880</b>
<b>7.1.6</b>	<b>Provisioning Reject</b> Packet Data context activation rejected, invalid APN index selected – 1.1.9	<b>N/A</b>
<b>7.2</b>	<b>Context Deactivation</b>	
<b>7.2.1</b>	<b>MS initiated deactivation</b> Packet Data context deactivation, MS initiated, AL established – 1.2.4	<b>P</b>
<b>7.2.1</b>	<b>MS initiated deactivation</b> Packet Data context deactivation, MS initiated, AL not established – 1.2.3	<b>P</b>
<b>7.2.1.1</b>	<b>Explicit on SwMI PDCH access</b> Data transmission, SwMI initiated PDCH access, MS reject – 1.3.7	<b>P</b>
<b>7.2.2</b>	<b>SwMI initiated deactivation</b> Packet Data context deactivation, SwMI initiated, AL not established – 1.2.1	<b>P</b>
<b>7.2.2</b>	<b>SwMI initiated deactivation</b> Packet Data context deactivation, SwMI initiated, AL established – 1.2.2	<b>P</b>
<b>7.3</b>	<b>PDCH Access</b>	
<b>7.3.1</b>	<b>MS Initiated access on the MCCH</b> Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation – 1.3.1	<b>P</b>
<b>7.3.1</b>	<b>MS Initiated access on the MCCH</b> Data transmission, MS initiated PDCH access, AL established – 1.3.3	<b>P</b>
<b>7.3.1</b>	<b>MS Initiated access on the MCCH</b> Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation – 1.3.2	<b>P</b>
<b>7.3.2</b>	<b>SwMI initiated access on the MCCH</b> Data transmission, SwMI initiated PDCH access, AL not established – 1.3.4	<b>P</b>
<b>7.3.3</b>	<b>MS Initiated Access Reject</b> Data transmission, MS initiated PDCH access, SwMI reject – 1.3.6	<b>P</b>
<b>7.4</b>	<b>SN Data transfer</b>	
<b>7.4</b>	<b>SN-DATA transfer</b> Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation – 1.3.1	<b>P</b>
<b>7.4</b>	<b>SN-DATA transfer</b> PDCH Access, Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation – 1.3.2	<b>P</b>
<b>7.4</b>	<b>SN-DATA transfer</b> Data transmission, MS initiated PDCH access, AL established – 1.3.3	<b>P</b>
<b>7.4</b>	<b>SN-DATA transfer</b> Data transmission, SwMI initiated PDCH access, AL established – 1.3.5	<b>P</b>
<b>7.4</b>	<b>SN-DATA transfer</b> Data transmission, SwMI initiated PDCH access, AL not established – 1.3.4	<b>P</b>
<b>7.5</b>	<b>End of Data</b>	
<b>7.5.1</b>	<b>Normal</b> Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation – 1.3.1	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation - 1.3.2	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Data transmission, MS initiated PDCH access, AL established – 1.3.3	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Data transmission, SwMI initiated PDCH access, AL not established – 1.3.4	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Data transmission, SwMI initiated PDCH access, AL established – 1.3.5	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Cell re-selection during data transmission – 1.4.1	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Cell re-selection without data transmission at MS side, READY state – 1.4.2	<b>P</b>
<b>7.5.1</b>	<b>Normal</b> Cell re-selection without data transmission, STANDBY state – 1.4.3	<b>P</b>
<b>7.6</b>	<b>Advanced Link Set-up</b>	
<b>7.6.1</b>	<b>MS Initiated AL Set-up</b> Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation – 1.3.2	<b>P</b>



Teltronic SwMI		Nokia THR880
7.6.1	<b>MS initiated AL Set-up</b> Data transmission, SwMI initiated PDCH access, AL not established – 1.3.4	P
7.6.1	<b>MS initiated AL Set-up</b> Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation – 1.3.1	P
7.6.2	<b>MS Initiated AL Reset</b> Cell re-selection during data transmission – 1.4.1	P
7.7	<b>Advanced Link Data Transfer</b>	
7.7.1	<b>Normal Down-link</b> Data transmission, SwMI initiated PDCH access, AL not established – 1.3.4	P
7.7.1	<b>Normal Down-link</b> Data transmission, SwMI initiated PDCH access, AL established – 1.3.5	P
7.7.4	<b>Normal Up-link</b> Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation – 1.3.1	P
7.7.4	<b>Normal Up-link</b> Data transmission, MS initiated PDCH access, AL established – 1.3.3	P
7.7.4	<b>Normal Up-link</b> Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation – 1.3.2	P
7.7.4	<b>Normal Up-link</b> Cell re-selection without data transmission, STANDBY state – 1.4.3	P
7.8	<b>Advanced Link Disconnection</b>	
7.8.1	<b>MS initiated Context Deactivation</b> Packet Data context deactivation, MS initiated, AL established – 1.2.4	P
7.8.2	<b>SwMI initiated Context Deactivation</b> Packet Data context deactivation, SwMI initiated, AL established – 1.2.2	P
7.10	<b>Link Reconnect</b>	
7.10.1	<b>BS Data</b> Cell re-selection without data transmission at MS side, READY state – 1.4.2	P
7.10.2	<b>MS Data</b> Cell re-selection during data transmission – 1.4.1	P

**Comments:**

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- P1 PSTN subscriber receive the alert signalling after the resource become available, but does not receive any indication when the resources is queued, as it is stated in Expected result steps 1 and 2 of test case 8.2