



IST doc.10 rev. 2

TETRA SwMI Interoperability Certificate

September 2005

R&S BICK MOBILFUNK


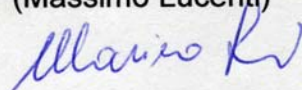
Manufacturer	Type	Software/Hardware Release No.	Period of testing
R&S BICK Mobilfunk GmbH	ACCESSNET-T	SW: 5.0 HW: 5.0	29 August-01 September 2005

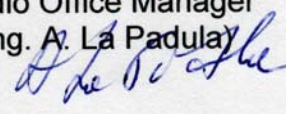
ISCTI (Istituto Superiore delle Comunicazioni e delle Tecnologie dell'Informazione) has witnessed that the Rohde&Schwarz SwMI is operating in accordance with:

TETRA Interoperability Profile:

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
(Massimo Lucenti)


Radio Office Manager
(Ing. A. La Padula)




Information on the equipment used for testing in the September 2005 IOP Test Session

The tests were performed using the following terminals:

Manufacturer	Type	Software/Hardware Release No.
OTE	Puma T3	SW: 4.0 HW: 774-0480/01
Motorola	MTM800	SW: R08.100.5421 HW: PMUE 2318A
Motorola	MTH800	SW: R07.000.5431 HW: FUE1054A
Nokia	THR880i	SW: 3.37-1 HW: RC-2
Nokia	TMR880	SW: 7.67-0 HW: TMR-1
Teltronic	MDT-400	SW: v11 HW: 00.05-00.07
Sepura	SRM2000	SW: 1472 003 0340 HW: MS6TS201T22C0000000 TEI: 000087170994050
Sepura	SRP3000	SW: 1473 010 01002 HW: PS9TL201T400G00 TEI: 000107172149590

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	250
MNC	1
Colour code	21 (LA105) and 22 (LA106)
LA1 carrier frequency (BS Tx)	390.1375 MHz
LA2 carrier frequency (BS Tx)	390.6125 MHz
PSTN gateway SSI	16777186
Subscriber classes	FFFF ₁₆

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, IOP001-05, 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 sessions are available on TETRA MoU web site (<http://www.tetramou.com>).

The test result tables on the next pages 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 or the MS; and – if the test case was executed – the result of the test. Each table entry may take one of seven values:

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



Rohde-Schwarz SwMI			PumT3	OTE	Motorola MTH800	Motorola MTM800	Motorola TMR880	Nokia THR880i	Nokia MDT-400	Teltronic SRP3000	Sepura SRM2000	Sepura SRP3000
TTR001-05	PACKET DATA	IOP001-05										
TTR001-05 7	Packet Data functions	IOP001-05										
TTR001-05 7.1	Context Activation	IOP001-05										
TTR001-05 7.1.1	TE IPCP Initiated, Static Address (TE supplied) Packet Data context activation, static IP address.	IOP001-05 1.1.1	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.1.2	TE IPCP Initiated, Dynamic Address Packet Data context activation, dynamic IP address.	IOP001-05 1.1.2	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.1.3	User Authentication using PAP Packet Data context activation, with PAP user authentication.	IOP001-05 1.1.3	No	P	P	P	P	P	P	P	P	P
TTR001-05 7.1.3	User Authentication using PAP Packet Data context activation, APN index selected.	IOP001-05 1.1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TTR001-05 7.1.4	User Authentication using CHAP Packet Data context activation, with CHAP user authentication.	IOP001-05 1.1.4	No	P	P	P	P	P	No	P	P	P
TTR001-05 7.1.5	Failed user authentication Packet Data context activation rejected, PAP user authentication.	IOP001-05 1.1.7	No	P	P	P	P	P	P	P	P	P
TTR001-05 7.1.5	Failed user authentication Packet Data context activation rejected, CHAP user authentication.	IOP001-05 1.1.8	No	P	P	P	P	P	No	P	P	P
TTR001-05 7.1.6	Provisioning Reject Packet Data context activation, activation rejected.	IOP001-05 1.1.6	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.1.6	Provisioning Reject Packet Data context activation rejected, invalid APN index selected.	IOP001-05 1.1.9	No	No	No	P	P	No	P	P	P	P
TTR001-05 7.2	Context Deactivation	IOP001-05										
TTR001-05 7.2.1	MS initiated deactivation Packet Data context deactivation, MS initiated, AL not established.	IOP001-05 1.2.3	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.2.1	MS initiated deactivation Packet Data context deactivation, MS initiated, AL established.	IOP001-05 1.2.4	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.2.1.1	Explicit on SwMI PDCH access Data transmission, SwMI initiated PDCH access, MS reject.	IOP001-05 1.3.7	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.2.2	SwMI initiated deactivation Packet Data context deactivation, SwMI initiated, AL not established.	IOP001-05 1.2.1	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.2.2	SwMI initiated deactivation Packet Data context deactivation, SwMI initiated, AL established.	IOP001-05 1.2.2	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.3	PDCH Access	IOP001-05										
TTR001-05 7.3.1	MS Initiated access on the MCCH Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation.	IOP001-05 1.3.1	P	P	P	P	P	-	P	P	P	P
TTR001-05 7.3.1	MS Initiated access on the MCCH Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation.	IOP001-05 1.3.2	-	P	P	P	P	P	P	P	P	P
TTR001-05 7.3.1	MS Initiated access on the MCCH Data transmission, MS initiated PDCH access, AL established.	IOP001-05 1.3.3	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.3.2	SwMI initiated access on the MCCH Data transmission, SwMI initiated PDCH access, AL not established.	IOP001-05 1.3.4	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.3.2	SwMI initiated access on the MCCH Data transmission, SwMI initiated PDCH access, AL established.	IOP001-05 1.3.5	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.3.3	MS Initiated Access Reject Data transmission, MS initiated PDCH access, SwMI reject.	IOP001-05 1.3.6	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.4	SN Data transfer	IOP001-05										
TTR001-05 7.4	SN-DATA transfer Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation.	IOP001-05 1.3.1	P	P	P	P	P	-	P	P	P	P
TTR001-05 7.4	SN-DATA transfer PDCH Access, Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation.	IOP001-05 1.3.2	-	P	P	P	P	P	P	P	P	P
TTR001-05 7.4	SN-DATA transfer Data transmission, MS initiated PDCH access, AL established.	IOP001-05 1.3.3	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.4	SN-DATA transfer Data transmission, SwMI initiated PDCH access, AL not established.	IOP001-05 1.3.4	P	P	P	P	P	P	P	P	P	P



Rohde-Schwarz SwMI			PumAT3	OTE	Motorola MTH800	Motorola MTM800	Motorola TMR880	Nokia THR880i	Nokia MDT-400	Teltronic	SRP3000	Sepura SRM2000	Sepura SRP3000
TTR001-05 7.4	SN-DATA transfer Data transmission, SwMI initiated PDCH access, AL established.	IOP001-05 1.3.5	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.5	End of Data	IOP001-05											
TTR001-05 7.5.1	Normal Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation.	IOP001-05 1.3.1	P	P	P	P	P	P	-	P	P	P	P
TTR001-05 7.5.1	Normal Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation.	IOP001-05 1.3.2	-	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Data transmission, MS initiated PDCH access, AL established.	IOP001-05 1.3.3	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Data transmission, SwMI initiated PDCH access, AL not established.	IOP001-05 1.3.4	P	P	P	F1	F1	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Data transmission, SwMI initiated PDCH access, AL established.	IOP001-05 1.3.5	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Cell re-selection during data transmission.	IOP001-05 1.4.1	P	P	P	-	-	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Cell re-selection without data transmission at MS side, READY state.	IOP001-05 1.4.2	P	P	P	F1	F1	P	P	P	P	P	P
TTR001-05 7.5.1	Normal Cell re-selection without data transmission, STANDBY state.	IOP001-05 1.4.3	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.6	Advanced Link Set-up	IOP001-05											
TTR001-05 7.6.1	MS initiated AL Set-up Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation.	IOP001-05 1.3.1	P	P	P	P	P	P	-	P	P	P	P
TTR001-05 7.6.1	MS initiated AL Set-up Data transmission, SwMI initiated PDCH access, AL not established.	IOP001-05 1.3.4	P	P	P	P	P	P	P1	P	P	P	P
TTR001-05 7.6.2	MS Initiated AL Reset Cell re-selection during data transmission.	IOP001-05 1.4.1	P	P	P	-	-	P2	P	P	P	P	P
TTR001-05 7.7	Advanced Link Data Transfer	IOP001-05											
TTR001-05 7.7.1	Normal Down-link Data transmission, SwMI initiated PDCH access, AL not established.	IOP001-05 1.3.4	P	P	P	F1	F1	P	P	P	P	P	P
TTR001-05 7.7.1	Normal Down-link Data transmission, SwMI initiated PDCH access, AL established.	IOP001-05 1.3.5	P	P	P	F1	F1	P	P	P	P	P	P
TTR001-05 7.7.4	Normal Up-link Data transmission, MS initiated PDCH access, AL not established, no AL QoS re-negotiation.	IOP001-05 1.3.1	P	P	P	P	P	P	-	P	P	P	P
TTR001-05 7.7.4	Normal Up-link Data transmission, MS initiated PDCH access, AL not established, AL QoS re-negotiation.	IOP001-05 1.3.2	-	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.7.4	Normal Up-link Data transmission, MS initiated PDCH access, AL established.	IOP001-05 1.3.3	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.7.4	Normal Up-link Cell re-selection without data transmission, STANDBY state.	IOP001-05 1.4.3	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.8	Advanced Link Disconnection	IOP001-05											
TTR001-05 7.8.1	MS initiated Context Deactivation Packet Data context deactivation, MS initiated, AL established.	IOP001-05 1.2.4	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.8.2	SwMI initiated Context Deactivation Packet Data context deactivation, SwMI initiated, AL established.	IOP001-05 1.2.2	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.10	Cell re-selection	IOP001-05											
TTR001-05 7.10.1	BS Data Cell re-selection without data transmission at MS side, READY state.	IOP001-05 1.4.2	P	P	P	P	P	P	P	P	P	P	P
TTR001-05 7.10.2	MS Data Cell re-selection during data transmission.	IOP001-05 1.4.1	P	P	P	-	-	P	P	P	P	P	P

Comments:

Nokia

F1 MS sends AL-ACK in random access instead of using the reserved access opportunities, after that MS ready timer expires before SwMI ready timer and the MS sends END OF DATA.

Teltronic

P1 The test is performed with AL QoS re-negotiation instead of set-up phase "Service definition".

P2 Wrong element in down-link AL- RECONNECT ("propose" instead of "reject").