

NOKIA

DX200BSC

BSC S10.5 Combined

**Release Test Results
ANSI/ETSI**

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Summary of changes

Version	Date	Author	Comments
/1en	4 Feb 2003	P Hahl	First version

1 Purpose

This document presents the Release Testing results including all the findings made during testing. The testing personnel, places and testing times are reported in this document as well.

S10.5 Combined Release Testing followed the procedure described in a separate document "BSC S10.5 Combined Release Test Plan, ANSI/ETSI, DN03281097".

The following table summarizes the amount of test cases for each configuration and test case statuses.

Configuration	Nbr of test cases	Passed	Failed	Passed %	SW package
S10 BSC2A – S10.5 Combi	20	0	0	0 %	S10.5 12.16-0 1) 2)
S10.5 BSC2i +SMLC+GPRS1– S10.5 Combi	21	0	0	0 %	S10.5 12.16-0 1) 2)
S10.5 BSC2i Combi+SMLC+GPRS1 BSC2i – GPRS2	18	0	0	0 %	S10.5 12.16-0 1) 2)
S9 BSC2E+GPRS1 – S10.5 Combi	22	22	0	100 %	S10.5 12.16-0 1)
S10.5 Combi BSC2E+GPRS1 – High Capa	19	19	0	100 %	S10.5 12.16-0 1)
S9 BSC2i – S10.5 Combi	21	21	0	100 %	S10.5 12.16-0 1)
S10.5 Combi BSC2i– GPRS2+SMLC	20	20	0	100 %	S10.5 12.16-0 1)
S10.5BSCi+GPRS1-S10.5Combi	22	22	0	100%	S10.5 12.16-0 1)
	163	104	0		

GPRS1=1xPCU

GPRS2=2xPCU/2xPCU-S/2xPCU-T/PCU+PCU-S/PCU+PCU-T/PCU-S+PCU-T

Stability Tests

Status

24 h stability test/ANSI (BSC2i)	-	S10.5 12.16-0
24 h stability test/ETSI (BSCi)	OK	S10.5 12.16-0

- 1) SW used more detailed, deviations in log section
- 2) Target to finish ANSI testings:03/2003

2 Release Testing arrangements

Test Place: Linnoitustie 6 / D2 BSC Laboratory
Hatanpäänvaltatie 31/BSC TS TreLab

Test Period(ETSI): From 20-Jan-2003
To 3-Feb-2003

SW version: S10.5 12.16-0

Release Test Group Manager: Petri Hahl/Pasi Kivimäki

Test team 1/ANSI: Marko Drugge (MDr)
▪ S10 BSC2A – S10.5 Combi

Test team 2/ANSI: Marko Drugge (MDr)
▪ S10.5 BSC2i+GPRS1+SMLC – S10.5 Combi
▪ S10.5 Combi BSC2i+GPRS1+SMLC – GPRS2

Test team 3/ETSI: Santtu Haataja (SHa)
▪ S9 BSC2E+GPRS1 – S10.5 Combi
▪ S10.5 Combi BSC2E+GPRS1 – High Capa

Test team 4/ETSI: Johanna Juntunen (JJu)
▪ S9 BSC2i – S10.5 Combi
▪ S10.5 Combi BSC2i – GPRS2+SMLC

Test team 5/ETSI: Mika Anttonen (Man)
▪ S10 BSCi – S10.5 Combi

Test team 6: Marko Drugge (MDr), Tero Laitinen (TLa)
▪ **ETSI:**24 h stability test with traffic generator (BSCi)
▪ **ANSI:**24 h stability test with traffic generator (BSC2i)

3 Test environment

The release test environment is set up according to figure 3a and 3b. Figure 3a is demonstrating the CS traffic configuration and figure 2b PS traffic configuration.

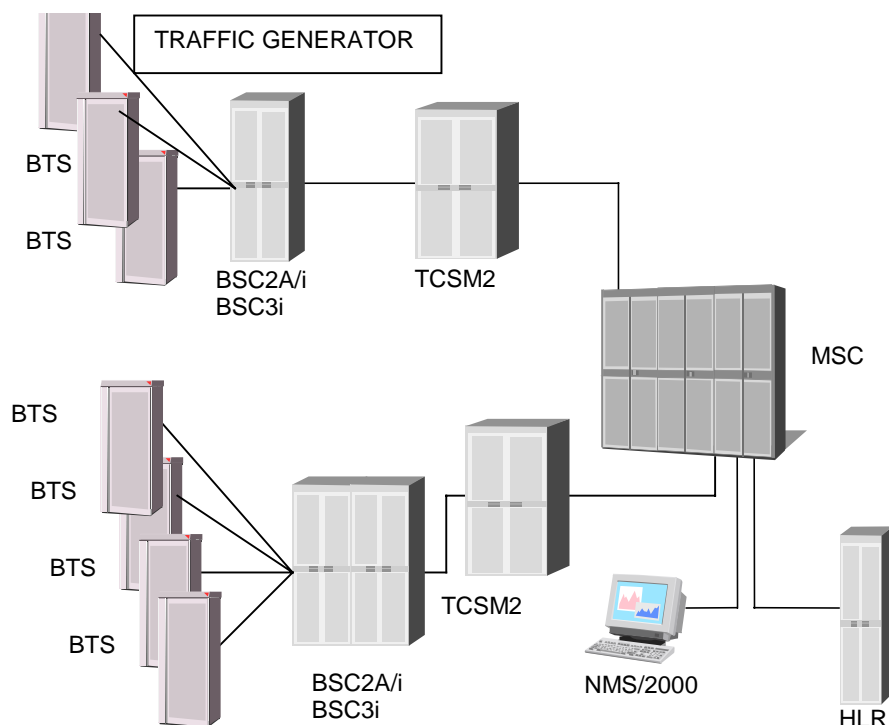


Figure 3a. Release Test Environment for CS traffic

The traffic generator is used to produce supervised test traffic for the stability test. A tracer (Protocol Analyser) and a PC are required for tracing the A- and Abis –interfaces in order to verify correct working of the interfaces.

At least two BTSs are connected to BSC for handover tests.

		M10 5.8-0
DX 200 MSC / VLR	SW	M11 6.2-0
		M10 5.8-0
Nokia SGSN	SW	SG2 J2 2.22-0
Nokia Artus SMSC	SW	SC5B.0-24
DX 200 BSC	SW	S10.5 12.16-0
Nokia TCSM	SW	1.10-0
Nokia NMS/2000	SW	T12 03.3
		OSS3.1
Ultrasite BTS	SW	CX2.0, CX3.0, CX3.1, CX3.2, CX4.0, PU1.0, PU1E
Metrosite BTS	SW	CXM3.0, CX3.2
Talk family BTS	SW	DF5.1, DF6.0, DF7.0
Second generation BTS	SW	B12.0, B12.0-1, B13.0, B13.1
Insite BTS	SW	I2.0, I3.0

The feature related compatibilities for individual NE elements are described in the document '*BSS10 Features Under Development*'.

Other Nokia SW release combinations are tested according to BSC Compatibility Test Specification.

4 Test logs

Test Team 1(ANSI): S10 BSC2A

-> S10.5Combi

	TestMan ID	Version	S10-S10.Cmb Status/Sign
1. Checking BSC & TCSM/TCSM2 HW versions	RT000TC00001	3.1-0	Ok/MiHa
2. Checking SW levels of other Nes / chapter 4.1	RT000TC00002	3.1-0	Ok/MiHa
3. Checking installed Change Notes	RT000SW00001	3.1-0	Ok/MiHa
4. BSC S10.5Combi software upgrade	RT000SW00005	1.1-0	Ok/MiHa
5. BSC system restart	RT000SD00001	2.0-0	Ok/MiHa
6. Power break in the system	RT000SD00002	1.1-0	Ok/MiHa
7. OMU state change and diagnostics	RT000SD00003	2.0-0	Ok/MiHa
8. BCSU state change and diagnostics	RT000SD00004	2.0-0	Ok/MiHa
9. MCMU state change and diagnostics	RT000SD00005	2.0-0	Ok/MiHa
10. MB state change and diagnostics	RT000SD00006	2.0-0	Ok/MiHa
11. Location Update	RT000CC00001	1.0-0	Ok/MiHa
12. MS to MS call	RT000CC00002	2.0-0	Ok/MiHa
13. Emergency call	RT000CC00005	1.0-0	Ok/MiHa
14. Data call	RT000CC00006	2.0-0	Ok/MiHa
15. SMS from MS to MS	RT000CC00007	1.1-0	Ok/MiHa
16. Inter cell handover	RT000HO00001	2.0-0	Ok/MiHa
17. Inter BSC handover S10 – S10.5Combi	RT000HO00008	1.0-0	Ok/MiHa
18. Inter BSC handover S10.5Combi – S10.5Combi	RT000HO00009	1.0-0	Ok/MiHa
19. Inter BSC handover S10.5ED – S10.5Combi	RT000HO00009	1.0-0	Ok/MiHa
20. Radio resource queuing in handover	RT000HO00004	1.1-0	Ok/MiHa

Test Team 2(ANSI): S10.5 BSC2i + SMLC + GPRS1
S10.5Combi BSC2i +SMLC +GPRS1

-> **S10.5Combi**
-> **GPRS2**

	TestMan ID	Version	S10.5-S10.5Cmb Status/Sign	BSC2i-GPRS1 Status/Sign
1. Checking BSC & TCSM/TCSM2 HW versions	RT000TC00001	3.1-0	Ok/MiHa	
2. Checking SW levels of other NEs / chapter 4.1	RT000TC00002	3.1-0	Ok/MiHa	
3. Checking installed Change Notes	RT000SW00001	3.1-0	Ok/MiHa	
4. BSC S10.5Combi software upgrade	RT000SW00005	1.1-0	Ok/KaNy	
5. S10.5 GPRS feature implementation	RT000FE0003	2.2-0		
6. BSC system restart	RT000SD00001	2.0-0	Ok/MiHa	
7. Power break in the system	RT000SD00002	1.1-0	Ok/MiHa	
8. OMU state change and diagnostics	RT000SD00003	2.0-0	Ok/MiHa	
9. BCSU state change and diagnostics	RT000SD00004	2.0-0	Ok/MiHa	
10. MCMU state change and diagnostics	RT000SD00005	2.0-0	Ok/MiHa	
11. MB state change and diagnostics	RT000SD00006	2.0-0	Ok/MiHa	
12. Location Update	RT000CC00001	1.0-0	Ok/MiHa	
13. MS to MS call	RT000CC00002	2.0-0	Ok/MiHa	
14. Emergency call	RT000CC00005	1.0-0	Ok/MiHa	
15. Data call	RT000CC00006	2.0-0	Ok/MiHa	
16. SMS from MS to MS	RT000CC00007	1.1-0	Ok/MiHa	
17. Inter cell handover	RT000HO00001	2.0-0		
18. Inter BSC handover S10.5 – S10.5Combi	RT000HO00008	1.0-0		
19. Inter BSC handover S10.5Combi – S10.5Combi	RT000HO00009	1.0-0		
20. Inter BSC handover S10.5ED – S10.5Combi	RT000HO00009	1.0-0		
21. Radio resource queuing in handover	RT000HO00004	1.1-0		
22. GPRS call	RT000FE00005	1.0-0		

Test Team 3/ETSI : S9 BSC2E+GPRS1 -> S10.5Combi
S10.5Combi BSC2E+GPRS1 -> High Capacity

TestMan IDS9 BSC2E-S10.5C S10.5C BSC2E-HC

Version Status/Sign Status/Sign

1. Checking BSC & TCSM/TCSM2 HW versions	RT000TC00001	3.1-0	OK/Sha	
2. Checking SW levels of other NEs / chapter 4.1	RT000TC00002	3.1-0	OK/Sha	
3. Checking installed Change Notes	RT000SW00001	3.1-0	OK/Sha	
4. BSC S10.5 combined software upgrade	RT000SW00005	1.1-0	OK/Sha	
5. S10.5 High capacity feature Implementation	RT000FE0001	3.2-0		OK/Sha
6. BSC system restart	RT000SD00001	2.0-0	OK/Sha	OK/Sha
7. Power break in the system	RT000SD00002	1.1-0	OK/Sha	OK/Sha
8. OMU state change and diagnostics	RT000SD00003	2.0-0	OK/Sha	OK/Sha
9. BCSU state change and diagnostics	RT000SD00004	2.0-0	OK/Sha	OK/Sha
10. MCMU state change and diagnostics	RT000SD00005	2.0-0	OK/Sha	OK/Sha
11. MB state change and diagnostics	RT000SD00006	2.0-0	OK/Sha	OK/Sha
12. Location Update	RT000CC00001	1.0-0	OK/Sha	OK/Sha
13. MS to MS call	RT000CC00002	2.0-0	OK/Sha	OK/Sha
14. MS to PSTN call	RT000CC00003	1.0-0	OK/Sha	OK/Sha
15. PSTN to MS call	RT000CC00004	1.0-0	OK/Sha	OK/Sha
16. Emergency call	RT000CC00005	1.0-0	OK/Sha	OK/Sha
17. Data call	RT000CC00006	2.0-0	OK/Sha	OK/Sha
18. SMS from MS to MS	RT000CC00007	1.1-0	OK/Sha	OK/Sha
19. Inter cell handover	RT000HO00001	2.0-0	OK/Sha	OK/Sha
20. Inter BSC handover S9 – S10.5Combi	RT000HO00008	1.0-0	OK/Sha	OK/Sha
21. Inter BSC handover S10.5Combi – S10.5Combi	RT000HO00009	1.0-0	OK/Sha	OK/Sha
22. Radio resource queuing in handover	RT000HO00004	1.1-0	OK/Sha	OK/Sha
23. GPRS call	RT000FE00005	1.0-0	OK/Sha	OK/Sha

Test Team 4/ETSI : S9 BSC2i → **S10.5 Combined**
S10.5Combi BSC2i → **GPRS2+SMLC**

	TestMan ID	S9 BSC2i-S10.5C	S10.5CBSC2i-GPRS2+SMLC
		Version	Status/Sign
1. Checking BSC & TCSM/TCSM2 HW versions	RT000TC00001	3.1-0	OK/Jju
2. Checking SW levels of other Nes / chapter 4.1	RT000TC00002	3.1-0	OK/Jju
3. Checking installed Change Notes	RT000SW00001	3.1-0	OK/Jju
4. BSC S10.5 software upgrade	RT000SW00005	1.1-0	OK/Jju
5. S10.5 GPRS feature Implementation	RT000FE00003	2.2-0	OK/Jju
6. S10.5 MS locationing feature implementation	RT000FE00004	1.1-0	OK/Jju
7. BSC system restart	RT000SD00001	2.0-0	OK/Jju
8. Power break in the system	RT000SD00002	1.1-0	OK/Jju
9. OMU state change and diagnostics	RT000SD00003	2.0-0	OK/Jju
10. BCSU state change and diagnostics	RT000SD00004	2.0-0	OK/Jju
11. MCMU state change and diagnostics	RT000SD00005	2.0-0	OK/Jju
12. MB state change and diagnostics	RT000SD00006	2.0-0	OK/Jju
13. Location Update	RT000CC00001	1.0-0	OK/Jju
14. MS to MS call	RT000CC00002	2.0-0	OK/Jju
15. MS to PSTN call	RT000CC00003	1.0-0	OK/Jju
16. PSTN to MS call	RT000CC00004	1.0-0	OK/Jju
17. Emergency call	RT000CC00005	1.0-0	OK/Jju
18. Data call	RT000CC00006	2.0-0	OK/Jju
19. SMS from MS to MS	RT000CC00007	1.1-0	OK/Jju
20. Inter cell handover	RT000HO00001	2.0-0	OK/Jju
21. Inter BSC handover S9 – S10.5Combi	RT000HO00008	1.0-0	OK/Jju
22. Inter BSC handover S10.5Combi – S10.5Combi	RT000HO00009	1.0-0	OK/Jju
23. Radio resource queuing in handover	RT000HO00004	1.1-0	OK/Jju
24. GPRS call	RT000FE00005	1.0-0	OK/Jju

Test Team 5/ETSI : S10.5 BSCi -> S10.5 Combined

	TestMan ID	S10.5 BSCi-S10.5 C	Version	Status/Sig
1. Checking BSC & TCSM/TCSM2 HW versions	RT000TC00001		3.1-0	OK/Man
2. Checking SW levels of other Nes / chapter 4.1	RT000TC00002		3.1-0	OK/Man
3. Checking installed Change Notes	RT000SW00001		3.1-0	OK/Man
4. BSC S10.5 software upgrade	RT000SW00005		1.1-0	OK/Man
5. BSC system restart	RT000SD00001		2.0-0	OK/Man
6. Power break in the system	RT000SD00002		1.1-0	OK/Man
7. OMU state change and diagnostics	RT000SD00003		2.0-0	OK/Man
8. BCSU state change and diagnostics	RT000SD00004		2.0-0	OK/Man
9. MCMU state change and diagnostics	RT000SD00005		2.0-0	OK/Man
10. MB state change and diagnostics	RT000SD00006		2.0-0	OK/Man
11. Location Update	RT000CC00001		1.0-0	OK/Man
12. MS to MS call	RT000CC00002		2.0-0	OK/Man
13. MS to PSTN call	RT000CC00003		1.0-0	OK/Man
14. PSTN to MS call	RT000CC00004		1.0-0	OK/Man
15. Emergency call	RT000CC00005		1.0-0	OK/Man
16. Data call	RT000CC00006		2.0-0	OK/Man
17. SMS from MS to MS	RT000CC00007		1.1-0	OK/Man
18. Inter cell handover	RT000HO00001		2.0-0	OK/Man
19. Inter BSC handover S9 – S10.5Combi	RT000HO00008		1.0-0	OK/Man
20. Inter BSC handover S10.5 – S10.5Combi	RT000HO00009		1.0-0	OK/Man
21. Radio resource queuing in handover	RT000HO00004		1.1-0	OK/Man
22. GPRS call	RT000FE00005		1.0-0	OK/Man

Test Team 6: Stability tests**ANSI / BSC2i + SMLC + GPRS2, S10.5Combi****ETSI / BSCi, S10.5Combi**

		Version	Status/Sign
1. 24 h stability test with traffic generator (BSC2i)	RT000ST00006	1.1-0	-
2. 24 h stability test with traffic generator (BSCi)	RT000ST00006	1.1-0	OK/TLa