

Prepared (also subject responsible if other)		No.		
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen		
Approved	Checked	Date	Rev	Reference
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A	

Test Instructions for SCB-RP ROJ 208 423/1

Abstract

This document is a test instruction for the system test of the, ROJ 208 423/1 (SCB-RP) board, which shall be run on the DEST Client.

Purpose

The purpose of this document is to give the test operator sufficient information to set ups and run the tests and also to understand the fault messages from the test program.

Document History

Describe the document changes below.

Date	From	To	Changes and reason for changes
01-09-18		A	First released revision

Prepared (also subject responsible if other)		No.		
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen		
Approved	Checked	Date	Rev	Reference
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A	

1	TEST OBJECT	3
2	TEST SEQUENCE	3
2.1	INITIAL TEST	3
2.2	SYSTEM TEST	3
2.2.1	<i>Ethernet Test</i>	3
2.2.2	<i>DEST</i>	3
2.2.3	<i>Test of Maintenance bus</i>	4
3	REQUIREMENTS.....	5
3.1	HARDWARE	5
3.2	SOFTWARE	5
4	SET UPS BEFORE TEST.....	6
4.1	HARDWARE PREPARATION BEFORE TEST.....	6
4.2	SETTING IP-ADDRESSES	7
5	TEST EXECUTION	7
5.1	GTM.....	7
5.2	DEST CLIENT	8
5.2.1	<i>Initial Test</i>	8
5.2.2	<i>System Test</i>	8
5.2.3	<i>Ethernet Test</i>	8
5.2.4	<i>DEST</i>	8
5.2.5	<i>Test of Maintenance bus</i>	10
5.2.6	<i>Requirements after System Test</i>	11
6	REQUIREMENTS AFTER TEST	11
7	ABBREVIATION	12
8	REFERENCES.....	12

Prepared (also subject responsible if other)		No.		
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen		
Approved	Checked	Date	Rev	Reference
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A	

1 Test object

Test is valid for: ROJ 208 423/1, se [reference \[1\]](#).

2 Test Sequence

The test is divided into two parts: Initial test, System test. Both parts are shortly described below. The RP-bus is not implemented in BOX/TSP and is therefore not tested.

2.1 Initial Test

This is a test of RAM and it is executed before the SCB-RP starts up. If test passes the SCB-RP boots in a normal way and execution of test programs can start. If test fails Ethernet is initiated from DPRAM and test result can be fetched from board to the DEST client.

2.2 System Test

System test itself is divided into three parts: Ethernet test, DEST and Maintenance Bus test. The tests are shortly described below.

2.2.1 Ethernet Test

This part test, the Ethernet communication in GEM (Generic Ericsson Magazine), see [reference \[2\]](#). SCB-RP provides a 1000baseT port and two 10/100baseT ports towards the front and provides accessibility to all boards within the backplane in GEM via 10/100-BaseT Ethernet. The Ethernet switching block is comprised of four 8-port switches. To test the four switches there have to be two SCB-RP: s and two other boards in the GEM, one in slot 2-10 and the other in slot 11-18. The test is an "is alive" test and it's runs from the DEST client. If all boards reply, Ethernet works correct. The SCB-RP has three ports for Ethernet in the front. Same test can be used for all tree ports.

2.2.2 DEST

DEST (Downloadable Ethernet based Self Test) is used for memory tests, FIA processor interface test and read/write operation to certain components connected to processor or FIA. DEST on SCB-RP is divided into 9 subtests. Subtest 1-6 is general for all boards using the RPI-block and 3 subtest specific for the SCB-RP. Each of them performs test of some functionality on the board or does some necessary set ups used by other subtest. All subtest are briefly described in table 1.

Prepared (also subject responsible if other)		No.		
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen		
Approved	Checked	Date	Rev	Reference
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A	

Table 1: Subtest in DEST for SCB-RP

Subtest	Name of the subtest	Description
	Test of RPI-block	
1	FIA	Test of FIA ASIC, Ctrl logic, addr & data bus
2	Short RAM test	Test of RAM
3	Long RAM test	Test of RAM
4	Temp sensor	Test of temperature sensor in RPI-Block
5	ReadPos	Read out board position and subrack ID
6	Setup	Mask TEA and release reset for applications in FIA
	Test of SCB-RP	
7	Temp sensor DB	Test of temperature sensor on Daughter board
8	G.link test	Test of GT-48330, G.Link-to-CPU interface
9	Interrupt test	Test of interrupt between FIA and CPU

The DEST downloads and executes from the DEST client. If an error appears the DEST generates an error message that reports what part of the test failed, expected and received data.

2.2.3

Test of Maintenance bus

The SCB-RP (ROJ 208 423) provides the maintenance bus interface. This is implemented as a normal I²C bus. The SCB-RP acts as the master on this bus, but has also a slave interface like all other boards in the GEM magazine (see boards included in BOX for AXE 810). The maintenance bus also gives the possibility to point out specific board in a magazine by controlling the MIA-LED. The test of maintenance bus is to turn the MIA-LED on and off within all boards in GEM. The test runs from DEST client. The ID-prom is also read using the DEST client.

Prepared (also subject responsible if other)		No.		
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen		
Approved	Checked	Date	Rev	Reference
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A	

3 Requirements

3.1 Hardware

Hardware needed to test SCB-RP is outlined in table 2.

Table 2. Hardware needed to test SCB-RP

Qty	Article	Name
1		Test PC
1		TFTP-server
1		HUB
1	BFD508002/1	GEM
2	ROJ208423	SCB-RP
2	ROJ208XXX	Other GEM boards
2		Network Cable
2	TSR4910274	Ethernet straight (for HUB)
1	TSR4910225	RPB-S
4	TSR4900101/1	-48V

For cables see [reference \[3\]](#).

3.2 Software

Software needed to test SCB-RP is outlined in the table 3. Regarding the control test execution GTM or DEST client will be used.

Table 3. Software needed to test SCB-RP

Article	Name	Usage
	DEST client	Control test execution (or GTM)
	GTM	Control test execution (or DEST client)
	Eboot	Communication between boards and DEST client or GTM
	SCB-RP DEST	Test program
CXC 106 0046	V24_load	OS and board parameters
CXC 106 0046	Pboot	Downloaded to boards before delivery

Prepared (also subject responsible if other)		No.	
SLR/OS/N/ZTS Jörgen Schedin, Michael Åslund		123/1521-ROJ 208 423/1 Uen	
Approved	Checked	Date	Rev
SLR/OS/N/ZTS (Magnus Nilsson)		2001-08-08	A
		Reference	

4 Set ups before test

4.1 Hardware preparation before test

Place two SCB boards in GEM and two other GEM boards in the magazine, one in slot 2-10 and the other in slot 11-18 (see figure 1).

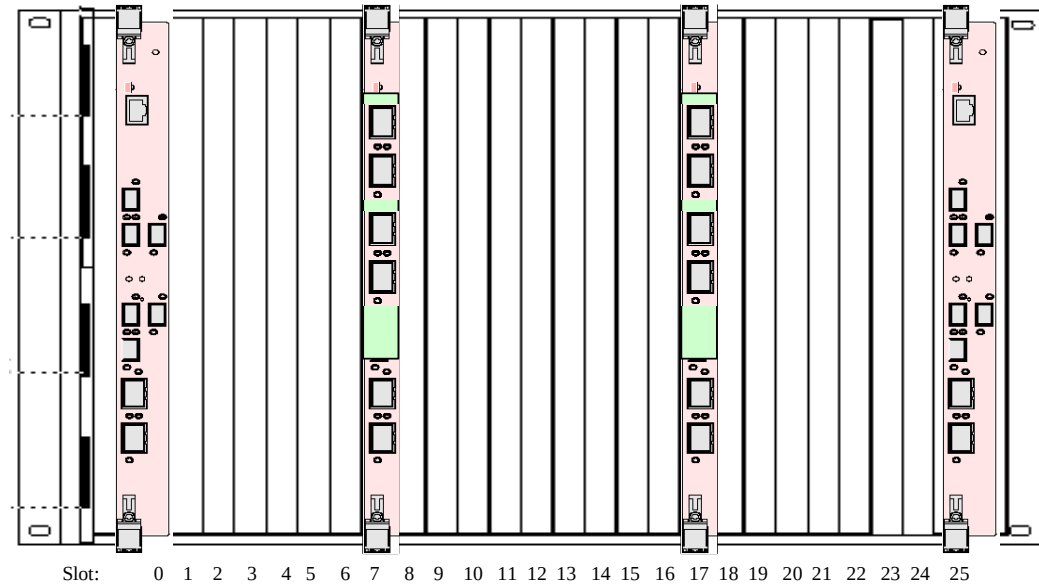


Figure 1. GEM whit two SCB-RP boards and two other GEM board.

Connect the SCB boards to power and HUB. Chose one of the three Ethernet ports on SCB board for connection from the HUB (see figure 2).

