

SHU Description

Description

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Contents

1	Product Overview	1
1.1	Purpose	1
1.2	Variants	1
2	Function Description	3
2.1	SHU 01 01	3
2.2	SHU 02 01	4
3	Technical Data	7
4	Signal and Power Interfaces	8
4.1	SHU 01 01	8
4.2	SHU 02 01	8



1 Product Overview

This document describes the Support Hub Unit (SHU).

1.1 Purpose

The SHU is used as to connect peripheral units to the Enclosure Control (EC) bus.

1.2 Variants

The following variants are available:

- SHU 01 01
- SHU 02 01

where SHU 02 01 is used both in cabinets with a DU or Baseband unit, and an Ericsson Site Controller (ESC)

1.2.1 SHU 01 01

The SHU 01 01 connects up to 14 peripheral units to the EC bus. Figure 1 shows the front of the SHU 01 01.

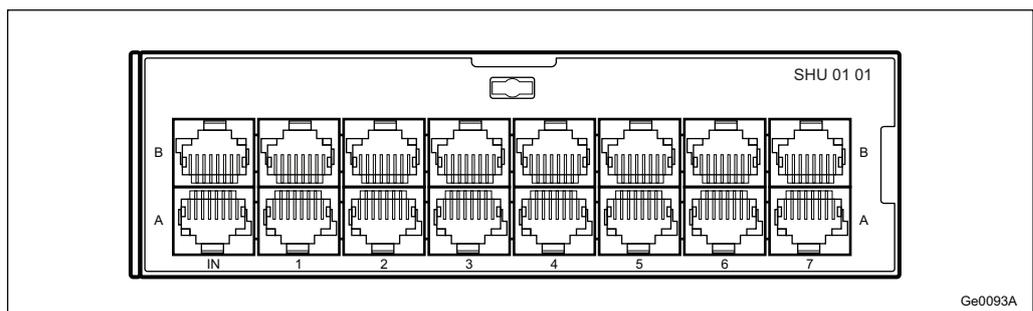


Figure 1 SHU 01 01 Front

1.2.2 SHU 02 01

The SHU 02 01 connects up to 16 peripheral units to the EC bus. Figure 2 shows the SHU 02 01.

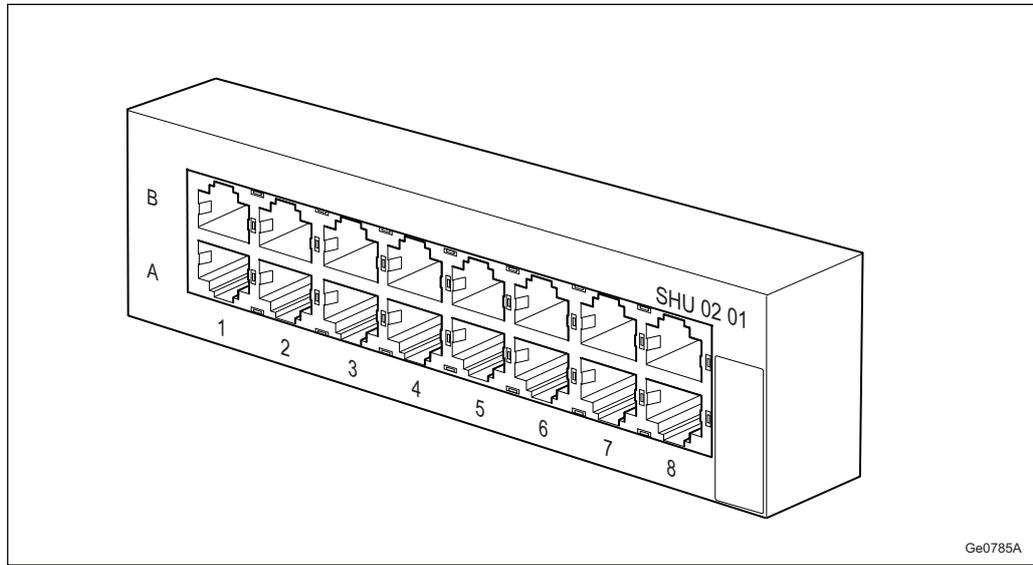


Figure 2 SHU 02 01



2 Function Description

This section describes the functions of the SHU variants.

2.1 SHU 01 01

The SHU 01 01 has the following functions:

- Provides connection field for EC bus communication between the Digital Unit (DU) or Baseband unit, and other units
- Distributes signals for the Cold-Start and Priority Load functions

Figure 3 shows the block diagram of the SHU 01 01.

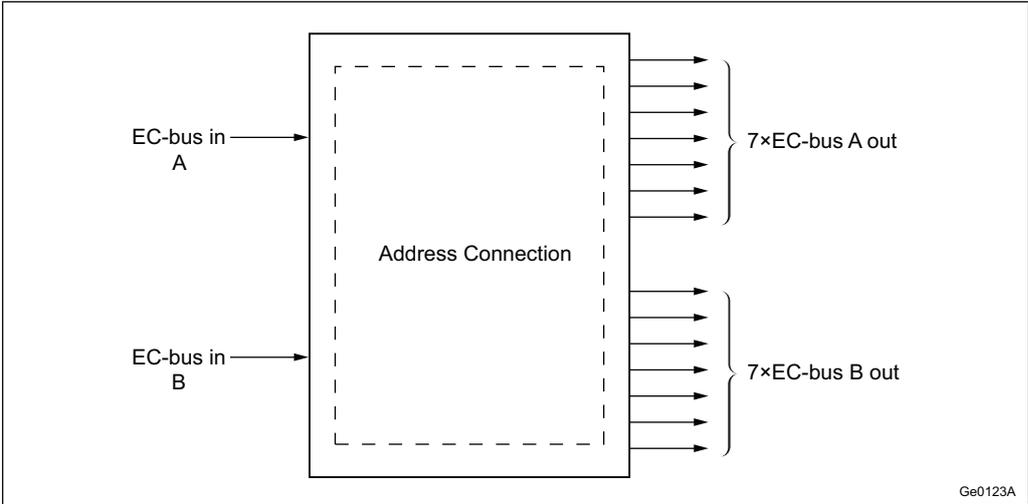


Figure 3 SHU 01 01Block Diagram

2.1.1 Port Configuration

The position of the units are hard coded in SHU 01 01. Port configurations for SHU 01 01 are listed in Table 1 .

Table 1 Port Configuration for SHU 01 01

Port A	Used by	Port B	Used by
A IN		B IN	-
A1	SCU (EC A)	B1	DU-1 or Baseband-1



Port A	Used by	Port B	Used by
A2	PDU-1	B2	PDU-2
A3	PSU-1	B3	PSU-2
A4	PSU-3	B4	PSU-4
A5	DU-2 or Baseband-2	B5	BFU/SCU ⁽¹⁾
A6	DU-3 or Baseband-3	B6	PSU-5
A7	DU-4 or Baseband-4	B7	PDU-3

(1) If an external BFU is connected to the SCU, the SCU is connected to port B5. Applicable only for SCU 02 01.

2.2 SHU 02 01

The SHU 02 01 has the following functions:

- Provides connection field for EC bus communication between the DU, Baseband unit or ESC, and other units.
- Distributes signals for the Cold-Start and Priority Load functions

Figure 4 shows the block diagram of the SHU 02 01.

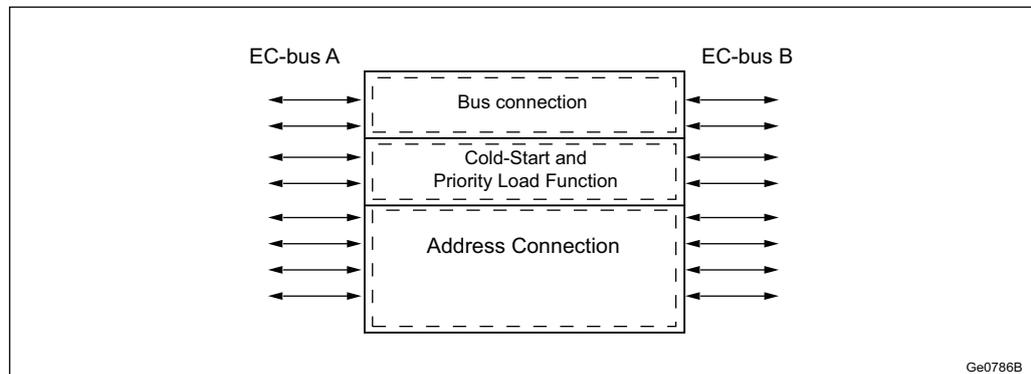


Figure 4 SHU 02 01 Block Diagram

2.2.1 Port Configurations with Single SHU

This section describes the port configurations for a single SHU 02 01 which is used in both cabinets with DUs or Baseband units, and an ESC.

The port configurations for a single SHU are presented in Table 2 and Table 3 for cabinets with DUs, Baseband units and ESC respectively.



Table 2 Port Configurations for Single SHU 02 01 in cabinets with DUs or Baseband

Port A	Used by	Port B	Used by
A1	SCU (EC A)	B1	DU-1/ Baseband-1
A2	PDU-1	B2	PDU-2
A3	PSU-1/DU-6 ⁽¹⁾ / Baseband T503	B3	PSU-2
A4	PSU-3	B4	PSU-4
A5	DU-2/ Baseband-2/ Baseband T503	B5	BFU
A6	DU-3/ Baseband-3/ Baseband T503	B6	PSU-5
A7	DU-4/ Baseband-4/ Baseband T503	B7	PDU-3
A8	PDU-4	B8	CLU

(1) Only applicable for DC-fed cabinets.

Table 3 Port Configurations for Single SHU 02 01 in cabinets with an ESC

Port A	Used by	Port B	Used by
A1	SCU (EC A)	B1	ESC
A2	PDU-1	B2	PDU-2
A3	PSU-1	B3	PSU-2
A4	PSU-3	B4	PSU-4
A5	-	B5	BFU
A6	PDU-5 ⁽¹⁾	B6	-
A7	PDU-6 ⁽¹⁾	B7	PDU-3
A8	PDU-4	B8	-

(1) Port designation used only in configurations with an ESC.

2.2.2 Port Configuration with Double SHUs

This section describes the port configurations for double SHU 02 01s

2.2.2.1 Port Configuration SHU1

The port configurations for SHU1 are listed in Table 4.

*Table 4 Port Configuration for SHU1*

Port A	Used by	Port B	Used by
A1	SCU (EC A)	B1	DU-1/ Baseband-1
A2	PDU-1	B2	PDU-2
A3	PSU-1	B3	PSU-2
A4	PSU-3	B4	PSU-4/PDU-6
A5	DU-2/ Baseband-2	B5	BFU-1
A6	DU-3/ Baseband-3	B6	PSU-5/PDU-7
A7	DU-4/ Baseband-4	B7	PDU-3/PSU-7
A8	PDU-4/PSU-8	B8	-

2.2.2.2

Port Configuration SHU2

The port configurations for SHU2 (optional) are listed in Table 5.

Table 5 Port Configuration for SHU2

Port A	Used by	Port B	Used by
A1	SCU (EC B)	B1	-
A2	DU-5/ Baseband-5	B2	PSU-6
A3	DU-6/ Baseband-6	B3	PDU-5
A4	-	B4	PSU-4/PDU-6
A5	BFU-2	B5	PDU-8
A6	-	B6	PSU-5/PDU-7
A7	-	B7	PDU-3/PSU-7
A8	PDU-4/PSU-8	B8	-



3 Technical Data

This section describes the technical data for the SHU variants.

Table 6 SHU Technical Data

Technical Data	Temperature range	Dimensions			
		Height	Width	Depth	Weight
SHU 01 01	-40 °C to +60 °C	43 mm	145 mm	225 mm	< 1 kg
SHU 02 01	-40 °C to +60 °C	40 mm	140 mm	22 mm	< 200 g



4 Signal and Power Interfaces

This section describes the interfaces for the SHU variants.

4.1 SHU 01 01

This section describes the interfaces for the SHU 01 01.

Table 7 lists the details for the external interfaces on the SHU 01 01.

Table 7 SHU 01 01 Interfaces

Marking	Description	Connector	Location
A-B IN, A-B 1-7	EC Bus	RJ-45, 8 pin	Front

4.2 SHU 02 01

This section describes the interfaces for the SHU 02 01.

Table 8 lists the details for the external interfaces on the SHU 02 01.

Table 8 SHU 02 01 Interfaces

Marking	Description	Connector	Location
A-B 1-8	EC Bus	RJ-45, 8 pin	Front