ERICSSON

Baseband Description

Baseband R503

Description

77/1551-LZA 701 6001/1 Uen T

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1 Product Overview

This document describes Baseband R.

1.1 Purpose

The main purpose of Baseband R is to distribute data between higher and lower rate Common Public Radio Interface (CPRI) links. It is a generic platform for CPRI rearrangement and provides support for increased connectivity for radio units through the CPRI splitter function.

1.2 Overview

Baseband R is shown in Figure 1.

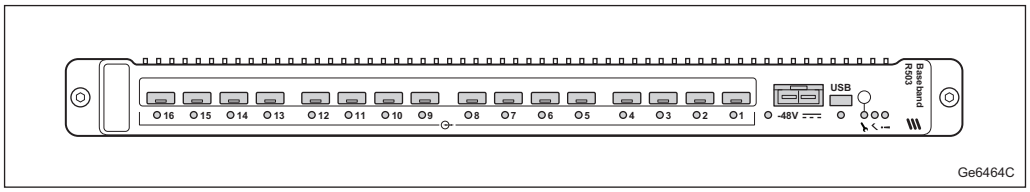

Figure 1 Baseband R

Baseband R is based on a Field-Programmable Gate Array (FPGA) which contains an ARM processor, making it easy to upgrade and manage.

For more information about Baseband R placement in an RBS cabinet, refer to RBS Description.

2 Function Description

Baseband R has the following functions:

— Multiplexing/demultiplexing

— Media conversion (optical to electrical)

Baseband R also provides support for multi-cabinet configurations.

For more information about Baseband R functions, refer to RBS Configurations.

Baseband R splits the data bit flow downlink and combines the data bit flow uplink.

A deployment example of Baseband R in a 3-sector application is shown in Figure 2 .

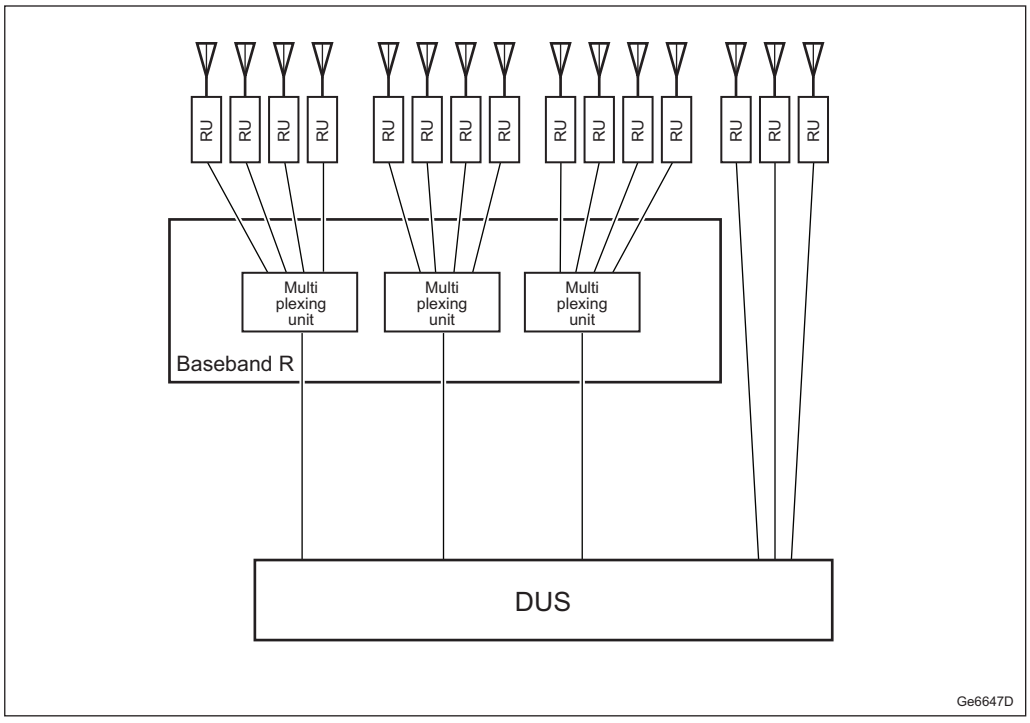

Figure 2 Baseband R Deployment Example in a 3-Sector Application

2.1 Splitter Block to Port Mapping

Figure 3 shows the splitter block to port mapping for the Baseband R.

Splitter Block to Port Mapping

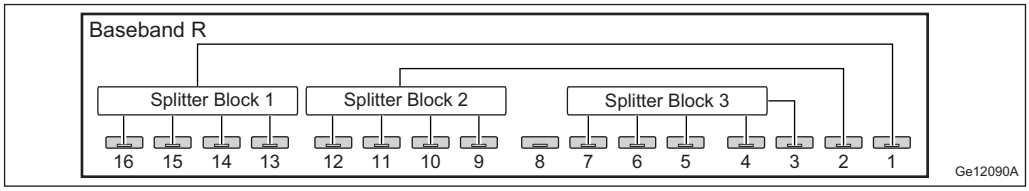

Figure 3 Splitter Block to Port Mapping

See Table 1 for Baseband R503 port configuration.

Table 1 Baseband R503 Port Configuration with Three Splitter Blocks from SW 16B

DU or Baseband to Baseband R503		Baseband R503 to RBB	
Port on Baseband R503	**Supported CPRI Line Rates (Gbps)**	**Port on Baseband R503**	**Supported CPRI Line Rates (Gbps)**
1	2.5, 9.8	16	2.5, 4.9, 9.8
		15	2.5, 4.9, 9.8
		14	2.5, 4.9, 9.8
		13	2.5, 4.9
2	2.5, 9.8	12	2.5, 4.9, 9.8
		11	2.5, 4.9, 9.8
		10	2.5, 4.9, 9.8
		9	2.5, 4.9
3	2.5, 9.8	7	2.5, 4.9, 9.8
		6	2.5, 4.9, 9.8
		5	2.5, 4.9, 9.8
		4	2.5, 4.9

Note: Port 8 on Baseband R503 is unused.

For more information about Baseband R configurations, refer to RBS Configurations.

2.2 Maintenance Button

The maintenance button is located next to the symbol. It has the following modes, depending on how long the maintenance button is pressed:

Full maintenance mode When Baseband R is in "No maintenance" mode and the maintenance button is pressed 2–7 seconds, all traffic is

	suppressed and Baseband R enters "Full maintenance" mode.
HW Reset	When the maintenance button is pressed for 7 seconds or more, Baseband R restarts in "No maintenance" mode, "Full maintenance" mode, or "Removing traffic" mode (a transient mode between "No maintenance" mode and "Full maintenance" mode), depending on the initial mode.
No maintenance mode	When Baseband R is in "Full maintenance" mode and the maintenance button is pressed a second time, for less than 7 seconds, Baseband R returns to "No maintenance" mode.

The functionality of the maintenance button can vary depending on the software version loaded.

3 Technical Data

Baseband R technical data is shown in Table 2.

Table 2 Baseband R Technical Data

Unit	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
Baseband R	31	350	282	2.3

4 Interfaces

Baseband R signalling and power interfaces are listed in Table 3.

Table 3 Baseband R Interfaces

Marking	Connector	Description	Optical Indicator
−48 V	ET20 A	−48 V DC power	Yes
USB	USB	USB Connector	Yes
1 – 16(1)	16 × SFP+	CPRI	Yes
!	–	Fault	Red
✓	–	Operation	Green
🔧	–	Maintenance	Blue

(1) Port 8 is an Ericsson proprietary port for future use. The function of this port can be changed in the future without notice.

For more information about optical indicators, see Indicators, Buttons, and Switches.

Do not remove dust plugs from unused ports. Always insert dust plugs into ports that are not in use by a cable connector. You can find the dust plugs as shown in Figure 4:

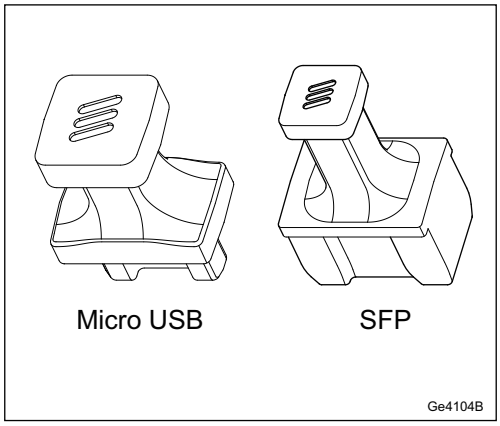

Figure 4 Dust Plugs for Micro USB and SFP Interfaces