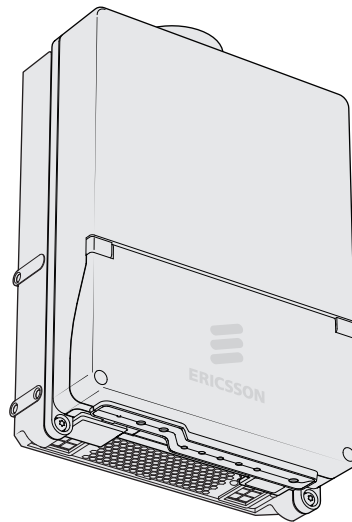


Baseband Description

Baseband 6303

Description



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1 Product Overview

Baseband 6303 is an outdoor baseband unit. It integrates the digital unit and GPS function into one unit. It can support GSM, WCDMA, LTE FDD/TDD, Massive-IoT, or mixed mode GSM + WCDMA.

Figure 1 shows a Baseband that is installed in an outdoor environment, as an example.

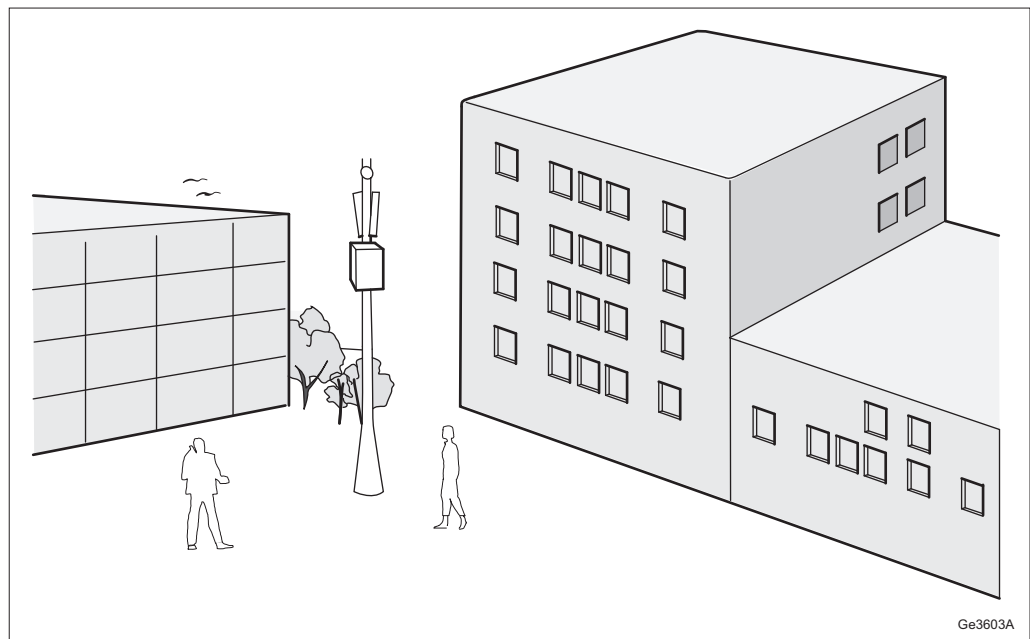


Figure 1 Baseband in an Outdoor Environment

1.1 Function Description

The Baseband has the following functions:

- Timing function
- Loadable software
- Downlink baseband processing
- Uplink baseband processing
- IP traffic management
- Radio interface



- Transmission handling
- Integrated GPS receiver

For the block diagram of the Baseband, see [Figure 2](#).

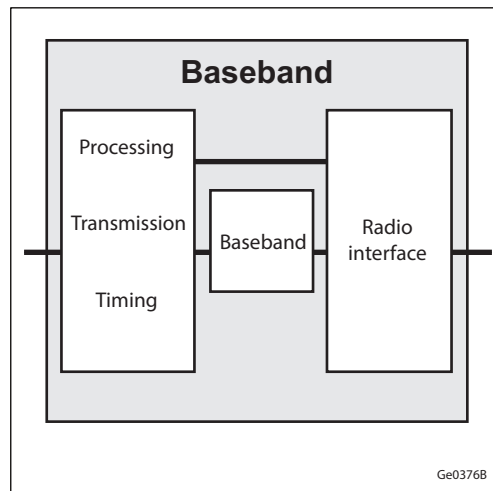


Figure 2 Baseband Block Diagram

1.2 Optional Equipment

The optional equipment for the Baseband is the following:

- Rail installation equipment
- Integrated GPS antenna
- External GPS antenna

1.3 Warranty Seal

The unit is equipped with a warranty seal sticker.

Note: Seals that have been implemented by Ericsson must not be broken or removed, as it otherwise voids warranty.



2 Technical Data

This section contains physical characteristics, environmental data, and the power information of Baseband 6303.

2.1 Technical Data Summary

Technical data for the Baseband is listed in [Table 1](#) and [Table 2](#).

Table 1 Dimensions and Weight

Height	Width	Depth	Weight
267 mm	200 mm	92 mm	5.1 kg

Table 2 Technical Data

Capacity Data LTE	Capacity Data WCDMA Maximum DCH Capacity (Measured in Channel Elements)	Capacity Data GSM	Supported Radio Interface Connections CPRI
<ul style="list-style-type: none"> — 4000 connected users — 960 MHz antenna bandwidth⁽¹⁾ — Max 12 cells — Up to 1200 FDD or 500 TDD VoIP users — 1000 Mbps DL throughput⁽¹⁾⁽²⁾ — 250 Mbps UL throughput⁽¹⁾⁽²⁾ 	576 DL 576 UL, 2048 EUL Max 12 cell carriers	24 TRX	3 radio ports 2.5 Gbps, 4.9 Gbps, 9.8 Gbps, and 10.1 Gbps

(1) Depending on the Radio Configuration

(2) Depending on HW Utilization Packages (HUPs)

For more information about supported configurations and capacity, refer to RBS Configurations.

2.2 Installation Recommendations

To ensure reliable operation and maximum performance, an appropriate installation location must be chosen.



When using the optional integrated directional antenna make sure the radio is not pointing at any elements that can disturb the radio signals.

2.2.1 Indoor Locations to Avoid

Although the unit is designed for outdoor use, it can be used indoors. For indoor locations Ericsson recommends to operate according to ETSI EN 300 019-1-3 class 3.1, 3.2, 3.3, and 3.6. This does not cover installation with heat traps or installation in lofts, where air ventilation does not exist. To ensure smooth performance, avoid installing the unit in a potential microclimate location, for example, places with unventilated lofts, with heat traps, or where the product is exposed to direct sunlight through windows. Avoid installing the equipment under glass covers or skylight windows without proper ventilation.

2.2.2 Outdoor Locations to Avoid

Although Ericsson declares this product suitable for outdoor environments, avoid installing the unit in a potential microclimate location. Typical examples of microclimate locations are sites where the product is not only exposed to the actual surrounding temperature, but additional temperature as heat coming from dark colored planes, for example, reflections from the floor or walls. The additional temperature can generate heat traps with temperatures up to 10°C higher than expected.

Avoid installing equipment in the following locations:

- Near the exhaust of building ventilation systems
- Near the exhaust of chimneys
- Opposite large surfaces made of glass or new concrete

If the unit is to be placed in an environment subjected to lightning strike, an external Surge Protection Device (SPD) is needed.

2.2.3 Other Considerations

Installing the radio close to other electronic equipment can cause interferences.

For sites with risk of ground fire, the recommended minimum installation height is 3 m.

2.2.4 Painting Limitations

Ericsson does not recommend painting the Baseband as it may affect performance of the unit.



Ericsson will apply limitations to the warranty and service contract if the Baseband is painted.

2.2.4.1 Technical Limitations

If the Baseband is painted, be aware of the technical limitations below:

- Sunlight on dark paint may increase the temperature of the radio causing it to shut down.
- The plastic surfaces and the plastic covers are suited for painting with normal, commercially available one- or two-component paints.
- Never use metallic paint or paint containing metallic particles.
- Ensure that ventilation and drainage holes are free from paint.
- Ensure proper adhesion of the paint.

2.2.4.2 Commercial Limitations

If the Baseband is painted, the commercial limitations below apply:

- Failure modes directly related to overheating due to painting are not valid for repair within the scope of the warranty or standard service contract.
- Product failures related to paint contamination of components of the unit are not valid for repair within the scope of warranty or standard service contract.
- When a painted unit is repaired, it will be restored to the standard color before being returned to the market. It is not possible to guarantee the same unit being sent back to the same place. This is also valid for units repaired under a service contract.
- For repairs within the warranty period or a standard service contract, the customer will be charged the additional costs for replacing all painted parts of the unit or the complete unit.

2.3 Space Requirements

The Baseband installation alternatives are shown in [Table 3](#).

Table 3 Baseband Installation Alternatives

Wall Installation	Rail Installation	Pole Installation	Ceiling Installation (only for indoor)
Yes	Yes	Yes	Yes

Note: Only vertical mounting is allowed for outdoor installation alternatives.

The installation alternatives described in this section are the primary installation scenarios for the Baseband.

The installation alternatives are shown in [Figure 3](#).

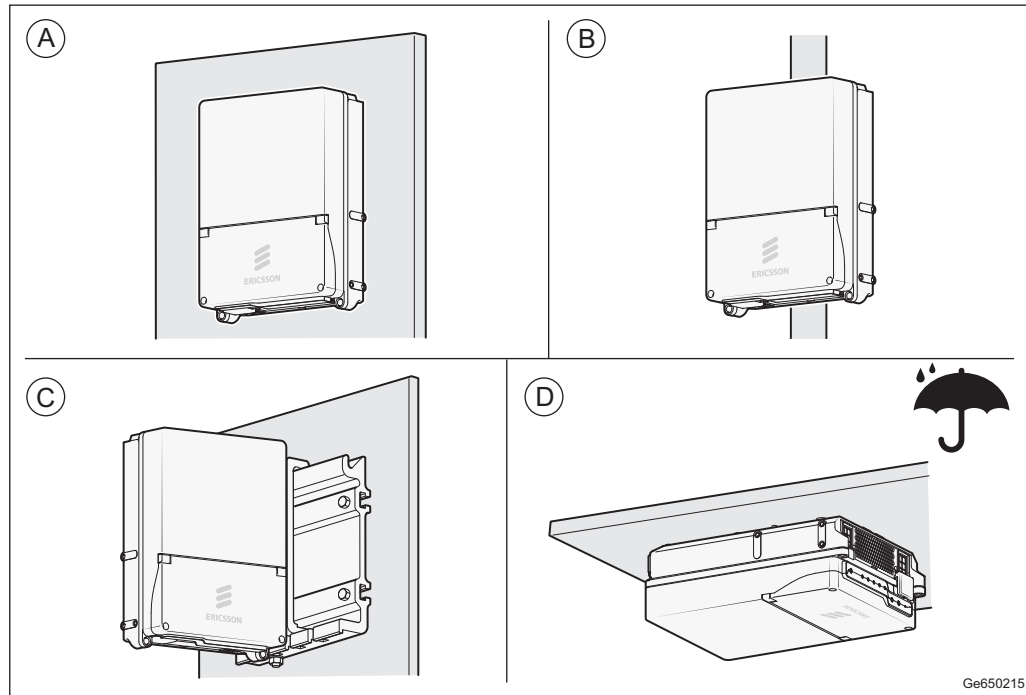


Figure 3 Alternative Installation Methods

2.3.1 Generic Requirements

The Baseband can be placed directly against each other side by side. To ensure sufficient working space, allow adequate free space in front of the Baseband.

2.3.2 Wall Installation

The installation requirements if installing a Baseband on a wall are shown in [Figure 4](#).

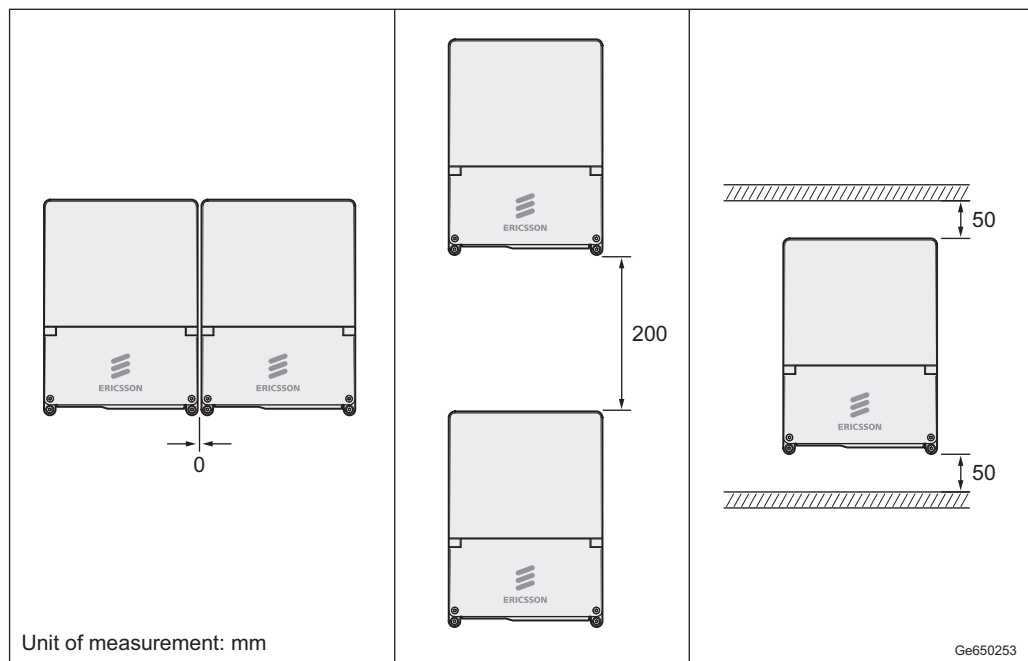


Figure 4 Wall Installation

To ensure adequate airflow between the units, allow a minimum of 50 mm free space between the Baseband and the roof. Allow a minimum of 200 mm between Basebands installed on a wall, on top of one another.

2.3.3

Rail Installation

The installation requirements if installing the Baseband on a rail are shown in [Figure 5](#).

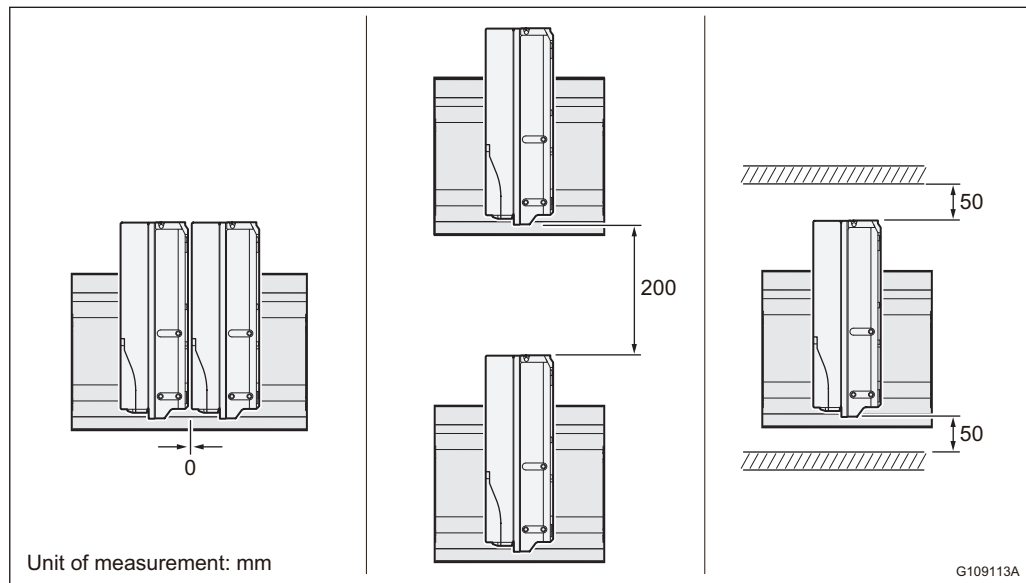


Figure 5 Rail Installation

2.3.4

Pole Installation

The installation requirements if installing a Baseband on a pole are shown in [Figure 6](#).

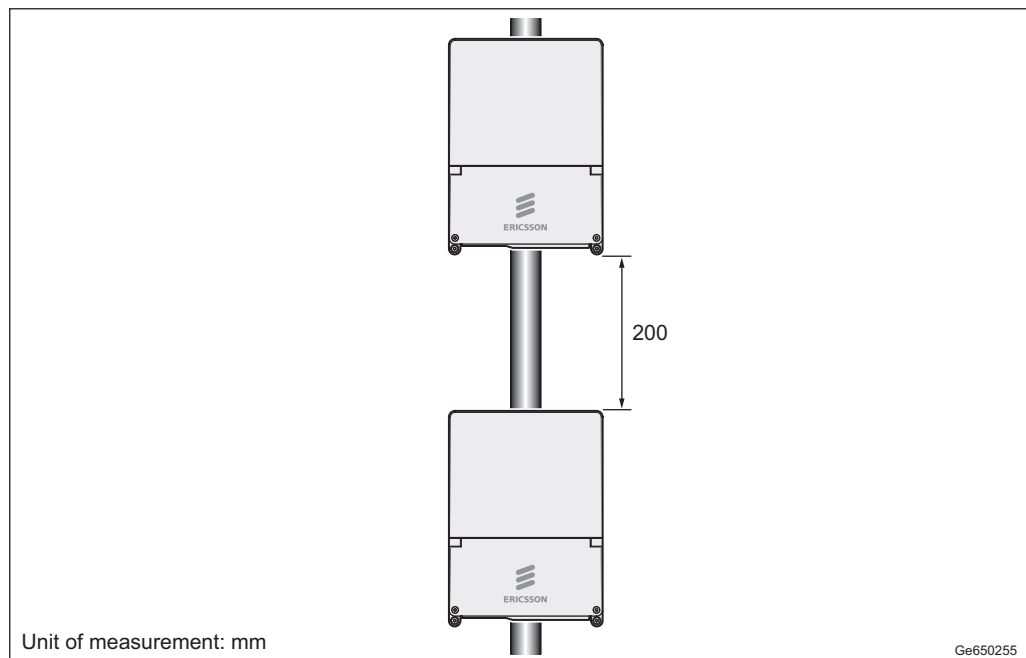


Figure 6 Pole Installation

The pole dimensions are described in [Table 4](#).



Table 4 Pole Dimensions

Type	Minimum Dimension (mm)	Maximum Dimension (mm)
Pole Clamp	Ø40	Ø150
	Ø140	Ø300
	Ø250	Ø500

To ensure adequate airflow between the units, allow a minimum of 200 mm free space above and below each Baseband.

2.3.5

Ceiling Installation

The installation requirements if installing the Baseband on a ceiling are shown in [Figure 7](#).

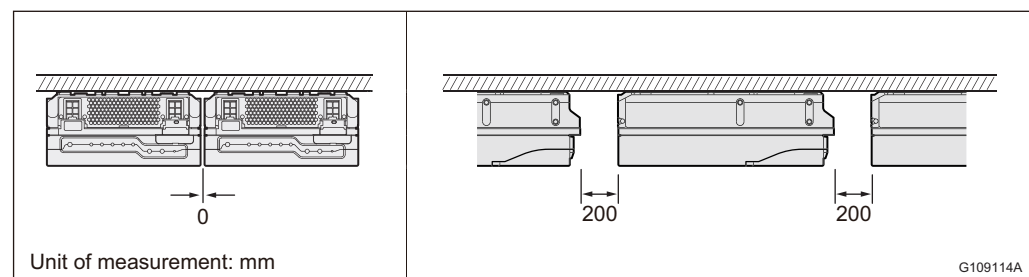


Figure 7 Ceiling Installation

To ensure adequate airflow between the units, allow a minimum of 200 mm free space between Baseband installed on a roof beside one another.

2.4

Acoustic Noise

The sound pressure levels are shown in [Table 5](#).

Table 5 Sound Pressure Level for Baseband 6303

Temperature (°C)	Sound Pressure, L_{eqA} 2 m Distance (dBA)
+20	31
+30	34
+40	45
+50	53
+55	55

2.5

Environmental Characteristics

This section contains operating environment data for the Baseband.



2.5.1 Operating Environment

The following are the values for the normal operating environment of the Baseband:

Temperature	-40°C to +55°C
Solar radiation	$\leq 1,120 \text{ W/m}^2$
Relative humidity	5–100%
Absolute humidity	$0.26\text{--}40 \text{ g/m}^3$
Maximum temperature change	0.5°C/min
Maximum wind load at 50 m/s (pole installed)	80 N (front)

2.5.2 Heat Dissipation

The Baseband is designed for outdoor installation. [Table 6](#) shows the Baseband maximum heat dissipation. Indoor installation in a room without adequate ventilation and cooling must be avoided.

Table 6 Baseband Heat Dissipation

Unit	Maximum Heat Dissipation (W)
Baseband 6303	160

2.5.3 Vibration

The Baseband operates reliably during seismic activity as specified by test method IEC 60068-2-57 Ff.

Maximum level of Required Response Spectrum (RRS)	50 m/s^2 within 2–5 Hz for DR=2%
Frequency range	0.3–50 Hz
Time history signal	Verteq II

The Baseband operates reliably during random vibration as specified by test method IEC 60068-2-64 Fh method 1

Random vibration, normal operation	$+12 \text{ m}^2/\text{s}^3$	$0.3 \text{ m}^2/\text{s}^3$	$-12 \text{ m}^2/\text{s}^3$
Frequency range	5–10 Hz	10–50 Hz	50–150 Hz

2.5.4 Materials

All Ericsson products fulfill the legal and market requirements regarding the following:



- Material declaration
- Materials' fire resistance, components, wires, and cables
- Recycling
- Restricted and banned material use

2.6 Power Characteristics

This section describes the power supply requirements, power consumption, and fuse and circuit breaker recommendations for the Baseband.

The power for the Baseband can be provided from an AC or a DC power supply.

2.6.1 DC Power Characteristics

The power supply voltage for the Baseband is –48 V DC. The power supply requirements are listed in [Table 7](#).

Table 7 Baseband DC Power Supply Requirements

Conditions	Values and Ranges
Nominal voltage	–48 V DC
Normal voltage range	–58.5 to –38.0 V DC
Non-destructive range	0 to –60 V DC

Fuse and Circuit Breaker Recommendations

The external fuse and circuit breaker capabilities for the Baseband are shown in [Table 8](#).

The recommendations given in this section are based on peak power consumption and do not provide information on power consumption during normal operation.

The recommended melting fuse type is gG-gL-gD in accordance with IEC 60269-1. Circuit breakers must comply with at least Curve 3 tripping characteristics, in accordance with IEC 60934.

Table 8 Baseband Fuse or Circuit Breaker Recommendations

Unit (DC powered)	Minimum Fuse Rating	Maximum Allowed Fuse Rating ⁽¹⁾
Baseband 6303	6 A	32 A

(1) The absolute maximum fuse class in accordance with Baseband design restrictions.



2.6.2 AC Power Characteristics

The normal voltage range for the Baseband is 100 to 250 V AC. The power supply requirements are listed in [Table 9](#).

Table 9 Baseband AC Power Supply Requirements

Conditions	Values and Ranges
Nominal Voltage	100–250V AC
Voltage tolerance range	85–275 V AC
Non-destructive range	0–325V AC
Connections	Phase-neutral, Phase-Phase
Frequency	50–60 Hz

Fuse and Circuit Breaker Recommendations

The external fuse and circuit breaker capabilities for the Baseband are shown in [Table 10](#).

The recommendations given in this section are based on peak power consumption and do not provide information on power consumption during normal operation.

The recommended melting fuse type is gG-gL-gD in accordance with IEC 60269-1. Circuit breakers must comply with at least Curve 3 tripping characteristics, in accordance with IEC 60934.

When the Baseband connected Line-Line a 2-pole circuit breaker or dual fuses are required for interruption of both lines. This is also valid when the Baseband is used in an IT system.

Table 10 Baseband Fuse or Circuit Breaker Recommendations

Unit (AC powered)	Minimum Fuse Rating	Maximum Allowed Fuse Rating ⁽¹⁾
Baseband 6303	6 A	16 A

(1) The absolute maximum fuse class in accordance with Baseband design restrictions.

2.6.3 Power Consumption

For information on power consumption, see [Power Consumption Calculations](#).

3

Hardware Architecture

The Baseband components for installation are shown in [Figure 8](#) and listed in [Table 11](#).

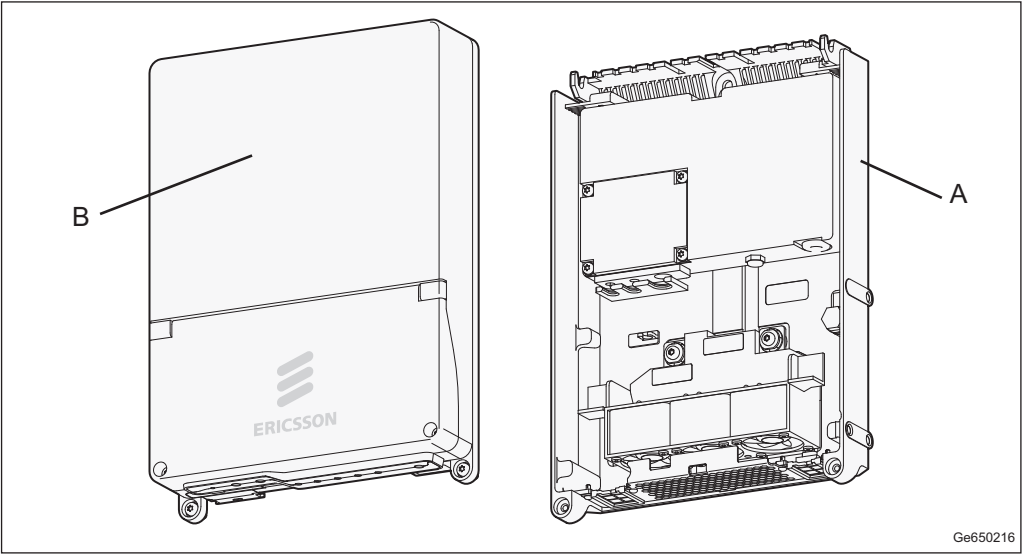


Figure 8 Baseband Components

Table 11 Key to Baseband Components

Position	Component
A	Standalone Baseband Support 6509 (AC) Standalone Baseband Support 6510 (DC)
B	Baseband Core

3.1

Standalone Baseband Support

The Support provides the Baseband Core with integrated mechanical attachment, power conversion and cooling. It consists of a mounting bracket, three fan units, and a PSU.

3.1.1

Mounting Bracket

The mounting bracket provides integrated mechanical attachment for wall and pole mounting, and attachment points for the rail bracket.



3.1.2 Fan Unit

The fan unit operates against ambient temperature to cool the Baseband Core.

3.1.3 PSU

The PSU provides power to the Baseband Core and the fan unit.

The PSU is available in two variants to support AC input and DC –48 V input. The DC variant handles both 2-wire and 3-wire connections.

Included in the PSU is also the external alarm interface.

3.2 GPS

The optional integrated GPS with GPS and GLONASS capability provides the GPS signal for the Baseband.

The external GPS antenna is also supported. If external GPS antenna is used, a jumper cable is necessary.

3.3 Baseband Core

The Baseband Core handles the digital communication in the unit, such as local maintenance terminal, inter-digital link, electrical and optical Ethernet transmission.

3.4 Optical Indicators and Buttons

The Baseband is equipped with optical indicators that show system status. The optical indicators are shown in [Figure 9](#) and explained in [Table 12](#).

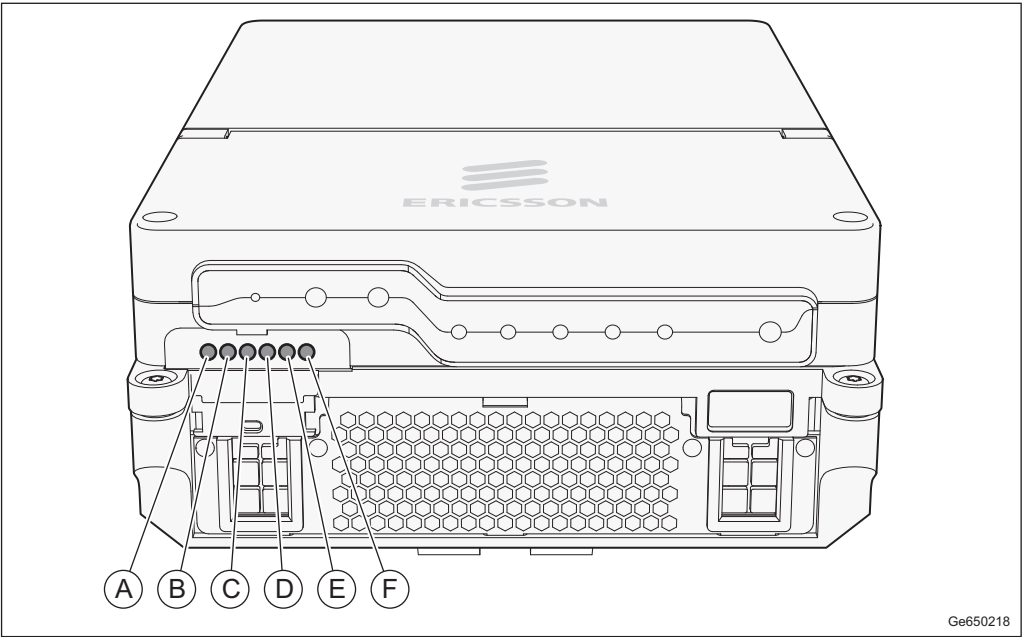


Figure 9 Baseband Optical Indicators

Table 12 Description of Baseband Optical Indicators

Position	Name	Marking
A	Fault	!
B	Operational	✓
C	Maintenance	🔧
D	Status	🔊
E	GPS Status	📶
D	Support System Status	! (boxed)



4 Connection Interfaces

This section contains information about the Baseband connection interfaces.

4.1 Support

The Support connection interfaces for Baseband are shown in [Figure 10](#) and listed in [Table 13](#).

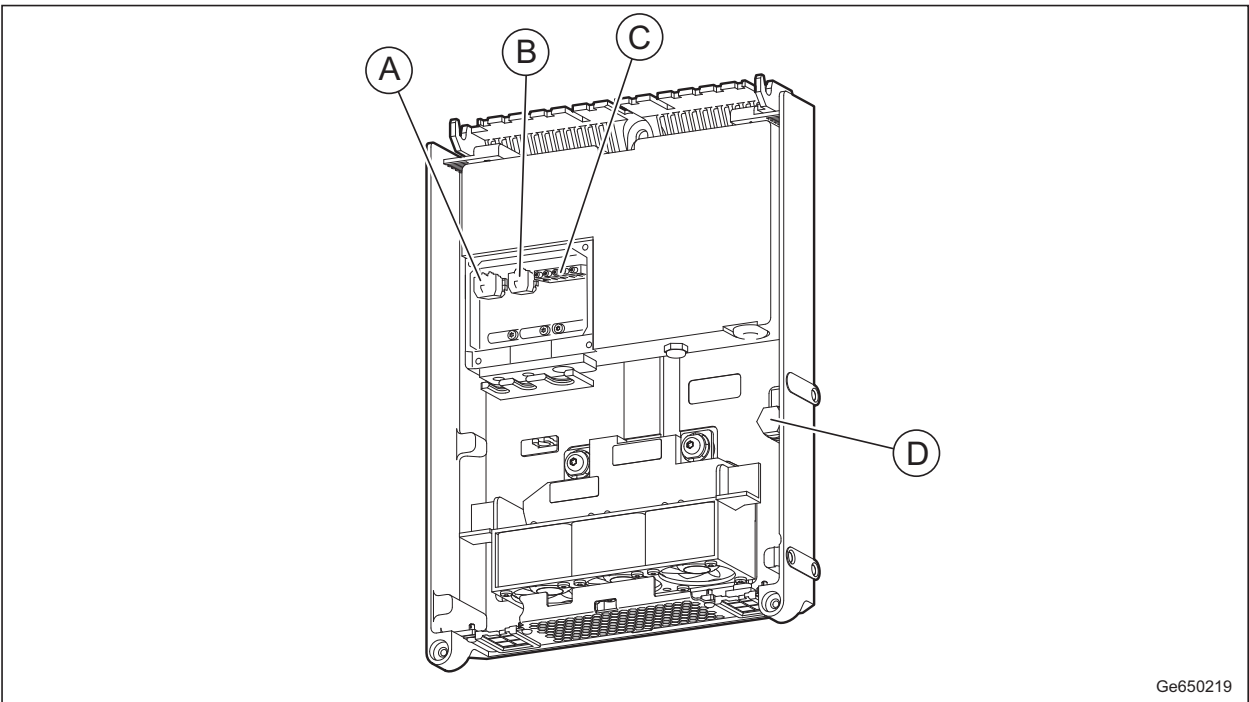

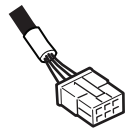


Figure 10 Support Connection Interfaces

Table 13 Support Connection Interfaces

Position	Description	Marking	Connector Types	Cable Types
A	Fan unit		PCB connector 6 Pole Molex Micro-Fit	



Position	Description	Marking	Connector Types	Cable Types
B	External alarm		PCB connector 4 Pole Molex Micro-Fit	
C	–48 V DC power supply	–48V	Screw terminal block	—
C	AC power supply			
D	Grounding (With DC power supply)		M8 bolt	
D	Grounding (With AC power supply)			

4.1.1 Position A, Fan Unit Interface

The fan unit provides cooling to the Baseband Core.

4.1.2 Position B, External Alarm Interface

Two external alarms can be connected to the Baseband external alarm port.

4.1.3 Position C, –48 V DC Power Interface

The –48 V DC power connection is made through a screw terminal. The screw terminal accepts cables with the limiting values listed in [Table 14](#).

Table 14 –48 V DC Power Supply Cable Diameter Tolerances

Unit (DC powered)	Cable Length	Cross-Sectional Area of Each Conductor	Outer Diameter over Sheath
Baseband 6303	0–50 m	2.5 mm ²	8–9 mm

For 3-wire power system, the power cable screw terminal has a wire for –48 V conductors, a wire for 0 V, and one wire for FE (Functional Earth). For 2-wire power system, the power cable screw terminal has a wire for –48 V conductors, and a wire for 0 V. The wire color code is market dependent. When power cable is changed from 2-wire connection to 3-wire connection, the jumper need to be removed for 3-wire connection.

All cables must be shielded. The shield must be folded back over the outer jacket of the cable and properly connected to the PSU chassis in the PSU strain relief,



otherwise the radio overvoltage does not function properly. Both ends of the power cables need to be connected to ground.

The DC cable temperature rating must be at least 70 °C.

4.1.4 Position C, AC Power Interface

The AC power connection is made through a screw terminal. The screw terminal accepts cables with the limiting values listed in [Table 15](#).

Table 15 AC Power Supply Cable Diameter Tolerances

Unit (AC powered)	Cable Length	Cross-Sectional Area of Each Conductor	Outer Diameter over Sheath
Baseband 6303	0–100 m	2.5 mm ²	8–9 mm

The power cable has a wire for Line (L), a wire for Line/Neutral (L/N), and a wire for Protective Earth (PE) conductors. The wire color code for wires is market dependent.

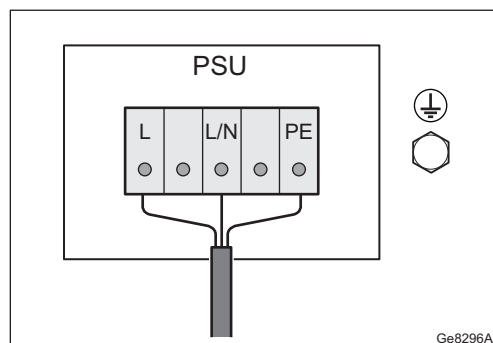
All cables must be shielded. The shield must be folded back over the outer jacket of the cable and properly connected to the PSU chassis in the PSU strain relief, otherwise the radio overvoltage does not function properly. Both ends of the power cables need to be connected to ground.

The AC cable temperature rating must be at least 70 °C.

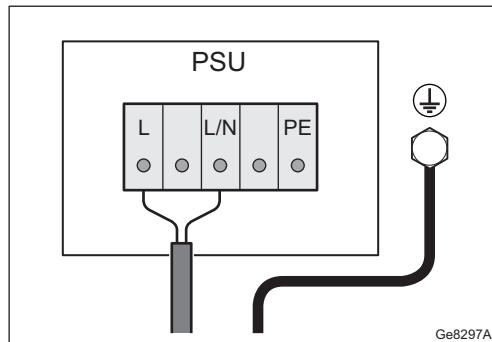
4.1.5 Position D, Grounding Interface

The possible grounding interface solutions for the Baseband are as follows:

AC Grounding

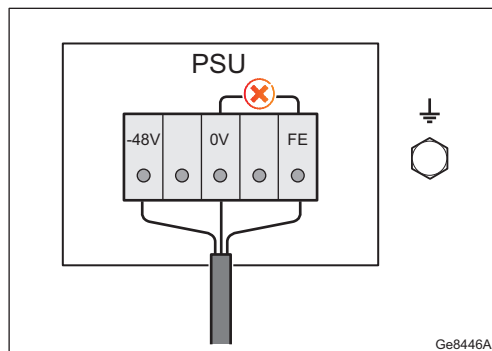


AC power with PE in PSU input terminal.

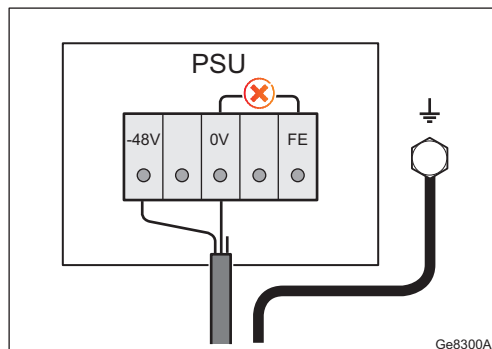


AC power with PE in the grounding interface on the mounting bracket.

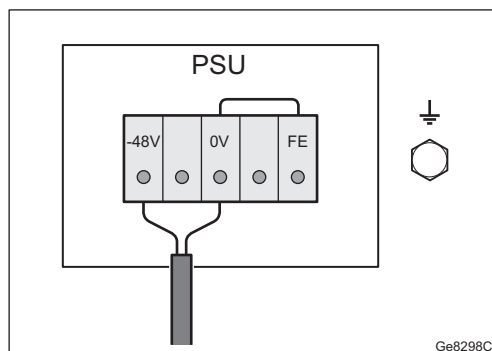
DC Grounding



3-wire power system with FE in PSU input terminal. Remove the jumper between 0V and FE.



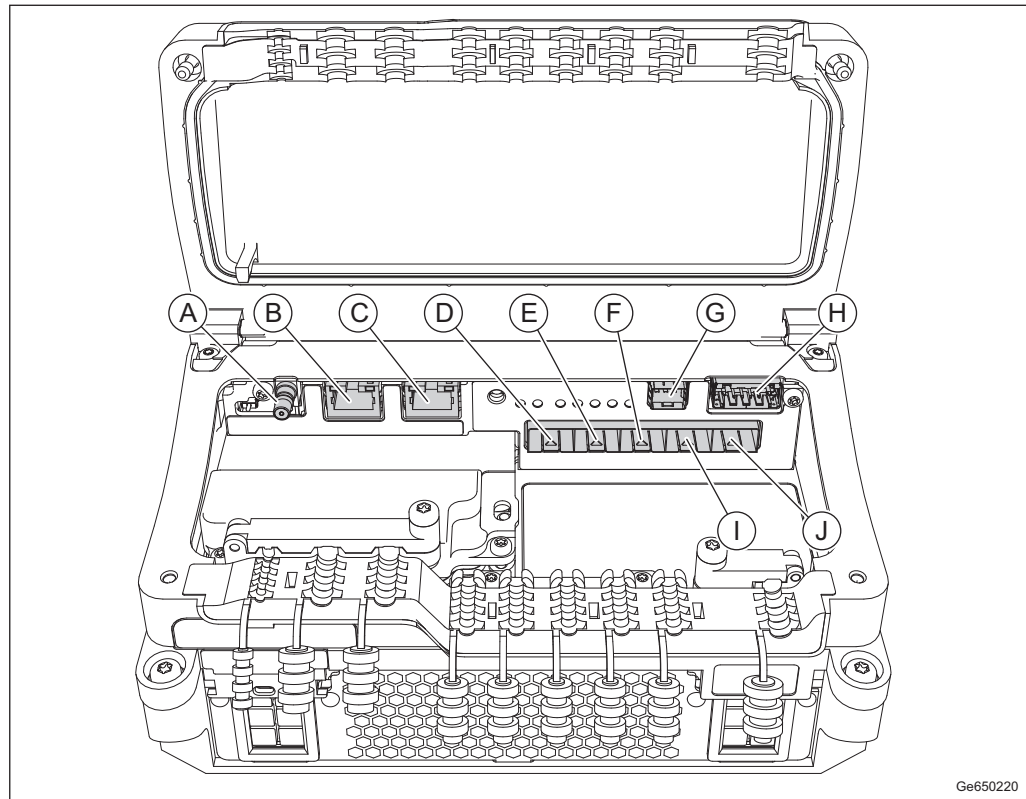
3-wire power system with FE in the grounding interface on the mounting bracket. Remove the jumper between 0V and FE.



2-wire power system with FE in PSU input terminal.

4.2 Baseband Core

The Baseband Core connection interfaces are shown in [Figure 11](#) and listed in [Table 16](#).



Ge650220

Figure 11 Baseband Core Connection Interfaces

Table 16 Connection Interfaces

Position	Description	Connector	Marking	Optical Indicator ⁽¹⁾
A	GPS Antenna	QMA	GPS	Yes
B	100 Mbps/1 Gbps Ethernet transmission, electrical	RJ-45	TN C ⁽²⁾⁽³⁾	Yes
C	LMT A interface ⁽⁴⁾⁽⁵⁾ LMT B Interface ⁽⁵⁾⁽⁶⁾ Sync test interface ⁽⁷⁾⁽⁸⁾	RJ-45	LMT	Yes ⁽⁹⁾
D	Radio interface A Baseband to radio unit, optical	SFP+ ⁽¹⁰⁾	RI A	Yes
E	Radio interface B Baseband to radio unit, optical	SFP+ ⁽¹⁰⁾	RI B	Yes
F	Radio interface C Baseband to radio unit, optical	SFP+ ⁽¹⁰⁾	RI C	Yes
G	Inter Digital Link Ethernet (IDLe) Baseband to Baseband optical	Xcede	IDL	No
H	+36 V DC Power and internal communication	RPV 447 72/01 (product number)	PWR	Yes
I	1 Gbps/10 Gbps Ethernet transmission, optical	SFP+ ⁽¹¹⁾	TN A ⁽²⁾⁽³⁾ (12)	Yes



Position	Description	Connector	Marking	Optical Indicator ⁽¹⁾
J	1 Gbps/10 Gbps Ethernet transmission, optical	SFP+ ⁽¹¹⁾	TN B ⁽²⁾⁽³⁾⁽¹²⁾	Yes

(1) For more information about optical indicators, see Indicators, Buttons, and Switches

(2) Supports synchronization over the transport network.

(3) Hardware Activation Codes are required for use of multiple TN ports simultaneously.

(4) RS-232 interface. Accessed with the LMT splitter cable.

(5) For more information about the LMT interfaces, see Connect Client.

(6) 100 Mbps electrical Ethernet interface.

(7) Compliant with 1PPS 50 Ω phase synchronization measurement interface. Accessed with an adapter.

(8) For more information about the sync test interface, see Manage Network Synchronization.

(9) The optical indicator indicates the status of the LMT B interface.

(10) SFP+ is needed for CPRI rates higher than 2.5 Gbps.

(11) SFP+ is needed for transmission rates higher than 2.5 Gbps.

(12) Hardware Activation Codes are required for use of 10 Gbps transmission.

4.2.1 Position A, GPS Antenna Interface

The GPS antenna interface provides connections for the Baseband core to the GPS antenna. The interface connector is QMA.

4.2.2 Position B, Electrical TN Interface

The Electrical Ethernet transmission network interface provides electrical transmission. The interface connector type is RJ45 with PoE PSE capability.

This interface can not be used in lightning exposed environments. If the unit is to be placed in an environment subjected to lightning strike, the interface need to be protected from lightning residuals.

4.2.3 Position C, Local Maintenance Terminal Interface

The local maintenance interface provides the connection to configure, monitor, and maintain the Baseband. The interface connector type is RJ45.

4.2.4 Position D, E, and F, Radio Interface for Optical Cable

The RI A, RI B, and RI C interfaces provide connections to optical cables (with outer diameter 4.5–5.5 mm, and complies with standard G657A2) for traffic and timing signals. A Small Form-Factor Pluggable (SFP+) is used to connect the optical cable to the Baseband.

Note: The Baseband uses SFP modules for optical transmission and optical radio interfaces on RI A, RI B, and RI C.



Only SFP+ modules approved and supplied by Ericsson are to be used. These modules fulfill the following:

- Compliance with Class 1 laser product safety requirements defined in standard IEC 60825-1
- Certification according to general safety requirements defined in standard IEC 60950-1
- Functional and performance verified to comply with Radio System specifications

Recommended SFP+ modules are obtained from the product packages for the Radio System and the Main Remote Installation products. For more information about SFP+ modules, refer to [Spare Parts Catalog](#) and [Site Installation Products Overview](#).

4.2.5 Position G, Inter Digital Link Interface

The inter digital link interface provides connection with digital unit. The interface connector is Xcede.

4.2.6 Position H, DC Power Interface

The Baseband DC power connector supplies the Baseband with +36 V DC from the PSU.

4.2.7 Position I and J, Optical TN Interface

The Optical Ethernet transmission network interfaces provide optical transmission, elastic RAN connection, and connections to optical cables (with outer diameter 4.5–5.5 mm, and complies with standard G657A2) for traffic and timing signals. A Small Form-Factor Pluggable (SFP+) is used to connect the optical cable.

4.2.7.1 Backhaul Cables



Danger!

Equipment that transmits laser light can cause permanent eye damage. Never look directly into the end of a fiber optic cable or other laser source. Switch off the laser before starting work on laser equipment.

[Figure 12](#) shows and [Table 17](#) describes a configuration example with backhaul and Elastic RAN cables between baseband units.



For more information about Elastic RAN, see [Elastic RAN](#).

For more information about supported configurations and capacity for Elastic RAN, see [RBS Configurations](#).

For more information about SFP modules and optical cables, see [Handling SFP Modules and Optical Cables](#).

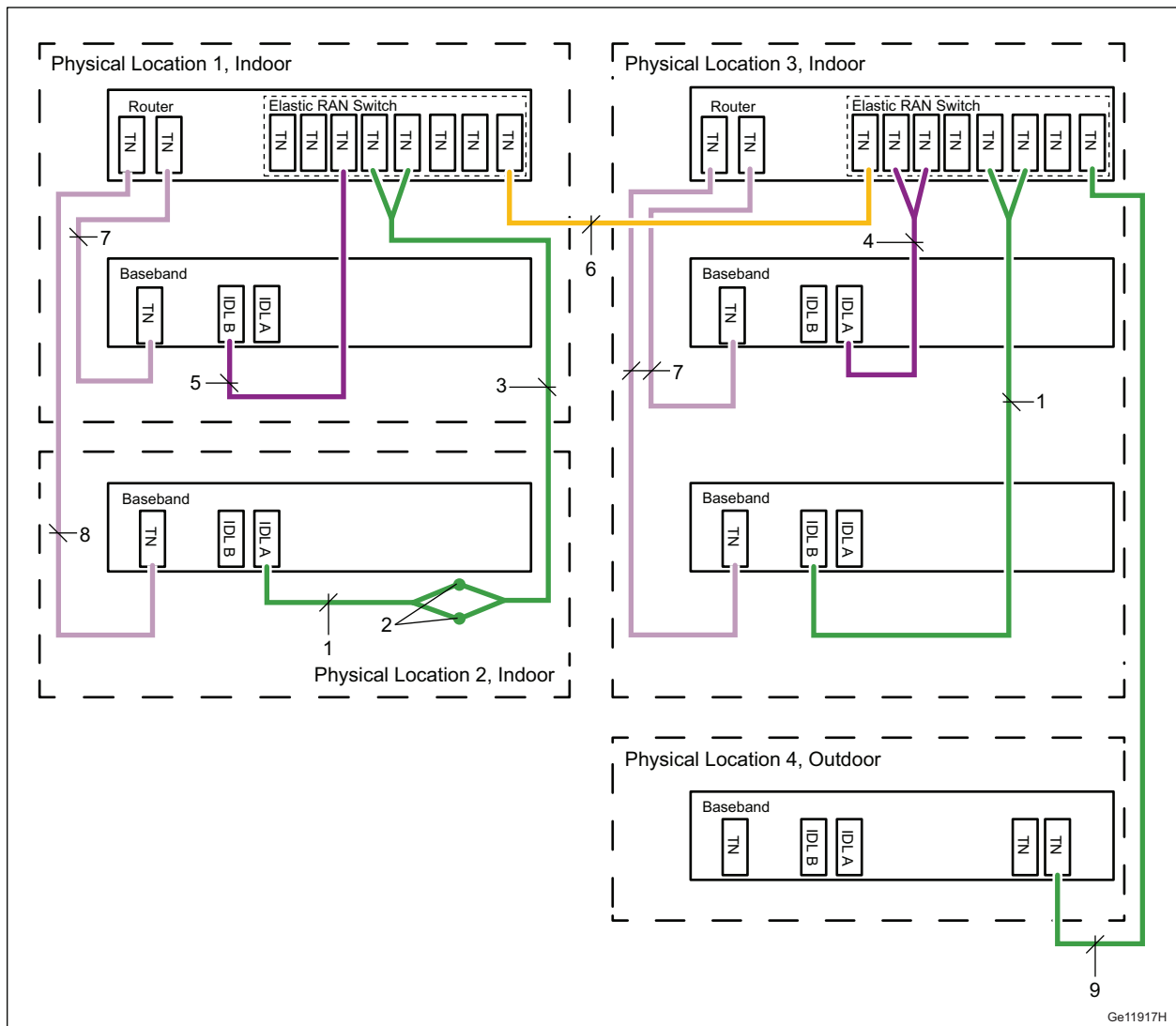


Figure 12 Backhaul and Elastic RAN Signal Cables



Table 17 Backhaul and Elastic RAN Signal Cables

Pos.	Connections		Product	Product No.	L (m)	Comments	Connectors
	From	To					
1	Baseband ⁽¹⁾ IDL A or IDL B	Router ⁽²⁾ TN E to TN S	Optical cable, Multimode	RPM 777 811 ⁽³⁾	3 or 5	Remote ⁽⁴⁾ Elastic RAN connection, CA and Uplink CoMP	One Xcede with electrical to optical converter to two LC
2	Baseband ⁽¹⁾ IDL A or IDL B	Router ⁽²⁾ TN E to TN S	LC Adapter		NA	LC adapter to connect two male LC connectors	
3	Baseband ⁽¹⁾ IDL A or IDL B	Router ⁽²⁾ TN E to TN S	Optical cable, Multimode	RPM 253 3209 ⁽³⁾ , RPM 253 4801 ⁽³⁾ , or RPM 253 4980 ⁽³⁾	100	Remote Elastic RAN connection, CA and Uplink CoMP	Two LC to two LC
4	Baseband ⁽¹⁾ IDL A or IDL B	Router ⁽²⁾ TN E to TN S	Electrical cable	RPM 777 544/L	1 and 2 for standalone installation 1, 1.5, and 2 for RBS installation	Local Elastic RAN connection, CA and Uplink CoMP	One Xcede to two SFP
5	Baseband ⁽¹⁾ IDL A or IDL B	Router ⁽²⁾ TN E to TN S	Electrical cable	RPM 777 543/L	1 and 2 for standalone installation 1, 1.5, and 2 for RBS installation	Local Elastic RAN connection, CA or Uplink CoMP	One Xcede to one SFP
6	Router ⁽²⁾ TN A to TN S	Router ⁽²⁾ TN A to TN S	Indoor optical patch cable, single mode	TSR 391 3072/L ⁽³⁾	Up to 60	Router to Router remote interconnectio n	One LC to one LC
			Outdoor optical patch cable, single mode	RPM 253 3512/L ⁽³⁾	Up to 5000	Router to Router remote interconnectio n	One LC to one LC
7	Baseband 6620 or Baseband 6630 TN C or TN D Baseband 5212 or Baseband 5216 TN A	Correspondin g ports on the Router ⁽²⁾	Electrical cable	RPM 777 341/L	0.65, 1.1, 1.8, or 2.6	Local backhaul connection	RJ-45 to RJ-45
				TSR 432 151	Up to 100		
	Baseband 6620 or Baseband 6630 TN A or TN B Baseband 5212 or Baseband 5216 TN B or TN C	Correspondin g ports on the Router ⁽²⁾	Electrical cable	RPM 777 579/L	1, 2, and 3 for standalone installation 0.8, 1, 1.5, and 2 for RBS installation	Local backhaul connection	One SFP to one SFP
8		Correspondin g ports on the Router ⁽²⁾	Optical cable, single mode	RPM 253 3512/L ⁽³⁾	Up to 5000	Remote backhaul connection	One SFP to one SFP



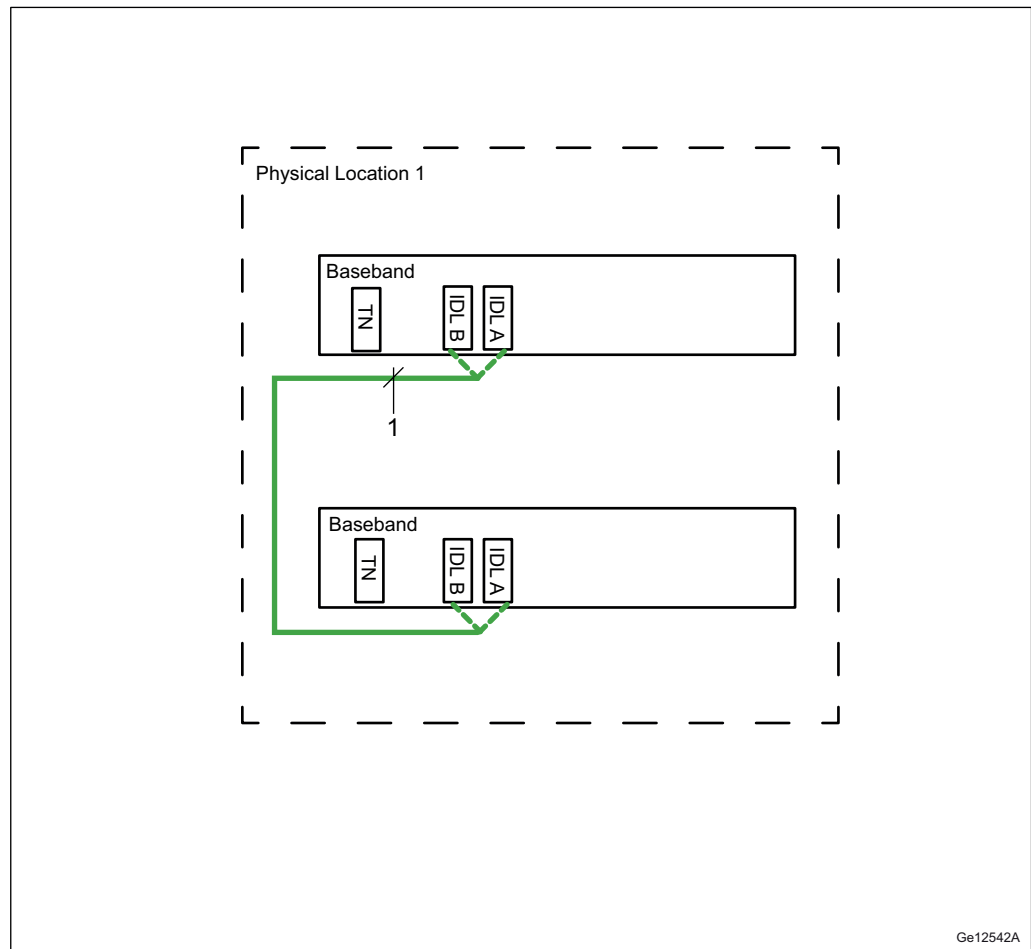
Pos.	Connections		Product	Product No.	L (m)	Comments	Connectors
	From	To					
9	An outdoor Baseband: Baseband 6318 TN B or TN C, Baseband 6303 TN A or TN B An indoor Baseband in a small outdoor enclosure: Baseband 5212 TN B, Baseband 5216 TN B or TN C, Baseband 6620 or Baseband 6630 TN A or TN B	Router ⁽²⁾ TN E to TN S	Optical cable, single mode	RPM 253 3512/L ⁽³⁾	Up to 5000	Remote backhaul and remote Elastic RAN connection, CA only	One SFP to one SFP

(1) Baseband 5212, Baseband 5216, Baseband 6303, Baseband 6318, Baseband 6620, or Baseband 6630. Baseband 6502 does not support Elastic RAN.

(2) Router 6675

(3) Minimum bending radius is 40 mm.

(4) Can also be used without RPM 253 3209 for local Elastic RAN connections.



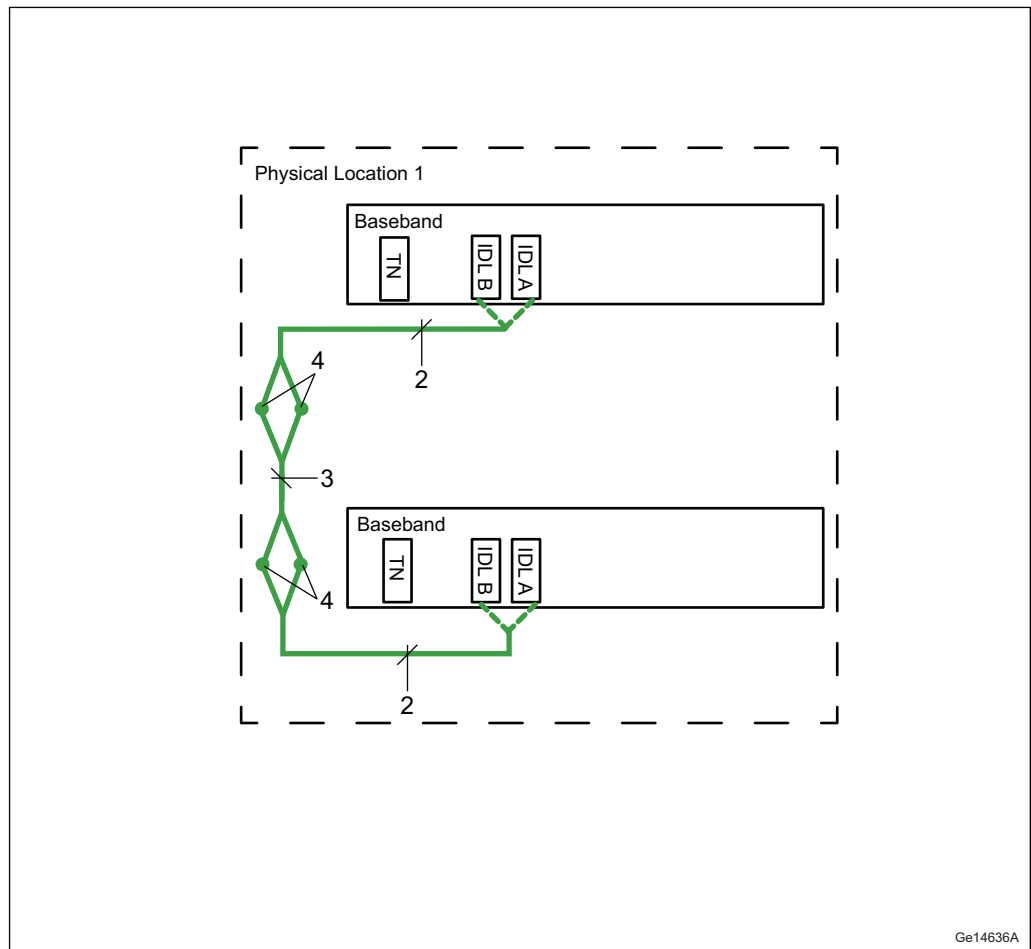


Figure 13 Elastic RAN Local Signal Cables



Table 18 Elastic RAN Local Signal Cables

Pos.	Connections		Product	Product No.	Length (m)	Comments	Connectors
	From	To					
1	Baseband 5216 IDL A or IDL B	Baseband 5216 IDL A or IDL B	Electrical cable	RPM 777 417/L	3	Local Elastic RAN connection	One Xcede to Xcede.
	Baseband 6630 IDL A or IDL B	Baseband 6630 IDL A or IDL B			1.8		
	Baseband 6318 IDL A or IDL B	Baseband 6318 IDL A or IDL B		RPM 901 807	1		
2	Baseband 5216 IDL A or IDL B	Baseband 5216 IDL A or IDL B	Optical cable, Multimode	RPM 777 811 ⁽¹⁾	3 or 5	Local Elastic RAN connection	One Xcede to two LC (connected to LC Adapters)
	Baseband 6630 IDL A or IDL B	Baseband 6630 IDL A or IDL B					
3	Baseband 5216 IDL A or IDL B	Baseband 5216 IDL A or IDL B	Optical cable, Multimode	RPM 253 3209 ⁽¹⁾ , RPM 253 4801 ⁽¹⁾ , or RPM 253 4980 ⁽¹⁾	100		Local Elastic RAN connection
	Baseband 6630 IDL A or IDL B	Baseband 6630 IDL A or IDL B					
4	LC Adapter						

(1) Minimum bending radius is 40 mm.



5 Internal Cabling

This section describes the internal cabling in the Baseband and is for use by on-site Operation and Maintenance (O&M) personnel.

5.1 Internal Power Cable

This section describes the internal power cabling in the Baseband.

5.1.1 Power Supply Unit to Baseband Core

The power cabling between Power Supply Unit (PSU) and the Baseband Core is shown in [Figure 14](#) and described in [Table 19](#).

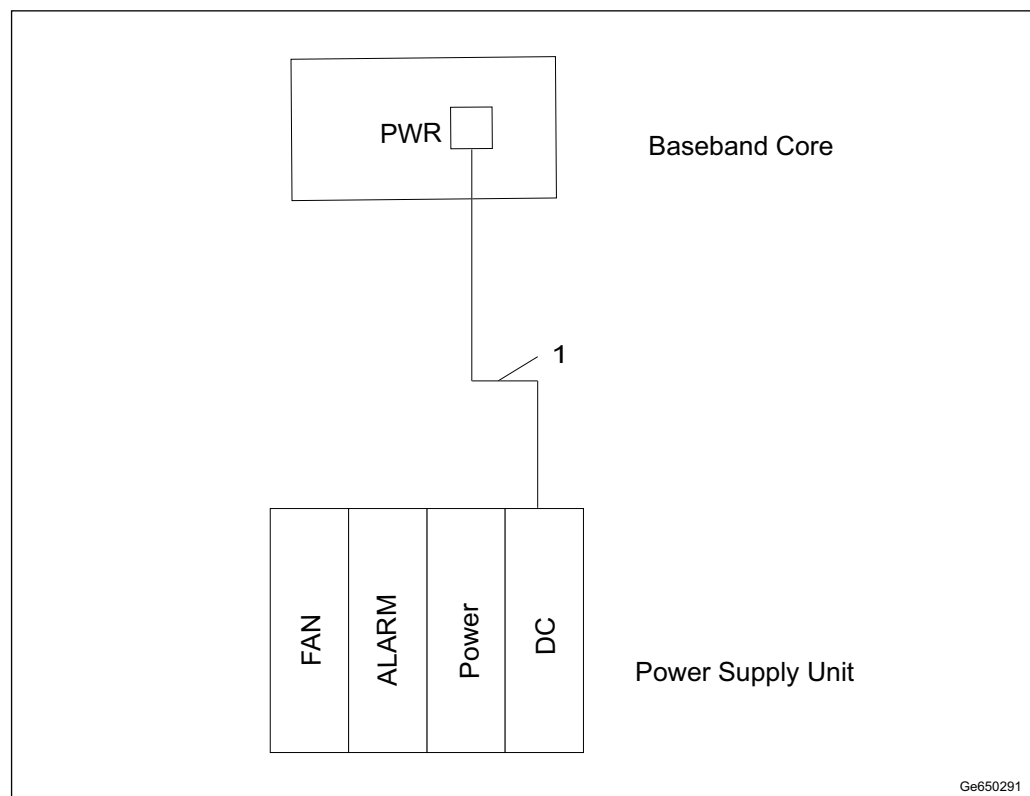


Figure 14 PSU and Baseband Core



Table 19 PSU and Baseband Core

Pos.	Connections	Qty.	Product No.	Cable Dimension
1	PSU – Baseband Core:PWR	1	RPM 119 2252/0500	The cable is included and pre-assembled in the PSU.

5.1.2 Power Supply Unit to Fan Unit

The power cabling of Baseband between Power Supply Unit (PSU) and the Fan Unit is shown in [Figure 15](#) and described in [Table 20](#).

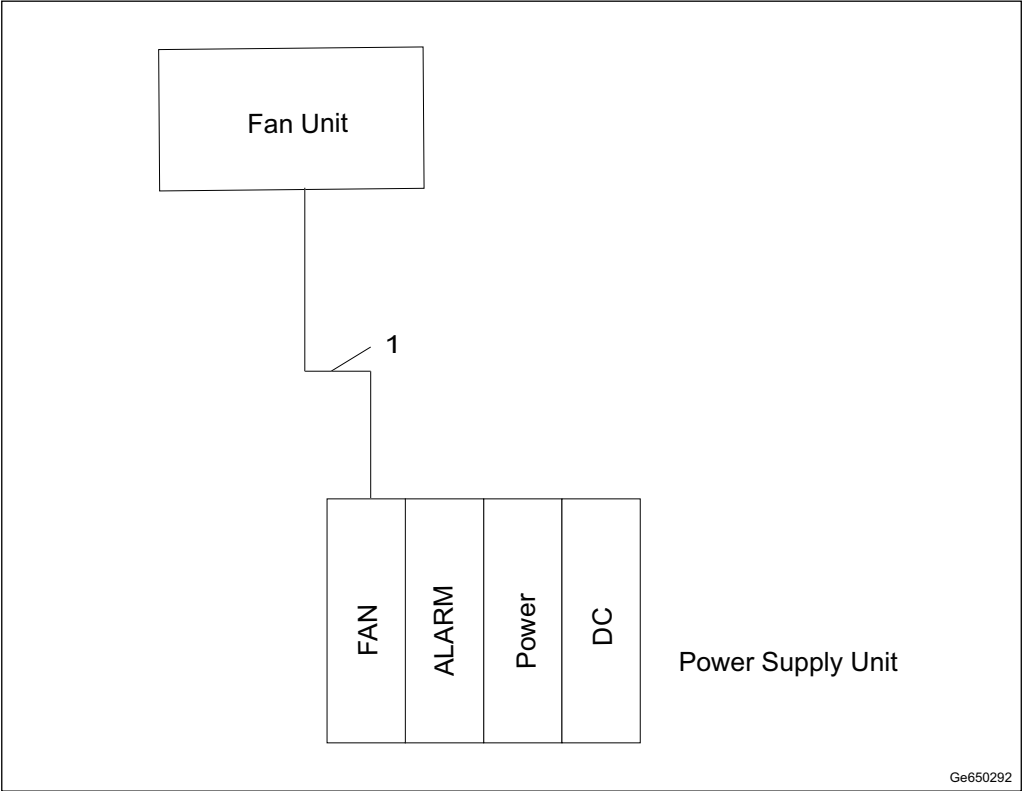


Figure 15 PSU and Fan Unit

Table 20 PSU and Fan Unit

Pos.	Connections	Qty.	Cable Dimension
1	PSU – Fan Unit	1	The cable is included and pre-assembled in the PSU and Fan Unit.

5.2

Signaling Cable

This section describes the internal signaling cables in the Baseband.

5.2.1

GPS to Baseband Core

The signaling cable from the GPS to the Baseband Core is shown in [Figure 16](#) and described in [Table 21](#).

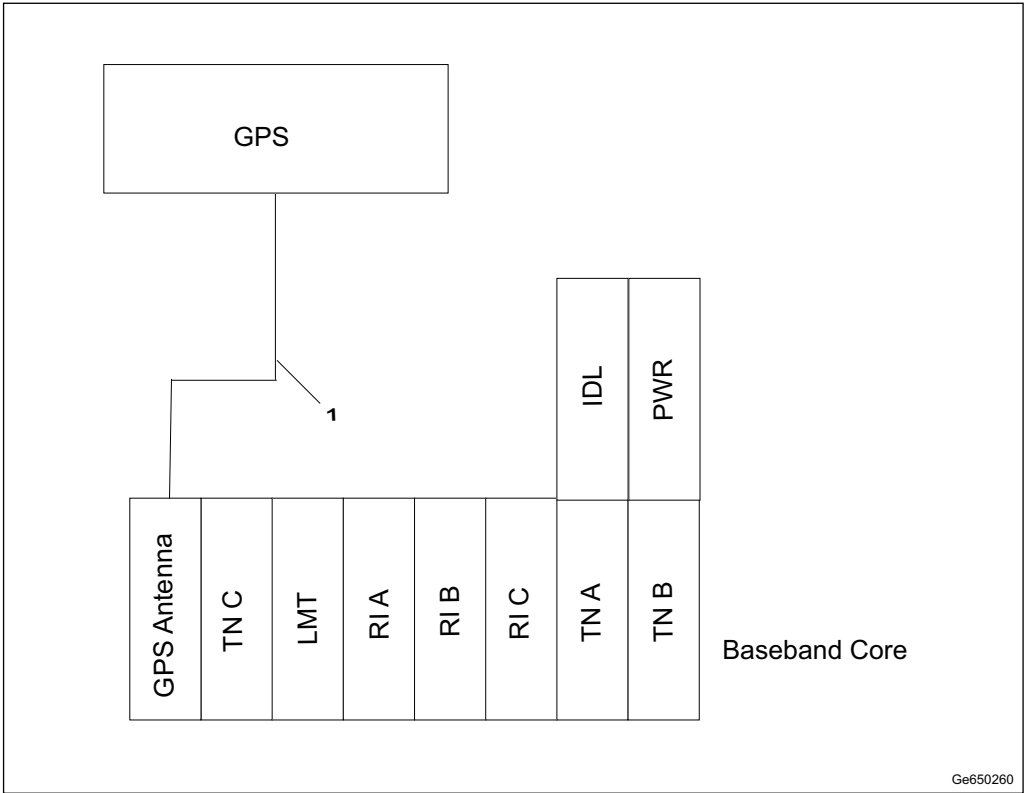


Figure 16 GPS to Baseband Core



Table 21 GPS to Baseband Core

Pos.	Connections	Qty.	Product No.
1	GPS – Baseband Core: GPS	1	KRE 105 255/1



6 Standards and Regulations

This section presents a brief overview of standards, regulatory product approval, and declaration of conformity for Baseband.

Declaration of Conformity

"Hereby, Ericsson AB, declares that this RBS is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC and 2011/65/EU."

6.1 Regulatory Approval

The Radio System complies with the following market requirements:

- European Community (EC) market requirements, Radio Equipment Directive 2014/53/EU

CE (Class 2 equipment). Restrictions to use the apparatus may apply in some countries or geographic areas. Individual license to use the specific radio equipment may be required.

The apparatus may include radio Transceivers with support for frequency bands not allowed or not harmonized within the EC.

- Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2011/65/EU).
- North American market requirements.
- Products containing radio equipment outside North America and in countries not recognizing the CE-mark may be labeled according to national requirements or standards.

6.1.1 Environmental Standards Compliance

The Radio System complies with the following environmental standard:

Europe

- EN 50 581 (RoHS)

6.1.2 Safety Standards Compliance

In accordance with market requirements, the Radio System complies with the following product safety standards and directives:



International

- IEC 60950-1
- IEC 62368-1

Europe

- EN 60 950-1
- EN 62368-1

North America

- UL 62368-1
- CSA-C22.2 62368-1

6.1.3 Outdoor Specific Requirements

The Radio System complies with the following outdoor specific requirements:

International

- IEC 60529 (IP65)
- IEC 60950-22

Europe

- EN 60 529 (IP65)
- EN 60 950-22

North America

- CSA-C22.2 No. 60950-22-07
- UL 50E
- UL 60950-22

6.1.4 EMC Standards Compliance

The Radio System complies with the following Electromagnetic Compatibility (EMC) standards:

**International**

- 3GPP TS37.113

Europe

- ETSI EN 301 489-1
- ETSI EN 301 489-50

North America

- FCC CFR 47 Part 15 B
- IC ICES-003 B

6.1.5**Marking**

To show compliance with legal requirements, the product is marked with the following labels:

Europe

- CE mark

North America

- usETL/cETL
- FCC CFR 47 Part 15 Statement
- IC ICES-003 Statement

6.2**Other Standards and Regulations**

The standards and regulations in this section are not regulatory approved.

6.2.1**Spare Parts**

This Baseband complies with the Ericsson Serviceability and Spare Parts Strategy.

6.2.2**Surface Quality**

The surface quality of the Baseband is in accordance with Ericsson standard class A3.



6.2.3 Vandal Resistance

Unauthorized access is not possible without damaging the unit.