

LTE TDD

BBU3900&BBU3910 Description

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1 Overview

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1.1 BBU3900&BBU3910 Functions

A BBU3900&BBU3910 is a baseband unit that performs the following functions:

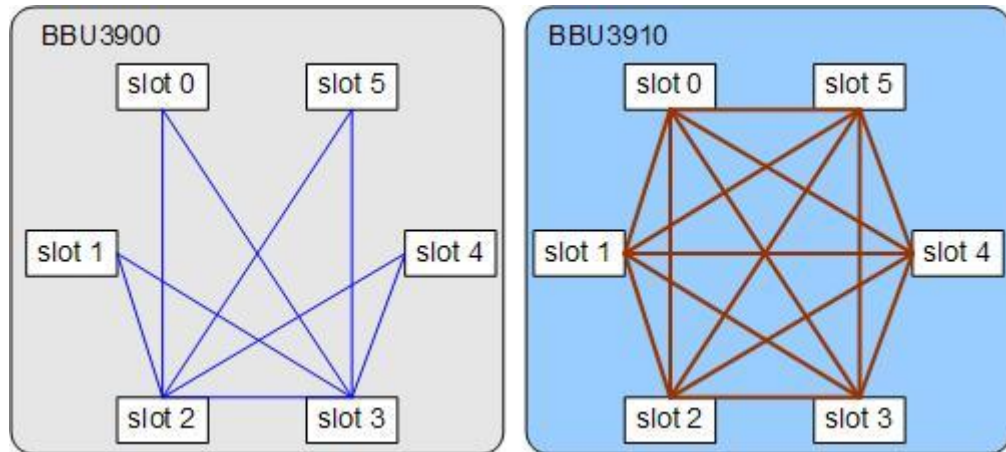
- Provides S1 ports for communication between an E-UTRAN NodeB (eNodeB) and an MME/S-GW, and X2 ports for communication between eNodeBs. E-UTRAN is short for evolved universal terrestrial radio access network.
- Provides common public radio interface (CPRI) ports for communication with RRUs and processes uplink and downlink baseband signals. RRU is short for remote radio unit.
- Manages the eNodeB through operation and maintenance (OM) and signaling message processing.
- Provides an OM channel to the local maintenance terminal (LMT) or U2000. iManager U2000 (U2000). The U2000 is an integrated OM system designed by Huawei.
- Provides clock ports for clock synchronization, alarm monitoring ports for environment monitoring, and a Universal Serial Bus (USB) port for commissioning using a USB flash drive. The security of the USB port is ensured by encryption.

Compared with the BBU3900, the BBU3910 has enhanced backplane switching capabilities:

- In the BBU3900, no direct route is available between slots 0, 1, 4, and 5, and data between them must be transferred by slot 2 or 3. In the BBU3910, however, data can be directly exchanged between slots 0 through 5.

Figure 1-1 shows the slot connections in the BBU3900 and BBU3910.

Figure 1-1 Slot connections in the BBU3900 and BBU3910



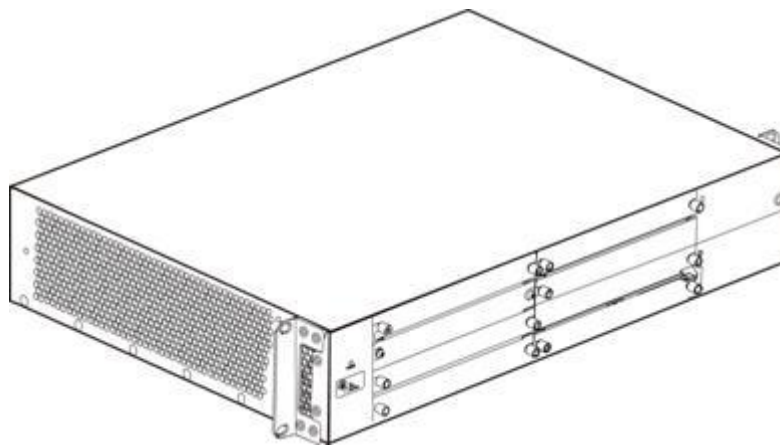
- The backplane switching bandwidth for each pair of directly-connected slots in the BBU3910 is almost twice that in the BBU3900.

1.2 Exterior of the BBU3900&BBU3910

The BBU3900&BBU3910 is a case measuring 19 inch wide and 2 U high. It can be installed indoors, such as an office building or residence, or be installed in a cabinet with surge protection in an outdoor place, such as a basement, balcony, corridor, or garage.

Figure 1-2 shows the exterior of the BBU3900&BBU3910.

Figure 1-2 BBU3900&BBU3910



1.3 BBU3900&BBU3910 Boards

The following boards can be installed in the BBU3900:

- LMPT and UMPT

- LBBP and UBBP
- UTRP
- USCU
- UELP and UFLP
- UPEUa and UPEUc
- UEIU
- FAN and FANc
- UCCU

The following boards can be installed in the BBU3910:

- UMPT
- UBBP
- UTRP
- USCUB
- UELP and UFLP
- UPEUd
- UEIU
- FANd and FANe
- UCCU

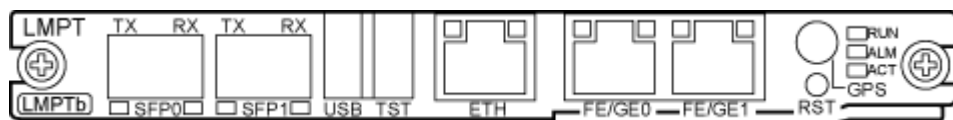
1.3.1 LMPT

LMPT is short for Long Term Evolution (LTE) main processing and transmission unit.

Panel

Figure 1-3 shows the panel of the LMPT.

Figure 1-3 LMPT panel



Functions

An LMPT performs the following functions:

- Controls and manages the eNodeB configuration, devices, performance, and radio resources, and processes the eNodeB signaling.
- Provides clock reference, transmission ports, and the maintenance link connecting to the operation and maintenance center (OMC). The OMC can be the LMT or U2000 client.

Ports

Table 1-1 describes the ports on the LMPT.

Table 1-1 Ports on the LMPT

Label	Connector	Number of Ports	Description
SFP0 and SFP1	LC	2	FE/GE optical ports
FE/GE0 and FE/GE1	RJ45	2	FE/GE electrical ports
USB	USB	1	Software loading port The security of the USB port is ensured by encryption.
TST	USB	1	Testing port The TST port is used for commissioning the base station rather than importing or exporting the base station configuration.
ETH	RJ45	1	Local maintenance port
GPS	SMA	1	Global Positioning System (GPS) antenna port
RST	N/A	1	Hardware reset button

1.3.2 UMPT

UMPT is short for universal main processing & transmission unit. The types of UMPTs are UMPTa6, UMPTb2, UMPTb9 and UMPTe2. The UMPT integrates with a satellite card.

Panel

Figure 1-4 shows the panel of the UMPTa6.

Figure 1-4 UMPTa6 panel

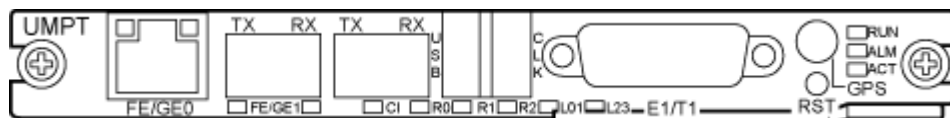


Figure 1-5 shows the panel of the UMPTb2.

Figure 1-5 UMPTb2 panel

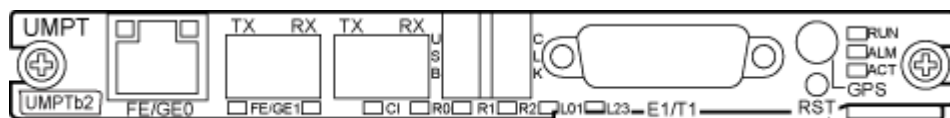
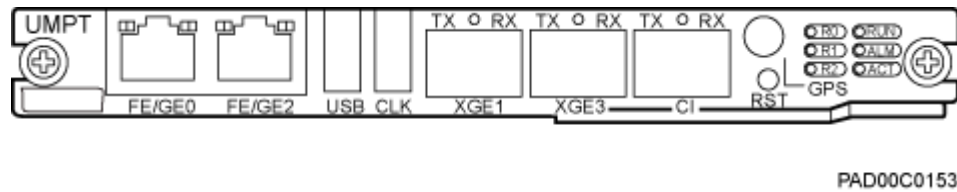


Figure 1-6 shows the panel of the UMPTe2.

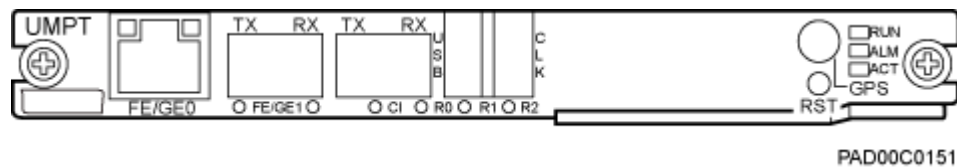
Figure 1-6 UMPTe2 panel



PAD00C0153

Figure 1-7 shows the panel of the UMPTb9.

Figure 1-7 UMPTb9 panel



PAD00C0151

Functions

A UMPT performs the following functions:

- Performs OM functions, including configuration management, equipment management, performance monitoring, signaling processing, and active/standby switchover.
- Provides clock reference, transmission ports, and the maintenance link connecting to the OMC. The OMC can be the LMT or U2000 client.
- Provides the IDX1 channel through which low rate user panel data and control or maintenance signals of each board in the baseband unit (BBU) are transmitted to the target port.

Ports

Table 1-2 describes the ports on the UMTPa6/UMPTb2.

Table 1-2 Ports on the UMTPa6/UMPTb2

Label	Connector	Number of Ports	Description
FE/GE0	RJ45	1	FE/GE electrical port
FE/GE1	SFP	1	FE/GE optical port
USB	USB	1	Software loading and Ethernet commissioning port (1) The security of the USB port is ensured by encryption. (2) When the USB port functions as a commissioning Ethernet port, ensure that

Label	Connector	Number of Ports	Description
			an OM port has been opened and the user has obtained required authorities for accessing the base station through the OM port before accessing the base station through the USB port.
CLK	USB	1	The USB port with the CLK silkscreen functions as the TOD clock or test clock port.
E1/T1	DB26, female	1	UMPTa2, UMPTa6, UMPTb1, or UMPTb2 supports E1/T1 port. The E1/T1 port transmits and receives four links of E1/T1 signals. UMPTb9 does not support E1/T1 port.
GPS	SMA	1	GPS antenna port
CI	SFP	1	The port is used for BBU interconnection.
RST	N/A	1	Hardware reset button

Table 1-3 describes the ports on the UMPTe2.

Table 1-3 Ports on the UMPTe2

Identifier	Connector	Quantity	Description
FE/GE0, FE/GE2	RJ45	2	FE/GE electrical port
XGE1, XGE3	SFP	2	XGE optical port
CI	SFP female	1	Connects to the UCIU
USB	USB	1	A USB flash drive can be inserted into the port for software upgrade and base station commissioning
CLK	USB	1	Used for multiplexing the time of day (TOD) clock and test clock
GPS	SMA	1	Used for transmitting radio frequency (RF) signals received from the antenna to the satellite card.
RST	-	1	Reset button

Table 1-4 describes the ports on the UMPTb9.

Table 1-4 Ports on the UMPTb9

Identifier	Connector	Quantity	Description
FE/GE0	RJ45	1	FE/GE electrical port
FE/GE1	SFP	1	FE/GE optical port
CI	SFP female	1	Connects to the UCIU
USB	USB	1	A USB flash drive can be inserted into the port for software upgrade and base station commissioning
CLK	USB	1	Used for multiplexing the time of day (TOD) clock and test clock
GPS	SMA	1	Used for transmitting radio frequency (RF) signals received from the antenna to the satellite card.
RST	-	1	Reset button

1.3.3 LBBP

LBBP is short for LTE baseband processing unit. The types of LBBPs are LBBPc, LBBPd2 and LBBPd4.

Panel

Figure 1-8 shows the panel of the LBBPc.

Figure 1-8 LBBPc panel

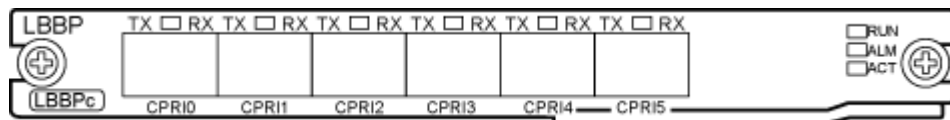
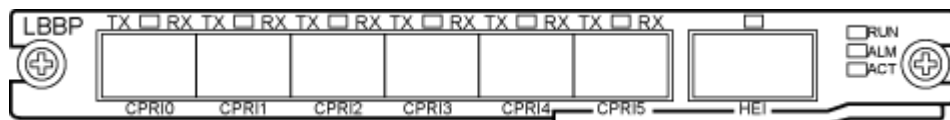


Figure 1-9 shows the panel of the LBBPd2 and LBBPd4.

Figure 1-9 LBBPd2 and LBBPd4 panel



Functions

An LBBP performs the following functions:

- Provides CPRI ports for communication with radio frequency (RF) modules.
- Processes uplink and downlink baseband signals.

Ports

Table 1-5 shows the ports on the LBBPc.

Table 1-5 Ports on the LBBPc

Label	Connector	Number of Ports	Description
CPRI0 to CPRI5	SFP, female	6	Connected to the RF modules for transmitting service data, clock signals, and synchronization information.

Table 1-6 shows the ports on the LBBPd2 or LBBPd4.

Table 1-6 Ports on the LBBPd2 or LBBPd4

Label	Connector	Number of Ports	Description
CPRI0 to CPRI5	SFP, female	6	Connected to the RF modules for transmitting service data, clock signals, and synchronization information.
HEI	QSFP	1	The port is used for BBU interconnection.

1.3.4 UBBP

There are three types of UBBPd: UBBPd4, UBBPd6 and UBBPd9, three types of UBBPe: UBBPe4, UBBPe6 and UBBPem, and UBBPf1.

- The UBBPd is available as of eRAN TDD 7.0.
- The UBBPe4 and UBBPe6 are available as of eRAN TDD 11.1.
- The UBBPem is available as of eRAN TDD 12.1.
- The UBBPf1 is available as of eRAN TDD 13.1.

Panel

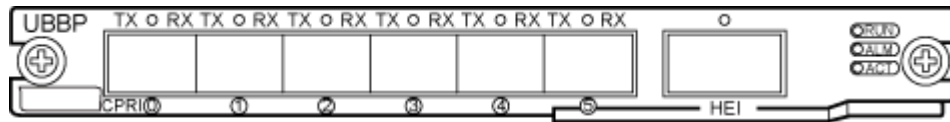
The UBBPd4, UBBPd6 and UBBPd9 have the same panel, as shown in Figure 1-10.

Figure 1-10 UBBPd panel



The UBBPe4 and UBBPe6 have the same panel, as shown in Figure 1-11.

Figure 1-11 UBBPe panel



PAD00C0155

The panel of UBBPem is as shown in Figure 1-12.

Figure 1-12 UBBPem panel



PAA02C0035

The panel of UBBPf1 is as shown in Figure 1-13.

Figure 1-13 UBBPf1 panel



PAA02C0036

Function

The UBBP performs the following functions:

- Provides CPRI ports for communication with the RF modules.
- Processes uplink and downlink baseband signals.

Port

Table 1-7 describes the ports on the UBBP.

Table 1-7 Ports on the UBBP

Board	Identifier	Connector	Quantity	Description
UBBPd/ UBBPe	CPRI0 to CPRI5	SFP female	6	Data transmission ports that interconnect the BBU3900&BBU3910 and the RF modules. These ports support electrical and optical signal input and output.
UBBPem	CPRI0 to CPRI1	QSFP	2	They are data transmission ports connecting a BBU to an RMU3900A, and support input and output of optical signals.
UBBPf1	CPRI0 to CPRI2	QSFP	3	They are data transmission ports connecting a BBU to an RMU3900A, and support input and output of optical signals.
UBBPd/ UBBPe/ UBBPem /UBBPf1	HEI	QSFP	1	It is a baseband interconnection port used for data transmission between baseband processing boards.

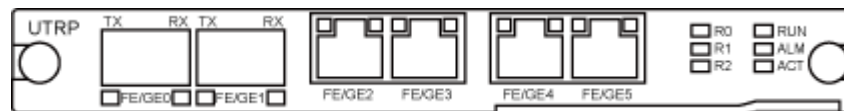
1.3.5 UTRP

UTRPe is short for universal transmission processing unit.

Panel

Figure 1-14 shows the panel of the UTRPe.

Figure 1-14 UTRPe panel



Functions

The UTRPe is supported in eRAN TDD 3.0 and later versions. It provides four FE/GE electrical ports and two FE/GE optical ports.

Ports

Table 1-8 shows the ports on the UTRPe.

Table 1-8 Ports on the UTRPe

Label	Connector	Number of Ports	Description
FE/GE2 to FE/GE5	RJ45	4	FE/GE electrical

Label	Connector	Number of Ports	Description
			ports
FE/GE0 and FE/GE1	SFP	2	FE/GE optical ports

1.3.6 USCU

USCU is short for universal satellite card and clock unit. The types of USCUs are USCUB11 and USCUB21.

Panel

Figure 1-15 shows the panel of the USCUB11.

Figure 1-15 USCUB11 panel

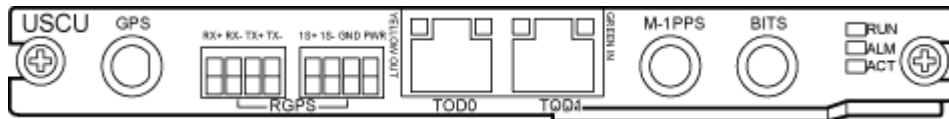
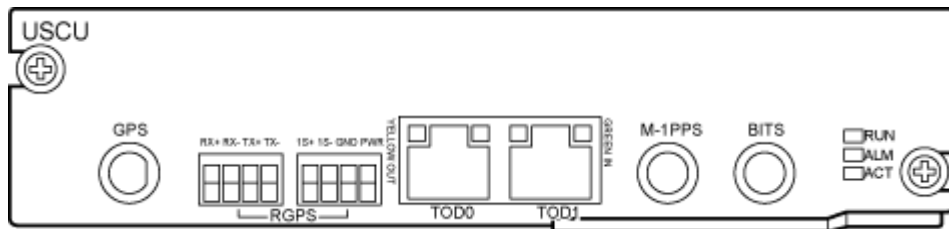


Figure 1-16 shows the panel of the USCUB21.

Figure 1-16 USCUB21 panel



Functions

The functions of the USCUB11 and USCUB21 are as follows:

- The USCUB11 provides ports to communicate with the RGPS (for example the reused equipment of the customer) and BITS equipment. It does not support GPS signals.
- The USCUB22 does not support RGPS signals. It uses a Naviors satellite card, which must be purchased locally and installed onsite.

Ports

The USCUB11 and USCUB21 all provide the same ports as described in Table 1-9.

Table 1-9 Ports on the USCUB11/USCUB21

Label	Connector	Number of Ports	Description
GPS	SMA coaxial	1	Receives GPS signals
RGPS	PCB welded wiring terminal	1	Receives RGPS signals
TOD0	RJ45	1	Receives or transmits 1PPS+TOD signals
TOD1	RJ45	1	Receives or transmits 1PPS+TOD signals, and receives TOD signals from the Metro1000.
M-1PPS	SMA coaxial	1	Receives 1PPS signals from the Metro1000
BITS	SMA coaxial	1	Receives BITS clock signals, and supports adaptive input of 2.048 MHz and 10 MHz reference clocks

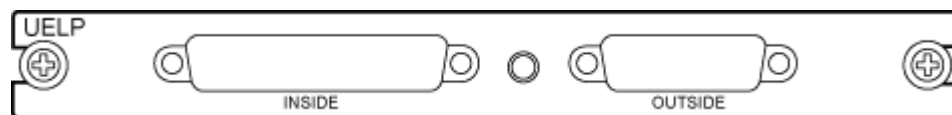
1.3.7 UELP

UELP is short for universal E1/T1 lightning protection unit. It provides surge protection for E1/T1 and RGPS signals.

Panel

Figure 1-17 shows the panel of the UELP.

Figure 1-17 UELP panel



Ports

Table 1-10 shows the ports on the UELP.

Table 1-10 Ports on the UELP

Label	Connector	Number of Ports	Description
INSIDE	DB25	1	Connects to an eNodeB transmission board
OUTSIDE	DB26	1	Connects to an external transmission

Label	Connector	Number of Ports	Description
			device

1.3.8 UFLP

UFLP is short for universal FE lightning protection unit. It provides surge protection for FE/GE signals.

Panel

Figure 1-18 shows the panel of the UFLPb.

Figure 1-18 UFLPb panel



Ports

Table 1-11 shows the ports on the UFLPb.

Table 1-11 Ports on the UFLPb

Label	Connector	Number of Ports	Description	
INSIDE	FE/GE0 and FE/GE1	RJ45	2	Connects to an eNodeB transmission board
OUTSIDE	FE/GE0 and FE/GE1	RJ45	2	Connects to an external transmission device

1.3.9 UPEU

The UPEU is short for universal power and environment interface unit. The BBU3900 supports UPEUa and UPEUc. The BBU3910 supports only the UPEUd.

Panel

Figure 1-19 shows the panel of the UPEUa.

Figure 1-19 UPEUa panel

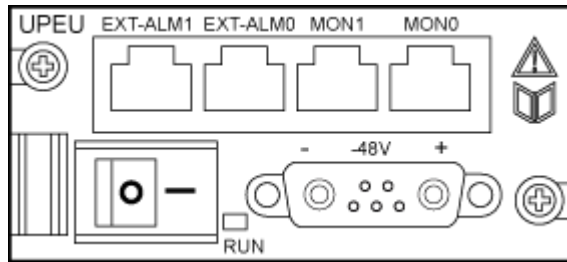


Figure 1-20 shows the panel of the UPEUc.

Figure 1-20 UPEUc panel

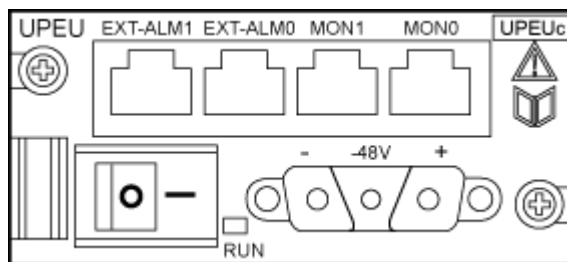
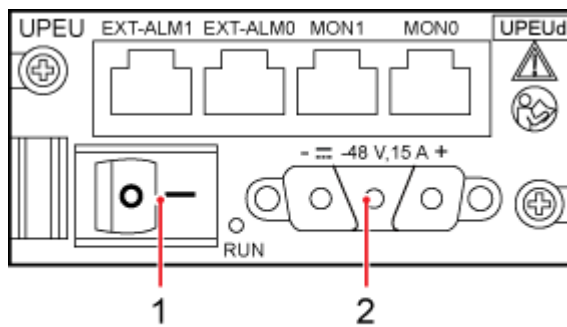


Figure 1-21 shows the UPEUd panel.

Figure 1-21 UPEUd panel



PAA02C0030

Functions

The UPEUa and UPEUc perform the following functions:

- The UPEUa converts -48 V DC input power into +12 V DC and provides an output power of 300 W.
- The UPEUc converts -48 V DC input power into +12 V DC. One UPEUc provides an output power of 360 W, and two UPEUc boards provide a combined output power of 650 W.

- Both the UPEUa and the UPEUc support two links of RS485 signals and eight links of Boolean signals.
- The UPEUd converts -48 V DC input power into +12 V DC and provides an output power of 650 W.

Ports

The UPEUa , UPEUc and UPEUd both provide the same ports as described in Table 1-12

Table 1-12 Ports on the UPEU

Label	Connector	Number of Ports	Description
-48 V	3V3	1	Provides -48 V DC power input.
EXT-ALM0	RJ45	1	Receives Boolean signal inputs 0 to 3
EXT-ALM1	RJ45	1	Receives Boolean signal inputs 4 to 7
MON0	RJ45	1	Receives RS485 signal input 0
MON1	RJ45	1	Receives RS485 signal input 1

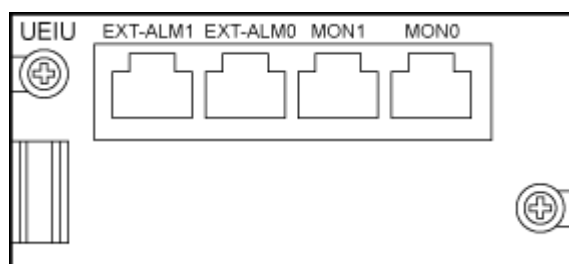
1.3.10 UEIU

The UEIU is short for universal environment interface unit. It transmits information reported by the environment monitoring device and alarm information to the main control board.

Panel

Figure 1-22 shows the panel of the UEIU.

Figure 1-22 UEIU panel



Functions

A UEIU performs the following functions:

- Provides two links of RS485 signals.
- Provides eight links of Boolean signals.

- Transmits information reported by the environment monitoring device and alarm information to the main control board.

Ports

Table 1-13 shows the ports on the UEIU.

Table 1-13 Ports on the UEIU

Label	Connector	Number of Ports	Description
EXT-ALM0	RJ45	1	Receives Boolean signal inputs 0 to 3
EXT-ALM1	RJ45	1	Receives Boolean signal inputs 4 to 7
MON0	RJ45	1	Receives RS485 signal input 0
MON1	RJ45	1	Receives RS485 signal input 1

1.3.11 FAN

There are two fan unit types for the BBU3900: FAN and FANc. And the FANd is a fan unit for the BBU3910..

Panel

Figure 1-23 shows the panel of the FAN.

Figure 1-23 FAN panel

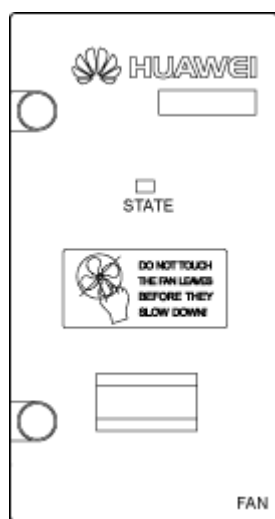


Figure 1-24 shows the panel of the FANc.

Figure 1-24 FANc panel

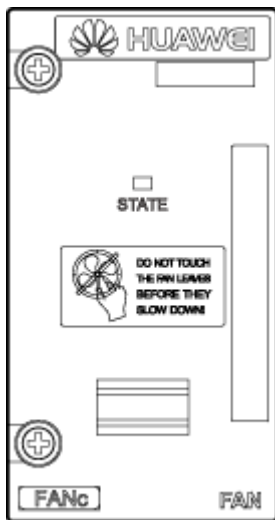


Figure 1-25 shows the FANd panel.

Figure 1-25 FANd panel

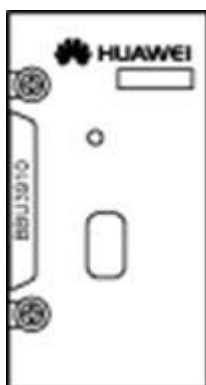
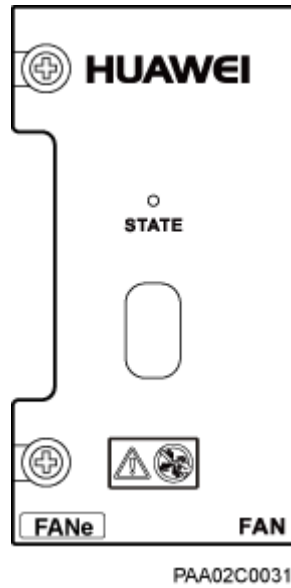


Figure 1-26 FANe panel



Functions

The FAN dissipates heat from the BBU3900&BBU3910. It monitors the inlet temperature, controls the rotation speed of the fans, and reports the status of the fans to the LMPT or UMPT in the BBU3900&BBU3910.

1.3.12 UCCU

The UCCU, a universal inter-connection combo unit, allows a long-distance connection between the BBU and USU, allowing a remote distance connection in BBU interconnection scenarios.

Panel

Figure 1-27 shows the UCCU panel.

Figure 1-27 UCCU panel



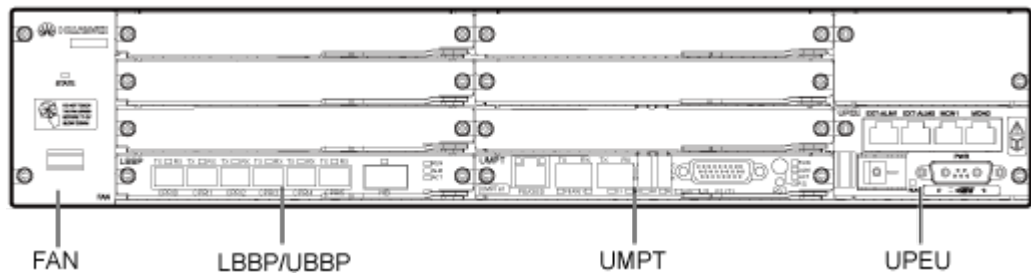
Table 1-14 Ports on the UCCU

Silkscreen	Connector	Quantity	Description
M0 to M3	QSFP	4	Function as primary interconnection ports and connect to secondary interconnection ports. Each optical port has two CPRI TX/RX channels with a maximum rate of 10.1376 Gbit/s and two SRIO TX/RX channels with a maximum rate of 6.25 Gbit/s.
M4/S1	QSFP	1	Functions as a primary interconnection port and connects to a secondary interconnection port. Has two CPRI TX/RX channels with a maximum rate of 10.1376 Gbit/s and two SRIO TX/RX channels with a maximum rate of 6.25 Gbit/s.
M5/S0	QSFP	1	Functions as a secondary interconnection port and connects to a primary interconnection port. Has four 10GE TX/RX channels.

1.4 BBU3900&BBU3910 Board Configuration

Figure 1-28 shows the typical configuration of the BBU3900&BBU3910.

Figure 1-28 Typical configuration of the BBU3900&BBU3910



2 Technical Specifications

- 2.1 Baseband Specifications
- 2.2 Capacity
- 2.3 Signaling Specifications
- 2.4 CPRI Specifications
- 2.5 Transmission Ports
- 2.6 Input Power
- 2.7 Physical Specifications
- 2.8 Environmental Specifications

2.1 Baseband Specifications

The following table describes cell specifications of an LBBP working in LTE TDD mode.

Board	Number of Cells	Cell Bandwidth (MHz)	Antenna Configuration
LBBPc	3	5/10/20	1x20 MHz 4T4R 3x10 MHz 2T2R 3x20 MHz 2T2R 3x10 MHz 4T4R
LBBPd2	3	5/10/15/20	3x20 MHz 2T2R 3x20 MHz 4T4R
LBBPd4	3	10/20	3x20 MHz 8T8R

The following table describes cell specifications of a UBBP working in LTE TDD mode.

Board	Number of Cells	Cell Bandwidth (MHz)	Antenna Configuration
-------	-----------------	----------------------	-----------------------

Board	Number of Cells	Cell Bandwidth (MHz)	Antenna Configuration
UBBPd4	3	5/10/15/20	3x20 MHz 2T2R 3x20 MHz 4T4R
UBBPd6	6	5/10/15/20	6x20 MHz 2T2R 6x20 MHz 4T4R
	3	10/15/20	3x20 MHz 8T8R
UBBPd9	3	10/15/20	3x20 MHz 8T8R
UBBPe4	6	5/10/15/20	6x20 MHz 2T2R 6x20 MHz 4T4R
	3	10/15/20	3x20 MHz 8T8R
UBBPe6	12	5/10/15/20	12x20 MHz 2T2R 12x20 MHz 4T4R
	6	10/15/20	12x20 MHz 8T8R
UBBPem	2	10/15/20	2x20MHz 64T64R
UBBPf1	3	10/15/20	3x20MHz 64T64R

2.2 Capacity

Table 2-1 Capacity

Item	Specifications
Maximum number of cells per BBU	<ul style="list-style-type: none"> When configured with an LMPT:BBU3900: 18 cells (2T2R/4T4R, 5/10/15/20 MHz) or 12 cells (8T8R, 10/15/20 MHz) When configured with a UMPTa/UMPTb:36 cells (2T2R/4T4R, 5/10/15/20 MHz) or 18 cells (8T8R, 10/15/20 MHz) When configured with a UMPTe:72 cells (2T2R/4T4R, 5/10/15/20 MHz or 8T8R, 10/15/20 MHz)
Maximum throughput per cell with the 20 MHz bandwidth	<ul style="list-style-type: none"> Downlink data rate at the Media Access Control (MAC) layer: 284 Mbit/s (SA2, DL 4x4 MIMO base on TM3 or TM4, UBBPd/UBBPe, DL 256QAM) Uplink data rate at the MAC layer: 40 Mbit/s (SA1, UL 2x8 MU-MIMO, UBBPd) 27 Mbit/s (SA1, UL 2x8 MU-MIMO, LBBPd)
Maximum throughput per	<ul style="list-style-type: none"> When the UMPTe2 is used, sum of uplink and downlink data rates at the MAC layer is 10 Gbit/s.

Item	Specifications
eNodeB	<ul style="list-style-type: none"> When the UMPTa6 or UMPTb2 is used, sum of uplink and downlink data rates at the MAC layer is 1.5 Gbit/s. When the UMPTb9 is used, sum of uplink and downlink data rates at the MAC layer is 2.0 Gbit/s. When the LMPT is used, sum of uplink and downlink data rates at the MAC layer is 750 Mbit/s.
Maximum number of UEs in RRC_CONNECTED mode in an eNodeB	<ul style="list-style-type: none"> When configured with a LMPT:5400 When configured with a UMPTa/UMPTb:10800 When configured with a UMPTe2: <ul style="list-style-type: none"> 14400 (configured with one UMPTe2 board); 28800 (configured with two UMPTe2 boards)
Data radio bearer (DRB)	Eight DRBs per user equipment (UE)

2.3 Signaling Specifications

The following table lists the signaling specifications of the LMPT, UMPT, LBBP, and UBBP boards based on the definition of one BHCA.

- 288000 per UMPTa6
- 360000 per UMPTb2 or UMPTb9
- 180000 per LMPT
- 1620000 per UMPTe2
- 63000 per LBBPc
- 126000 per LBBPd
- 270000 per UBBPd4
- 396000 per UBBPd6 or UBBPd9
- 432000 per UBBPe4
- 648000 per UBBPe6
- 648000 per UBBPem
- 648000 per UBBPf1

2.4 CPRI Specifications

The following table lists the specifications of CPRI ports on an LBBP board.

Board	Quantity of CPRI Ports	CPRI Port Rate (Gbit/s)	Topology Type

Board	Quantity of CPRI Ports	CPRI Port Rate (Gbit/s)	Topology Type
LBBPc	6	1.25, 2.5, or 4.9	Star, chain, and ring topologies
LBBPd	6	1.25, 2.5, 4.9, 6.144, or 9.8	Star, chain, and ring topologies

The following table lists the specifications of CPRI ports on a UBBP.

Board	Quantity of Ports	CPRI Port Rate (Gbit/s)	Topology Type
UBBPd,UBBPe4,UBBPe6	6	1.25, 2.5, 4.9, 9.8, or 6.144	Star, chain, and ring topologies
UBBPem	2	40/100	Star, chain, and ring topologies
UBBPf1	3	40/100	Star, chain, and ring topologies

2.5 Transmission Ports

Table 2-2 Transmission ports

Board	Specifications
LMPT	Two FE/GE electrical ports, two FE/GE optical ports, or one FE/GE optical port + one FE/GE electrical port
UMPTa6 or UMPTb2	One FE/GE electrical port, one FE/GE optical port, and one DB26 port transmitting four links of E1/T1 signals
UMPTb9	One FE/GE electrical port, one FE/GE optical port
UMPTe2	2 FE/GE electrical port, and 2 XGE optical port
UTRPc	Four FE/GE electrical ports and two FE/GE optical ports

2.6 Input Power

Table 2-3 Input power

Item	Specifications
Input power	-48 V DC (voltage range: -38.4 V DC to -60 V DC)

2.7 Physical Specifications

Table 2-4 Physical specifications

Item	Specifications
Dimensions (height x width x depth)	86 mm x 442 mm x 310 mm (3.46 in. x 17.40 in. x 12.20 in.)
Weight	≤ 15 kg (33.08 lb) (in full configuration)

2.8 Environmental Specifications

Table 2-5 Environmental specifications

Item	Specifications
Working temperature	-20°C to +55°C (-4°F to +131°F) (long term) +55°C to +60°C (131°F to 140°F) (short term) NOTE Short term indicates that a base station does not work for over 15 days within a year or that a base station does not continuously work for over 72 hours.
Relative humidity	5% RH to 95% RH
Ingress Protection (IP) rating	IP20
Atmospheric pressure	70 kPa to 106 kPa

3 Acronyms and Abbreviations

B	
BBU	baseband unit
C	
CPRI	common public radio interface
E	
eNodeB	E-UTRAN NodeB
E-UTRAN	evolved universal terrestrial radio access network
F	
FAN	fan unit
FE	fast Ethernet
G	
GE	gigabit Ethernet
GPS	Global Positioning System
I	
IP	Ingress Protection
L	
LBBP	LTE baseband processing unit
LMPT	LTE main processing and transmission unit
LMT	local maintenance terminal
LTE	Long Term Evolution
M	
MME	mobility management entity

MIMO	multiple-input multiple-output
O	
OM	operation and maintenance
P	
PPS	pulse per second
R	
RRU	remote radio unit
RGPS	Remote Global Positioning System
S	
S-GW	serving gateway
T	
TOD	time of day
U	
UPEU	universal power and environment interface unit
USB	Universal Serial Bus
USCU	universal satellite clock unit
UTRP	universal transmission processing unit