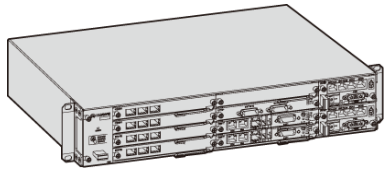


RRU Overview

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DBS3900/3800 Main Product Family Overview



BBU3900



BBU3806



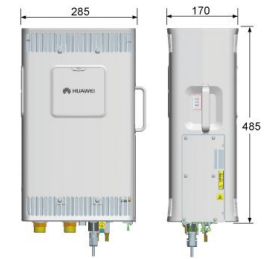
BBU3806C



RRU3801C



RRU3804



RRU3808

Baseband unit

Remote radio unit

- BBU3806: Indoor baseband unit.
- BBU3806c: Outdoor baseband unit .
- RRU3801C: an outdoor remote radio unit.
- RRU3804: an outdoor remote radio unit .
- RRU3808: an outdoor remote unit.

Typical DBS3900/3800 Deployment Scenarios

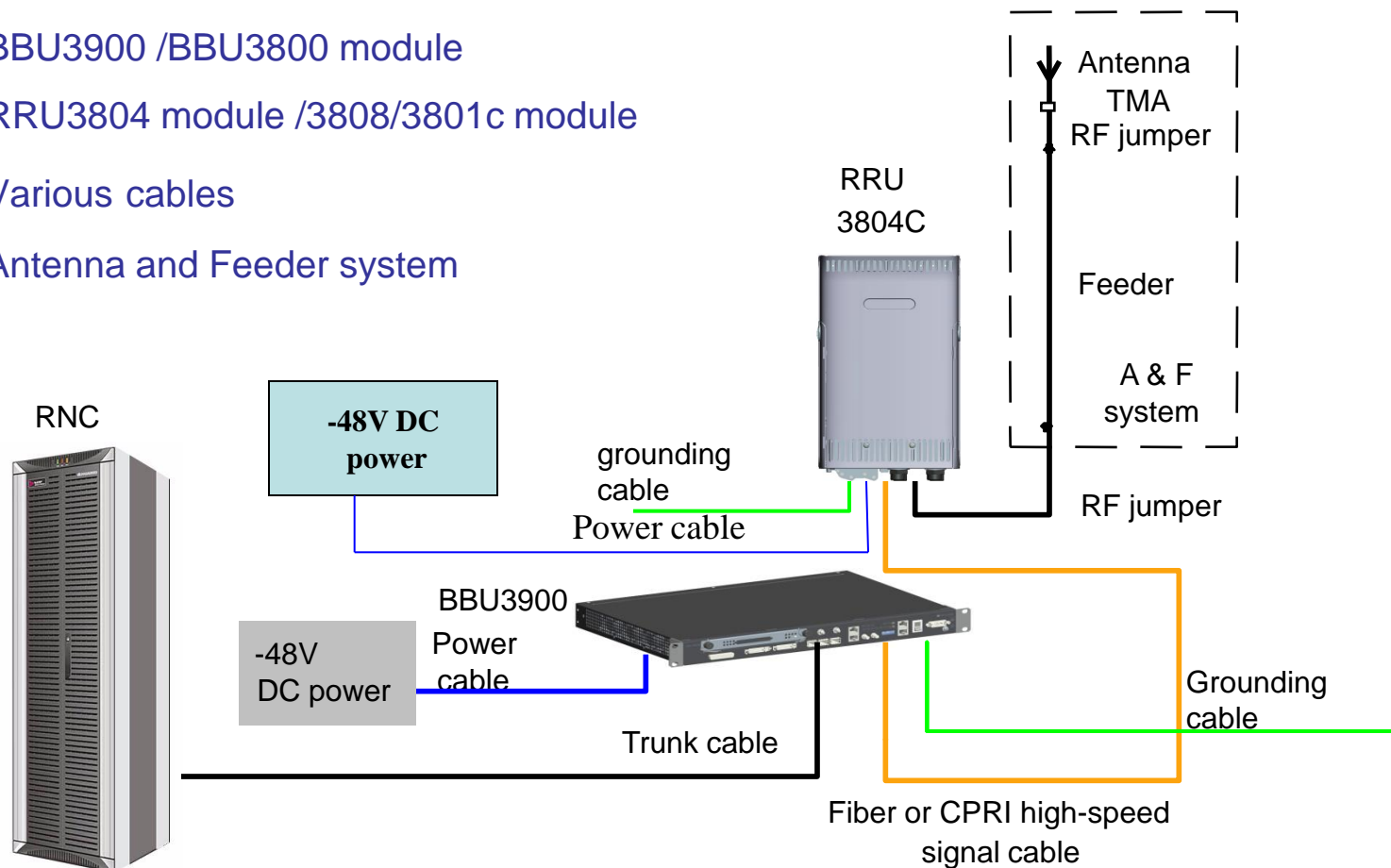
This representative scenarios system consists of:

BBU3900 /BBU3800 module

RRU3804 module /3808/3801c module

Various cables

Antenna and Feeder system



Appearance of RRU3804



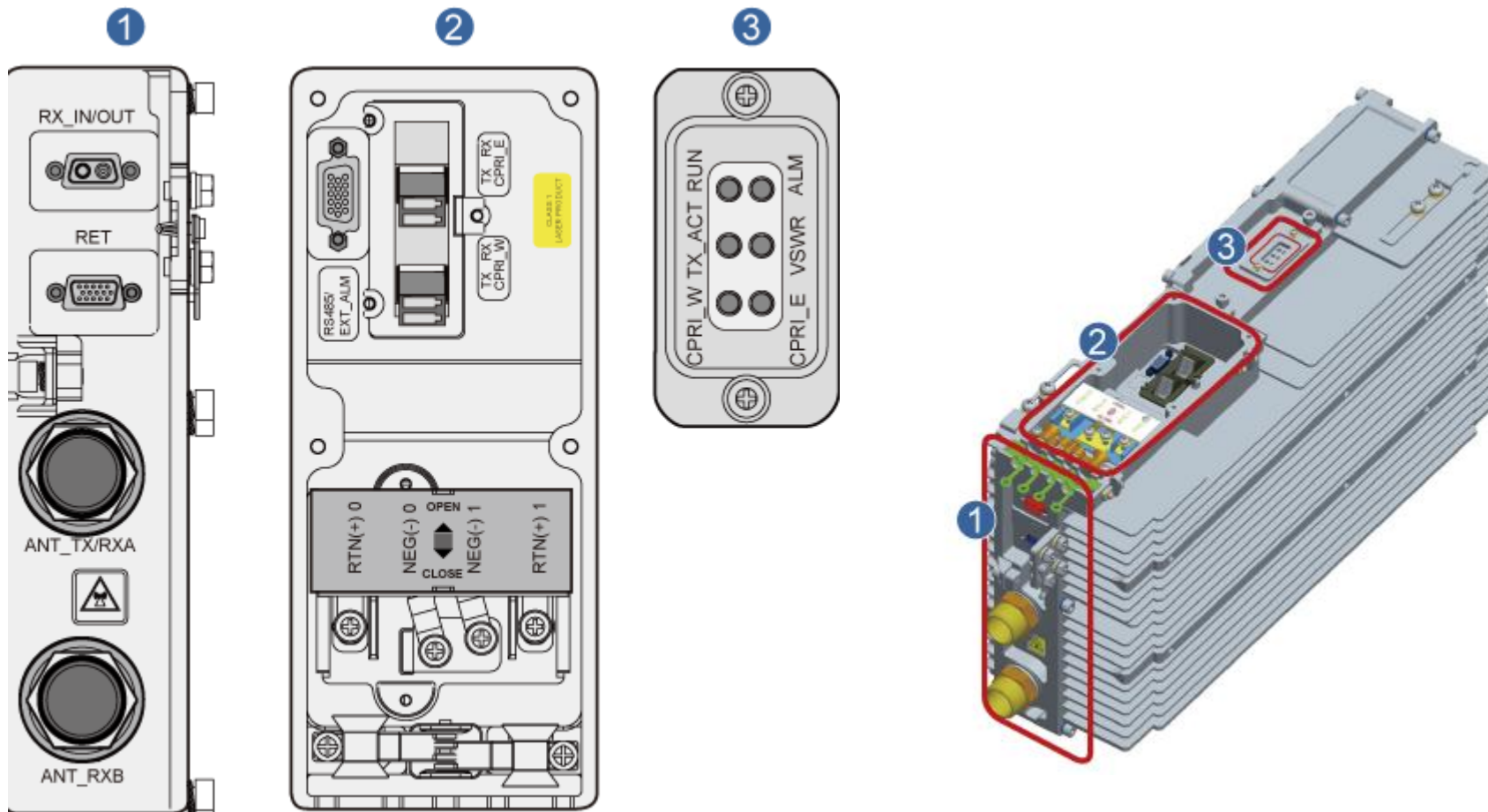
Front view
Without housing

Side view

Front view
With housing

Note: With the development of product, there is a little different of housing.

Appearance and Panels of RRU3804



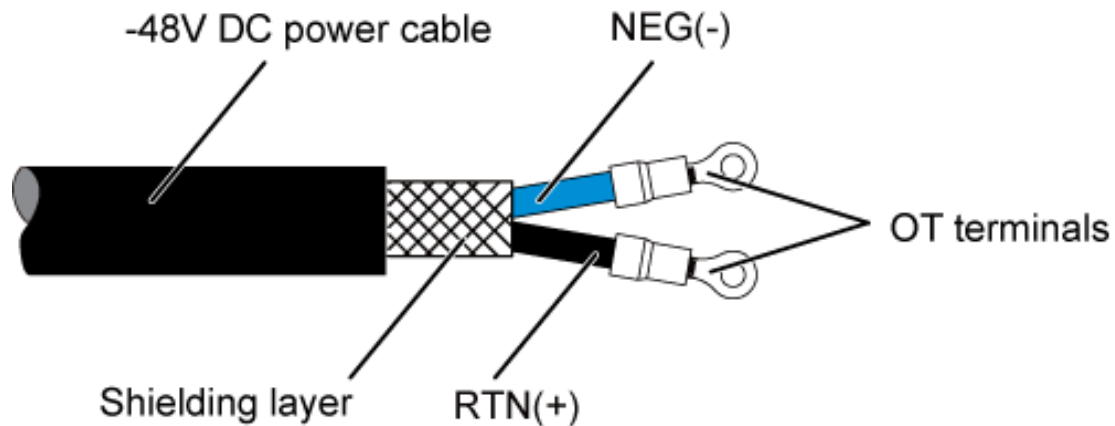
RRU3804 Power Cable

The RRU uses a shielded -48 V DC power cable. The cable feeds external -48 V DC power to the RRU.

Exterior

The RRU power cable is classified in two types: power cable of the North American standard with the cross-sectional area of 12 AWG (3.3 mm²) and power cable of the European standard with the cross-section area of 4 mm². Figure 1 . OT terminals need to be added on site.

Figure 1 RRU power cable 1



Ports on the Panels of RRU3804

Items	Label	Description
Ports at the bottom	RX_IN/OUT	Interconnection port between combined cabinets
	RET/PWR_SRXU	Port for RET antenna /Power output to the SRXU
	ANT_TX/RXA	Main TX/RX diversity port
	ANT_RXB	Port for RX diversity
Ports on the cabling cavity	RS485/EXT_ALM	Alarm port
	CPRI_E	Optical ports
	CPRI_W	
	RTN(+)	Power supply ports
	NEG(-)	
	PGND	Grounding bolt

→ Difference with RRU3801C

LEDs on RRU3804

Label	Color	Status	Description
RUN	Green	ON	The module has power input, yet the module is faulty
		OFF	The module has no power input or is reporting alarms
		1s on, 2s off	The module is operational
		0.5s on, 0.5s off	Software is being loaded to the module
ALM	Red	ON	The module is reporting alarms (excluding VSWR-related alarms)
		OFF	The module is operational
TX_ACT	Green	ON	The module is running
		OFF	No specific meaning

LEDs on RRU3804

Label	Color	Status	Description
VSWR	Red	ON	VSWR-related alarms are reported
		OFF	No VSWP-related alarm is reported
CPRI_ W	Red/g reen	ON (green)	The CPRI link is normal
		ON (red)	The optical module receives local alarms related to LOS
		0.5s ON, 0.5s OFF (red)	The CPRI is out of lock
		OFF	The optical module is not in position or is powered off
CPRI_E	Red/g reen	ON (green)	The CPRI link is normal
		ON (red)	The optical module receives local alarms related to LOS
		0.5s ON, 0.5s OFF (red)	The CPRI is out of lock
		OFF	The optical module is not in position or is powered off

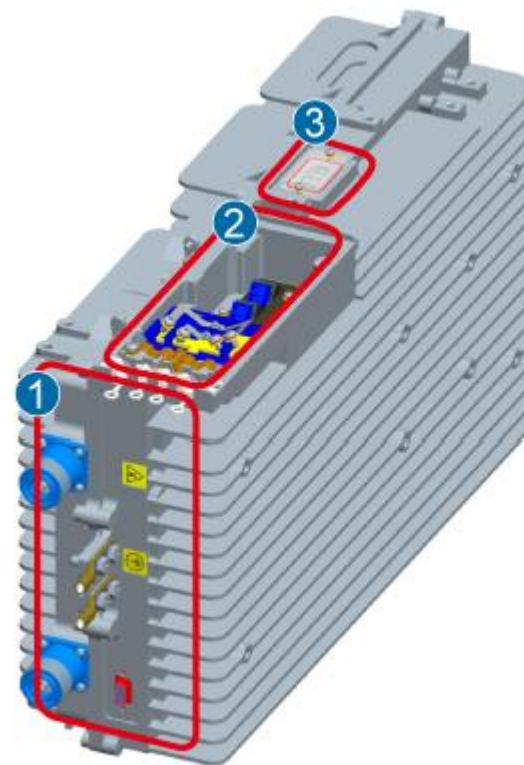
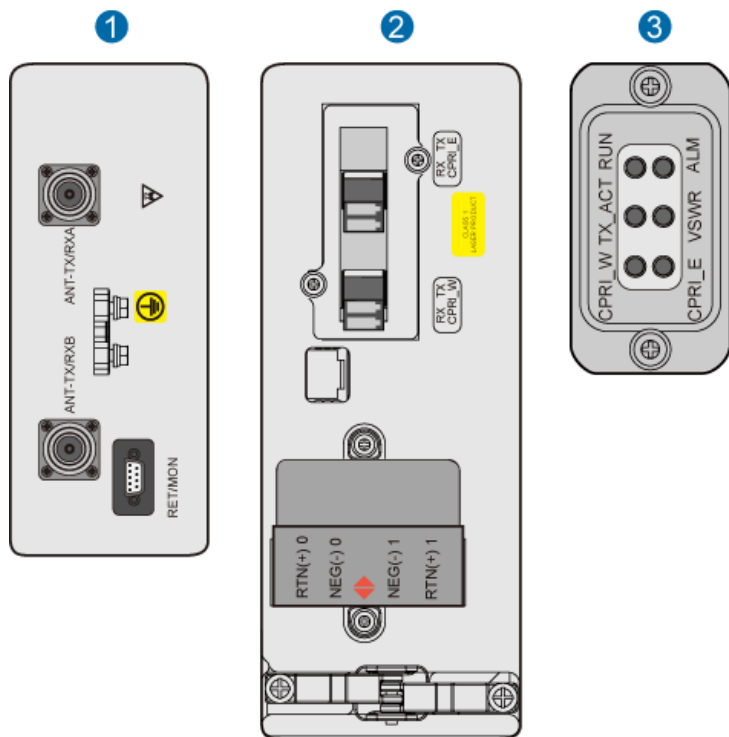
RRU3804 Configuration Specification

Cell Description (Sector X Carriers)	Number of RRU	Sectors	Carriers per Sector	TX power/Carrier
1X1, 1X2, 1X3, 1X4	1	1	1,2,3,4	60,30,20,15W
3×1	3	3	1	≤60W
3×2	3	3	2	≤30W
3×3	3	3	3	≤20W
3×4	3	3	4	≤15W

Appearance of RRU3808



Appearance and Panels of RRU3808



Ports on the Panels of RRU3808

Table 2-1 Panels of the RRU3808

Number	Item	Label	Description
1	Bottom panel	ANT-TX/RXA	Main TX/RX port, supporting OOK signal transmission
		ANT-TX/RXB	Diversity TX/RX port
		RET/MON	RET communication port
2	Cabling cavity panel	RX TX CPRI_E	Eastward optical port
		RX TX CPRI_W	Westward optical port
		RTN(+) NEG(-)0	Main power supply socket
		RTN(+) NEG(-)1	
		RTN(+) NEG(-)1	Power supply socket for the cascaded RRU
		RTN(+) NEG(-)1	
3	LED panel	RUN	For details, see 2.3 RRU3808 LEDs .
		ALM	
		TX_ACT	
		VSWR	
		CPRI_W	
		CPRI_E	

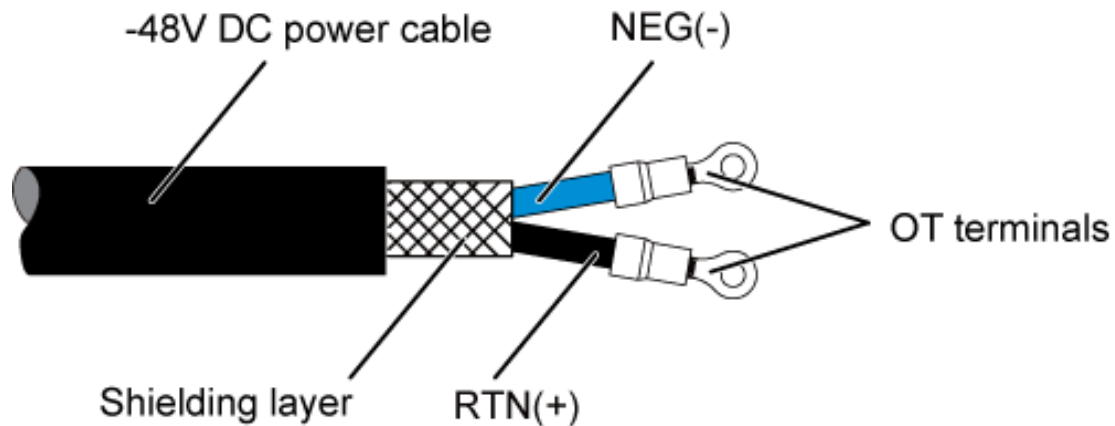
RRU3808 Power Cable

The RRU uses a shielded -48 V DC power cable. The cable feeds external -48 V DC power to the RRU.

Exterior

The RRU power cable is classified in two types: power cable of the North American standard with the cross-sectional area of 12 AWG (3.3 mm²) and power cable of the European standard with the cross-section area of 4 mm². Figure 1 . OT terminals need to be added on site.

Figure 1 RRU power cable 1



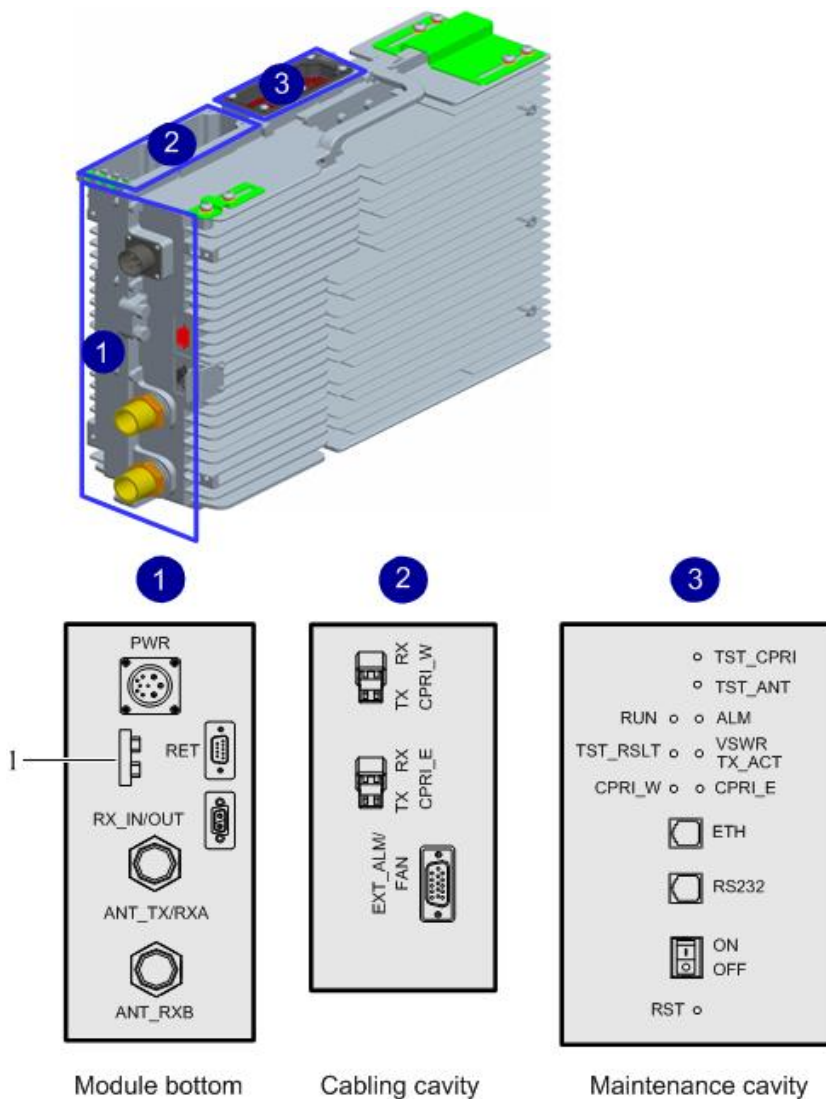
RRU3808 Configuration Specification

2 x 40 W RRU3808	1 TX (PA1):		
		PA1 Output Power	PA2 Output Power
	1C	40 W	0
	2C	20 W	0
	3C	Total <= 40 W	0
	4C	10 W	0
	1 TX (PA2):		
		PA1 Output Power	PA2 Output Power
	1C	0	40 W
	2C	0	20 W
	3C	0	Total <= 40 W
	4C	0	10 W
	1 2TX:		
		PA1 Output Power	PA2 Output Power
	1C	40 W	40 W
	2C	20 W	20 W
	3C	Total <= 40W	Total <= 40W
4C	10 W	10 W	

Appearance of RRU3801c



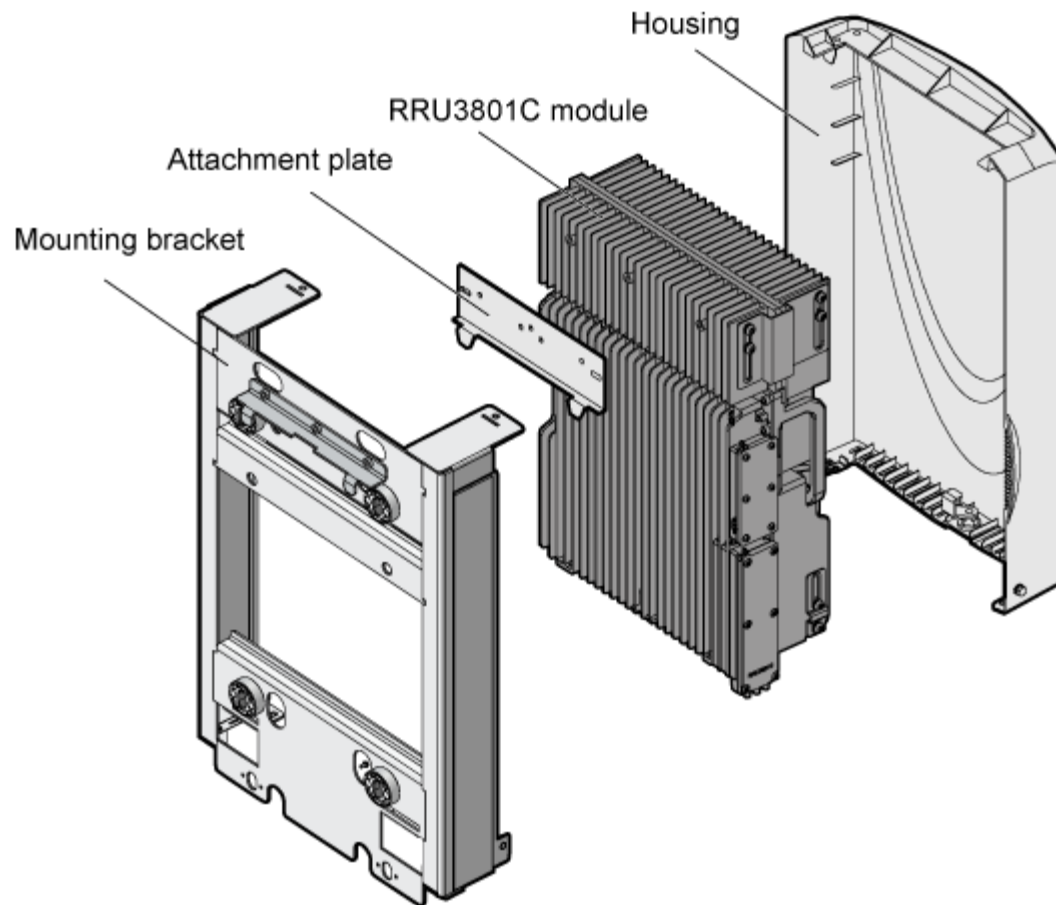
Appearance and Panels of RRU3801c



Ports on the Panels of RRU3801c

Item	Label	Description
Ports on the bottom panel	PWR	Power port
	ANT_TX/RXA	Port for the main TX/RX diversity
	ANT_RXB	Port for the RX diversity
	RX_IN/OUT	Interconnection port for combined RRU3801Cs
	RET	RET antenna communication port
Ports on the cabling cavity	EXT_ALM/FAN	Alarm port
	CPRI_E	Optical ports
	CPRI_W	
Ports on the maintenance cavity	ETH	Commissioning Ports
	RS232	
	OFF ON	Power switch
	RST	Reset Button
	TST_ANT	Port for testing the antenna
	TST_CPRI	Button for testing the CPRI ports
LEDs	RUN	
	ALM	
	CPRI_W	
	CPRI_E	
	VSWR/TX_ACT	
	TST_RSLT	
	TST_CPRI	
	TST_ANT	

Installing the Mounting Bracket of a Single RRU3801C



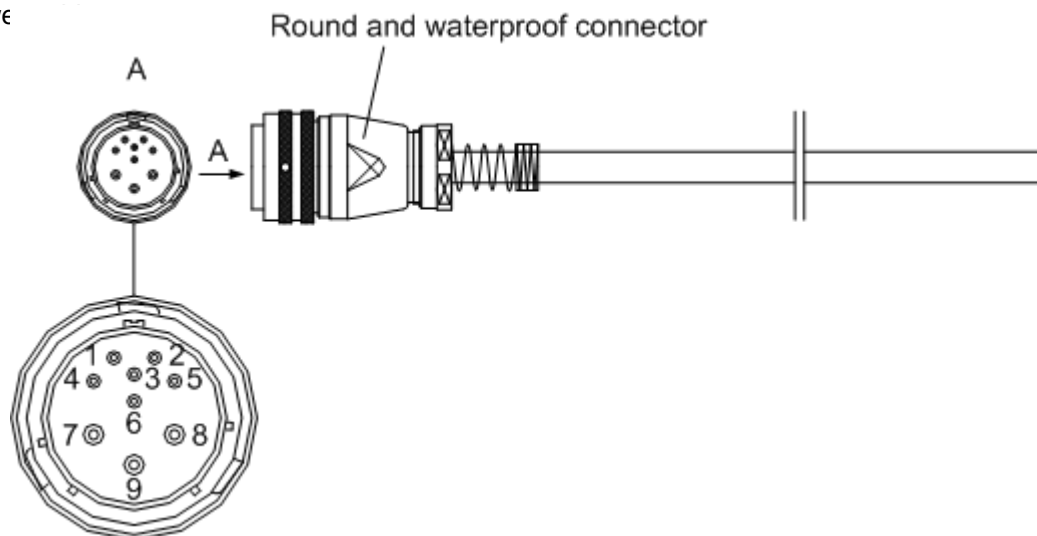
-48 V DC Power Cable of the RRU3801C

The -48 V DC power cable feeds external -48 V DC power to the RRU3801C.

Appearance

The -48 V DC power cable has a round and waterproof connector at one end, and the other end is bare, as shown in [Figure 1](#).

Figure 1 -48 V DC Power



Pin Assignment



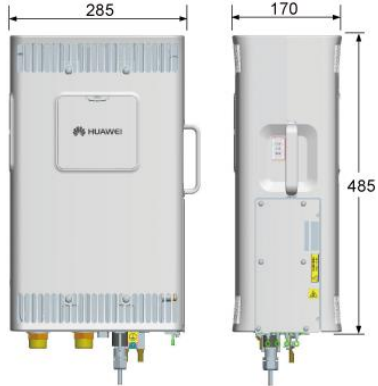
The -48 V DC power cable is a 2-wire cable. [Table 1](#) describes the pin assignment for the wires of the -48 V DC power cable.

Pin	Wire Type	Wire Color
8	-48 V cable	Blue
7	BGND	Black

RRU Features Comparison

	RRU3801C	RRU3804	RRU3808
Diversity method	Supports 2-way RX diversity	Supports 4-way RX diversity with SRXU	Supports 4-way RX diversity
Power output	20W or 40W	60W (40% PA efficiency)	2x40W (40% PA efficiency) MIMO
Frequency band	Band I ~VII	Only support frequency band I :2100MHz (RX:1920~1980MHz; TX:2110~2170 MHz)	Only support frequency band I :2100MHz (RX:1920~1980MHz; TX:2110~2170 MHz)
CPRI interface	Two CPRI interfaces Support 1.25G Single-mode	Two CPRI interfaces 1.25G multi-mode 10km 1.25G Single-mode 40km	Two CPRI interfaces 1.25G multi-mode 10km 1.25G Single-mode 40km
Voltage	Support 220VAC and -48V DC input	Support -48V DC input only Input interface should be OT terminal	Support -48V DC input only Input interface should be OT terminal

RRU Specification Comparison

	RRU3801C	RRU3804	RRU3808
			
Dimension (W×D×H)	380mm×200mm×610mm (including housing)	280mm×155mm×488mm (including the mounting plate and housing)	285mm×170mm×485mm (including the mounting plate and housing)
Weight	≤20kg	module≤15kg module +housing≤16kg	module≤17kg module +housing≤19kg
Power consumption	240W	280W	285W

Hardware Installation Comparison

Installation way	40W RRU3801C	RRU3804
Single installation	Cabin +housing; Distance between hole center 210*378 M10*75 bolt	Mounting plate +housing; Distance between hole center 210*270 M10*75 bolt
Centralized installation	3 RRU cabins; Distance between hole center 210*378 M10*75 bolt	3*(mounting plate +housing); Distance between hole center 210*270 M10*75 bolt

Cable and Structure Comparison

Item	40W RRU3801C	RRU3804	Remark
Installation piece	Single cabin and 3 RRU cabins	Mounting plate	The distance between hole center:210*378 210*270
CPRI	N/A	N/A	Cabling cavity, SFP
Power cable	Bottom、aviation head	Cabling cavity、OT terminal	Can modify on site
RF	N/A	N/A	bottom、DIN
AISG	N/A	N/A	Bottom, waterproof DB9
Combined cabin	N/A	N/A	Bottom, water proofDB9
Alarm cable	4 trunk nodes、DB15	1 485 or 1 trunk node、DB9, don't support all at same time	All in cabling cavity
Grounding line	N/A	N/A	Support two hole

Thank you

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