

How many optical modules can be installed in an RRU



Summary of Content

Typically, one RRU requires 1 to 2 optical modules, with 2-6 optical fibers connecting it to the BBU depending on network configuration and capacity requirements.

Optical Module Requirements

An RRU connects to the Baseband Unit (BBU) via optical fiber using optical modules. The exact number of modules depends on the RRU model, network type (4G or 5G), and the number of sectors or carriers supported. In 4G networks, RRUs generally require at least 2-6 core optical fibers for transmission, which can be implemented using one or two optical modules per RRU . These modules can be 1.25G, 2.5G, 6G, or 10G depending on the data rate and distance between the BBU and RRU .

Factors Affecting Module Count

- **RRU Model and Ports:** Different RRU models, such as Huawei RRU3971 or RRU5517t, have multiple CPRI or eCPRI ports. Each port may require a separate optical module or share a module via wavelength division multiplexing .
- **Network Architecture:** In distributed base stations, one BBU can serve multiple RRUs. Using CWDM (coarse wavelength division multiplexing) allows multiple RRUs to share a single optical module, reducing the total number of modules required .
- **Capacity and Redundancy:** High-capacity or multi-sector RRUs may need additional optical modules to handle multiple carriers or provide redundancy for reliability .

Practical Recommendation

Article Content

How many optical modules should be installed on one RRU

The RRU installation process involves installing three RRUs, connecting antenna jumper cables, power cables, optical cables and

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When the RRU needs to be installed on the ground or rooftop, it supports one-module, two- module centralized, and three-module

Understanding AAU, RRU, and BBU in telecom networks

Difference Between AAU, RRU, and BBU AAU, RRU, and BBU are key components in a telecom network,

How many optical modules are in one RRU

In 4G network, the optical modules used to connect bbu and rru are mainly Gigabit to 10 Gigabit optical modules; in 5G network, the

RRU5508 (700M+900M) & RRU5508 (700M+850M) & RRU5508

This document provides a hardware description for the RRU5508 models (700M+900M, 700M+850M, and 800M+900M) including

eRRU Quick Installation Guide (V100R005C10_04) (PDF)-EN

eRRU Quick Installation Guide (V100R005C10_04) (PDF)-EN This document describes the procedures of installing

Explanation of Cell Site RRU and Antenna Configurations??

But in general an RRU is fed a fibre connection from the BTS to minimise the need for large, heavy, expensive feeder cables, instead

Remote Radio Unit (RRU)

An RRH can also provide advanced monitoring and control features that allow operators to optimize performance from

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View and Download Huawei RRU user manual online. RRU network hardware pdf manual download. Also for: Rru3804, Rru3801e.

BBU, RRU, AAU: Telecom Network Components Explained

Understanding BBU, RRU, and AAU in a Telecom Network ☐☐ BBU (Baseband Unit) Acts as the core processing unit of a base station.

Huawei Technologies Remote Radio Unit : User's Manual

PAGE 36 RRU3953& RRU3953w Hardware Description 5 RRU Auxiliary Devices
temperature of the RRU and at least 10°C (50°F)

HUAWEI RRU3971 INSTALLATION MANUAL Pdf Download

3.5 Installation Clearance Requirements of an RRU This section describes the
requirements for the installation clearance of a single

BBU-Base Band Unit in Telecom: Function|Details

BBU also known as base band unit, whose working details and function is to process,

What is RRU, BBU and Antenna?

What is RRU, BBU and Antenna? Brain of the Network: BBUs act as the brain of a 5G
network. They process and

Understanding RRU in Telecommunications

1. RRU stands for Radio Remote Unit and is the distributed frequency unit that
connects to an operator's network and user

Remote Radio Units – HWD-IC

What is a Remote Radio Unit (RRU)? A Remote Radio Unit (RRU) is a key element of a
distributed base station architecture in

Understanding BBU, RRU, and AAU in telecom networks

Telecom Network Components: BBU, RRU, and AAU Explained Understanding the key
components of a modern telecom network is

Optimize RRU Layout for 5G Towers: Cut Loss, Boost Efficiency

How can RRU layouts be future-proofed? Flexible RRU layouts and modular designs
help accommodate emerging

Cellular Network Infrastructure: From Antenna to BBU

Connectivity to BBU: The RRU connects to the BBU through a bi-directional fiber optic
link, usually using the Common

What is RRU in Telecom?

RXF and SMP-MAX connectors can also be used in RRU applications. RXF is an optical,
ruggedized connector that provides secure

RRU5935E Hardware Description

Hardware description for RRU5935E remote radio unit. Details exterior, functions,
ports, specs, cables, and RF connections. For

Ericsson RBS 3418 Product Description

The RRU 22 contains a minimum of hardware, interfaces and no moving parts such as fans, enabling a high MTBF and avoiding the

What is RRU, BBU and Antenna?

Despite installing only in indoor, radio units are now installed in the tower below the Antenna. The RRU is connected

2.6 Optical Modules. Huawei RRU3632, RRU3832, QISRRU3832

This document provides reference for planning and deploying DC blade RRU3832 and RRU3632 (referred to as RRU in this

Comba Telecom

Comba's RRU is compliant with the O-RAN 7-2x functional split that provides open interfaces to the baseband unit (BBU) and the

RRU5527t Hardware Overview | PDF | Fiber Optic Communication

The RRU consists of the following function modules: high-speed interface unit, signal processing unit, power amplifier, duplexer,

RRU5517t Hardware Description

Optical modules can be classified into single-mode and multimode optical modules, which can be distinguished as follows: The puller

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