Visint® 5G Front-haul System

1. 5G Front-haul Active Device

➢ Product Introduction

With the fierce development of 5G communication technology, 5G base stations are being deployed on a large scale, and the deep coverage of base stations requires that the deployment location be closer to users. However, the traditional front-haul solution using fiber optic direct drive between DU and AAU has a series of problems such as tight pipeline resources, high cable cost, long construction period, and difficulty in capacity expansion.

The Vispace 1000 series 5G front-haul semi-active equipment is designed by Visint® to solve the problems of lack of cable resources, long construction period, and high cost due to the direct drive of the optical cable between DU-AAU in the 5G front-haul under the C-RAN architecture.The device adopts active WDM device on the DU side and a passive wavelength division multiplexer plus colored transceiver module on the AAU side to form a unified management and control front-haul network. It provides PC-side Web and client-side APP network management and high reliability 1+1 protective function. Realize the low-cost, high-reliability and fast deployment of 5G front-haul network construction for operators.

Tel: +86-2082072838 Fax: +86-2082072818 Skype: gzkevin_lee
WhatsApp: +8613435696077 Web: www.visint-telecom.com Email: kevin@visint.com.cn

Central Office (DU):

Figure 1. 5G Semi-active Device (2U)

Figure 2. 5G Semi-active Device (4U)

Figure 3. OLPM Card

Remote Side (AAU):

Figure 4. 1U & 3U Passive Fiber Expansion Device

Figure 5. Passive Fiber Expansion Container

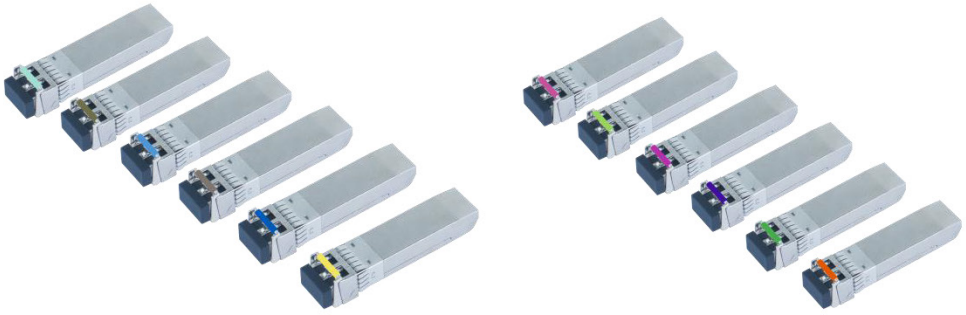

Figure 6. 25G Transceiver Module

➢ Product Feature

Support CWDM 6 channels, 12 channels or wavelength customization.

Support 1 + 1 optical line protection and real-time monitoring of optical power.

Support the state of the optical line to remain unchanged when power down, without affecting the normal work

of the business.

Support automatic and manual working mode and automatic switchback function, the switching time is less than 30ms.

Support Web, APP network management method.

Support local and remote control functions.

➢ Product Specification

System Parameter		Technical Index
Wavelength range		CWDM: 1271nm ~ 1610nm can be customized
Fiber type		G.652 G.653 G.655
Service access type		Ethernet, CPRI, eCPRI, etc.
Line side protection method		1 + 1 protection
Switching time		<50ms
Operating mode		Automatic and manual
Introduction loss		<7dB
Network management		Web, APP
Card size		177 (W) × 20 (H) × 225 (D) (mm)
2U chassis size		440 (W) × 88 (H) × 285 (D) (mm)
4U chassis size		440 (W) × 176 (H) × 250 (D) (mm)
Plug-in box size		129 (W) × 25 (H) × 113 (D) (mm)
1U chassis size		483 (W) × 45 (H) × 112 (D) (mm)
3U chassis size		129 (W) × 132 (H) × 112 (D) (mm)
Operation environment	Operating temperature	-10 °C ~ 70 °C
	Storage temperature	-40 °C ~ 80 °C
	Relative humidity	5% ~ 95% non-condensing
Security and EMC		Comply with FCC, UL, CE, TUV, CSA standards
Power consumption		<200W

2. Classical Networking Applications

Application 1: Point to Point

Based on the DU-AAU scenario in the 5G front-haul, 5G semi-active device is deployed on the DU side and the AAU side. A 2-core fiber is required between the 5G semi-active device to provide 1 + 1 protection for one main and one backup line. The eCPRI optical interface of DU and AAU need to be replaced by our company's 25G colored transceiver module.

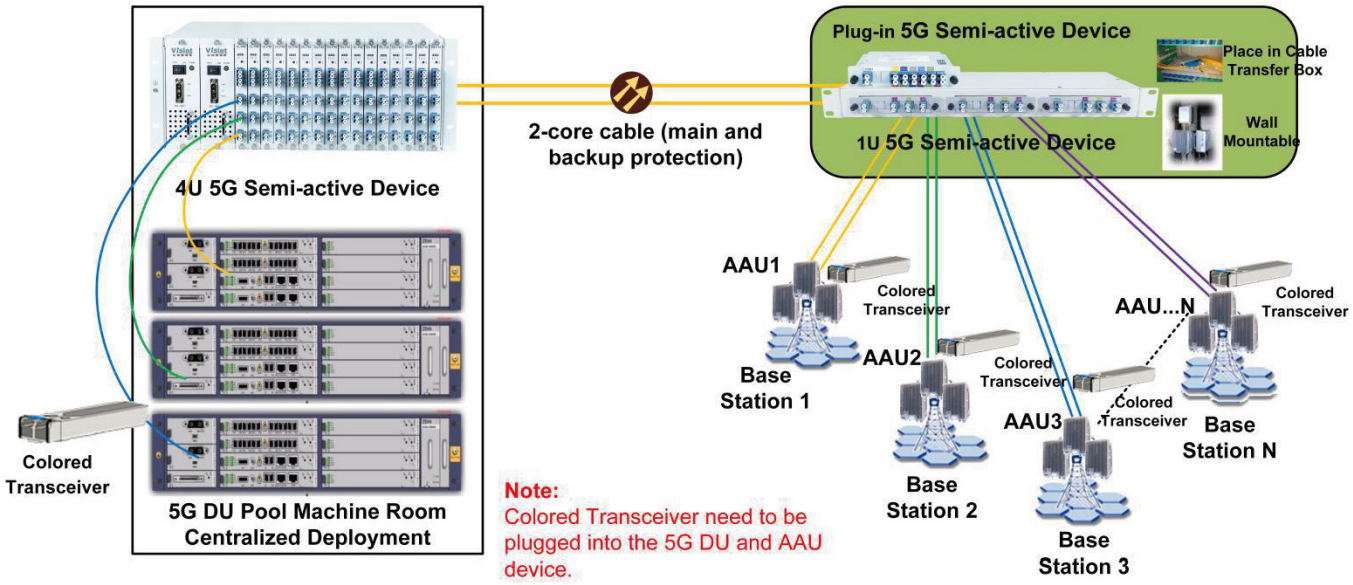

Figure 7. 5G DU and AAU Application Solution