Broadband and Data Network – PCCW (Hong Kong)

Customer

PCCW Limited (PCCW) is a Hong Kong-based company which holds interests in telecommunications, media, IT solutions, property development, investment and other businesses. PCCW holds a majority interest in HKT, Hong Kong's premier telecommunications service provider. HKT meets the needs of the Hong Kong public, local and international businesses with a wide range of services including local telephony, local data, broadband, international telecommunications, mobile and other telecommunications businesses such as customer premises equipment, outsourcing, consulting, and contact centers.

Case Introduction

This case study will highlight the deployment of media converters in PCCW Broadband and Data Networks. The main application of media converters is to make use of optical fiber as the transmission media for extending the reach of copper interfaces between two locations separated by several to several tens of kilometers. Media converters (MCs) are deployed in pairs, typically between two central offices or between a central office and a customer location or between two customer locations.

Customer Demands

- Centralized optical to optical or electrical to optical conversion, with high capacity by providing FE and GbE cards.
- High reliability solution to provide in PCCW Broadband and Data network.
- Centralized Network Management System.
- Cost effective solution to provide fiber access and high capacity for Internet access and Voice communications.

CTC Union Solutions

- FRM220-CH20 w/DC48 Power
  19"2U 20 slots; 36-75VDC 200W Power Module

- FRM220-NMC Network Management Card R3

About CTC Union

CTC Union, founded in 1993, is committed to developing, manufacturing and selling network communication products. In particular, the focus on fiber optical technologies, Ethernet technologies and the integration of broadband access technologies.

With leading-edge technology and high quality service as the driving force, CTC Union continues steady growth, to become a top global equipment supplier of innovative last-mile access in the telecommunications market.

CTC Union Solutions

- **FRM220-1000EAS/X-1**
  10/100/1000Base-T + 100/1000Base-X Switch OAM/IP Converter with CH01 Chassis

- **FRM220-100AS-1A**
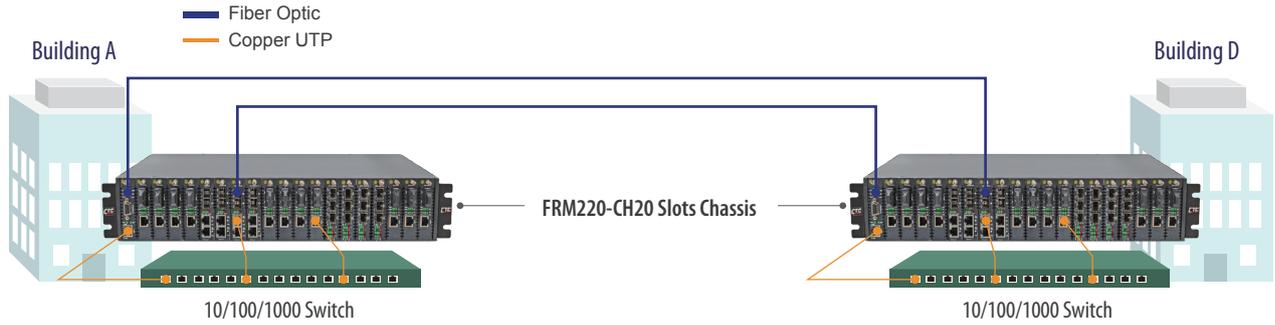 10/100TX to 100X FE Fiber Converter with CH01 Chassis

- **FRM220-1000EAS/X-2F**
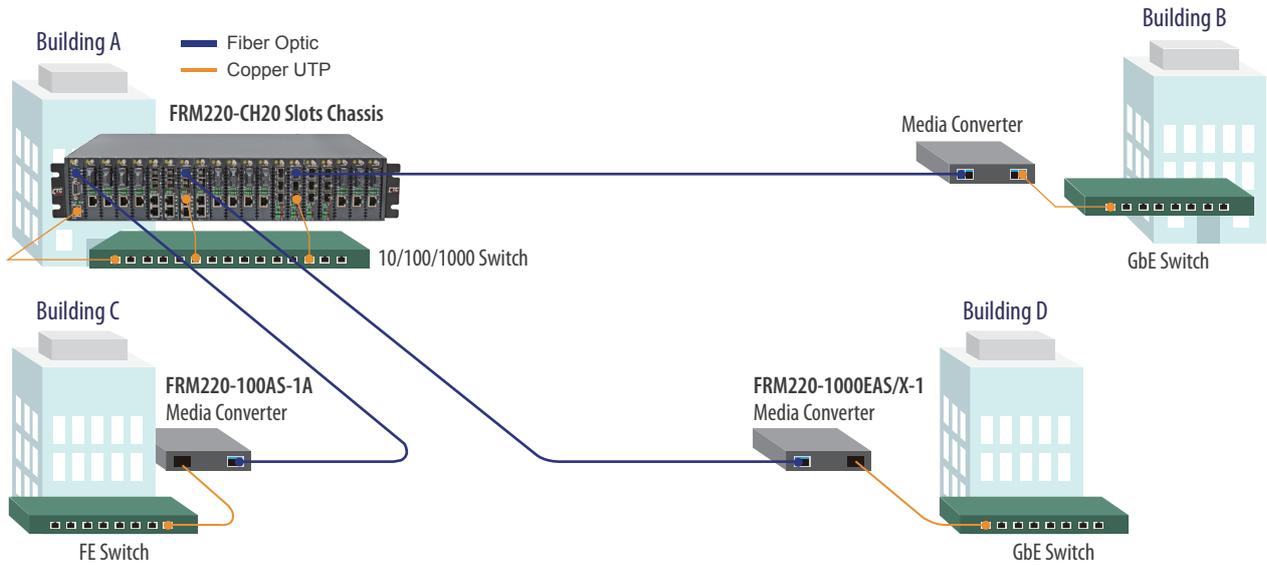 1000X to 1000X Fiber Converter with CH01 Chassis

Topologies

• Chassis to chassis
• FRM220-1000EAS/X-2F, FRM220-100AS-1A and FRM220-1000EAS/X-1 insides FRM220-CH20 chassis

Building A — Fiber Optic — Copper UTP — Building D

FRM220-CH20 Slots Chassis

10/100/1000 Switch   10/100/1000 Switch

• Chassis to Standalone
• FRM220-1000EAS/X-2F, FRM220-100AS-1A and FRM220-1000EAS/X-1 insides FRM220 chassis

Building A — Fiber Optic — Copper UTP

FRM220-CH20 Slots Chassis

Media Converter

Building B

GbE Switch

10/100/1000 Switch

Building C

FRM220-100AS-1A
Media Converter

FE Switch

Building D

FRM220-1000EAS/X-1
Media Converter

GbE Switch

• Standalone to Standalone

• FRM220-CH20+FRM220-1000EAS/X-2F chassis to standalone
• FRM220-CH20+FRM220-100AS-1A chassis to standalone
• FRM220-CH20+FRM220-1000EAS/X-1 chassis to standalone

— Single-Mode Fiber — Multimode Fiber

Fiber to Fiber Converter
FRM220-1000EAS/X-2F

Gigabit Switch

Fiber to Fiber Converter
FRM220-1000EAS/X-2F

Gigabit Switch

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