

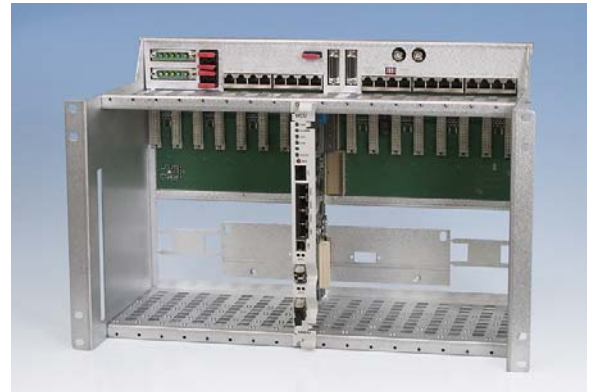
# » MCU Management and Concentrator Unit & 19" Subrack « for ULAF+ access platform

## Product Overview

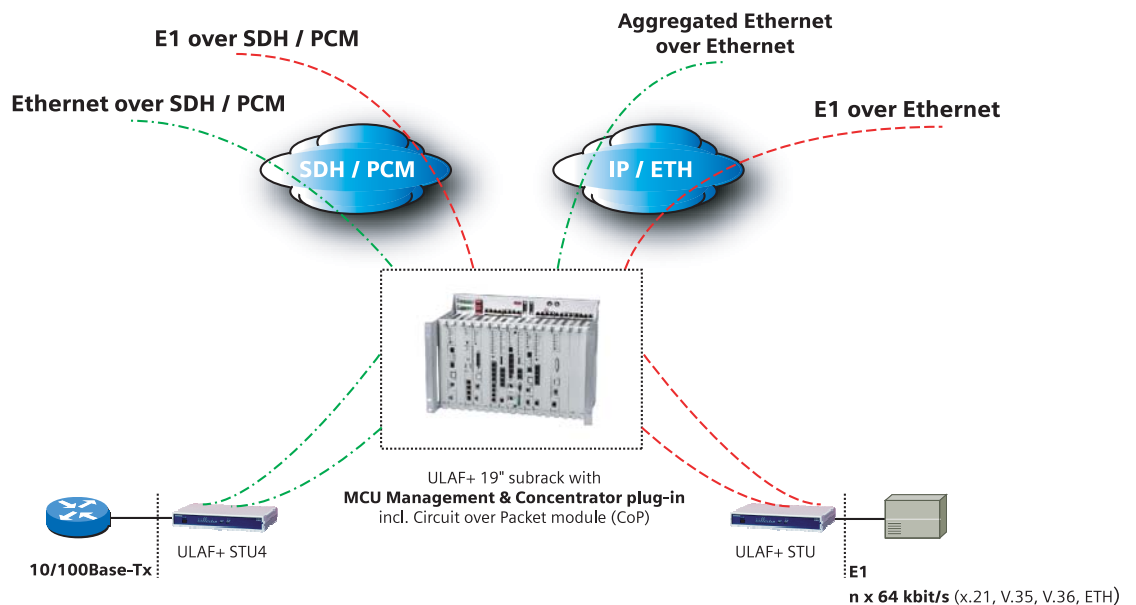
As demand for Ethernet services increases and network technologies accelerate towards packet-based protocols, a huge installed base of classical TDM equipment still exists at carrier and customer sites.

Offering a platform for both future-proof Ethernet and legacy TDM services, ULAF+ now provides a flexible solution for a smooth migration to packet-based networks: the new management and concentrator plug-in "MCU".

In addition to its operation and maintenance features, this plug-in card is designed to concentrate and carry both Ethernet and 2 Mbit/s leased-line traffic over packet-based networks.



## ULAF+: Flexible access platform for both TDM and Ethernet backbones



ULAF+

[www.siemens.ch/ulaf+](http://www.siemens.ch/ulaf+)

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## New management unit

The Management and Concentrator Unit (MCU) acts as a management interface card for up to 16 ULAF+ line cards or 64 lines per shelf. Management information of other MCUs can be aggregated using MCU's Ethernet switch.

Network operators connect to the MCU using either ULAF+'s, Local Craft Terminal' software or Siemens' network management system 'AccessIntegrator' to access the MCU's inventory, alarming and maintenance, configuration, performance and security features. The latest SNMPv3 protocol enhances network management security and administration capabilities.

## Ethernet aggregation option

Optionally the MCU card integrates a carrier grade Ethernet switch to aggregate Ethernet traffic of up to 16 line cards. The switch features 16 internal Ethernet tributary ports for line card traffic and two Gigabit Ethernet uplinks.

## TDM over Ethernet option

ULAF+'s innovative 'Circuit over Packet (CoP)' submodule for MCU cards packetizes up to 32 E1 channels to be transported over IP / Ethernet core networks.

The CoP module enables carriers to smoothly migrate their existing TDM services to a packet-based network and thus being able to offer 2Mbit/s leased-line services to the large customer base still operating legacy TDM equipment.

## 19" ETSI subrack

The subrack holds one MCU and up to 16 ULAF+ line cards. Cascading of up to 4 subracks is possible to manage a maximum of 64 lines.

Backplane access to the line cards' E1 and Ethernet interfaces minimizes costly cabling where MCU's Ethernet concentration or TDM over Ethernet functionality is needed. Management communication between line cards and the MCU is done over a high performance backplane bus.

## Backward compatibility

All previous ULAF+ cards like GTU, OTU, STU, STU2, QSTU, STU4 and GTU4 are fully supported by MCU and subrack.

## Technical data

### Physical & Environment

#### Dimensions (W x H x D)

Subrack .....482 x 315 x 242 mm  
MCU plug-in .....233 x 160 mm

Operating conditions .....-5 °C to +55 °C  
.....5 – 95 % rel. humidity

### Power supply

#### Subrack

Input voltage .....40 – 72 V<sub>DC</sub>

#### MCU plug-in

Power consumption (incl. L2 switch) .....20 W  
Power consumption (w/o L2 switch) .....7 W

### Interfaces

#### Subrack

Ethernet .....16x 100 Mbit/s (RJ45)  
Power connectors .....2x Sub-D  
Alarm Input & Output .....2x Sub-D 15  
Synchronisation Input & Output ..BNC (75 Ω) & RJ45 (120 Ω)  
OMI Bus (legacy subrack cascading) .....2x RJ45

#### MCU plug-in

##### *without Layer 2 Switch:*

Local Management .....1x RS232 (RJ45)  
Remote Management NMS .....3x 10/100Base-T (RJ45)  
various Display LEDs & Operation Buttons

##### *equipped with Layer 2 Switch:*

Gigabit Ethernet Uplink (electrical) .....  
.....1x 100/1000Base-T (RJ45)  
Gigabit Ethernet Uplink (optical & electrical) ....2x SFP bays

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