

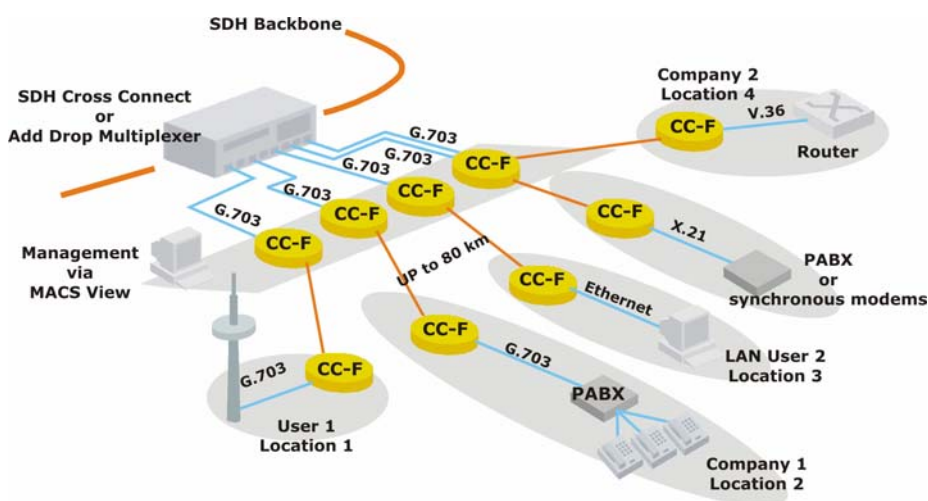


- | Data transmission via fractional or unframed E1 lines of up to 2 km
- | Data rate:  $n \times 64$  kbps up to 2048 kbps
- | Modular design with interchangeable user interface, e.g. X.21, V.35, V.24 or Ethernet
- | VT100, Telnet or SNMP management options
- | Remote in-band management
- | Performance Monitoring for G.703/G.704 ports
- | Available as rack mount card (3U) or standalone unit



The CCF is a copper converter for data streams up to 2048 kbps. The interface data rate can be set in steps of  $n \times 64$  kbps up to 2048 kbps (unframed mode) via VT100, Telnet or SNMP management. It allows in-band management of the remote device, whereby the management data is transmitted together with the user data (fractional line) or separately via an unframed line.

By using different pluggable interface modules (IM-C) like X.21, V.35, V.24 or Ethernet Bridge (supporting VLAN and 10/100BaseTx auto-sensing) the CCF fits into nearly every application and offers the advantage of low handling and logistic costs. Additionally, as a G.703/G.704 on-board version the CCF can work as a repeater for framed and unframed E1 lines. Moreover, extended variants with more than one fractional E1 port offer additional functionality, like back-up scenarios and multiplexing facilities.



Different CCF variants for flexible applications

### System Features

- | Selectable Interfaces:
  - V.35 / Winchester (female)
  - X.21 / DB15 (female),
  - Ethernet Bridge / RJ45 (Supporting VLAN and auto-sensing)
  - G.703/G.704 (E1) / RJ45 (on-board only)
- | Interface data rate adjustable in steps of  $n \times 64$  kbps up to 2048 kbps
- | 3U rack mount card

### Performance Features

- | Remote flash software update
- | Local and remote loopback, BER-test and performance monitoring at line and interface ports

### Management Features

- | VT100, Telnet or SNMP management



## Technical Information

<b>Data Rate</b>	
Interface Port	n x 64 kbps up to 2048 kbps
Line Port	2048 kbps
<b>User Interface Port</b>	
Modular	X.21   DB15 (female) V.35   Winchester (female) Ethernet Bridge (10/100BaseTx)   RJ45
Fixed (on-board)	E1   RJ45
<b>Line Port</b>	
Interface	E1 acc. ITU-T G.703 and G.704
Connector	RJ45
Coding	HDB3
Distances <sup>1)</sup> (max)	up to 2km (4-wire, 40dB)
<b>Features</b>	
Modular Interfaces	X.21   V.35   Ethernet Bridge
Integrated Bridge Functionality	Yes, if equipped with Ethernet module
Management	VT100 via table-top housing (RA-T-V), or 3U chassis management cards (SC-MC) SNMP/Telnet via agent (SC-MC)
In-band Management	via certain timeslot, SA4 bits or unframed line
User Access Levels	4
Remote Flash Update	via VT100 or SNMP/Telnet
Performance Monitoring	Line Quality Supervision for all G.704 interfaces
Test Options	BER test, self-test, loops
Loop-Back	Terminal and Facility Loop per port
Clock Sources / Systems	internal, external, remote / single, dual
Voltage/Lightning Protection	acc. ITU-T K20 and ITU-T K21
Power Consumption	< 7W
Power Supply via Chassis	230/115 VAC or 48 VDC using RA-U compliant chassis or table-top housings
<b>LEDs</b>	
MACS4000 LED Block	Alarm, Loop, Clock, Interface and Line Link Supervision
<b>Mechanics</b>	
Chassis Dimension	3 U
Rack Mount Card (H x W x D)	30 x 130 x 190 mm

1) Distances depending on cable diameter - value is valid for AWG24 -



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