



**Product:** [CSM310-A](#) 

Central Switching Module with MPLS-TP compliant switching fabric for Aggregation nodes

## Product Description

The CSM310-A Central Switching module (=CSM) is the heart of the XTran nodes. This module provides the main processing within the XTran nodes via an Integrated Ethernet Multilayer Switch and onboard Traffic Manager. The CSM310-A must be plugged into a CSM slot in the aggregation nodes. The CSM provides the ability to use 10Gbps enable ports, a switching capacity of 64Gbps and makes use of a Stratum 3 clock.

## Technical Specifications

### Product Overview

|                         |                          |
|-------------------------|--------------------------|
| Part Number:            | S30924-Q500-X101         |
| Port Type and Quantity: | 1x RJ-45 management port |
| Switching Capacity:     | 64 Gbps                  |

### More Interfaces

|               |                                                  |
|---------------|--------------------------------------------------|
| SD-card slot: | 1 slot: allows for easy replacement in the field |
|---------------|--------------------------------------------------|

### Power requirements

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Operating Voltage: | +12V                                            |
| Power consumption: | Measured at 25°C/77°F, with data transport: 27W |

### Software

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switching:                    | Sub 50ms protection switching in all network topologies (MPLS-TP), Non-blocking 64 Gbps, 95 Mpps (Layer 2 throughput), 32k MAC addresses, 4k Layer 2 Multicast entries, 2k VFI, 4k MPLS entries, BFD hardware support                                                                                                                                                                                                                                                                 |
| Management:                   | Auto provisioned and auto setup DCN for management, Full SNMP v3 management (no CLI needed), Management port on each CSM module, 2 input contacts allowing forwarding of local alarms to the TXCare platform, 2 output contacts for local triggering of alarms, Removable memory allowing easy replacement of CSM in the field, Hardware supported OAM, Automatic protection switching via BFD, LSP ping and LSP trace via BFD, Performance monitoring based on Y.1731 Loss and Delay |
| Diagnostics:                  | Advanced monitoring capabilities based on MPLS-TP OAM enhancements                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Security:                     | Sticky MAC for easy locking of MAC address per service, MAC and IP based ACL, SNMPv3 encryption and authentication, Disable unused ports Locked Node ID's, Logical separation of services, Centralized user authentication and central event logging, Audit trail                                                                                                                                                                                                                     |
| Layer 2 Ethernet Aggregation: | MSTP (multiple spanning tree), Multicast handling through IGMP, Virtual forwarding instances, VLAN handling, Broadcast and multicast storm control                                                                                                                                                                                                                                                                                                                                    |
| Quality of Service (QoS):     | Service priority scheduling independent from user traffic to ensure transport functionality of all traffic, End to end traffic engineering through TXCare, 8 Priorities (6 user definable) Per flow statistics and port counters, 4k Flexible queues, Handling of priority queues Strict Priority Based                                                                                                                                                                               |
| MPLS-TP Service:              | Point to point service (VPWS), Multipoint (VPLS), Logical Ethernet Ring, Protection schemes (1:1, Hitless Switching, ERP logical Rings)                                                                                                                                                                                                                                                                                                                                               |
| Management Software:          | Can be fully managed via the TXCare Network Management System. TXCare supports user friendly and fast deployment of the network. Supported by the automatic setup of the DCN and OAM features for continuous monitoring with SNMP v3                                                                                                                                                                                                                                                  |

### Ambient conditions

|                                         |                               |
|-----------------------------------------|-------------------------------|
| MTBF (Telcordia SR-332 Issue 4) @ 25°C: | 222 Years                     |
| Operating Temperature Range:            | -30° to +65°C (-22° to 149°F) |
| Storage Temperature Range:              | -30° to +75°C (-22° to 167°F) |
| Relative humidity (non-condensing):     | 0-95 %                        |

### Mechanical construction

|                 |         |
|-----------------|---------|
| Overall Width:  | 60.6 mm |
| Overall Height: | 126 mm  |

|                     |                                            |
|---------------------|--------------------------------------------|
| Depth:              | 195 mm                                     |
| Weight:             | 1.1 kg                                     |
| Node Compatibility: | XT-1104-A, XT-2206-A, XT-2209-A, XT-2210-A |

### Approvals

|                                         |                                                                                                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basis Standard:                         | CE, EN 55032:2015 + A11:2020, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A2 :2021, EN 55035:2017 + A11:2020, EN IEC 61000-6-1:2019, EN IEC 61000-6-2:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-4:2019 |
| Safety of industrial control equipment: | EN 62368-1:2014                                                                                                                                                                                         |
| Power Utility:                          | EN 61000-6-5:2015, EN 61850-3:2014 (§6.7), IEEE 1613-2009 (§4), IEEE1613-2013 (clause 5,7,8,9,10)                                                                                                       |
| Transportation:                         | EN 50121-4:2016 + A1:2019                                                                                                                                                                               |

### Reliability

|            |                                      |
|------------|--------------------------------------|
| Guarantee: | Standard 1 year (extension possible) |
|------------|--------------------------------------|

### Scope of delivery and accessories

|                                  |                                                              |
|----------------------------------|--------------------------------------------------------------|
| Accessories to Order Separately: | Micro SD Memory Card (16GB Class 10, UHS-I): V30812-A6073-C3 |
|----------------------------------|--------------------------------------------------------------|

### Further Instructions

|                        |                                            |
|------------------------|--------------------------------------------|
| Product Documentation: | Available via Belden Solutions Portal site |
| Certificates:          | Available via Belden Solutions Portal site |
| Software Download:     | Available via Belden Solutions Portal site |

### History

|                      |                                                 |
|----------------------|-------------------------------------------------|
| Update and Revision: | Revision Number: 0.21 Revision Date: 11-14-2025 |
|----------------------|-------------------------------------------------|

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