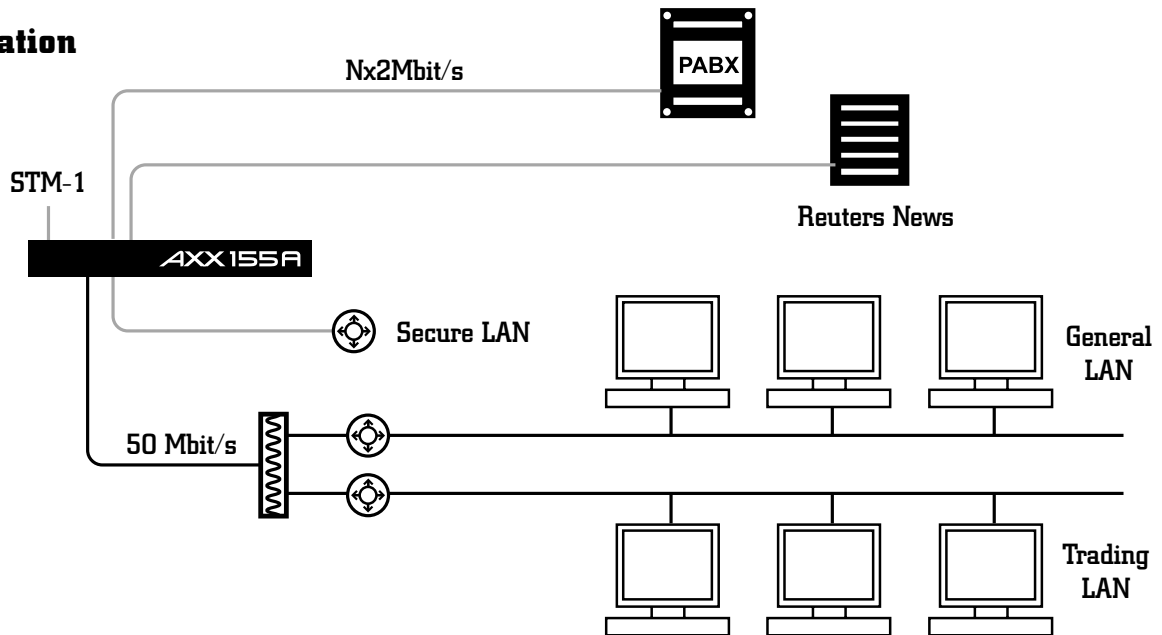


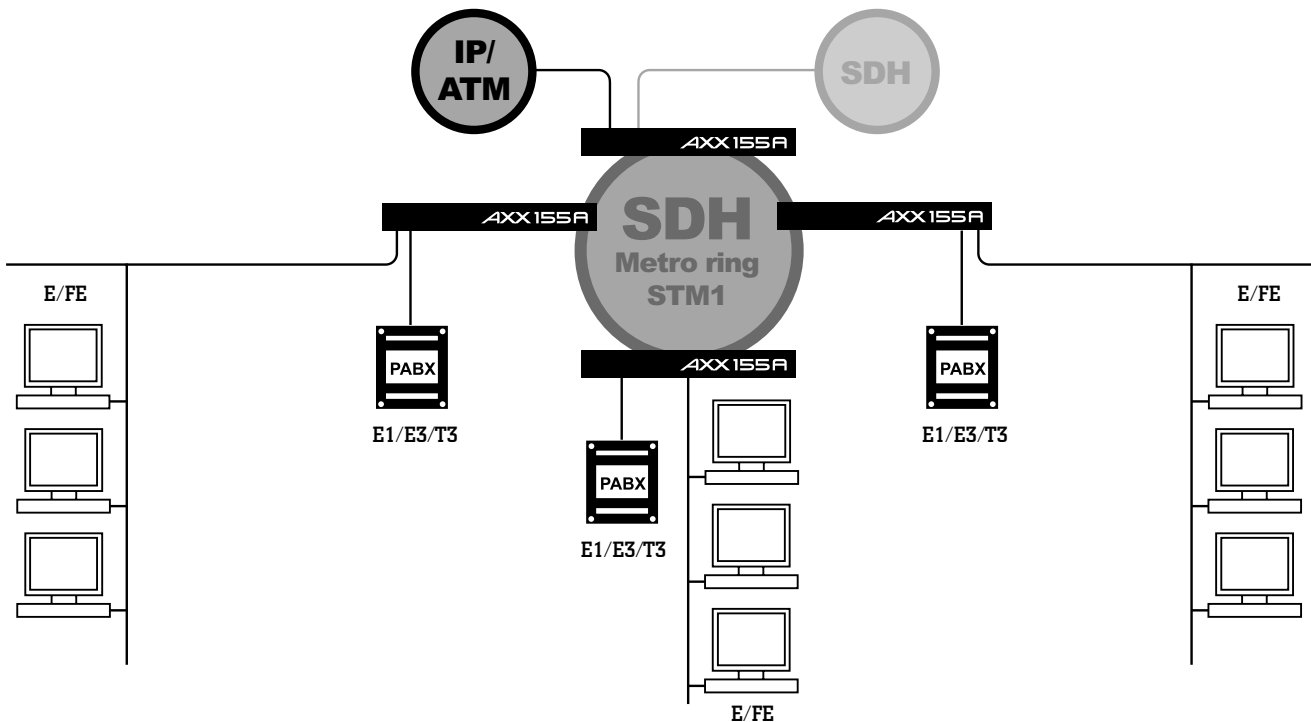


# SYSTEM ARCHITECTURE

## Application



## Application



## Interfaces

SDH	TDM	Ethernet/IP
Up to 4 STM-1 interfaces Standard dual fiber S-1.1 or L-1-2 SDH OH bytes termination/generation	Up to 84x2Mbit/s interfaces G.703 Transparent leased line ISDN PRA Up to 6xE3/T3 G.703 Transparent leased line	Up to 4x10/100 BaseT Ethernet interfaces L2 bridging L3 routing

# Features

## LAN interfaces

The module containing Ethernet interfaces supports both 10Base-T and 100Base-TX according to the IEEE 802.3 specification. The interface supports both the half-duplex and the full-duplex modes. The module also contains 4 mapper circuits connected to the Ethernet switch, allowing mapping of the Ethernet traffic from the four interfaces into a number of VC-12 containers.

The bridge supports the following features:

- Support of up to 24k MAC addresses
- MAC multicast
- Full IEEE 802.1q VLAN tagging
- Spanning Tree Protocol (STP)
- STP per VLAN acc. to IEEE 802.1s
- IEEE 802.1p priorities

The filtering rate of the bridge is able to operate at full wire speed, but the forwarding rate is limited by the selected WAN channels speed, up to 136Mbit/s. The hardware platform can be upgraded by SW download to support IP and IPX routing, with the below routing protocols:

- RIPv1 and RIPv2
- OSPF

Layer 2 and Layer 3 QoS and multicast routing (IGMPv2) are also included. Full wire speed routing is possible, again, only limited by the selected WAN channel speed.

## TDM interfaces

AXX155A has up to 84xE1 interfaces that support transparent data (G.703) and ISDN PRA. Interfaces can be individual configured. The interfaces support 120Ω, 75Ω

operation is supported by use of available external patch panels. Up to 6xE3/T3 interfaces is supported according to G.703. Both types of interfaces support two loops:

- Towards customer
- Towards network

## Cross Connect

AXX155A has a full non-blocking 8x8 STM-1 cross-connect with VC-12, VC-3 and VC-4 granularity. The cross connect supports bi-directional connections on all levels.

## Aggregate Interface

The aggregate interface is SDH based and the IP-traffic is mapped into SDH containers together with TDM-traffic for transport to other end systems. Different Ethernet/IP speeds can be achieved either by a proprietary flexible mapping scheme. The IP-traffic is mapped into one VC-12 container or a number of VC-12 containers. Protection schemes are MSP 1+1 and SNCP.

## Management

The AXX155A is equipped with an SNMP agent that supervises both the LAN- and TDM-ports. The SNMP agent supports a number of standard MIBs and an AXX155A specific MIB. An element manager application called AXXTMN is provided for remote supervision of AXX155A devices. AXX155A also provides a simple VT100 command line interface (CLI) and a powerful craft tool, AXXCRAFT, for local management of the unit. In addition, the AXXEMEDIATOR can be launched to provide northbound integration to other OSS applications.

# TECHNICAL SPECIFICATIONS

## Electrical interfaces

<b>2 Mbit/s</b> .....	.G.703 and ISDN PRA
-Impedance .....	.120 $\Omega$ balanced, 75 $\Omega$ by external balun
-Input jitter .....	.Acc. to ITU-T G.823
-Output jitter .....	.Acc. to ITU-T G.783
-Connector .....	.RJ45/LFH
-Connector .....	.RJ45

<b>34/45 Mbit/s</b> .....	.G.703
-Impedance .....	.75 $\Omega$
-Input jitter .....	.Acc. to ITU-T G.823
-Output jitter .....	.Acc. to ITU-T G.783
-Connector .....	.RJ45/LFH

## Ethernet/LAN

<b>Ethernet/Fast Ethernet</b> .....	.10/100 BaseT acc. to IEEE 802.3
-Connector .....	.RJ45

## Optical interface

Source type .....	.Laser diode
Wavelength .....	.1270-1335nm (short haul) .1480-1580nm (long haul)
Modulation .....	.155 520kbit/s
Launched power (min.) .....	-.15 dBm (short haul) -.5dBm (long haul)
Min. overload .....	-.0dBm (short haul) -.10dBm (long haul)
Sensitivity .....	-.28dBm (short haul) -.34dBm (long haul)
Attenuation range .....	.0 - 12dB (short haul) .10 - 28dB (long haul)
Dispersion .....	.280ps/nm
Connector .....	.LC

## Power

DC .....	-.36VDC to -72VDC
AC .....	.230VAC - 50Hz
Dissipation .....	< 40W

## EMC/safety/Temperature

EMC .....	.EN 55022 ClassB and EN 50082-1
Safety .....	.EN 60950 and EN 60825
Operating temp. ....	-.5°C to + 45°C acc. to ETS 300 019-1-3, class 3.2

## Mechanics

Dimensions (HxWxD) .....	.44x445x240mm
Weight .....	< 5kg w/module



AXXESSIT has created a unique culture that enables us to be the fastest and most innovative vendor of broadband access network solutions. Our leading position is made possible by mutual respect and a common awareness of where we are heading and how to get there. Total involvement in the chain of production also makes us different from other vendors. With more than 25 years of experience within data- and telecommunications, we provide our customers with high quality and cost effective products.

**Visit us on [www.axxessit.no](http://www.axxessit.no)**

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