

IOM-622

Three Ports OC-3c/STM-1 ATM Line Card

The IOM-622 line card supports three OC-3c or STM-1 ATM interfaces. Designed for flexibility and versatility, each interface enables the configuration of various ATM encapsulation modes over Layer-2 or Layer-3 transport network.

The IOM-622 is available on the AXN1600, AXN800, and AXN100 Pseudo-Wire Gateways™. It is hot swappable and has no slot assignment restrictions. The IOM-622 line card requires a corresponding interface module that accommodates three pluggable optical transceivers per card.

IOM-622 Key Features:

- Three OC-3c or STM-1 ATM interfaces (software selectable)
- SFP LC duplex connector, supporting multi-mode short reach (2 km) or single-mode intermediate reach (15 km) optical interface
- Per port LAPS / L-MSP equipment protection
- Pseudo-Wire encapsulations per OC3c/STM-1 ATM interface
 - ATM
 - Port, VP, and VC modes
- Layer-3 Forwarding Services
 - ATM
- IP Service Interworking (IP-IWF)
 - ATM
- Removes the need for ATM switch
- Per OC-3c/STM-1 interface alarm processing and performance monitoring
 - 24-hour history retained, 15-minute intervals on all errors
- Per OC-3/STM-1 interface diagnostics and loopback control
- Enables remote management capabilities through Axerra's CLI and AXNVision™ NMS

HARDWARE SPECIFICATIONS

Platform Support

- AXN1600, AXN800 and AXN100

Number of interfaces: 3

- OC-3 or STM-1 according to software selection

OC-3

- **Bit Rate:** 155.52 +/- 4.6 ppm
- **Framing:** SONET
- **Line Code:** NRZ
- **Signal Level:** According to SFP
- **Connector:** LC, SFP

STM-1

- **Bit Rate:** 155.52 +/- 4.6 ppm
- **Standards Compliance**
ITU G.957, G.958
- **Framing**
Synchronous Digital Hierarchy (SDH)
G.783, G.958
- **Line Code:** NRZ
- **Signal Level:** According to SFP
- **Jitter and Wander Performance**
Compliance with G.813 timing characteristics of SDH equipment slave clocks (SEC)
- **Connector:** LC, SFP

Indicators

- **Interface Module**
 - Per OC-3/STM-1 interface
 - LOS – Indicates Loss of Signal
On – LOS state detected
 - Active – Indicates activity on the line
On – There is activity on the line
- **Line Card**
 - Power
 - Off – No power
 - Green – Operational
 - Orange – Transient mode
 - Active
 - Off – No power
 - Green – Operational
 - Orange – Unassigned or transient mode

- Alarm
 - Off – No alarm
 - Orange – Minor alarm or Transient mode
 - Red – Major alarm

SOFTWARE SPECIFICATIONS

Pseudo-Wire Services

ATM

- Port, VP and VC modes
- Cell (AAL0) and Frame (AAL5) modes
- Configurable cell concatenation
- Maximum concurrent connections: 256

Layer-3 Forwarding Services

- ATM

IP Service Interworking

- ATM

GENERAL SPECIFICATIONS

ATM Capabilities

- ATM OAM
Segment and end-to-end
VP (F4) and VC (F5)

QoS Management

- Layer 3 Marking – DSCP (DiffServ)
- Layer 2 Marking – VLAN 802.1Q/P

Timing

- Adaptive clock recovery (ACR)
- System clock
- Loopback timing (clock source is determined from OC-3/STM-1 interface)

Diagnostics

- Terminal (Local) loopback
- Facility (Remote) loopback

Performance Monitoring

- 5 x 24 hour
- 96 x 15 minute interval
- STM-1
 - RS – ES, SES, UAS
 - MS – ES, SES, UAS
- OC-3
 - Section – ES, SES, UAS
 - Line – ES, SES, UAS

Alarms

- PHY - LOS
- Section/RS - LOF
- Line/MS – AIS, FERF/RDI
- STS/High Order Path (VC-4) – STS-1 AIS/TU4 AIS, LOP, FERF/RDI, Unequipped Payload
- ATM - Loss of Cell Delineation (LOCD)

Management Specifications

- In-band or out-of-band
- SNMP
- Command Line Interface (Telnet / ICP)
- SSH
- AXNvision NMS
- Local
 - ICP: RS-232 or RJ-45 via CLI

Physical Dimensions

- **Interface Module**
 - Inches: 10.52 (h) x 4.53 (d) x 0.79 (w)
 - Cm: 26.7 (h) x 11.5 (d) x 2.0 (w)
 - Weight: 0.35 lb (0.16 Kg)
- **Line Card**
 - Inches: 10.52 (h) x 9.84 (d) x 0.79 (w)
 - Cm: 26.7 (h) x 25.0 (d) x 2.0 (w)
 - Weight: 1.15 lb (0.52 Kg)

Environmental

- Operating temp: 0–50°C / 32–122°F
- Humidity: 5%–95% non-condensing

Port Density Summary

AXN Model	OC-3/STM-1 Interfaces/Chassis	OC-3/STM-1 Interfaces/Rack (44U)
AXN1600N	36	144
AXN1600E	36	144
AXN800	12	132

Ordering Information

Part #	Description
IOM-0622-B	Three ports OC-3c/STM-1 ATM bundle (Transceivers should be ordered separately)
IOM-0622	Three ports OC-3c/STM-1 ATM line card (Transceivers should be ordered separately)
IMIO-0602	Three ports OC-3c/STM-1 optical Interface Module
LC-155MM-SR	OC-3/STM-1 SFP LC multi-mode Short Reach (2 km) optical transceiver
LC-155SM-IR	OC-3/STM-1 SFP LC single-mode Intermediate Reach (15 km) optical transceiver



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