

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



1900 Glades Road, Suite 359
Boca Raton, FL 33431
USA
Tel: +1-561-750-5506
Fax: +1-561-750-5407
www.axerra.com

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH AXERRA NETWORKS PRODUCTS AND IS SUBJECT TO CHANGE WITHOUT NOTICE. AXERRA NETWORKS ASSUMES NO RESPONSIBILITY FOR ANY ERRORS THAT MAY APPEAR IN THIS DOCUMENT. #57-58-64