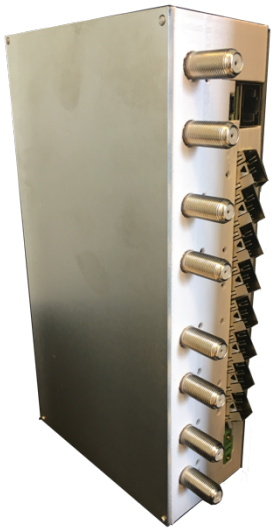
Giax IRIS™ MoCA Access™ Network Controller MDU-3G-8

GiaX IRIS product-line provides Broadband Service Providers with a means to re-use the in-building and to the building Coaxial networks when deploying Fiber to the curb or Fiber to the MDU. It provides for significant OPEX and CAPEX savings whilst executing on symmetrical services well beyond the 1 Gbps.

Products Highlights and Benefits

The GiaX IRIS Network Controller, **IRIS-MDU-3G-8**, is an 8 port Network Controller with full featured Service Provider feature functionality targeted to the Multi Dwelling Unit market segment.

Service Providers are predominantly using fiber as a means to deploy network capacity, the challenge they are facing is that deploying fiber to the home is both CAPEX and OPEX intensive, especially when you already have an existing network of copper or coax. When deploying fiber architectures, the most expensive part is the “last mile” or rather, the access to the home and the in-home network. The most cost-efficient approach for the Service Provider is to re-use the in-building network.


IRIS-MDU-3G-8

The Giax **IRIS** product family allows the existing coaxial network to be used for high bandwidth symmetrical services. The IRIS-MDU-EG-8 Network controller has 8 RF ports and enables high bandwidth services of up 2.5 Gbps downstream and 2 Gbps upstream in a segment of maximum 31 subscribers per RF port. It can utilize the spectrum between 400 MHz and 900 MHz but can also operate in a mode leaving legacy services in place by operating in the 1175MHz to 1675 MHz spectrum, it uses OFDM as modulation and is able to use up to 1024QAM.

GIAX IRIS is a solution targeted to Service Provider networks and MDUs but has many use cases.

The Giax **IRIS** product line is based on the MoCA Access™ 2.5 standard and offers both the Network controller and modem, it has unique differentiating capabilities such as QoS, CoS, MEF OAM and can operate within known provisioning systems (TR69 and DOCSIS). The **IRIS** network controllers offer multiple densities, from 1 port to 24 ports, allowing cost efficient deployment for small and large MDUs. Next to the indoor formfactor Network Controller for MDU deployments it also offers an environmental hardened Network Controller for outdoor use.

Subject to change.
For more detailed information or commercial inquiries reach out to sales@giax.de

The Giax IRIS solution provides Services providers with a means to deploy Gigabit Symmetrical services at a fraction of the cost of a Fiber network that is extended into the building.

Specifications

System

- MoCA Version MoCA 2.5 / MoCA Access 2.5
- Protocol IEEE 802.3x
- Maximum Segment Size - 31 MoCA modems
- Total supported MoCA Access modems using 8 Segments is 241

MoCA Access Interfaces

- RF Connector: F-type, female
- 8 RF connectors, 8 MoCA Access Segments
- Impedance: 75 Ω
- Max Transmit Power +3 dBm
- Modulation - OFDM QAM 1024 /512 /256 /128/64/32/16/8/QPSK/BPSK
- Multiplexing - TDMA/TDD
- RF Channels - 3, 4 or 5 with a Channel Width of 100 MHz each
- Maximum attenuation for full PHY Rate: 100% link quality at 45dB

MoCA Access 2.5 band support

- MoCA Ext Band A operation 400 - 900 MHz
- MoCA Ext Band D operation 1125 - 1675 MHz

MoCA/MoCA Access 2.5 Supported Maximum Application Data Rate

- Up to 3 Gbps bi-directional combined point to point mode
- Up to 2,5 Gbps bi-directional combined Point 2 Multipoint

Management Port

- 1 x RJ45 for 10/100/1000 Ethernet
- Web Access through HTTP and HTTPS • CLI – Console Port and Telnet
- SSHv2
- Management Access Filtering
- IPv6 Management
- System Syslog
- Software Upgrade through Web
- SNMP v1, v2c, v3
- RMON Group 1, 2, 3, and 9
- IEEE 802.1AB LLDP
- TIA 1057 LLDP-MED
- Cisco Discovery Filtering, CDP
- sFlow
- Loop Detection Restore to Default
- DNS Client, Proxy
- DHCP Server and DHCP Client
- Industry-standard CLI and configuration
- Configuration Download and Upload
- Multiple SNMP Trap Destinations

WAN Side Interfaces

- Interface 4 x SFP slots 2.5 Gbps Ethernet
- Interface 4 x SFP slots 10 Gbps Ethernet
- Carrier Ethernet 2.0 compliant
- ITU-T G.8031/G.8032 protection switching
- ITU-T G.8262 Synchronous Ethernet with SSM
- ITU-T G.8275.x PTP Telecom Profile supported on Boundary Clock and Transparent Clock
- Comprehensive Ethernet OAM support: IEEE 802.1ag CFM, 802.3ah EFM, and ITU-T Y.1731
- Service Activation Testers incorporated: RFC2544, Y.1564
- Non-blocking wire-speed switching

LEDs

- Ethernet: Ethernet interface indicator LED
- COAX: Coax cable link state indicator LED

Power

- Power Consumption System < 9 Watts
- Incremental Power Consumption per activated MoCA port < 3 Watts
- Power supply 100-240VAC/50-60Hz 24VDC/2A
- PWR input 24V

Environmental

- Operating Temperature 0°C to 40°C (32°F to 104°F)
- Storage Temperature -5°C to 65°C (23°F to 149°F)
- Operating Humidity 10% to 90% RH, non-condensing

Physical Size

- 12.4(H)x8.0(D)x3.0(W) cm
- 4.88(H)x3.15(D)x1.18(W) inch

Weight

- 1.2 Kg

Compliance

- CE
- FCC Part 15, CE Mark
- UL
- RoHS, REACH
- NEBS Level 3 (by Request)

Carrier Ethernet Services

- E-LINE, E-LAN, E-TREE, and E-Access Supported
- MEF-Compliant Dual Rate Policing and Shaping

Carrier Ethernet OAM

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) • IEEE 802.1ag Connection Fault Management (CFM) • IEEE 802.3ah Ethernet in the First Mile (EFM)
- IETF RFC 2544 Performance Benchmarking Test

Timing and Synchronization

- IETF RFC 5905 NTPv4 Client
- ITU-T G.8262 Synchronous Ethernet with SSM
- ITU-T G.8275.x PTP Telecom Profile supported on Boundary Clock and Transparent Clock

Protection

- IEEE 802.3ad LACP

Subject to change.

For more detailed information or commercial inquiries reach out to sales@giax.de

- IEEE 802.1w/s RSTP / MSTP
- ITU-T G.8031 ELPS & G.8032 v1/v2 ERPS

Quality of Service

- 8 Hardware Priority Queues
- Per-EVC QoS, Policing and Shaping for Service
- Isolation and Traffic Engineering
- Strict Priority and Weighted Round-Robin (WRR)
- Scheduling
- Per-Port/VLAN/ToS/DSCP Classification
- Per-Port/VLAN/Flow Rate Limiting

Port Control

- Port Speed, Duplex Mode, Flow Control • Port Frame Size (Jumbo Frames)
- Port State (Administrative Status)
- Port Status (Linking Monitoring)
- Port Statistics (MIB Counters) • Cable Diagnostics
- On-the-Fly SFP Detection

Ethernet Layer 2 Switching

- IEEE 802.1D Bridge
- IEEE 802.1Q VLAN
- VLAN Translation
- Private Static VLAN
- Port Isolation (static)
- Loop Guard
- MAC-based and Protocol-based VLAN
- Multiple Registration Protocol (MRP)
- Multiple VLAN Registration Protocol (MVRP)
- GARP VLAN Registration (GVRP)
- IEEE 802.1ad Provider Bridge (Native or Translated VLAN)
- IEEE 802.3ad Link Aggregation; Static & LACP
- Bridge Protocol Data Unit (BPDU)
- Guard and Restricted Role
- Transparency and Forwarding • Voice VLAN & Auto VoIP
- VLAN Trunking
- DHCP Snooping
- ARP Inspection
- Port and Flow Mirroring
- Protocol-based and IP subnet-based VLAN • Error Disable Discovery
- Classification of Layer 3 Flow

Multicast Management

- IGMPv2 and IGMPv3 Snooping
- MLDv1 and MLDv2 Snooping
- IP Multicast (IPMC) Throttling, Filtering, Fast Leave and Leave Proxy
- Multicast VLAN Registration (MVR) and profile
- Broadcast/Multicast Storm Control
- Unknown Multicast Filtering
- Well-known Protocol Forwarding

Ethernet Layer 3 Switching

- DHCP Option 82 Relay
- Universal Plug and Play (UPnP) • IPv4 Unicast Static Routing

Security

- Network Access Server –Port-based IEEE 802.1X
- Single and Multiple IEEE 802.1X –MAC-based Authentication –VLAN and QoS Assignment –Guest VLAN
- RADIUS Accounting
- MAC Address Limit
- TACACS+
- Web and CLI Authentication
- Authorization (15 user levels)
- ACLs for Filtering, Policing, and Port Copy
- IP Source Guard
- IP MAC Binding Dynamic to Static

Subject to change.

For more detailed information or commercial inquiries reach out to sales@giax.de