



# LARCH NETWORKS

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Ruggedized Ethernet switching  
solution based on  
Marvell IronMan®

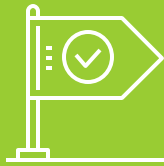
# LARCH NETWORKS

Since 2011



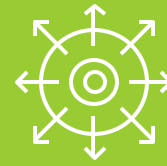
## On the Forefront of Technology

Pushing the envelope on interconnect solution



## Certified Marvell solution provider

Support Marvell's customers worldwide



## Turn-Key networking solutions

Vast experience in Computer networks, Embedded HW, & SW



## Leading provider to Tier-1 brands

Marvell, Harmonic, IAI, Pegatron, Network Critical and others





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3. Larch Industrial Switching portfolio



# MARVELL INDUSTRIAL SWITCHING

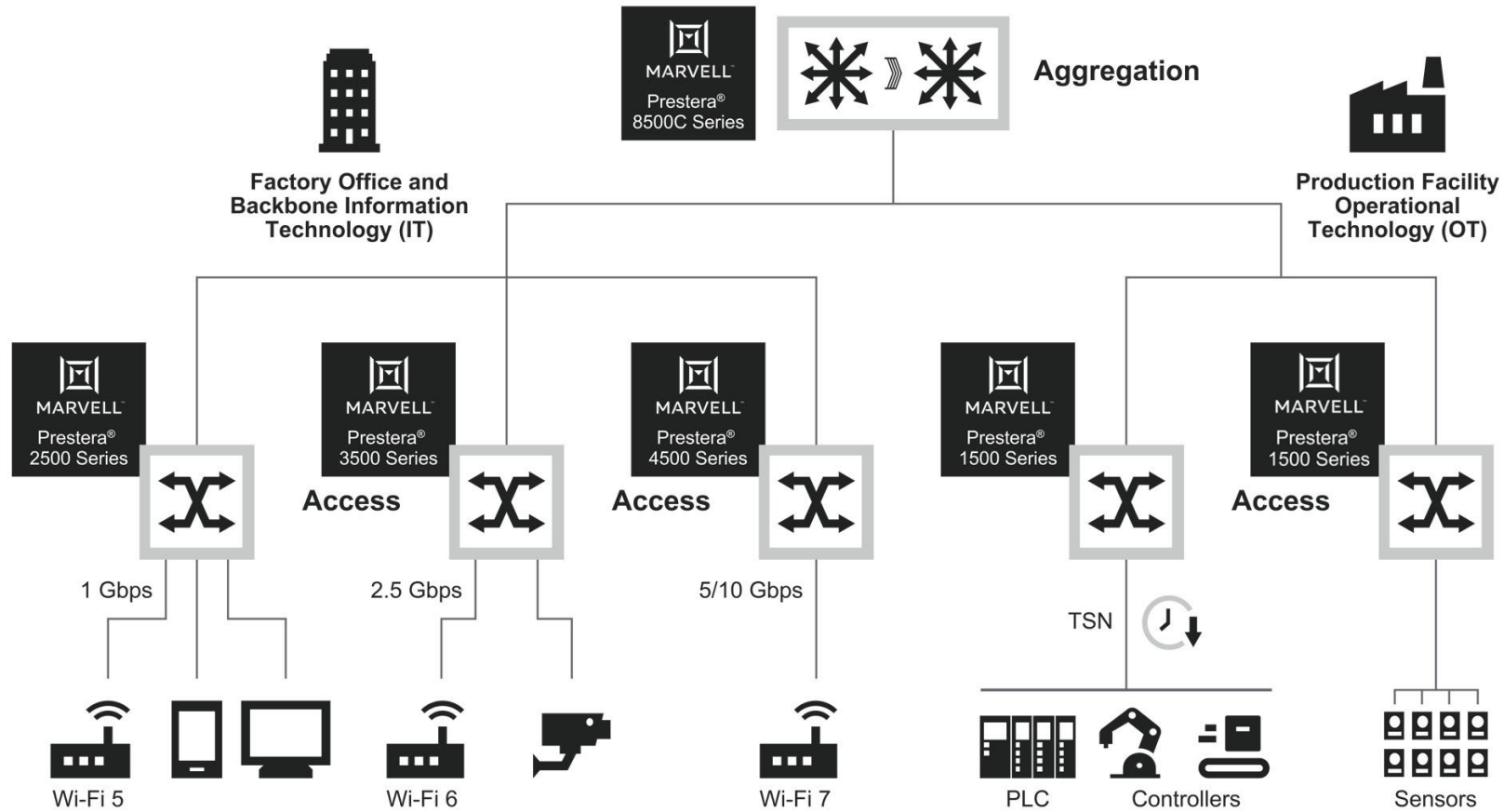
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01

# Marvell Industrial switching

## Architecture



# Marvell® Prestera® DX1500 Ethernet Switches Series



## IronMan

### Unified feature-rich Prestera architecture

#### Time Sensitive Networking (TSN)

- 802.1A-2020 - High-accuracy timing synchronization
- IEEE 802.1Qav - Credit based per queue shaper
- IEEE 802.1Qbv - Time aware shapers
- IEEE 802.1Qbu and 802.3br - Frame Preemption
- IEEE 802.1Qci - Per-Stream Filtering and Policing
- IEEE 802.1CB - Frame Replication and Elimination

#### Cut-through operation

#### IEC 62439-3- Parallel Redundancy Protocol (PRP) and Highly-available Seamless

#### Redundancy (HSR)

#### Integrated Arm Cortex CPU cores and external DRAM

#### Multi-Rate 10M/100M/1G/2.5G/5G/10G ports

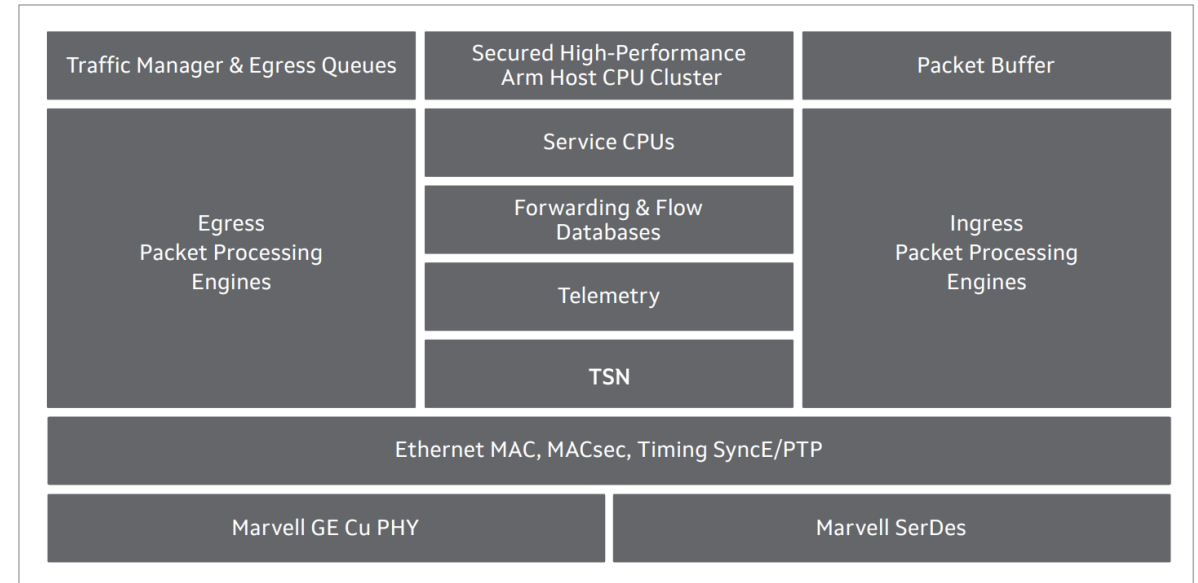
#### IEEE 802.1AE GCM-AES-128/256 and GCM-AES-XPB-128/256 IEEE 802.1AE Media

#### Access Control Security (MACsec)\* Engine

#### SecureIQ multilayer network-embedded advanced security

- Secure boot and secured storage
- Programmable security sensors
- Micro-segmentation to security-groups
- Secure Control Technology (SCT) and Network Shield Technology (NST)

#### Ruggedized -40°C to +85°C Industrial temperature range



DX1500 Architecture Block Diagram

- DX1508 12-ports GbE Downlinks Industrial TSN-capable switch
- DX1518 30-ports GbE Downlinks Industrial TSN-capable switch
- DX1528 54-ports GbE Downlinks Industrial TSN-capable switch
- DX1538 54-ports 1/2.5GbE Downlinks Industrial TSN-capable switch
- DX1548 12-ports 1/2.5/5/10GbE Industrial TSN-capable switch

\*Note: MACsec is only available on MACsec-enabled Part Numbers.

# LARCH IRONMAN NETWORK MODULES

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02

# Larch IronMan Network Modules

Multi-Layer 1/2.5/5/10G Network Modules for Industrial and IoT Infrastructure



**Integrated PHY**

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**On-board magnetic**

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**IEC/IEEE 60802 TSN Profile for Industrial Automation**

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**IEC 62439-3- PRP and HSR**

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**Integrated Arm Cortex CPU cores and external DRAM**

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**SecureIQ multilayer network-embedded advanced security**

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**IEEE 802.3ae standard compliant MACsec engine**

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**Ruggedized -40°C to +85°C Industrial temperature range**

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**Whole range of modules and port layouts & SKU**

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**2 form factor      80mm x 100mm, 52mm x 57mm**

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**#SKU**

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MO-P8Cx-4F	8x1+4x10 (50 Gbps)
MO-16Cx-4F	16x1+4x10 (72 Gbps)
MO-24Cx-6F	24x1+6x10 (86 Gbps)
MO-48Cx-6F	48x1+6x10 (110Gbps)
MO-24Cx-28F	24x1+24x2.5+4x10
MO-13F	13x10 (132Gbps)

**2 Form factor of carrier development board**

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Network module carrier development board with DIN and Rack mount cover



FIND OUT MORE



# LARCH INDUSTRIAL SWITCHING PORTFOLIO

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# Industrial Ethernet Switches

## Marvell® IronMan® Series



**LN-3908GP-4XGF-I**  
8x1G + 4xSFP/SFP+ POE+



**LN-3924GP-4XGF-I**  
24x1G + 4xSFP/SFP+ POE+



**LN-3916GP-2XGF-I**  
16x1G + 2xSFP/SFP+ POE+

### IronMan® Series



**IronMan® Network Module**  
**MO-P8Cx-4F** 8x1+4x10 (50 Gbps)  
**MO-16Cx-4F** 16x1+4x10 (72 Gbps)  
**MO-24Cx-6F** 24x1+6x10 (86 Gbps)  
**MO-48Cx-6F** 48x1+6x10 (110Gbps)  
**MO-24Cx-28F** 24x1+24x2.5+4x10  
**MO-13F** 13x10 (132Gbps)



**8x1G + 4xSFP/SFP+**  
Development board for Nano IronMan® (52mm x 57mm) Network Module

### Network Module Series



**24x1G + 4xSFP/SFP+**  
Development board for an IronMan® (80mm x 100mm) Network Module

# THANK YOU

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