



**Allen-Bradley**

by ROCKWELL AUTOMATION



# Stratix 5200 Managed Industrial Ethernet Switch

## Features and benefits

- All gigabit port options
- Support for high speed redundant and resilient architecture options
- Variety of copper and fiber choices to support a diverse set of applications
- Supports layer 2 access switching
- Supports both IT and OT configuration and management tools allowing users to leverage the expertise of both teams
- Default configurations for industrial applications providing easy setup and optimized performance
- Robust set of switching and security features to meet a broad spectrum of application needs

## Optimized integration

- Studio 5000® Add-on Profiles (AOPs) enable premier integration into the Rockwell Automation® Integrated Architecture® system
- Predefined named Logix tags for monitoring and port control
- FactoryTalk® View faceplates help to enable status monitoring and alarming
- Embedded Cisco® technology, including the IOS-XE operating system, helps enable integration with the enterprise network



The Allen-Bradley® Stratix® 5200 managed industrial Ethernet switch offers a versatile design supporting various copper and fiber models with Layer 2 switching. This compact, scalable switch has embedded Cisco technology that can be used in applications with networks that are small and isolated or complex. With integration into Studio 5000 Automation Engineering & Design Environment® software, you can leverage FactoryTalk View faceplates and Add-on Profiles for simplified configuration and monitoring.

The Stratix 5200 switch includes a robust set of switching, and security features to support a wide range of architectures and uses the Cisco IOS-XE operating system for optimized compatibility to the enterprise environment. Choosing a switch co-developed by Rockwell Automation and Cisco, allows your Operations Technology (OT) and Information Technology (IT) professionals to leverage tools and technology that is familiar to them. By helping to provide optimized integration, you can experience easier commissioning and actionable diagnostics.



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**Stratix 5200 managed industrial Ethernet switch selection table**

| Catalog number | Stratix 5200 description                                                 | Total ports | Combo ports | SFP slots | Copper ports | IEEE 1588 Precision Time Protocol | PRP | NAT |
|----------------|--------------------------------------------------------------------------|-------------|-------------|-----------|--------------|-----------------------------------|-----|-----|
| 1783-CMS6B     | 4 cu 100 ports, 2 SFP 100/1000 slots, base firmware                      | 6           |             | 2GE       | 4FE          |                                   |     |     |
| 1783-CMS6P     | 4 cu 100/1000 ports, 2 SFP 100/1000 slots, full firmware                 | 6           |             | 2GE       | 4GE          | Yes                               |     |     |
| 1783-CMS10B    | 8 cu 100 ports, 2 combo 100/1000 slots, base firmware                    | 10          | 2GE         |           | 8FE          |                                   |     |     |
| 1783-CMS10P    | 8 cu 100/1000 ports, 2 combo 100/1000 ports, full firmware               | 10          | 2GE         |           | 8GE          | Yes                               |     |     |
| 1783-CMS10DP   | 8 cu 100/1000 ports, 2 SFP 100/1000 slots, full firmware                 | 10          | 2GE         |           | 8GE          | Yes                               |     |     |
| 1783-CMS10DN   | 8 cu 100/1000 ports, 2 combo 100/1000 ports, full firmware, DLR/PRP/NAT  | 10          | 2GE         |           | 8GE          | Yes                               | Yes | Yes |
| 1783-CMS20DB   | 18 cu 100 ports, 2 combo 100/1000 ports, base firmware, DLR              | 20          | 2GE         |           | 18FE         |                                   |     |     |
| 1783-CMS20DP   | 18 cu 100/1000 ports, 2 combo 100/1000 ports, full firmware, DLR         | 20          | 2GE         |           | 18GE         | Yes                               |     |     |
| 1783-CMS20DN   | 18 cu 100/1000 ports, 2 combo 100/1000 ports, full firmware, DLR/PRP/NAT | 20          | 2GE         |           | 18GE         | Yes                               | Yes | Yes |

## Stratix 5200 Advanced Features

| Application                       | Supported on Catalog Numbers Ending In: | Note:                                            |
|-----------------------------------|-----------------------------------------|--------------------------------------------------|
| Switching CIP Sync (IEEE1588)     | P, DP, DN                               |                                                  |
| DLR                               | DP, DB, DN                              | DP, DB – support 1 Ring<br>DN – supports 2 Rings |
| Network Address Translation (NAT) | DN                                      |                                                  |

## Stratix 5200 Product Features

| Supported on All Catalog Numbers                   | Not Supported on All Catalog Numbers |
|----------------------------------------------------|--------------------------------------|
| Separate Option REP (Resilient Ring Protocol)      | FlexLinks                            |
| QoS                                                |                                      |
| STP/RSTP/MST                                       |                                      |
| IGMP snooping with querier                         |                                      |
| Port threshold (storm control and traffic shaping) |                                      |
| IPv6 support                                       |                                      |
| Access control lists (ACLs)                        |                                      |
| Static routing                                     |                                      |
| InterVLAN routing                                  |                                      |
| REP Ring                                           |                                      |
| VLANs with trunking (256 supported)                |                                      |
| EtherChannel (link aggregation) (6 supported)      |                                      |
| <b>Security</b>                                    |                                      |
| CIP port control & fault detection                 |                                      |
| MAC ID Port Security                               |                                      |
| IEEE 802.1x Security                               |                                      |
| TACACS+                                            |                                      |
| RADIUS authentication                              |                                      |
| Encryption (SSH, SNMPv3, HTTPS)                    |                                      |

|                              |                                  |
|------------------------------|----------------------------------|
|                              |                                  |
| <b>Diagnostics</b>           |                                  |
| Port mirroring               |                                  |
| Syslog                       |                                  |
| Broken wire detection        |                                  |
| Duplicate IP detection       |                                  |
| <b>Management</b>            | <b>Management Not Supported</b>  |
| SNMP                         | Compatible with Cisco tools: CNA |
| Smartports                   | CiscoWorks                       |
| DHCP per port                |                                  |
| Command-line interface (CLI) |                                  |
| <b>Application interface</b> |                                  |
| EtherNet/IP CIP Interface    |                                  |
| PROFINET                     |                                  |



## Glossary of terms

**Access Control Lists** allow you to filter network traffic. This can be used to selectively block types of traffic to provide traffic flow control or provide a basic level of security for accessing your network.

**CIP™ port control and fault detection allow** for port access based on Logix controller program or controller mode (idle/fault). Allows secure access to the network based on machine conditions.

**CIP Sync™ (IEEE 1588)** is the ODVA implementation of the IEEE 1588 Precision Time Protocol. This protocol allows high precision clock synchronization across automation devices. CIP Sync is an enabling technology for time-critical automation tasks such as accurate alarming for post-event diagnostics, precision motion and high precision first fault detection or sequence of events.

**Device Level Ring (DLR)** allows direct connectivity to a resilient ring network at the device level.

**DHCP per port (Dynamic Host Configuration Protocol)** allows you to assign a specific IP address to each port, confirming that the device attached to a given port will get the same IP address. This feature allows for device replacement without having to manually configure IP addresses. Encryption provides network security by encrypting administrator traffic during Telnet and SNMP sessions.

**EtherChannel** is a port trunking technology. EtherChannel allows grouping several physical Ethernet ports to create one logical Ethernet port. Should a link fail, the EtherChannel technology will automatically redistribute traffic across the remaining links.

**EtherNet/IP™ (CIP)** interface enables premier integration to the Integrated Architecture system with Studio 5000 AOP, Logix tags and View Faceplates. FlexLinks provides resiliency with a quick recovery time and load balancing on a redundant star network.

**IGMP Snooping (Internet Group Management Protocol)** constrains the flooding of multicast traffic by dynamically configuring switch ports so that multicast traffic is forwarded only to ports associated with a particular IP multicast group

**MAC ID Port Security** checks the MAC ID of devices connected to the switch to determine if it is authorized. If not, the device is blocked and the controller receives a warning message. This provides a method to block unauthorized access to the network.

**Network Address Translation (NAT)** provides 1:1 translations of IP addresses from one subnet to another. Can be used to integrate machines into an existing network architecture. Port Thresholds (Storm control & Traffic Shaping) allows you to set both incoming and outgoing traffic limits. If a threshold is exceeded alarms can be set in the Logix controller to alert an operator.

**QoS – Quality of Service** is the ability to provide different priority to different applications, users or data flows, to help provide a higher level of determinism on your network.

**REP (Resilient Ethernet Protocol)** – A ring protocol that allows switches to be connected in a ring, ring segment or nested ring segments. REP provides network resiliency across switches with a rapid recovery time ideal for industrial automation applications. Smartports provide a set of configurations to optimize port settings for common devices like automation devices, switches, routers, PCs and wireless devices. Smartports can also be customized for specific needs.

**SNMP Simple Network Management Protocol** is a management protocol typically used by IT to help monitor and configure network-attached devices.

**Static and InterVLAN Routing** bridges the gap between layer 2 and layer 3 routing providing limited static and connected routes across VLANs.

**STP/RSTP/MST Spanning Tree Protocol** is a feature that provides a resilient path between switches. Used for applications that require a fault tolerant network.

**VLANs with Trunking** is a feature that allows you to group devices with a common set of requirements into network segments. VLANs can be used to provide scalability, security and management to your network.

**802.1x Security** is an IEEE standard for access control and authentication. It can be used to track access to network resources and helps secure the network infrastructure.

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