

## I-300 SERIES

### Managed Industrial Switches

### Product Specifications

The Signamax I-300 Series Managed Industrial Switches are designed for the extreme environments typically found in industrial and outdoor applications. Housed in rugged enclosures, the I-300 series switches feature extended shock and vibration specifications along with wide operating temperature ratings. The fully redundant ring technology provides fault-tolerant networks with high availability and 20ms healing times using industry standard technologies.

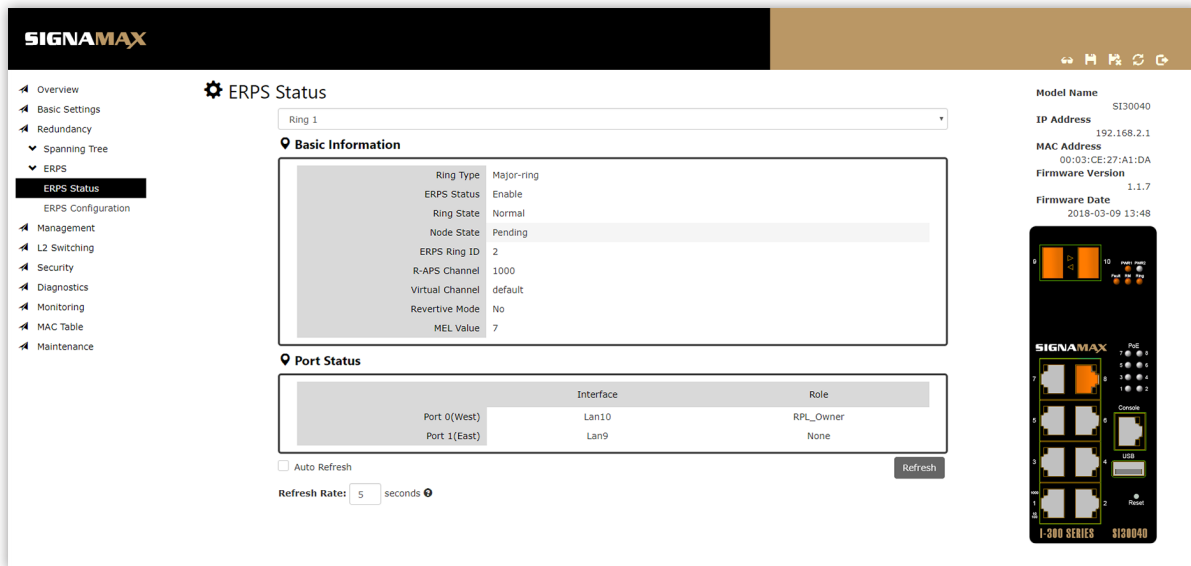


- Rugged IP30 enclosure with integrated DIN-Rail and wall mounting options
- Wide operating temperature: -40 to 167 °F
- Surge protection (4 kV LAN) for extreme outdoor environments
- Redundant terminal block DC inputs with overload and reverse polarity protection
- Cost-effective, reliable, and secure layer 2 switches
- Non-Blocking switches with up to 40Gbps bandwidth support
- Up to 240 watts PoE+ support
- ERPSv2 support for 20ms disconnection recovery time
- Gigabit SFP ports on all models
- USB port for image/configuration backup, restore, and upgrade
- 5 year hardware warranty & support at no additional cost

# Features for deployment in any solution.

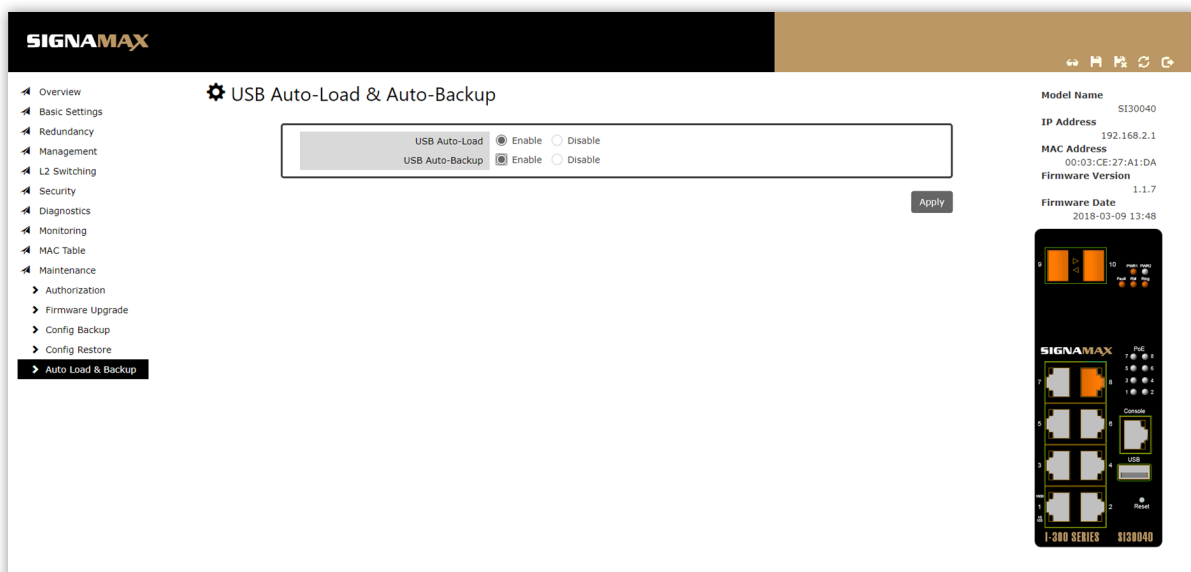
## RUGGED RELIABILITY:

The I-300 series industrial switches have IP30 rating, corrosion resistant, aluminum alloy cases and are hardened for vibration, shock, surge, and noise immunity. Components are built for harsh environments and temperature ranges. In case of fault, the I-300 series can be connected to an alarm siren that will be triggered when the fault is detected. Fully redundant ring technology creates fault-tolerant networks with high availability using industry standard technologies.



## SIMPLIFIED MANAGEMENT:

The I-300 series includes an easy to use Graphical User Interface that allows simple configuration and monitoring via a web browser. Fully deployable in minutes, this series has no need for a console cable or any command line configuration to get started or even recover from misconfiguration. The auto firmware upgrade and back features ensure the network is kept up-to-date with bug fixes, security updates, and new features without overburdening the network administrator.



## INTELLIGENT PoE:

The I-300 PoE switches support PoE+ up to 30W. The innovative PoE Scheduling allows the administrator complete control and flexibility regarding the power provided, whereas, the Keep Alive feature monitors attached devices and can reboot them in case of failure. Each individual PoE port can be configured for prioritization, scheduling, and consumption with dynamic power allocation.

**SIGNAMAX**

Overview  
Basic Settings  
Redundancy  
Management  
SNMP  
Industrial Protocols  
DHCP  
PoE  
PoE Configuration  
**Keep Alive**  
PoE Schedule  
PoE Priority  
UPnP  
L2 Switching  
Security  
Diagnostics  
Monitoring  
MAC Table  
Maintenance

**PoE Keep Alive**

No.	Detect	IP Address	Ping Interval	Hold Time
Port 1	<input type="checkbox"/> Enable		30	60
Port 2	<input type="checkbox"/> Enable		30	60
Port 3	<input type="checkbox"/> Enable		30	60
Port 4	<input type="checkbox"/> Enable		30	60
Port 5	<input type="checkbox"/> Enable		30	60
Port 6	<input type="checkbox"/> Enable		30	60
Port 7	<input type="checkbox"/> Enable		30	60
Port 8	<input type="checkbox"/> Enable		30	60

Apply

Model Name: SI30040  
IP Address: 192.168.2.1  
MAC Address: 00:03:CE:27:A1:DA  
Firmware Version: 1.1.7  
Firmware Date: 2018-03-09 13:48

**SIGNAMAX**  
I-300 SERIES SI30040

## FIBER CONNECTIVITY:

All I-300 series industrial switches include multiple fiber connectivity ports that enable deployment in chain and ring topologies. The 16 port switches include four SFP ports while the 8 port models include two SFP ports, each providing 1Gbps uplinks. The SI30010 model can aggregate 8 downstream fibers via 100/1000 SFP ports in addition to the 4 uplink SFP ports.

## ENTERPRISE GRADE:

The I-300 series runs a sophisticated operating system that provides a variety of advanced features including:

- DHCP Server
- Dynamic VLAN assignment and Auto Voice VLAN
- Link Aggregation (LACP)
- IGMP and MLD snooping
- ITU-T G.8032v2/Y.1344 (ERPSv2)
- 802.1ad Q-in-Q VLAN

**SIGNAMAX**

Overview  
Basic Settings  
Redundancy  
Management  
SNMP  
Industrial Protocols  
DHCP  
DHCP Server  
DHCP Server Binding  
DHCP Relay  
PoE  
UPnP  
L2 Switching  
Security  
Diagnostics  
Monitoring  
MAC Table  
Maintenance

**DHCP Server**

Server Status: DHCP Server Down  
Server Mode: ☒ Enable ☐ Disable



Start IP Address: 192.168.10.1  
End IP Address: 192.168.10.100  
Default Gateway: 192.168.10.254  
DNS Server: 8.8.8.8  
Lease Time: 300

Apply

Model Name: SI30040  
IP Address: 192.168.2.1  
MAC Address: 00:03:CE:27:A1:DA  
Firmware Version: 1.1.7  
Firmware Date: 2018-03-09 13:48

**SIGNAMAX**  
I-300 SERIES SI30040

# I-300 Series Models & Specifications

PART NUMBER		SI30010	SI30020
Switches			
Ports	RJ-45 10/100/1000 Ports	8	16
	100/1000 SFP Ports	8	0
	Gigabit SFP Ports	4	4
	PoE Ports	0	8
PoE	PoE Budget	N/A	240W
Performance	Switching Capacity	40Gbps	40Gbps
	Forwarding Rate	29.7Mpps	29.7Mpps
	MAC Addressing	16K	16K
Electrical & Environmental	Max Power Consumption	23W	263W
	MTBF	311K hrs	291K hrs
	Operating Temperature	-40 to 167 °F (-40 to 75 °C)	-40 to 167 °F (-40 to 75 °C)
Physical Characteristics	Dimensions	3.67 x 5.7 x 4.7 in (9.3 x 14.5 x 11.8 cm)	3.67 x 5.7 x 4.7 in (9.3 x 14.5 x 11.8 cm)
	Weight	3.48 lb (1.58 kg)	2.76 lb (1.25 kg)
	Mounting	DIN-Rail & Wall	DIN-Rail & Wall

## Specifications

### PERFORMANCE

16K MAC Addresses  
256MB DRAM  
12Mb Packet Buffer  
Supports 10K Jumbo Frames  
Wirespeed forwarding  
IPv4/IPv6 Dual Protocol Stack

### SECURITY

Broadcast/Multicast/Unknown Storm Control  
Up to 128 Access Control Lists (ACL) based on L2/L3/L4  
MAC Authentication  
AAA (IEEE 802.1X RADIUS/TACACS+)  
IP Source Guard  
Encrypt switch access with SSH and SSL

### LAYER 3

DHCP Client / Server / Relay

### LAYER 2

SFP ports support IEEE 802.3z (1000SX/LX/LHX/ZX)  
SI30010 SFP ports support IEEE 802.3u (100FX)  
IEEE 802.3x Flow Control

### Spanning Tree:

IEEE 802.1D Spanning Tree Protocol (STP),  
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP),  
IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP)

### Up to 4094 IEEE 802.1Q (802.3ac) VLANs:




Port-Based  
Auto Voice VLAN  
802.3ad Link Aggregation (static and LACP)

### Multicast:

IGMP v1/v2/v3 snooping  
IGMP Queries  
IGMP Immediate leave  
IGMP Static Multicast Addresses  
MLD Snooping  
IEEE 802.1AB LLDP/LLDP-MED  
ITU-T G.8032v2/Y.1344 - Ethernet Ring Protection Switching (ERPSv2)  
Q-in-Q

### QoS

Rate Limiting (Ingress/Egress Port-Based)  
Priority Queues Schedule (WRR/Strict Priority/Hybrid QoS)  
Port-Based QoS  
IPv4/IPv6 DSCP  
DiffServ  
Auto VOIP  
8 HW Queues per port for 802.1p priority tagging  
Policy based dynamic QoS

PART NUMBER		SI30030	SI30040	SI30050
Switches				
Ports	RJ-45 10/100/1000 Ports	16	8	8
	100/1000 SFP Ports	0	0	0
	Gigabit SFP Ports	4	2	2
	PoE Ports	0	8	0
PoE	PoE Budget	N/A	240W	N/A
Performance	Switching Capacity	40Gbps	20Gbps	20Gbps
	Forwarding Rate	29.7Mpps	14.9Mpps	14.9Mpps
	MAC Addressing	16K	16K	16K
Electrical & Environmental	Max Power Consumption	23W	257W	17W
	MTBF	331K hrs	335K hrs	369K hrs
	Operating Temperature	-40 to 167 °F (-40 to 75 °C)	-40 to 167 °F (-40 to 75 °C)	-40 to 167 °F (-40 to 75 °C)
Physical Characteristics	Dimensions	3.67 x 5.7 x 4.7 in (9.3 x 14.5 x 11.8 cm)	2.8 x 5.7 x 4.7 in (7.2 x 14.5 x 11.8 cm)	2.8 x 5.7 x 4.7 in (7.2 x 14.5 x 11.8 cm)
	Weight	2.76 lb (1.25 kg)	1.94 lb (0.88 kg)	1.87 lb (0.85 kg)
	Mounting	DIN-Rail & Wall	DIN-Rail & Wall	DIN-Rail & Wall

## MANAGEMENT

Web-based Graphical User Interface (GUI)  
 Industry-standard CLI (Telnet/SSH) with context-sensitive help  
 Console management port on the front panel for ease of access  
 USB Port  
 Alarm Relay Contact  
 Auto Firmware Upgrade  
 Auto Configuration Backup  
 Comprehensive SNMP MIB support for standards based device management  
 Dual Image/Configuration  
 RMON (groups 1,2,3 and 9)  
 NTP  
 SNMP v1/v2/v3  
 Modbus  
 UPnP

## DIAGNOSTIC TOOLS

Digital Diagnostic Monitoring (DDM) on SFP Ports  
 Ping Polling  
 Port Mirror  
 Event/Error Log/Syslog/SMTP Alerts

## PHYSICAL CHARACTERISTICS

**Housing:** IP30 protection, aluminum alloy case  
**Mounting:** DIN-Rail and wall mounting

## PoE

Support IEEE 802.3af/IEEE802.3at on each port  
 Dynamic Power Allocation  
 PoE Scheduling  
 PoE Keep Alive

## ELECTRICAL CHARACTERISTICS

### DC Input Range:

**Non-PoE Models:** 12 ~ 48V DC, Dual Redundant

**PoE Models:** 48 ~ 57V DC, Dual Redundant

4kV LAN Surge protection

Reverse polarity and overload current protection

## ENVIRONMENTAL REQUIREMENTS

**Storage Temperature:** -40 to 185°F (-40 to 85°C)

**Operating/Storage Humidity:** 5 to 95% (non-condensing)

## CERTIFICATIONS

**Emissions:** CE Mark: EN 55022, Class A; FCC Part 15 Class A

**Immunity:** IEC 61000-4-2/3/4/5/6/8

**Environmental:** Shock (IEC 60068-2-27), Free Fall (IEC 60068-2-32), Vibration (IEC 60068-2-6)

## WARRANTY

Five Years



# Ordering Information & Accessories



## INDUSTRIAL SWITCHES

PART NO.	DESCRIPTION
SI30010	16 Port (8 SFP) Industrial Gigabit Managed Switch
SI30020	16 Port Industrial Gigabit PoE+ Managed Switch
SI30030	16 Port Industrial Gigabit Managed Switch
SI30040	8 Port Industrial Gigabit PoE+ Managed Switch
SI30050	8 Port Industrial Gigabit Managed Switch

## ACCESSORIES

AC30020	I-300 Series Replacement Console Cable
AM30120	I-300 Series Replacement Wall-Mounting Kit

## POWER SUPPLIES

AP10010	48W Industrial Power Supply - 24V DC (-40 to 158°F)
AP30010	120W Power Industrial Supply - 48V DC (-40 to 140°F)
AP30020	240W Power Industrial Supply - 48V DC (-40 to 140°F)

Visit [www.signamax.com](http://www.signamax.com) for specification information.

## SFP MODULES

PART NO.	DESCRIPTION
065-79SXMG-H	1000SX Multi-Mode SFP Module 850nm up to 550m
065-79LXMG-H	1000LX Single-Mode SFP module 1310nm up to 10km
065-79ZXMG-H	1000ZX Single-Mode SFP Module 1550nm up to 80km
065-73FXMM5MG-H	100FX / OC-3 / STM-1 Multi-Mode SFP Module 1300nm up to 5km
065-73FXSM20MG-H	100FX / OC-3 / STM-1 Single-Mode SFP Module 1300nm up to 20km

For a complete list of SFP Modules visit [www.signamax.com](http://www.signamax.com).



# SIGNAMAX™

999 NW 159th Drive, Miami, FL 33169  
T: 305-944-7710/800 446 2377 E: [sales@signamax.com](mailto:sales@signamax.com)

CONNECT WITH US



[www.signamax.com](http://www.signamax.com)

PSS-1300\_A-04-18