SOLUTIONS

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.

SIGNAMAX				⇔ M K C G
 Overview Basic Settings Redundancy Spanning Tree 	ERPS Status Ring 1 P Basic Information		•	Model Name SI30040 IP Address 192.168.2.1 MAC Address
ERPS ERPS Status ERPS Configuration Management L2 Switching Security Diagnostics Monitoring MAC Table Maintenance	ERPS Status Ring State ERPS Ring ID R-APS Channel Virtual Channel Revertive Mode MEL Value	Normal Pending 2 1000 default No		00:03:CB:27:A1:DA Firmware Version Firmware Date 2018-03-09 13:48
	Port Status Port O(West) Port 1(East) Auto Refresh Refresh Rate: 5 seconds		Role RPL_Owner None Rofresh	

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 as 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.

SIGNAMAX		⇔ M M C G
 Overview Basic Settings Redundancy Management L2 switching Security Diagnostics Monitoring Mat Chable Maintenance Authorization Firmware Upgrade Config Restore Auto Load & Backup 	5 Auto-Load & Auto-Backup USB Auto-Backup B Enable Disable Disable	Hodel Name 53040 19 Adress 19:2.18:2.1 MAC Address 00:03:22:71:10A Firmware Version 1.1.7 Firmware Data 2018-03-09 13:48 SIGNANAN SIGNAN SIGNANAN SIGNANAN SIGNANAN SIGNANAN SIGNANA

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						• M M S G
 Overview Basic Settings Redundancy 	Keep Alive	-				Model Name SI30040 IP Address 192.168.2.1
A Management	No.	Detect	IP Address O	Ping Interval 🕤	Hold Time 😡	MAC Address 00:03:CE:27:A1:DA
✓ SNMP	Port 1	Enable		30	60	Firmware Version
Industrial Protocols	Port 2	Enable		30	60	1.1.7 Firmware Date
✓ DHCP	Port 3	Enable		30	60	2018-03-09 13:48
✓ PoE						
PoE Configuration	Port 4	Enable		30	60	9 2 10 meter meter
Keep Alive PoE Schedule	Port 5	Enable		30	60	
PoE Priority	Port 6	Enable		30	60	
> UPnP	Port 7	Enable		30	60	
A L2 Switching	Port 8	Enable		30	60	SIGNAMAX Pol
A Security		0		30	60	
 Diagnostics 						
Monitoring					Apply	Console
MAC Table						
A Maintenance						•

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)

A Ba	verview asic Settings	CHCP :	Server	
A Re	edundancy	Г		
A M	anagement		Server Status	DHCP Server
* :	SNMP		Server Mode	Enable
> 1	Industrial Protocols		Start IP Address	192.168.10
¥ (DHCP		End IP Address	192.168.10
_	DHCP Server		Default Gateway	192.168.10
	DHCP Server Binding DHCP Relay		DNS Server	8.8.8.8
~ 1			Lease Time	300
> 1	UPnP	L		500
A L2	2 Switching			
A Se	ecurity			
A Di	iagnostics			
- M	onitoring			
A M.	AC Table			
	aintenance			

- IGMP and MLD snooping
- ITU-T G.8032v2/Y.1344 (ERPSv2)
- 802.1ad Q-in-Q VLAN

		↔ 🗎 👫 💭 🕞 Model Name SI30040
er Down		IP Address 192.168.2.1 MAC Address 00:03:CE:27:A1:DA
0.1		Firmware Version 1.1.7 Firmware Date
0.100		2018-03-09 13:48
0.234	θ	P P P P P P P P P P P P P P P P P P P
	Apply	

I-300 Series Models & Specifications

PART NUMBER		SI30010	SI30020
Switches			
	RJ-45 10/100/1000 Ports	8	16
Ports	100/1000 SFP Ports	8	0
	Gigabit SFP Ports	4	4
	PoE Ports	0	8
ΡοΕ	PoE Budget	N/A	240W
	Switching Capacity	40Gbps	40Gbps
Performance	Forwarding Rate	29.7Mpps	29.7Mpps
	MAC Addressing	16K	16K
	Max Power Consumption	23W	263W
Electrical & Environmental	MTBF	311K hrs	291K hrs
	Operating Temperature	-40 to 167 °F (-40 to 75 °C)	-40 to 167 °F (-40 to 75 °C)
Physical	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)
Characteristics	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
Swit	ches			
	RJ-45 10/100/1000 Ports	16	8	8
Ports	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
	Switching Capacity	40Gbps	20Gbps	20Gbps
Performance	Forwarding Rate	29.7Mpps	14.9Mpps	14.9Mpps
	MAC Addressing	16K	16K	16K
	Max Power Consumption	23W	257W	17W
Electrical & Environmental	MTBF	331K hrs	335K hrs	369K hrs
Liviolincia	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	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)
Characteristics	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 h Console management port on the front panel for ease of acc 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



help cess	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



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 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.		







