Provide Fast, Seamless, and Resilient Connectivity

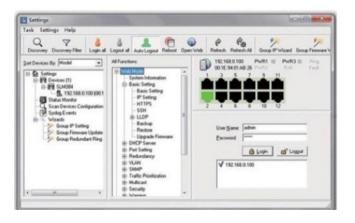
At Emerson, we've thought differently about what you need at the point of control and have engineered powerful, rugged, and compact industrial Ethernet switches to provide critical machine-to-machine information:

- Standalone and connected devices to support unmanaged, fully managed, rack mounted, and PROFINET applications
- Designed for plant process areas to work in harsh environments subject to extreme, temperatures, humidity, and vibration
- Work with an Ethernet LAN to replace proprietary networks, improve network reliability, and simplify deployment



#### **High performance & Connectivity**

Our industrial-grade managed Ethernet switches, with redundant ring technology, reliably support the largest amounts of real-time data in the market. Managed switches protect your mission-critical applications from network interruptions or temporary malfunctions with Fast Network Recovery technology. PACSystems industrial Ethernet switches offer one of the fastest recovery times in the industry.



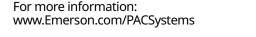
#### **Rugged & Reliable**

PACSystems industrial Ethernet switches are uniquely designed with redundant power inputs, the broadest operating temperature range available, and Fast Network Recovery technology to enable outstanding reliability and stability in harsh environments.

This superior, rugged design makes the PACSystems industrial Ethernet Switch ideal for Pipeline, Transportation, Well2Tank, Water/ Waste Water, and other demanding applications.

#### **Easy to Troubleshoot**

Available PROFINET Managed switches make it easier for OT Operators to troubleshoot since they can view the switches as part of their control system. With the network management software, the network administrator can manage centralized configuration, visualize management, and complete network monitoring with an early warning system. These features work together to maintain a stable and reliable industrial network.



**PACSYSTEMS** 



## **Unmanaged & Lite Managed Switch Specification**

Part Number	IC086SLN050	IC086SLN080	IC086SLN240	IC086SLN042MM IC086SLN042SS	IC086SLM042MM IC086SLM042SS
Managed	No	No	No	Yes	Yes
10/100BaseT(X) Ports	5	8	24	4	4
100Base-FX Ports	-	-	-	2 (SC Connector)	2 (SC Connector)
Fiber Mode	-	-	-	MM – Multi Mode SS- Single Mode	MM – Multi Mode SS- Single Mode
Ethernet Standard	IEEE 802.3 for 10Bar IEEE 802.3u for 100 IEEE 802.3x for Flow	Base-TX	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control	IEEE 802.3: 10Base-T IEEE 802.3u: 100Bas and 100Base-FX IEEE 802.3x for Flow IEEE 802.1D: STP IEEE 802.1w: RSTP	e-TX
				IEEE 802.1AB: LLDF	P)
MAC Table	1024	2048	8192	2048	1024
Processing	Store-and- Forward	Store-and- Forward	Store-and- Forward	Store-and- Forward	Store-and- Forward
Redundant Input Power	Yes	Yes	Yes	Yes	Yes
Power Consumption (Typ.)	3 Watts	4 Watts	9.6 Watts	7 Watts	7 Watts
Overload Current Protection	Yes	Yes	Yes	Yes	Yes
Reverse Polarity Protection	Yes	Yes	Yes	Yes	Yes
Enclosure	IP30	IP30	IP30	IP30	IP30
Dimensions (W x D x H in mm)	26.1 × 70 × 95	26.1 x 94.9 x 144.3	96 .4x108.5 x 154	52 x 106.1 x 144.3	52 x 106.1 x 145.4
Weight	205g	391g	1052g	382g	670g
Storage Temperature	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Operating Humidity	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing

Part Number	IC086SLN050	IC086SLN080	IC086SLN240	IC086SLN042MM IC086SLN042SS	IC086SLM042MM IC086SLM042SS
EMI	FCC Part 15, CISPF	FCC Part 15, CISPR (EN55022) class A			
EMS		EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11			
Shock	IEC60060-2-27	IEC60060-2-27			
Free Fall	IEC60068-2-32	IEC60068-2-32			
Vibration	IEC60068-2-6	IEC60068-2-6			
Safety	EN62368-1	EN62368-1			

# **Managed Switch Specification**

Part Number	IC086SLM082	IC086SLM162	IC086SLM084
10/100Base-T(X) Ports	8	16	-
10/100/1000Base-T(X) Ports	-	-	8
100/1000Base-X SFP Port	2	-	12
Gigabit Combo Port with 10/100/1000Base-T(X) and100/1000Base-X SFP ports	-	2	-
Ethernet Standard	IEEE 802.3: 10Base-T		IEEE 802.3: 10Base-T
	IEEE 802.3u: 100Base-TX and 1 IEEE 802.3z 1000Base-X	00Base-FX	IEEE 802.3u: 100Base-TX and 100Base-FX
	IEEE 802.3x: flow control IEEE 8	802.3ad: LACP IEEE 802.1D: STP	IEEE 802.3z: 1000Base-X
	IEEE 802.1p: COS		IEEE 802.3ab: 1000Base-T
		IEEE 802.1Q: VLAN tagging IEEE 802.1W: RSTP IEEE 802.	
	33 3		IEEE 802.3ad: LACP
	IEEE 802.1X: Authentication IEE	EE 802.1AB: LLDP	IEEE 802.1D: STP IEEE 802. 1p: COS
			IEEE 802.1Q: VLAN tagging
			IEEE 802.1W: RSTP
			IEEE 802.1s: MSTP
			IEEE 802.1x : Authentication
			IEEE 802.1AB: LLDP
MAC Table	8192		8192
Processing	Store-and-Forward		Store-and-Forward
Jumbo Frame	-		9.6K

## **Managed Switch Specification (Continued)**

Part Number	IC086SLM082	IC086SLM162	IC086SLM084
Security Feature	Enable/Disable ports, MAC be Port-based network access of Q-in-Q VLAN for performance VLAN space.  VLAN top segregate and sector RADIUS centralized password SNMP v 1/v2c/v3 encrypted access security	control (802.1x), support se &security to expand the ure network traffic, d management,	Device blinding security feature. Enable/Disable ports.  MAC-based port security. Port-based network access control (802.1x).  VLAN to segregate and secure network traffic. RADIUS centralized password management. SNMP v3 encrypted authentication and access security.
Software Feature	STP/RSTP/MSTP (IEEE802.1D Redundant Ring with recove over 250 units.  TOS/ Diffserv supported. Quality of Service (802.1p) for VLAN (802.1Q) with VLAN tag IGMP Snooping for multicas Port configuration, status, st SNTP for synchronizing of closupport 1588 PTP Client (Preclock synchronization.  DHCP Server / Client support MVR (Multicast VLAN Registress)	ry time less than 10ms or real-time traffic. gging and GVRP supported t filtering. tatistics, monitoring, security. ocks over network. ecision Time Protocol) t. Port Trunk support.	STP/RSTP/MSTP (IEEE 802.1D/w/s). Redundant Ring with recovery time less than 30ms over 250 units.  TOS/Diffserv supported. Quality of Service (802.1p) for real-time traffic. VLAN (802.1Q) with VLAN tagging and GVRP supported.  IGMP Snooping.  IP-based bandwidth management.  Application-based QoS management. DOS/ DDOS auto prevention. Port configuration, status, statistics, monitoring, security. DHCP Client/ Server.
Network Redundancy	STP, RSTP, MSTP Redundant-Ring		STP, RSTP, MSTP Redundant-Ring
QoS	Yes		Yes

## **Managed Switch Specification (Continued)**

Part Number	IC086SLM082	IC086SLM162	IC086SLM084
Warning/ Monitoring	Relay output for fault event alarming. Syslog server / client to record and view events.  Include SMTP for event warning notification via email.		Relay output for fault event alarming. Syslog server/ client to record and view events.
	Event selection support.		Include SMTP for event warning notification via email. Event selection support.
Redundant Input Power	Triple DC inputs. 12~48VDC on 7-pin terminal block, 12~45VDC on power jack	Dual DC inputs. 12~48 VDC on 6-pin terminal block	Dual DC inputs. 12~48 VDC on 6-pin terminal block
Power Consumption (Typ.)	9 Watts	12 Watts	16.8 Watts
Overload Current Protection	Yes	Yes	Yes
Reverse Polarity Protection	Yes	Yes	Yes
IP degree	IP30	IP30	IP30
Dimension (W x D x H in mm)	52 x 106.1 x 144.3	96.4 x 108.5 x 154	96.4 x 108.5 x 154
Weight	730g	1220g	1210g
Storage Temp	-40°C to +85°C		
Operation Temp	-40°C to +70°C		
Operation Humidity	5% to 95% non-condensing		
EMI	FCC Part 15, CISPR (EN55022	) class A	
EMS	EN61000-4-2 (ESD), EN61000- 4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4- 8, EN61000-4-11		
Shock	IEC60068-2-27		
free fall	IEC60068-2-32		
Vibration	IEC60068-2-6		
Safety	EN60950-1	EN62368-1	EN60950-1

## **Rack Mounted Switch Specification**

Part Number	IC086SLM242	IC086SLM168
10/100Base-T(X)	24	-
100/1000Base-X SFP Port	-	8
Gigabit Combo Port with 10/100/1000Base-T(X) and 100/1000Base-X SFP	2	16
Ethernet Standards	IEEE 802.3 for 10Base-T	IEEE 802.3 for 10Base-T
	IEEE 802.3u for 100Base-TX and 100Base-FX	IEEE 802.3u for 100Base-TX and 100Base-FX
	IEEE 802.3z for 1000Base-X	IEEE 802.3ab for 1000Base-T
	IEEE 802.3x for Flow control IEEE 802.3ad for LACP	IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control
	(Link Aggregation Control Protocol )  IEEE 802.1D for STP (Spanning Tree Protocol)	IEEE 802.3ad for LACP (Link Aggregation Control Protocol)
	IEEE 802.1p for COS (Class of Service)	IEEE 802.1p for COS (Class of Service)
	IEEE 802.1Q for VLAN Tagging	IEEE 802.1Q VLAN Tag
	IEEE 802.1w for RSTP (Rapid Spanning Tree Pro- tocol)	IEEE 802.1w for RSTP (Rapid Spanning Tree Pro- tocol)
	IEEE 802.1x for Authentication	IEEE 802.1s for MSTP (Multiple spanning tree protocol)
	IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)	IEEE 802.1x for Authentication
		IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8192	8192
Priority Queues	4	4
Processing	Store-and-Forward	Store-and-Forward
Switch Properties	Switching latency: 7 us Switching bandwidth: 8.8Gbps	Switching latency: 7 us Switching bandwidth: 48Gbps
	Max. Number of Available VLANs: 4095 IGMP multicast groups: 256 for each VLAN	Max. Number of Available VLANs: 4095 IGMP multicast groups: 256 for each VLAN
	Port rate limiting: User Define	Port rate limiting: User Define
Jumbo Frame	9.6K	9.6K

Part Number	IC086SLM242	IC086SLM168
Security Feature	Enable/disable ports, MAC based port security Port based network access control	HTTPS/SSH Enhanced network security protocol Safety device binding
	(802.1x) VLAN (802.1Q ) to segregate and secure network traffic	Enable/disable ports, MAC based port security Port based network access control
	Radius centralized password management SNMP V1/V2c/V3 encrypted authentication and access security	(802.1x) single 802.1x and multi 802.1x  MAC address based authentication
	and decess security	QoS distribution
		Visitor VLAN
		The MAC address restriction
		Authentication and authorization of Web and CLI VLAN (802.1Q ) to segregate and secure network traffic
		Radius centralized password management SNMP V1/V2c/V3 encrypted authentication and access security
Software Feature	STP/RSTP (IEEE 802.1D/w)	STP/RSTP (IEEE 802.1D/w)
	Redundant Ring with recovery time less than 10ms over 250 units	Redundant Ring with recovery time less than 30ms over 250 units
	Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported	Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported
	IGMP v2/v3 (IGMP snooping support) for	IGMP snooping
	multi- cast filtering  Port configuration, status, statistics, monitoring, security	Bandwidth management based on IP Management application based on QoS DoS/DDoS automatic defense
	SNTP for synchronizing of clocks over network DHCP Server / Client support	Port configuration, monitoring, security, state DHCP client / server / relay
	Port Trunk support	SMTP client
		Modbus TCP
Network Redundancy	Redundant-Ring, STP, RSTP	Redundant-Ring, STP, RSTP, MSTP
QoS	Yes	Yes
Warning/ Monitoring	The fault alarm output  Through the system log /server/client record and browse events	Through the system log /server/client record and browse events
		Support SMTP through Email issued
	Support SMTP through Email issued	warning notice
	warning notice	Support system log event selection
	Support system log event selection	

Part Number	IC086SLM242	IC086SLM168	
Input Power	Dual 100-240VAC	100-240VAC	
Power Consumption (Typ.)	15.2 W	28.2 W	
Overload Current Protection	Yes	-	
IP degree	IP30	IP30	
Dimension (W x D x H mm)	440 x 200 x 44	431 x 342 x 44	
Weight (g)	2695g	4117g	
Storage Temp	-40°C to +85°C		
Operation Temp	-40°C to +70°C		
Operation Humidity	5% to 95% non-condensing		
EMI	FCC Part 15, CISPR (EN55032) class A		
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11		
Shock	IEC60068-2-27		
Free Fall	IEC60068-2-32		
Vibration	IEC60068-2-6		
Safety	EN62368-1		

Part Number	IC086SLM244	IC086SLM244LL (Layer 3)
100/1000Base-T(X)	24	24
100/1000Base-X SFP Port	4	-
1000/10000Base-X SFP	-	4
Ethernet Standards	IEEE 802.3 for 10Base-T	IEEE 802.3 for 10Base-T
	IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T	IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T
	IEEE 802.3z for 1000Base-X IEEE 802.3x	IEEE 802.3z for 1000Base-X
	for Flow control	IEEE 802.3ae: 10Gigabit Ethernet IEEE
	IEEE 802.3ad for LACP (Link Aggregation Control Protocol )	IEEE 802.3x for Flow control
	IEEE 802.1p for COS (Class of Service)	IEEE 802.3ad for LACP (Link Aggregation Control Protocol )
	IEEE 802.1Q VLAN Tag	IEEE 802.1p for COS (Class of Service)
	IEEE 802.1w for RSTP (Rapid Spanning Tree Pro- tocol)	IEEE 802.1Q VLAN Tag
	IEEE 802.1s for MSTP (Multiple spanning tree protocol)	IEEE 802.1w for RSTP (Rapid Spanning Tree Pro- tocol)
	IEEE 802.1x for Authentication	IEEE 802.1s for MSTP (Multiple spanning tree protocol)
	IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)	IEEE 802.1x for Authentication
	(LITIK Layer Discovery Frotocol)	IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8192	32K
Priority Queues	8	8
Processing	Store-and-Forward	Store-and-Forward
Switch Properties	Switching latency: 7 us	Switching latency: 7 us
	Switching bandwidth: 56Gbps	Switching bandwidth: 128Gbps
	Max. Number of Available VLANs:4095 IGMP multicast groups: 256 for each VLAN	Max. Number of Available VLANs:4095 IGMP multicast groups: 128 for each VLAN
	Port rate limiting: User Define	Port rate limiting: User Define
Jumbo Frame	10K	10K

Part Number	IC086SLM244	IC086SLM244LL (Layer 3)
Security Feature	HTTPS/SSH Enhanced network security protocol Safety device binding Enable/disable ports, MAC based port security Port based network access control (802.1x) single 802.1x and multi 802.1x MAC address based authentication QoS distribution	Device binding security feature. Enable/disable ports, MAC based port security Port based network access control (802.1x) single 802.1x and multi 802.1x  MAC address based authentication QoS distribution  Visitor VLAN
	Visitor VLAN Specifications  The MAC address restriction TACACS+  Authentication and authorization of Web	The MAC address limit TACACS+ VLAN (802.1Q ) to segregate and secure network traffic
	and CLI VLAN (802.1Q ) to segregate and secure network traffic  Radius centralized password management	Radius centralized password management SNMP V1/V2c/V3 encrypted authentication and access security.
	SNMP V1/V2c/V3 encrypted authentication and access security	Web and CLI authentication and authorization (15 Levels)  IP source guard.

Part Number	IC086SLM244	IC086SLM244LL (Layer 3)
Software Feature	STP/RSTP (IEEE 802.1D/w)	Hardware routing, RIP and static routing.
	Redundant Ring with recovery time less	IEEE 1588 v2 clock synchronization
	than 30ms over 250 units	IEEE 802.1D Bridge, auto MAC address learning/ aging and MAC address(static)
	Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging	Multiple Registration Protocol (MRP)
	and GVRP supported	Multiple VLAN Registration Protocol
	IGMP snooping	(MVRP) TOS/Diffserv supported
	Bandwidth management based on IP Management application based on QoS DoS/DDoS automatic defense	QoS (802.1p) for real time traffic VLAN(802.1Q) with VLAN tagging and GVRP support
	Port configuration, monitoring, security,	Voice VLAN
	state DHCP client / server / relay	IGMP v2/v3 Snooping
	The SMTP client Modbus TCP	IP-based bandwidth management Application-based QoS management DOS/ DDOS auto prevention
		Port Configuration, status, statistics, monitoring, security
		DHCP Sever/Client/Snooping, DHCP Relay DNS client proxy
		ARP inspection
		SMTP client
Network Redundancy	Redundant-Ring, STP, RSTP, MSTP	Redundant-Ring, STP, RSTP, MSTP
Warning/ Monitoring	Through the system log /server/client record and browse events	Through the system log /server/client record and browse events
	Support SMTP through Email issued warning notice	Support SMTP through Email issued warning notice
	Support system log event selection	Support system log event selection
Input Power	100-240VAC	Dual 100-240VAC/100-370VDC
Power Consumption (Typ.)	36Watts	43.5 W
Overload Current Protection	-	Yes
IP degree	IP30	IP30
Dimension (W x D x H mm)	431.7 x 342 x 44	440x 356 x 44
Weight (g)	4210g	6600g
Operation Temp	-40°C to +70°C	
Operation Humidity	5% to 95% non-condensing	

Part Number	IC086SLM244	IC086SLM244LL (Layer 3)
EMI	FCC Part 15, CISPR (EN55032) class A	FCC Part 15, CISPR (EN55032) class A
		EN50155 (EN50121-3-2, EN55011, EN50121-4)
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
Safety	EN60950-1	

## **PROFINET Ethernet Switch Specification**

Part Number	IC086GLM064	IC086GLM082	IC086GLM104		
100/1000Base-T(X)	6	8	10		
100/1000Base-X SFP Port	4	2	4		
Ethernet Standards	IEEE 802.3 for 10Base-T				
	IEEE 802.3u for 100Base-TX and 100Base-FX				
	IEEE 802.3ab for 1000Base-T				
	IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control				
	IEEE 802.3ad for LACP (Link Aggregation Control Protocol)				
	IEEE 802.1Q VLAN Tag				
	IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol)				
	IEEE 802.1s for MSTP (Multiple spanning tree protocol)  IEEE 802.1x for Authentication  IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)				
MAC Address	8K				
Priority Queues	8				
Processing	Store-and-Forward, L2 wire-speed/non-blocking switching engine				
Switch Properties	VLANs: 256				
	IGMP v1, v2 and V3				
	IGMP snooping and querying				
Jumbo Frame	9K Bytes				

## **PROFINET Ethernet Switch Specification (Continued)**

Part Number	IC086GLM064	IC086GLM082	IC086GLM104		
Security Feature	HTTP, HTTPs, SSH				
	IP and MAC-based access control				
	IEEE 802.1X authentication Network Access Control Multicast/Broadcast/Flooding Storm Control				
	Port-based /tag-based VLAN, IEEE 802.1ad/QinQ VLAN, Protocol-based VLAN Radius Client for Management				
	Cisco-like CLI (command line interface) WEB-based Management				
	SNMP v1, v2c & v3 Telnet (5 sessions)				
	Configuration import/export				
	Firmware upgrade				
Software Feature	IGMP v1, v2 and v3 with up to 512 multicast groups				
	IGMP snooping and querying				
	Immediate leave and leave proxy				
	Throttling and filtering				
	IEEE 802.1ab Link layer Discovery Protocol (LLDP)				
	DHCP Client, Server, Snooping, Relay				
	Media Redundancy Protocol				
PROFINET Feature	PROFINET GSD file, PROFINET I/O parameters, I/O cyclic data				
	PROFINET IO version 2.3, GSDML V2.25				
	Plug-and-play operation and compatibility with the PROFINET standard v2.3				
	PNIO System Redundancy				
	MRP Manager				
	MRP Client				
Network Redundancy	Link loss recovery < 20ms				
	Single & Multiple rings; dual-homing; ring-coupling;				
	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP				
	Static trunk or Dynamic via LACP (Link Aggregation Control Protocol)				
Diagnostic	nostic Syslog				
	Ethernet Copper connection diagnostic tool				
Redundant Input Power	12-58VDC				
Power Consumption (Typ.)	Max. 14Watt	Max. 12.5Watt	Max. 17Watt		
Transient Protection	> 15,000 watts peak				

## **PROFINET Ethernet Switch Specification (Continued)**

Part Number	IC086GLM064	IC086GLM082	IC086GLM104	
Reverse Power Protection	Yes			
IP degree	IP30			
Dimension (W x D x H mm)	77 x 128 x 154	77 x 128 x 154	77 x 128 x 154	
Weight (g)	1049g	1047g	1077g	
Operation Temp	-40°C to +70°C			
Operation Humidity	5% to 95% non-condensing			
EMI	FCC Part 15, CISPR (EN55032) class A			
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS)			
Shock	IEC60068-2-27			
Free Fall	IEC60068-2-32			
Vibration	IEC60068-2-6			
Safety	UL/CSA C22, EN61010-1, CE			

#### **Accessories**

Part Number	IC086SFP1MM	IC086SFP1SS	IC086SFP2MM	IC086SFP2SS	IC086SFP3MM
Speed	100Mbps	100Mbps	1000Mbps	1000Mbps	10000Mbps
Fiber Mode	Multi-Mode	Single-Mode	Multi-Mode	Single-Mode	Multi -Mode
Typical Distance	2 km	30 km	550 m	10 km	300m
Operating Temperature	40°C to +85°C				
Wavelength	1310 nm	1310 nm	850 nm	1310 nm	850 nm
Optical Output Power 9/125µm fiber (Max. TX)	-	-8 dBm	-	-3 dBm	
Optical Output Power 9/125µm fiber (Min. TX)	-	-15 dBm	-	-9.5 dBm	
Optical Output Power 62.5/125µm fiber (Max. TX)	-14 dBm	-	-4 dBm		-1dBm
Optical Output Power 62.5/125μm fiber (Min. TX)	-20 dBm	-	-9.5 dBm		-6.5 dBm
Optical Output Power 50/125µm fiber (Max. TX)	-14 dBm	-	-4 dBm	-	-1dBm
Optical Output Power 50/125µm fiber (Min. TX)	-23.5 dBm	-	-9.5 dBm	-	-6.5 dBm
Optical Input Power- minimum (Sensitivity)	-31 dBm		-18 dBm	-20 dBm	-9.9 dBm
Optical Input Power maximum (Saturation)	-8 dBm	0 dBm	0 dBm	-3 dBm	-1dBm
Link Budget	7.5 dB	19 dB	8.5 dB	10.5 dB	3.4 dB

#### **Americas Support - Technical and Commercial**

Phone: 1-888-565-4155 or 1-434-214-8532 (if toll free 800 option is unavailable)

Email for Technical Support: support.mas@Emerson.com

Email for Commercial Support: customercare.mas@Emerson.com

Primary language of support: English

#### Europe, Middle East, & Africa Support - Technical and Commercial

Phone: +800-4-444-8001 or +420-225-379-328

(if toll free 800 option is unavailable or dialing from a mobile telephone)

Email for Technical Support: support.mas.emea@Emerson.com

Email for Commercial Support: customercare.emea.mas@Emerson.com

Primary languages of support: English, German, Italian, Spanish

#### **Asia Support - Technical and Commercial**

Phone: +86-400-842-8599 for Greater China

+65-6955-9413 (All Other Countries)

Email for Technical Support: support.mas.apac@Emerson.com

Email for Commercial Support Asia: customercare.cn.mas@Emerson.com

Primary languages of support: Chinese, English

Support Website: www.Emerson.com/iac-support

Home Website: www.Emerson.com/PACSystems

Contact Us www.Emerson.com/contactus