

## Product Selection Guide

### Industrial Rack-Mount Gigabit/PoE/Fast Ethernet Switch

Managed Switch ★★★



RGS-7244GP / 7244GP-E



RGS-7168GCP / 7168GCP-E



RES-3242GC / 3242GC-E



RGPS-7244GP

Port Number	RGS-7244GP / 7244GP-E		RGS-7168GCP / 7168GCP-E		RES-3242GC / 3242GC-E		RGPS-7244GP
Number of ports	28		24		26		28
10/100Base-T(X) RJ45 Ports	-		-		24		24(P.S.E)
10/100/1000Base-T(X) Ports	24		-		-		
100Base-FX Fiber Ports	-		-		-		
1000Base-X Fiber Ports	-		-		-		
100Base-FX SFP Ports	-		-		-		
1000Base-X SFP Ports	4		8		-		4
Gigabit Combo Ports	-		16		2		
<b>Power Redundancy</b>							
DC Terminal Block	-	2	-	2	-	2	
DC Power Jack	-		-		-		
AC Power Cord	1	1	1	1	1	1	
<b>Installation</b>							
DIN-Rail Mounting	-		-		-		
Wall Mounting	-		-		-		
Rack Mounting	•		•		•		1
<b>Mechanical</b>							
Casing Protection	IP-30		IP-30		IP-30		IP-30
Dimension (mm)	444(W)x200(D) x44(H) mm	444(W)x343(D) x44(H) mm	444(W)x200(D) x44(H) mm	444(W)x343(D) x44(H) mm	444(W) x 200(D) x 44(H) mm		444(W) x 200(D) x 44(H) mm
<b>Operating Temperature</b>							
-10 to 60°C	•		•		•		•
-40 to 70°C	-		-		-		•
<b>Network Redundancy</b>							
O-Ring	•		•		•		•
Open-Ring	•		•		•		•
O-RSTP	-		-		•		
STP/RSTP	Compatible		Compatible		•		Compatible
MSTP	•		•		•		•
<b>Management and Control</b>							
802.1X	•		•		•		•
Rate Limit	•		•		•		•
Port Mirror	•		•		•		•
Port Security	•		•		•		•
IGMP v2/v3	•		•		•		•
QoS Port Base/COS/TOS	•		•		•		•
Port Trunk Static/LACP	•		•		•		•
LLDP	•		•		•		•
System Alarm	SYSLOG / SNMP Trap	SYSLOG / SNMP Trap / Relay	SYSLOG / SNMP Trap	SYSLOG / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay		LOG / SMTP / SNMP Trap / Relay
DHCP	Server / Client		Server / Client		Server / Client		Server / Client
VLAN	802.1Q		802.1Q		Port-Based / 802.1Q / Q-in-Q / GVRP		802.1Q
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)
<b>Warranty</b>	2 years						

Industrial Gigabit Ethernet Switch

Managed Switch ★★★

Unmanaged Switch ★



IGS-7084GCP



IGS-3044GP / IGS-3044GC



IGS-3032GC



IGS-1050A / 1041GPA

Port Number	Managed Switch			Unmanaged Switch	
Number of ports	-	8		5	
10/100Base-T(X) RJ45 Ports	-	-		-	
10/100/1000Base-T(X) Ports	-	4		5	4
100Base-FX Fiber Ports	-	-		-	
1000Base-X Fiber Ports	-	-		-	
100Base-FX SFP Ports	-	-		-	
1000Base-X SFP Ports	4	4		1	
Gigabit Combo Ports	8	-	4		
<b>Power Redundancy</b>					
DC Terminal Block	2	2		2	
DC Power Jack	-	-		1	
AC Power Cord					
<b>Installation</b>					
DIN-Rail Mounting	•	•		•	
Wall Mounting	•	•		•	
Rack Mounting					
<b>Mechanical</b>					
Casing Protection	IP-30	IP-30		IP-30	
Dimension (mm)	96.4(W)x109.2(D)x154(H) mm	74.3(W)x109.2(D)x153.6(H) mm		54.2(W)x106.1(D)x145.4(H) mm	
<b>Operating Temperature</b>					
-10 to 60°C	•	-	•	-	-
-40 to 70°C	-	•	-	•	•
<b>Network Redundancy</b>					
O-Ring	•	•		•	
Open-Ring	•	•		•	
O-RSTP	-	•		•	
STP/RSTP	Compatible	•		•	
MSTP	•	•		•	
<b>Management and Control</b>					
802.1X	•	•		•	
Rate Limit	•	•		•	
Port Mirror	•	•		•	
Port Security	•	•		•	
SNMP v1/v2/v3	•	•		•	
IGMP v2/v3	•	•		•	
QoS Port Base/COS/TOS	•	•		•	
Port Trunk Static/LACP	•	•		•	
LLDP	•	•		•	
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay	
DHCP	Server / Client	Server / Client		Server / Client	
VLAN	802.1Q	Port-Based / 802.1Q / Q-in-Q / GVRP		Port-Based / 802.1Q / Q-in-Q / GVRP	
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLT)	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLT)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLT)	
<b>Warranty</b>	5 years				

## Industrial Fast Ethernet Switch

Managed Switch ★★★



IES-3240



IES-3162GC



IES-3160



IES-3073GC



IES-3082GP

Port Number					
Number of ports	24	18	16	10	10
10/100Base-T(X) RJ45 Ports	24	16	16	7	8
10/100/1000Base-T(X) Ports	-	-	-	-	-
100Base-FX Fiber Ports	-	-	-	-	-
1000Base-X Fiber Ports	-	-	-	-	-
100Base-FX SFP Ports	-	-	-	-	-
1000Base-X SFP Ports	-	-	-	-	2
Gigabit Combo Ports	-	2	-	3	-
Power Redundancy					
DC Terminal Block	2	2	2	2	2
DC Power Jack	-	-	-	-	1
AC Power Cord	-	-	-	-	-
Installation					
DIN-Rail Mounting	•	•	•	•	•
Wall Mounting	•	•	•	•	•
Rack Mounting	-	-	-	-	-
Mechanical					
Casing Protection	IP-30	IP-30	IP-30	IP-30	IP-30
Dimension (mm)	96(W)x109.2(D)x153.6(H) mm	96.4(W)x108.5(D)x154(H) mm	74.3(W)x109.2(D)x153.6(H) mm	74.3(W)x109.2(D)x153.6(H) mm	52(W)x106.1(D)x144.3(H) mm
Operating Temperature					
-10 to 60°C	-	-	-	-	-
-40 to 70°C	•	•	•	•	•
Network Redundancy					
0-Ring	•	•	•	•	•
Open-Ring	•	•	•	•	•
0-RSTP	•	•	•	•	•
STP/RSTP	•	•	•	•	•
MSTP	•	•	•	•	•
Management and Control					
802.1X	•	•	•	•	•
Rate Limit	•	•	•	•	•
Port Mirror	•	•	•	•	•
Port Security	•	•	•	•	•
IGMP v2/v3	•	•	•	•	•
QoS Port Base/COS/TOS	•	•	•	•	•
Port Trunk Static/LACP	•	•	•	•	•
LLDP	•	•	•	•	•
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay
DHCP	Server / Client	Server / Client	Server / Client	Server / Client	Server / Client
VLAN	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)
Warranty	5 years				

**Industrial Fast Ethernet Switch**

<b>Managed Switch ★★★</b>	<b>Lite-Managed Switch ★★</b>
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IES-3062 Series / IES-3080



IES-2060 / 2042FX



IES-2042PA



IES-2050A

Port Number	Managed Switch		Lite-Managed Switch		IES-2042PA		IES-2050A	
Number of ports	8		6		6		5	
10/100Base-T(X) RJ45 Ports	6	8	6	4	4		5	
10/100/1000Base-T(X) Ports	2		-		-		-	
100Base-FX Fiber Ports	2 (Multi/Single-Mode)		-		2 (Multi/Single-Mode)		-	
1000Base-X Fiber Ports	2 (Multi/Single-Mode)		-		-		-	
100Base-FX SFP Ports	-		-		2		-	
1000Base-X SFP Ports	-		-		-		-	
Gigabit Combo Ports	-		-		-		-	
Power Redundancy	2		2		2		2	
DC Terminal Block	2		2		2		2	
DC Power Jack	1		1		-		-	
AC Power Cord	-		-		-		-	
Installation	•		•		•		•	
DIN-Rail Mounting	•		•		•		•	
Wall Mounting	•		•		•		•	
Rack Mounting	-		-		-		-	
Mechanical	IP-30		IP-30		IP-30		IP-30	
Casing Protection	IP-30		IP-30		IP-30		IP-30	
Dimension (mm)	52(W)x106.1(D)x144.3(H) mm		52(W)x106.1(D)x144.3(H) mm		26.1(W)x94.9(D)x144.3(H) mm		26.1(W)x94.9(D)x144.3(H) mm	
Operating Temperature	-		-		-		-	
-10 to 60°C	-		-		-		-	
-40 to 70°C	•		•		•		•	
Network Redundancy	•		•		•		•	
0-Ring	•		•		•		•	
Open-Ring	•		•		•		•	
0-RSTP	•		-		-		-	
STP/RSTP/MSTP	•		•		•		•	
MSTP	•		-		-		-	
Management and Control	•		-		-		-	
802.1X	•		-		-		-	
Rate Limit	•		-		-		-	
Port Mirror	•		-		-		-	
Port Security	•		-		-		-	
IGMP v2/v3	•		-		-		-	
QoS Port Base/COS/TOS	•		-		-		-	
Port Trunk Static/LACP	•		-		-		-	
LLDP	•		•		•		•	
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay	
DHCP	Server / Client		Client		Client		Client	
VLAN	Port-Based / 802.1Q / Q-in-Q / GVRP		Port-Based		Port-Based		Port-Based	
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI)	
Warranty	5 years							

## Industrial Fast Ethernet Switch

### Unmanaged Switch \*



IES-1162GC



IES-1082GP



IES-1062 Series / IES-1080



IES-1050A / 1080A



IES-1042FX / 1041FX



IES-150B

Port Number									
Number of ports	<b>18</b>	<b>10</b>	<b>8</b>		<b>5</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>5</b>
10/100Base-T(X) RJ45 Ports	16	8	6	8	5	8	4		5
10/100/1000Base-T(X) Ports	-	-	2	-	-	-	-	-	-
100Base-FX Fiber Ports	-	-	2 (Multi/Single-Mode)	-	-	-	2 / 1 (Multi/Single-Mode)	-	-
1000Base-X Fiber Ports	-	-	2 (Multi/Single-Mode)	-	-	-	-	-	-
100Base-FX SFP Ports	-	-	-	-	-	-	-	-	-
1000Base-X SFP Ports	-	2	-	-	-	-	-	-	-
Gigabit Combo Ports	2	-	-	-	-	-	-	-	-
Power Redundancy									
DC Terminal Block	2	2	2		2		2		2
DC Power Jack	-	1	1		-		-		-
AC Power Cord	-	-	-		-		-		-
Installation									
DIN-Rail Mounting	•	•	•		•		•		•
Wall Mounting	•	•	•		•		•		•
Rack Mounting	-	-	-		-		-		-
Mechanical									
Casing Protection	IP-30	IP-30	IP-30		IP-30		IP-30		IP-30
Dimension (mm)	96.4(W)x108.5(D)x154(H) mm	52(W)x106.1(D)x144.3(H) mm	52(W)x106.1(D)x144.3(H) mm		26.1(W)x94.9(D)x144.3(H) mm		26.1(W)x94.9(D)x144.3(H) mm		26.1(W)x70(D)x95(H) mm
Operating Temperature									
-10 to 60°C	-	-	-		-		-		-
-40 to 70°C	•	•	•		•		•		•
Network Redundancy									
O-Ring	-	-	-		-		-		-
Open-Ring	-	-	-		-		-		-
O-RSTP	-	-	-		-		-		-
STP/RSTP	-	-	-		-		-		-
MSTP	-	-	-		-		-		-
Management and Control									
802.1X	-	-	-		-		-		-
Rate Limit	-	-	-		-		-		-
Port Mirror	-	-	-		-		-		-
Port Security	-	-	-		-		-		-
IGMP v2/v3	-	-	-		-		-		-
QoS Port Base/COS/TOS	-	-	-		-		-		-
Port Trunk Static/LACP	-	-	-		-		-		-
LLDP	-	-	-		-		-		-
System Alarm	Relay	Relay	Relay		Relay		Relay		-
DHCP	-	-	-		-		-		-
VLAN	-	-	-		-		-		-
Management / Configuration	-	-	-		-		-		-
Warranty	5 years								

<b>Industrial PoE Ethernet Switch</b>	<b>Industrial PoE Ethernet</b>	<b>EN50155 Ethernet Switch</b>
<b>Managed Switch *</b>	<b>Lite-Managed Switch **</b>	<b>Managed Switch ***</b>



IGPS-7084GP



IPS-3082GC



IPS-2042P



IPS-2042TX / 2042FX



IES-2050-M12



TES-3080-M12

Port Number	IGPS-7084GP		IPS-3082GC		IPS-2042P		IPS-2042TX / 2042FX		IES-2050-M12		TES-3080-M12	
Number of ports	12		10		6		6		5		8	
10/100Base-T(X) RJ45 Ports	8 (P.S.E.)		8 (P.S.E.)		4 (P.S.E.)		2+4 (P.S.E.) 4 (P.S.E.)		5 (M12 A-coding)		8 (M12 A-coding)	
10/100/1000Base-T(X) Ports	-		2		-		-		-		-	
100Base-FX Fiber Ports	-		-		-		-		2 (Multi/Single-Mode)		-	
1000Base-X Fiber Ports	-		-		-		-		-		-	
100Base-FX SFP Ports	-		-		2		-		-		-	
1000Base-X SFP Ports	4		2		-		-		-		-	
Gigabit Combo Ports	-		-		-		-		-		-	
Power Redundancy	DC Terminal Block		DC Power Jack		AC Power Cord		DC Terminal Block		DC Power Jack		AC Power Cord	
DC Terminal Block	2		2		2		2		1 (M12)		2 (M12)	
DC Power Jack	-		-		1		1		-		-	
AC Power Cord	-		-		-		-		-		-	
Installation	DIN-Rail Mounting		Wall Mounting		Rack Mounting		DIN-Rail Mounting		Wall Mounting		Rack Mounting	
DIN-Rail Mounting	•		•		•		•		•		•	
Wall Mounting	•		•		•		•		•		•	
Rack Mounting	-		-		-		-		-		-	
Mechanical	Casing Protection		Dimension (mm)		Casing Protection		Dimension (mm)		Casing Protection		Dimension (mm)	
Casing Protection	IP-30		IP-30		IP-30		IP-30		IP-67		IP-30	
Dimension (mm)	96.4(W)x109.2(D)x154(H) mm		74.3(W)x109.2(D)x153.6(H) mm		54.2(W)x106.1(D)x145.4(H) mm		52(W)x106.1(D)x144.3(H) mm		90(W)x40.5(D)x155(H) mm		125(W)x65(D)x96(H) mm	
Operating Temperature	-10 to 60°C		-40 to 70°C		-10 to 60°C		-40 to 70°C		-10 to 60°C		-40 to 70°C	
-10 to 60°C	•		-		-		-		-		-	
-40 to 70°C	-		•		•		•		•		•	
Network Redundancy	0-Ring		Open-Ring		0-RSTP		STP/RSTP		MSTP		0-Ring	
0-Ring	•		•		•		•		•		•	
Open-Ring	•		•		-		-		-		•	
0-RSTP	-		•		-		-		-		•	
STP/RSTP	Compatible		•		•		•		•		•	
MSTP	•		•		-		-		-		•	
Management and Control	802.1X		Rate Limit		Port Mirror		Port Security		IGMP v2/v3		QoS Port Base/COS/TOS	
802.1X	•		•		•		•		•		•	
Rate Limit	•		•		•		•		•		•	
Port Mirror	•		•		•		•		•		•	
Port Security	•		•		•		•		•		•	
IGMP v2/v3	•		•		•		•		•		•	
QoS Port Base/COS/TOS	•		•		•		•		•		•	
Port Trunk Static/LACP	•		•		•		•		•		•	
LLDP	•		•		•		•		•		•	
System Alarm	SYSLOG / SMTP / SNMP Trap /		SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP		SYSLOG / SMTP / SNMP Trap /	
DHCP	Server / Client		Server / Client		Client		Client		Client		Server/Client	
VLAN	802.1Q		Port-Based/802.1Q/in-Q/GC		Port-Based		Port-Based		Port-Based		Port-Based/802.1Q/Q-in-Q/GC	
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 /		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /	
Warranty	5 years											

## Industrial Wireless Access Point



IAP-120/120+

IAP-320/320+

IAP-6701-WA+

IAP-6701-WG+

6701N-WA+

6701N-WG+

Ethernet Ports		2		1		1	
10/100 Base-T(X) LAN Ports	2	2	1	1	1	1	
PoE(P.D.) Support	- (LAN Port-2)	(LAN Port-2)	•	•	•	•	
Ethernet switch/redundant mode support	•	•	-	-	-	-	
WLAN Interface		IEEE802.11a/b/g Tri Mode		IEEE802.11a Single Mode		IEEE802.11b/g Dual Mode	
WLAN Standard	IEEE802.11b/g Dual Mode	IEEE802.11a/b/g Tri Mode	IEEE802.11a Single Mode	IEEE802.11b/g Dual Mode	IEEE802.11a Single Mode	IEEE802.11b/g Dual Mode	
Transmit Power	20 dbm max.	20 dbm max.	17 dbm max.	20 dbm max.	17 dbm max.	20 dbm max.	
Transmission Rate	IEEE802.11b : 11Mbps	IEEE802.11b : 11Mbps	IEEE802.11a : 54Mbps	IEEE802.11b : 11Mbps	IEEE802.11a : 54Mbps	IEEE802.11b : 11Mbps	
	IEEE802.11g : 54Mbps	IEEE802.11a/g : 54Mbps		IEEE802.11g : 54Mbps		IEEE802.11g : 54Mbps	
Antenna connector	Reverse SMA	Reverse SMA	-	-	N-Type	N-Type	
Antenna	2 dbi	2 dbi	build in 14 dbi	build in 12 dbi	build in 14 dbi	build in 12 dbi	
Power Redundancy		2		-		-	
DC Terminal Block	2	2	-	-	-	-	
Installation		•		-		-	
DIN-Rail Mounting	•	•	-	-	-	-	
Wall mounting	-	-	•	•	•	•	
Pillar-mounting	-	-	•	•	•	•	
Mechanical		•		-		-	
Casing IP-30 Protection	•	•	-	-	-	-	
Casing IP-67 Protection	-	-	•	•	•	•	
Dimension (mm)	54.2(W)x106.1(D)x145.4(H) mm	54.2(W)x106.1(D)x145.4(H) mm	197.5(W)x63(D)x197.5(H) mm	197.5(W)x63(D)x197.5(H) mm	197.5(W)x63(D)x197.5(H) mm	197.5(W)x63(D)x197.5(H) mm	
Operating Temperature		•		-		-	
-10 to 55°C	•	•	-	-	-	-	
-20 to 70°C	-	-	•	•	•	•	
Network Technology		Relay Output / SNMP Trap / System Log		SNMP Trap / System Log		SNMP Trap / System Log	
Alarm Notification	Relay Output / SNMP Trap / System Log	Relay Output / SNMP Trap / System Log	SNMP Trap / System Log	SNMP Trap / System Log	SNMP Trap / System Log	SNMP Trap / System Log	
Management / Configuration	WEB/Window Utility	WEB/Window Utility	WEB/Window Utility	WEB/Window Utility	WEB/Window Utility	WEB/Window Utility	
Warranty		3 years					

**Industrial Router**

**Cellular Wireless Router      Cellular Wireless Access Point Router**



**IR-711UB**



**IAR-120 / 120+**



**IAR-320 / 320+**

<b>Ethernet Ports</b>			
10/100 Base-T(X) LAN Ports	1	2	2
10/100 Base-FX Fiber Ports	-	-	-
PoE Support	-	- LAN Port-2	- LAN Port-2
Ethernet switch/redundant mode support	-	•	•
<b>USB Ports</b>			
USB 2.0 host	1	1	1
<b>WLAN Interface</b>			
WLAN Standard	-	IEEE802.11b/g Dual Mode	IEEE802.11a/b/g Tri Mode
Transmit Power	-	20 dbm max.	20 dbm max.
Transmission Rate	-	802.11b : 11Mbps 802.11g : 54Mbps	802.11b : 11Mbps 802.11a/g : 54Mbps
Antenna connector	-	Reverse SMA	Reverse SMA
Antenna	-	11b/g : 2 dbi	11a : 3 dbi 11b/g : 2 dbi
<b>Power Redundancy</b>			
DC Terminal Block	1	2	2
<b>Installation</b>			
DIN-Rail Mounting	•	•	•
Wall mounting	•	•	•
<b>Mechanical</b>			
Casing IP-30 Protection	•	•	•
Dimension (mm)	26.1(W) x 70(D) x 95(H) mm	52(W) x 106(D) x 144(H) mm	52(W) x 106(D) x 144(H) mm
<b>Operating Temperature</b>			
-10 to 55°C	-	•	•
-20 to 70°C	•	-	-
<b>Network Technology</b>			
Alarm Notification	Relay Output / System Log	Relay Output / SNMP Trap / System Log	Relay Output / SNMP Trap / System Log
Management / Configuration	WEB	WEB / Window Utility	WEB / Window Utility
<b>Warranty</b>			
	5 years	3 years	3 years



## Industrial Ethernet to Fiber Media Converter

Slim type Gigabit Ethernet to fiber

Mini type Ethernet to fiber



**IGMC-1011GF-MM / SS**



**IGMC-1011GP**



**IMC-121FB-MM / SS**



**IMC-111FB**



**IMC-111PB**

Port Number					
10/100Base-T(X) RJ45 Ports	-	-	2	1	1
10/100/1000Base-T(X) RJ45 Ports	1	1	-	-	-
100Base-FX Fiber Ports	-	-	1 (Multi/Single-Mode)	1 (Multi/Single-Mode)	1 (SFP)
1000Base-X Fiber Ports	1 (Multi/Single-Mode)	1 (SFP)	-	-	-
USB Port	-	-	-	-	-
RS-232 Serial Port	-	-	-	-	-
RS-422/485 Serial Port	-	-	-	-	-
RS-232/422/485 Serial Port	-	-	-	-	-
Serial Port Feature					
Baut Rate	-	-	-	-	-
Signals	-	-	-	-	-
Power Redundancy					
DC Terminal Block	2	2	2	2	2
DC Power Jack	-	-	-	-	-
USB Bus Power	-	-	-	-	-
Installation					
DIN-Rail Mounting	•	•	•	•	•
Wall mounting	•	•	•	•	•
Mechanical					
Mental IP-30 Protection	•	•	•	•	•
ABS	-	-	-	-	-
Dimension (mm)	26.1(W) x 94.9(D) x 144.3(H) mm	26.1(W) x 94.9(D) x 144.3(H) mm	26.1(W) x 70(D) x 95(H) mm	26.1(W) x 70(D) x 95(H) mm	26.1(W) x 70(D) x 95(H) mm
Operating Temperature					
-10 to 70°C	-	-	-	-	-
-40 to 70°C	•	•	•	•	•
Protection					
Power Overload Current Protection	•	•	•	•	•
Power Reverse Polarity Protection	•	•	•	•	•
Isolation Protection	-	-	-	-	-
Warranty	5 years		5 years		5 years

USB to Serial Media Converter	Serial to Serial Media Converter
USB to Serial	Serial to Serial



ISC-4110U / 8110U



ISC-1210U-I / 1310-I



ISC-1112 / 1112-I



ISC-1212-I

Port Number	ISC-4110U / 8110U		ISC-1210U-I / 1310-I		ISC-1112 / 1112-I	ISC-1212-I
10/100Base-T(X) RJ45 Ports	-		-		-	-
10/100/1000Base-T(X) RJ45 Ports	-		-		-	-
100Base-FX Fiber Ports	-		-		-	-
1000Base-X Fiber Ports	-		-		-	-
USB Port	1		1		-	-
RS-232 Serial Port	4	8	-		1	-
RS-422/485 Serial Port	-		1	-	1	2
RS-232/422/485 Serial Port	-		-	1	-	-
Serial Port Feature						
Baud Rate	300 ~ 921.6Kbps		300 ~ 115.2Kbps		300 ~ 115.2Kbps	300 ~ 115.2Kbps
Signals	RS-232 : TX, RX, RTS, CTS DTR, DSR, DCD, GND		RS-422 : TX+, TX-, RX+, RX-, RTS+, RTS-, CTS+, CTS-, GND RS-485 : Data+, Data-, GND		RS-232 : TX, RX, GND RS-422 : TX+, TX-, RX+, RX-, GND RS-485 : Data+, Data-	RS-422 : TX+, TX-, RX+, RX- RS-485 : Data+, Data-
Power Redundancy						
DC Terminal Block	•		-		•	•
DC Power Jack	•		-		-	-
USB Bus Power	•		•		-	-
Installation						
DIN-Rail Mounting	•		•		•	•
Wall mounting	•		•		•	•
Mechanical						
Mental IP-30 Protection	•		-		-	-
ABS	-		•		•	•
Dimension (mm)	26.1(W) x 94.9(D) x 144.3(H) mm		71.2(W) x 25.3(D) x 100.6(H) mm		71.2(W)x25.3(D)x100.6(H) mm	71.2(W)x25.3(D)x100.6(H) mm
Operating Temperature						
-10 to 70°C	-		•		•	•
-40 to 70°C	•		-		-	-
Protection						
Power Overload Current Protection	•		•		•	•
Power Reverse Polarity Protection	•		-		-	-
Isolation Protection	-		3000 VDC		- 3000 VDC	3000 VDC
Warranty	5 years		2 years		2 years	2 years

## Industrial Device Server

### 1 Port Device Server



IDS-5011



IDS-5011F-MM/SS



IDS-5011-WG



IDS-5012

Serial Port				
Serial port Numbers	1	1	1	1
Serial Mode	RS-232	RS-232/422/485	RS-232/422/485	RS-232/422/485
Serial Port Connector	DB9 (male)	DB9 (male)	DB9 (male)	DB9 (male)
Serial Port with 2KV Isolation	-	-	-	-
Serial Baud Rate	110 bps to 460.8 Kbps	110 bps to 460.8 Kbps	110 bps to 230.4 Kbps	110 bps to 460.8 Kbps
Ethernet Port				
10/100Base-T(X) in RJ45 Auto MDI/MDIX Ports	1	-	1	2
100Base-FX Fiber Ports	-	1 (Multi/Single Mode)	-	-
Wireless LAN Interface	-	-	IEEE 802.11b/g	-
ETH2 Support PoE (IEEE 802.3af compliant)	-	-	-	-
Ethernet Switch mode / Fast Recovery Mode supported	-	-	-	•
Power Redundancy				
DC Terminal Block	1	1	1	1
DC Power Jack	1	1	1	1
Installation				
DIN-Rail Mounting	•	•	•	•
Wall mounting	•	•	•	•
Mechanical				
Casing Protection	IP-30	IP-30	IP-30	IP-30
Dimension (mm)	72(W) x 29.4(D) x 123.4(H) mm	72(W) x 29.4(D) x 123.4(H) mm	72(W) x 29.4(D) x 123.4(H) mm	72(W) x 29.4(D) x 123.4(H) mm
Operating Temperature				
-40 to 70°C	-	-	-	-
-10 to 60°C	•	•	-	•
-10 to 55°C	-	-	•	-
Networking Technology				
Versatile Modes	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet modem	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet modem	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet modem	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet modem
VCOM Driver	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit
Multiple Link	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP
Event Notification	Syslog, Email, SNMP trap, and Beeper	Syslog, Email, SNMP trap, and Beeper	Syslog, Email, SNMP trap, and Beeper	Syslog, Email, SNMP trap, and Beeper
NAT Router Pass Through	•	•	•	•
PPPoE	•	•	•	•
DDNS	•	•	•	•
Security				
HTTPS/SSH Management	•	•	•	•
IP Black List	•	•	•	•
SSL Data Encryption	•	•	•	•
IEEE 802.1X	-	-	•	-
Warranty	5 years	5 years	3 years	5 years

**Industrial Device Server**

<b>4 Port Device Server</b>	<b>Slim Type Device Server</b>
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IDS-5042 / 5042+



IDS-5042-I+



IDS-5042-WG / 5042-IWG



IDS-141A / 181A

Serial Port					
Serial port Numbers	4	4	4	4	8
Serial Mode	RS-232/422/485	RS-422/485	RS-232/422/485	RS-422/485	RS-232
Serial Port Connector	DB9 (male)	5-Pin Terminal Block	DB9 (male)	5-Pin Terminal Block	DB62 (female)
Serial Port with 2KV Isolation	-	•	-	•	-
Serial Baud Rate	110 bps to 460.8 Kbps	110 bps to 460.8 Kbps	110 bps to 460.8 Kbps	110 bps to 460.8 Kbps	110 bps to 115.2 Kbps
Ethernet Port					
10/100Base-T(X) in RJ45 Auto MDI/MDIX Ports	2	2	2	-	1
100Base-FX Fiber Ports	-	-	-	-	-
Wireless LAN Interface	-	-	IEEE 802.11b/g	-	-
ETH2 Support PoE (IEEE 802.3af Compliant)	-	•	-	-	-
Ethernet Switch mode / Fast Recovery Mode supported	•	•	•	-	-
Power Redundancy					
DC Terminal Block	2	2	2	-	2
DC Power Jack	-	-	-	-	1
Installation					
DIN-Rail Mounting	•	•	•	-	•
Wall mounting	•	•	•	-	•
Mechanical					
Casing Protection	IP-30	IP-30	IP-30	-	IP-30
Dimension (mm)	52(W) x 106(D) x 144(H) mm	52(W) x 106(D) x 144(H) mm	52(W) x 106(D) x 144(H) mm	-	26.1(W) x 94.9(D) x 144.3(H) mm
Operating Temperature					
-40 to 70°C	-	-	-	-	•
-10 to 60°C	•	•	-	-	-
-10 to 55°C	-	-	•	-	-
Networking Technology					
Versatile Modes	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP	-	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
VCOM Driver	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit	-	Windows NT/2000/XP/2003/VISTA 32-Bit/ Windows 7 32-Bit
Multiple Link	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP	-	5 host devices : Virtual COM, TCP Server, TCP Client mode; 4 host devices : UDP
Event Notification	Syslog, Email, SNMP trap, Relay and Beeper	Syslog, Email, SNMP trap, Relay and Beeper	Syslog, Email, SNMP trap, Relay and Beeper	-	Syslog, Email, SNMP trap, Relay
NAT Router Pass Through	•	•	•	-	•
PPPoE	•	•	•	-	•
DDNS	•	•	•	-	•
Security					
HTTPS/SSH Management	•	•	•	-	•
IP Black List	•	•	•	-	•
SSL Data Encryption	•	•	•	-	•
IEEE 802.1X	-	-	•	-	-
Warranty	5 years	5 years	3 years	-	5 years

## Industrial USB Server

USB Server	Wireless USB Server
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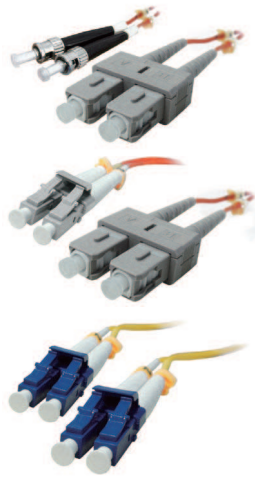


IUSB-9041



IUSB-9041-WG

Ethernet Ports		
10/100Base-T(X) RJ45 Ports	•	•
USB Ports		
USB Compliance	1.0 / 1.1 / 2.0	1.0 / 1.1 / 2.0
Connector Type	USB A Type (Female)	USB A Type (Female)
Ports Number	4	4
Wireless Feature		
Antenna Connector	-	Reverse SMA
Radio Frequency Type	-	DSSS
Frequency Band	-	American / FCC : 2.412 ~ 2.462 GHZ (11 Channels) Europe CE /ETSI : 2.412 ~ 2.462 GHZ (13 Channels)
Wireless Interface	-	IEEE 802.11 b/g
Fault Contact		
Relay	•	•
Power Redundancy		
DC Terminal Block	2	2
DC Power Jack	1	1
Installation		
DIN-Rail Mounting	•	•
Wall Mounting	•	•
Mechanical		
Casing IP30 Protection	•	•
Dimension (mm)	26.1(W) x 94.9(D) x 144.3(H) mm	26.1(W) x 94.9(D) x 144.3(H) mm
Operating Temperature		
-10 to 60°C	•	-
-10 to 55°C	-	•
Warranty		
	5 years	3 years



### Fiber Patch Cord

Model Name	Optical Connector	Multi-mode	Single-mode	Diameter	Cable Length
FPC-SCSC-MM3M	SC / SC	•		62.5/125 μm	3 m
FPC-SCSC-SS3M	SC / SC		•	9/125 μm	3 m
FPC-SCLC-MM3M	SC / LC	•		62.5/125 μm	3 m
FPC-SCLC-SS3M	SC / LC		•	9/125 μm	3 m
FPC-SCST-MM3M	SC / ST	•		62.5/125 μm	3 m
FPC-SCST-SS3M	SC / ST		•	9/125 μm	3 m
FPC-LCLC-MM3M	LC / LC	•		62.5/125 μm	3 m
FPC-LCLC-SS3M	LC / LC		•	9/125 μm	3 m



### Fiber Patch Adapter

Model Name	Optical Connector	Multi-mode	Single-mode	Diameter	Cable Length
FCA-SC-MM	SC / SC	•		62.5/125 μm	-
FCA-SC-SS	SC / SC		•	9/125 μm	-



### DIN-Rail Power Supply

Model Name	Description
DR-4512	45W DIN-Rail 12VDC/3.5A Power Supply with universal 100 to 240VAC input
DR-4524	45W DIN-Rail 24VDC/2A Power Supply with universal 100 to 240VAC input
DR-75-12	75W DIN-Rail 12VDC/6.3A Power Supply with universal 100 to 240VAC input
DR-75-24	75W DIN-Rail 24VDC/3.2A Power Supply with universal 100 to 240VAC input
DR-75-48	75W DIN-Rail 48VDC/1.6A Power Supply with universal 100 to 240VAC input
DR-120-12	120W DIN-Rail 12VDC/10A Power Supply with 100 to 120VAC / 220 to 240VAC input by switch
DR-120-24	120W DIN-Rail 24VDC/5A Power Supply with 100 to 120VAC / 220 to 240VAC input by switch
DR-120-48	120W DIN-Rail 48VDC/2.5A Power Supply with 100 to 120VAC / 220 to 240VAC input by switch



### Power Adapter

Model Name	Description
PAA-121000	12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, US plug
PAE-121000	12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, EU plug
PAA-482500	48VDC/2500mA 120W Power Adapter with universal 100 to 240VAC input, US power cord
PAE-482500	48VDC/2500mA 120W Power Adapter with universal 100 to 240VAC input, EU power cord
PAX-482500	48VDC/2500mA 120W Power Adapter with universal 100 to 240VAC input, without power cord



### RF Antenna Base (Magnetic)

Model Name	Description	Cable Length
RFB-M1-150	Magnetic WLAN RF Antenna Base, Cable length 1.5m, SMA Female RS to SMA Male RS connector	1.5 m
RFB-M1-1000	Magnetic WLAN RF Antenna Base, Cable length 10m, SMA Female RS to SMA Male RS connector	10 m
RFB-M2-150	Magnetic WLAN RF Antenna Base, Cable length 1.5m, N Female to SMA Male RS connector	1.5 m
RFB-M2-1000	Magnetic WLAN RF Antenna Base, Cable length 10m, N Female to SMA Male RS connector	10 m



RFC-NF-NM-1000

### RF Cable

Model Name	Description	Cable Length
RFC-SFR-SMR-1000	Low loss RF Cable, Cable length 10m, SMA Female RS to SMA Male RS connector	10 m
RFC-NF-NM-1000	Low loss RF Cable, Cable length 10m, N Female to N Male connector	10 m
RFC-NM-SMR-150	Low loss RF Cable, Cable length 1.5m, N Male to SMA Male RS connector	1.5 m
RFC-NM-SMR-1000	Low loss RF Cable, Cable length 10m, N Male to SMA Male RS connector	10 m



### RF Surge Protector

Model Name	Description
RFP-NF-NM-WAG	High-power RF Surge Protector, 0~6GHz, N Female to N Male connector



### WLAN RF Antenna (Outdoor Panel Type)

Model Name	Description
RFA-P1-WG	Outdoor High-gain Panel Antenna, 2.4GHz, 12dbi max, N Female connector
RFA-P1-WA	Outdoor High-gain Panel Antenna, 5.8GHz, 14dbi max, N Female connector



### WLAN RF Antenna (Omni-directional)

Model Name	Description
RFA-O1-WG	Omni-directional High-gain Dipole Antenna, 2.4GHz, 9dbi max, SMA Male RS connector
RFA-O2-WG	Omni-directional High-gain Dipole Antenna, 2.4GHz, 7dbi max, N Male connector
RFA-O3-WG	Omni-directional High-gain Dipole Antenna, 2.4GHz, 9dbi max, N Male connector



### Cables with M12 connectors

Model Name	Description	Cable Length
M12C-4M4M-300	4-pin M12 Male to 4-pin M12 Male IP-67 Ethernet Cable, 3m	3 m
M12C-4M4F-1000	4-pin M12 Male to 4-pin M12 Female IP-67 Ethernet Cable, 10m	10 m
M12C-4M4F-3000	4-pin M12 Male to 4-pin M12 Female IP-67 Ethernet Cable, 30m	30 m
M12C-4MRJ-300	4-pin M12 Male to RJ45 plug Ethernet Cable, 3m	3 m
M12C-5M5F-1000	5-pin M12 Male to 5-pin M12 Female IP-67 Power Cable, 10m	10 m
M12C-5M5F-3000	5-pin M12 male to 5-pin M12 Female IP-67 Power Cable, 30m	30 m

# SFP100 LC Series

## Fast Ethernet SFP modules

### Specifications

Spec	Model Name				
	SFP100-MM/-I	SFP100-SS30/-I	SFP100-SS60/-I	SFP100-SS100/-I	SFP100-SS120/-I
Fiber mode	multi-mode	single-mode	single-mode	single-mode	single-mode
Typical Distance	2 Km	30 Km	60 Km	100 Km	120 Km
Operating Temperature	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)
Wavelength	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm
Optical Output Power 9/125 μm fiber (Max. TX)	-	-8 dBm	0 dBm	0 dBm	5 dBm
Optical Output Power 9/125 μm fiber (Min. TX)	-	-15 dBm	-5 dBm	-5 dBm	0 dBm
Optical Output Power 62.5/125 μm fiber (Max. TX)	-14 dBm	-	-	-	-
Optical Output Power 62.5/125 μm fiber (Min. TX)	-20 dBm	-	-	-	-
Optical Output Power 50/125 μm fiber (Max. TX)	-14 dBm	-	-	-	-
Optical Output Power 50/125 μm fiber (Min. TX)	-23.5 dBm	-	-	-	-
Optical Input Power-minimum (Sensitivity)	-31 dBm	-34 dBm	-35 dBm	-35 dBm	-35 dBm
Optical Input Power-maximum (Saturation)	-8 dBm	0 dBm	0 dBm	0 dBm	0 dBm
Loss of Signal-Asserted	-47 dBm	-45 dBm	-45 dBm	-45 dBm	-45 dBm
Loss of Signal-Deasserted	-32 dBm	-34 dBm	-35 dBm	-35 dBm	-35 dBm

### Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP100-MM	100Mbps SFP optical transceiver, multi-mode / 2Km, 1310nm
	SFP100-MM-I	100Mbps SFP optical transceiver, multi-mode / 2Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP100-SS30	100Mbps SFP optical transceiver, single-mode / 30Km, 1310nm	0 ~ 70°C
	SFP100-SS30-I	100Mbps SFP optical transceiver, single-mode / 30Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP100-SS60	100Mbps SFP optical transceiver, single-mode / 60Km, 1310nm	0 ~ 70°C
	SFP100-SS60-I	100Mbps SFP optical transceiver, single-mode / 60Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP100-SS100	100Mbps SFP optical transceiver, single-mode / 100Km, 1550nm	0 ~ 70°C
	SFP100-SS100-I	100Mbps SFP optical transceiver, single-mode / 100Km, 1550nm, industrial grade	-40 ~ 85°C
	SFP100-SS120	100Mbps SFP optical transceiver, single-mode / 120Km, 1550nm	0 ~ 70°C
	SFP100-SS120-I	100Mbps SFP optical transceiver, single-mode / 120Km, 1550nm, industrial grade	-40 ~ 85°C



# SFP100-BIDI LC Series

## Fast Ethernet BIDI-SFP modules

### Specifications

Spec	Model Name					
	SFP100B3-SS20/-I	SFP100B5-SS20/-I	SFP100B3-SS40/-I	SFP100B5-SS40/-I	SFP100B3-SS60/-I	SFP100B5-SS60/-I
Fiber mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode
Typical Distance	20 Km	20 Km	40 Km	40 Km	60 Km	60 Km
Operating Temperature	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)
Wavelength	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	TX: 1550 nm RX: 1310 nm
Optical Output Power 9/125 μm fiber (Max. TX)	-8 dBm	-8 dBm	0 dBm	0 dBm	0 dBm	0 dBm
Optical Output Power 9/125 μm fiber (Min. TX)	-14 dBm	-14 dBm	-8 dBm	-8 dBm	-5 dBm	-5 dBm
Optical Input Power-minimum (Sensitivity)	-32 dBm	-32 dBm	-34 dBm	-34 dBm	-34 dBm	-34 dBm
Optical Input Power-maximum	0 dBm	0 dBm	0 dBm	0 dBm	0 dBm	0 dBm
Loss of Signal-Asserted	-45 dBm	-45 dBm	-45 dBm	-45 dBm	-45 dBm	-45 dBm
Loss of Signal-Deasserted	-32 dBm	-32 dBm	-34 dBm	-34 dBm	-34 dBm	-34 dBm

### Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP100B3-SS20	100Mbps SFP optical transceiver, single-mode BIDI / 20Km, TX1310nm, RX1550nm
	SFP100B3-SS20-I	100Mbps SFP optical transceiver, single-mode BIDI / 20Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP100B5-SS20	100Mbps SFP optical transceiver, single-mode BIDI / 20Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP100B5-SS20-I	100Mbps SFP optical transceiver, single-mode BIDI / 20Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C
	SFP100B3-SS40	100Mbps SFP optical transceiver, single-mode BIDI / 40Km, TX1310nm, RX1550nm	0 ~ 70°C
	SFP100B3-SS40-I	100Mbps SFP optical transceiver, single-mode BIDI / 40Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP100B5-SS40	100Mbps SFP optical transceiver, single-mode BIDI / 40Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP100B5-SS40-I	100Mbps SFP optical transceiver, single-mode BIDI / 40Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C
	SFP100B3-SS60	100Mbps SFP optical transceiver, single-mode BIDI / 60Km, TX1310nm, RX1550nm	0 ~ 70°C
	SFP100B3-SS60-I	100Mbps SFP optical transceiver, single-mode BIDI / 60Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP100B5-SS60	100Mbps SFP optical transceiver, single-mode BIDI / 60Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP100B5-SS60-I	100Mbps SFP optical transceiver, single-mode BIDI / 60Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C

# SFP1G LC Series

## Gigabit Ethernet SFP modules

### Specifications

Spec	Model Name								
	SFP1G-SX/-I	SFP1G-MLX/-I	SFP1G-LX10/-I	*SFP1G-LX20/-I	*SFP1G-LHX30/-I	*SFP1G-LHX40/-I	*SFP1G-XD50/-I	*SFP1G-ZX70/-I	*SFP1G-ZX80/-I
Fiber mode	multi-mode	multi-mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode
Typical Distance	550 m	62.5/125 : 2Km 50/125 : 1Km	10 Km	20 Km	30 Km	40 Km	50 Km	70 Km	80 Km
Operating Temperature	0~70°C -20~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)
Wavelength	850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm	1550 nm
Optical Output Power 9/125 μm fiber (Max. TX)	-	-	-3 dBm	-2 dBm	1 dBm	1 dBm	1 dBm	5 dBm	5 dBm
Optical Output Power 9/125 μm fiber (Min. TX)	-	-	-9.5 dBm	-8 dBm	-4 dBm	-4 dBm	-4 dBm	0 dBm	0 dBm
Optical Output Power 62.5/125 μm fiber (Max. TX)	-4 dBm	-1 dBm	-	-	-	-	-	-	-
Optical Output Power 62.5/125 μm fiber (Min. TX)	-9.5 dBm	-9 dBm	-	-	-	-	-	-	-
Optical Output Power 50/125 μm fiber (Max. TX)	-4 dBm	-1 dBm	-	-	-	-	-	-	-
Optical Output Power 50/125 μm fiber (Min. TX)	-9.5 dBm	-9 dBm	-	-	-	-	-	-	-
Optical Input Power-minimum (Sensitivity)	-18 dBm	-19 dBm	-20 dBm	-23 dBm	-24 dBm	-24 dBm	-24 dBm	-24 dBm	-24 dBm
Optical Input Power-maximum	0 dBm	-1 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm

optical attenuator to avoid any possible damages.

### Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP1G-SX	1Gbps SFP optical transceiver, multi-mode / 550m, 850nm
	SFP1G-SX-I	1Gbps SFP optical transceiver, multi-mode / 550m, 850nm, industrial grade	-20 ~ 85°C
	SFP1G-MLX	1Gbps SFP optical transceiver, multi-mode / 2Km, 1310nm	0 ~ 70°C
	SFP1G-MLX-I	1Gbps SFP optical transceiver, multi-mode / 2Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP1G-LX10	1Gbps SFP optical transceiver, single-mode / 10Km, 1310nm	0 ~ 70°C
	SFP1G-LX10-I	1Gbps SFP optical transceiver, single-mode / 10Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP1G-LX20	1Gbps SFP optical transceiver, single-mode / 20Km, 1310nm	0 ~ 70°C
	SFP1G-LX20-I	1Gbps SFP optical transceiver, single-mode / 20Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP1G-LHX30	1Gbps SFP optical transceiver, single-mode / 30Km, 1310nm	0 ~ 70°C
	SFP1G-LHX30-I	1Gbps SFP optical transceiver, single-mode / 30Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP1G-LHX40	1Gbps SFP optical transceiver, single-mode / 40Km, 1310nm	0 ~ 70°C
	SFP1G-LHX40-I	1Gbps SFP optical transceiver, single-mode / 40Km, 1310nm, industrial grade	-40 ~ 85°C
	SFP1G-XD50	1Gbps SFP optical transceiver, single-mode / 50Km, 1550nm	0 ~ 70°C
	SFP1G-XD50-I	1Gbps SFP optical transceiver, single-mode / 50Km, 1550nm, industrial grade	-40 ~ 85°C
	SFP1G-ZX70	1Gbps SFP optical transceiver, single-mode / 70Km, 1550nm	0 ~ 70°C
	SFP1G-ZX70-I	1Gbps SFP optical transceiver, single-mode / 70Km, 1550nm, industrial grade	-40 ~ 85°C
	SFP1G-ZX80	1Gbps SFP optical transceiver, single-mode / 80Km, 1550nm	0 ~ 70°C
	SFP1G-ZX80-I	1Gbps SFP optical transceiver, single-mode / 80Km, 1550nm, industrial grade	-40 ~ 85°C

# SFP1G-BIDI LC Series

## Gigabit Ethernet BIDI-SFP modules

### Specifications

Spec	Model Name							
	SFP1GB3 -LX10/-I	SFP1GB5 -LX10/-I	SFP1GB3 -LX20/-I	SFP1GB5 -LX20/-I	*SFP1GB3 -LX40/-I	*SFP1GB5 -LX40/-I	*SFP1GB3 -LX60/-I	*SFP1GB5 -LX60/-I
Fiber mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode	single-mode
Typical Distance	10 Km	10 Km	20 Km	20 Km	40 Km	40 Km	60 Km	60 Km
Operating Temperature	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)	0~70°C -40~85°C (-I model)
Wavelength	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm	TX : 1310 nm RX : 1550 nm	TX : 1550 nm RX : 1310 nm
Optical Output Power 9/125 µm fiber (Max. TX)	-3 dBm	-3 dBm	-2 dBm	-2 dBm	2 dBm	2 dBm	5 dBm	4 dBm
Optical Output Power 9/125 µm fiber (Min. TX)	-9 dBm	-9 dBm	-8 dBm	-8 dBm	-3 dBm	-3 dBm	0 dBm	-2 dBm
Optical Input Power-minimum (Sensitivity)	-21 dBm	-21 dBm	-23 dBm	-23 dBm	-23 dBm	-23 dBm	-24 dBm	-25 dBm
Optical Input Power-maximum	-1 dBm	-1 dBm	-1 dBm	-1 dBm	-1 dBm	-1 dBm	-1 dBm	-1 dBm
Loss of Signal-Asserted	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm	-35 dBm

\* If two SFP transceivers are connected to each other in a short distance and the received optical power is greater than the listed specification of the received SFP transceiver, please add an optical attenuator to avoid any possible damages.

### Ordering Information

Available Model	Model Name	Description	Operating Temperature
		SFP1GB3-LX10	1Gbps SFP optical transceiver, single-mode BIDI / 10Km, TX1310nm, RX1550nm
	SFP1GB3-LX10-I	1Gbps SFP optical transceiver, single-mode BIDI / 10Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP1GB5-LX10	1Gbps SFP optical transceiver, single-mode BIDI / 10Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP1GB5-LX10-I	1Gbps SFP optical transceiver, single-mode BIDI / 10Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C
	SFP1GB3-LX20	1Gbps SFP optical transceiver, single-mode BIDI / 20Km, TX1310nm, RX1550nm	0 ~ 70°C
	SFP1GB3-LX20-I	1Gbps SFP optical transceiver, single-mode BIDI / 20Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP1GB5-LX20	1Gbps SFP optical transceiver, single-mode BIDI / 20Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP1GB5-LX20-I	1Gbps SFP optical transceiver, single-mode BIDI / 20Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C
	SFP1GB3-LX40	1Gbps SFP optical transceiver, single-mode BIDI / 40Km, TX1310nm, RX1550nm	0 ~ 70°C
	SFP1GB3-LX40-I	1Gbps SFP optical transceiver, single-mode BIDI / 40Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP1GB5-LX40	1Gbps SFP optical transceiver, single-mode BIDI / 40Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP1GB5-LX40-I	1Gbps SFP optical transceiver, single-mode BIDI / 40Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C
	SFP1GB3-LX60	1Gbps SFP optical transceiver, single-mode BIDI / 60Km, TX1310nm, RX1550nm	0 ~ 70°C
	SFP1GB3-LX60-I	1Gbps SFP optical transceiver, single-mode BIDI / 60Km, TX1310nm, RX1550nm, industrial grade	-40 ~ 85°C
	SFP1GB5-LX60	1Gbps SFP optical transceiver, single-mode BIDI / 60Km, TX1550nm, RX1310nm	0 ~ 70°C
	SFP1GB5-LX60-I	1Gbps SFP optical transceiver, single-mode BIDI / 60Km, TX1550nm, RX1310nm, industrial grade	-40 ~ 85°C