

Advantech AE Technical Share Document

Date	2020/3/23	SR#	1-3843475145
Category	■FAQ □SOP	Related OS	-
Abstract	What is the supporting speed of ECU-P1524PE and ECU-P1524SPE?		
Keyword	HSR, PRP, SFP, Fiber, RJ45, Internet Speed		
Related Product	ECU-4784, ECU-1524PE, ECU-1524SPE, SFP connectors		

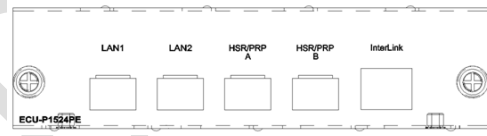
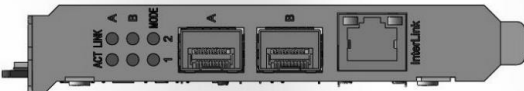
■ Problem Description:

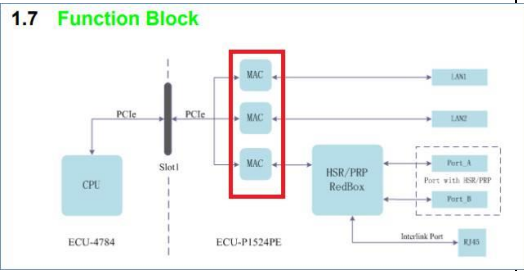
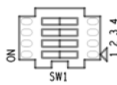
This document shows the different of ECU-P1524PE and ECU-P1524SPE and their supporting Internet speeds. Also, there is supporting list of SFP connectors.

■ Brief Solution:

Table 1 shows the general comparison between ECU-P1524PE and ECU-P1524SPE module. The table 2 is the supporting SFP connector and ECU-P1524PE module.

Table 1. Comparing table

	ECU-P1524PE		ECU-P1524SPE						
Datasheet	Click on me		Click on me						
Suitable platform	ECU-4784		Any platform with standard PCIe slot						
Front panel									
Internet Speed for HSR/PSP	Speed	Ordering Information	Select by DIP Switch						
	100Mbps Base-FX	ECU-P1524PE-AE	<table><tr><th>SFP Mode</th><th>SW2</th></tr><tr><td>1000M Base-X</td><td></td></tr><tr><td>100M Base-FX</td><td></td></tr></table>	SFP Mode	SW2	1000M Base-X		100M Base-FX	
	SFP Mode	SW2							
1000M Base-X									
100M Base-FX									
Gigabit Base-X	ECU-P1524PE-GAE								
Internet Speed for LAN1, LAN2 port	1000Mbps without auto-negotiation		1000Mbps without auto-negotiation						
Internet Speed for InterLink port	1000Mbps/100Mbps with auto-negotiation		1000Mbps/100Mbps with auto-negotiation						

Suitable SPF connector	Multi-mode/ Single-Mode (table 2 for detail)	Multi-mode/ Single-Mode (table 2 for detail)																				
Number of MAC address	3 1.7 Function Block 	1																				
Number of HSR/PRP ports	2 ports with redundancy function	2 ports with redundancy function																				
Switch Normal/ HSR/PRP mode	By DIP switch 2.2 DIP Switch Setting ECU-P1524PE supports either HSR or PRP protocol; you ca hardware switch. The position meanings are shown below. Table 2.1: DIP Switch Picture DIP Switch Setting (SW1)  For HSR Mode: 1: "OFF" 2: "ON" 3: "any" 4: "any" For PRP Mode: 1: "ON" 2: "ON" 3: "any" 4: "any" For Normal Switch Mode: 1: "OFF" 2: "OFF" 3: "any" 4: "any"	By DIP switch <table><tr><th>Switch Mode</th><th colspan="4">SW1</th></tr><tr><td>Normal Switch</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td></tr><tr><td>HSR</td><td>OFF</td><td>ON</td><td>OFF</td><td>OFF</td></tr><tr><td>PRP</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td></tr></table>	Switch Mode	SW1				Normal Switch	OFF	OFF	OFF	OFF	HSR	OFF	ON	OFF	OFF	PRP	ON	ON	OFF	OFF
Switch Mode	SW1																					
Normal Switch	OFF	OFF	OFF	OFF																		
HSR	OFF	ON	OFF	OFF																		
PRP	ON	ON	OFF	OFF																		
Application example	- When testing with 1000MB Internet, use ECU-P1524PE-GAE, module and 1000 M, multi-mode cable, SFP-GSX / LC. - When testing with 100MB Internet, use ECU-P1524PE-AE module and 100 M, multi-mode cable, SFP-FXM / LC.	- When testing with 1000MB Internet, set the SW2 to the left, uses 1000 M cable, SFP-GSX / LC. - When testing with 100MB Internet, set the SW2 to the right, uses 100 M cable, SFP-FXM / LC.																				

100M to 100M/1000M to 1000M matched accordingly.

Datasheet for SFP connectors:

<https://advdownload.advantech.com/productfile/PIS/SFP%20MODULE/Product%20-%20Datasheet/SFP%20Module20190429134936.pdf>

Table 2. Corresponding SFP connector and ECU-P1524PE.

	ECU-P1524PE-AE 2-port 100Mbps Base-FX Ethernet Card with HSR/PRP		ECU-P1524PE-GAE 2-port SFP Gigabit Base-X Ethernet Card with HSR/PRP	
	LAN1/LAN2 1000M Base-X SFP Interface	HSR/PRP A/B 100M Base-FX SFP Interface	LAN1/LAN2 1000M Base-X SFP Interface	HSR/PRP A/B 1000M Base-FX SFP Interface
ADVANTECH SFP-FXM/LC 100M Base-FX Multi-mode SFP module		Y		
ADVANTECH SFP-FXS/LC-30E 100M Base-FX Single-mode SFP module		Y		
ADVANTECH SFP-GSX/LC 1000M Base-SX Multi-mode SFP module	Y		Y	Y
ADVANTECH SFP-GLX/LC-10E 1000M Base-LX Single-mode SFP module (10 km)	Y		Y	Y
ADVANTECH SFP-GLX/LC-20E 1000M Base-LX Single-mode SFP module (20 km)	Y		Y	Y
ADVANTECH SFP-GLX/LC-40E	Y		Y	Y

1000Base-LX Single-mode SFP module (40 km)				
ADVANTECH SFP-GXD/LC-50E 1000Base-XD Single-mode SFP module (50 km)	Y		Y	Y
ADVANTECH SFP-GZX/LC-70E 1000Base-ZX Single-mode SFP module (70 km)	Y		Y	Y
ADVANTECH SFP-GMM-2K 1000Base MM 1310 nm-LC (2km)	Y		Y	Y
ADVANTECH SFP-GTX/RJ45-AE 1000Base RJ45 SFP module	Y		Y	Y
ADVANTECH SFP-GTX -AE 1000Base RJ45 SFP module	Y		Y	Y
ADVANTECH SFP-FTX-RJ45I-AE 100Base RJ45 SFP module		Y		
3rd party SFP convert to RJ45 module supporting 100Base with Single/Multi-mode		Y		

Industrial Grade SFP 1 Gbps Copper Modules

Part Number	Also Known As	Ethernet Speed	Distance	Operating Temp
SFP-GTX	808-39001	10/100/1000 Mbps	100 m	0 to +70 °C (+32 to +158 °F)
SFP-GTXB	808-39010	1000 Mbps	100 m	0 to +70 °C (+32 to +158 °F)
SFP-GTX/RJ45I-AE	-	1000 Mbps	100 m	-40 to +85 °C (-40 to +185 °F)