# DA-PRP-HSR-I210 Expansion Module Installation Guide

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www.moxa.com/product



# DA-PRP-HSR-I210 Expansion Module Installation Guide

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### **Table of Contents**

1.	Introduction	
	Overview	
	Appearance	
	Appearance Dimensions	1-3
2.	Hardware Installation	
	Handling Static-sensitive Components	
	Installing the DA-PRP-HSR-I210 Expansion Card	
	Removing the DA-PRP-HSR-I210 Expansion Card	2-4
	LED Indicators	2-4
з.	Installing the DA-PRP-HSR-I210 Driver and Utility	
	Installing the Driver and Utility	
	Changing the Default Name of the Expansion Cards	
	Configuring the Operation Mode	
	Redefining the Ethernet Information	
	PRP/HSR Supervision Frame	

Thank you for purchasing Moxa's DA-PRP-HSR-I210 expansion card for the DA-820C Series industrial computer. This manual includes information on installation the hardware and driver for the expansion card.

The following topics are covered in this chapter:

- Overview
- □ Appearance
- Dimensions

## **Overview**

The DA-PRP-HSR-I210 expansion card is compliant with IEC 62439-3 Clause 4 (PRP) and IEC 62439-3 Clause 5 (HSR) standards to ensure the highest system availability and data integrity for mission-critical applications that require zero-time recovery and redundancy.

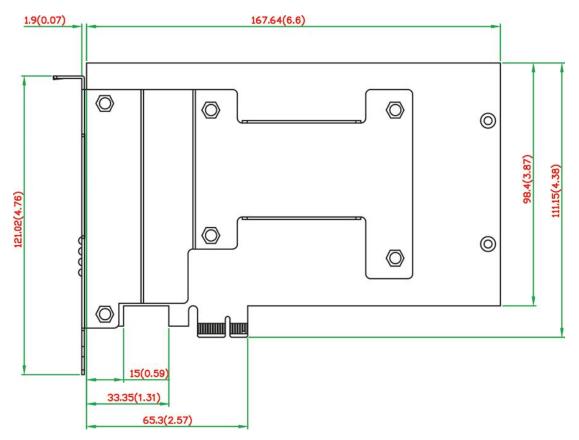
With its dual Gigabit Ethernet port design, the DA-PRP-HSR-I210 provides high performance for redundant network systems. In addition, the DA-PRP-HSR-I210 features a built-in native PRP/HSR management middleware with MMS server that allows SCADA systems to collect IEC 62439-3 registers from multiple devices for easy network diagnosis, troubleshooting, device management, and monitoring.

Moxa's DA-820C Series industrial computer with the DA-PRP-HSR-I210 expansion card is the ideal solution for power substation automation and process automation systems.

## Appearance



## Dimensions



# **Hardware Installation**

This chapter describes the basic hardware installation of the DA-PRP-HSR-I210 expansion card.

The following topics are covered in this chapter:

- Handling Static-sensitive Components
- Installing the DA-PRP-HSR-I210 Expansion Card
- Removing the DA-PRP-HSR-I210 Expansion Card
- LED Indicators

## **Handling Static-sensitive Components**

Static electricity can damage electronic components. To avoid damage, keep electronic components in their anti-static bags until you are ready to use them.

To reduce the possibility of damage to an electronic component from electrostatic discharge, take the following precautions:

- Wear a wrist strap to ground yourself while working with electronic components.
- Limit your movement; movement can create static electricity around you.
- Hold the component by its edges or frame.
- Avoid touching solder joints, pins, or exposed printed circuitry.
- Do not place the component directly onto a metal surface.
- While the component is still in its anti-static bag, place it in contact with an unpainted metal part for at least two seconds to discharge any static electricity from the package and from your body.
- After you remove the component from its package, install it directly. If you need to put the component down, place it on its anti-static bag.
- Take additional care when handling components in air-conditioned rooms and in cold weather because air conditioning and heating reduce indoor humidity and increase static electricity.

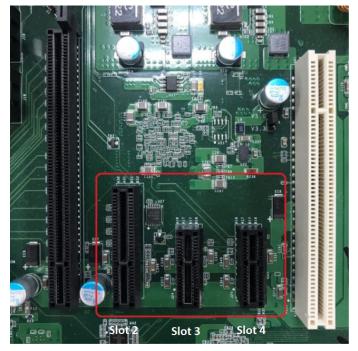
# Installing the DA-PRP-HSR-I210 Expansion Card

**NOTE** The DA-PRP-HSR-I210 expansion card can only be installed in a DA-820C computer. You can install up to three DA-PRP-HSR-I210 expansion cards in the PCI slots 2 to 4 of a DA-820C computer. Start with slot 3 and then install expansion cards in other slots if you are installing more than one.

To install the DA-PRP-HSR-I210, complete the following steps:

- 1. Turn off the DA-820C computer and disconnect it from the power source.
- 2. Loosen the screws on the rear of the DA-820C computer and remove the top cover.
- Remove the PCI slot cover on the rear panel and install the DA-PRP-HSR-1210 expansion card(s). The DA-PRP-HSR-I210 expansion card can be installed on PCI slots 2 to 4 of the DA-820C computer. If you need to install more than one expansion card, install the cards next to each other continuously in PCI slots 2 to 4.

The following figure indicates the PCI connectors on the system board.



4. In the DA-PRP-HSR expansion card, turn the card index selection switch to **0** for the first DA-PRP-HSR-I210 installed in the DA-820C computer.

Similarly, turn the card index selection switch to **1** for the second DA-PRP-HSR-I210 card and turn the card index selection switch to **2** for the third DA-PRP-HSR-I210 installed. The following figure shows the location of the card index selection switch on the DA-PRP-HSR-I210.



- 5. Align the PCI connector on the DA-PRP-HSR-I210 expansion card with the PCI connector on the system board and press to insert the expansion card into the slot.
- 6. Replace the PCI slot cover and fasten the screw to secure the DA-PRP-HSR-I210 to the computer chassis.
- 7. Put back the top cover on the DA-820C.
- Install the driver and configure the PRP/HSR settings to start using the DA-PRP-HSR-I210.
   For details on modifying the Ethernet settings or reassigning the system information for a DA-PRP-HSR-I210 card, see "3 Installing the Driver and Utility".

# Removing the DA-PRP-HSR-I210 Expansion Card

To remove a DA-PRP-HSR-I210 from a DA-820C computer, complete the following steps:

- 1. Turn off the computer and disconnect the power source.
- 2. Loosen the screws on the rear of the DA-820C computer and remove the top cover.
- 3. Loosen the screw that secures the DA-PRP-HSR-I210 to the computer chassis.
- 4. Pull to remove the DA-PRP-HSR-I210 from the system board.
- 5. Replace the PCI slot cover and the top cover of the DA-820C computer.

## **LED Indicators**

LED Name	Color	Function
1G_A	Yellow	1000 Mbps (Gigabit) Ethernet mode
	steady/blinking	
1G_A	Off	No link
100M_A	Green	100 Mbps Ethernet mode
	steady/blinking	
100M_A	Off	No link
1G_B	Yellow	1000 Mbps (Gigabit) Ethernet mode
	steady/blinking	
1G_B	Off	No link
100M_B	Green	100 Mbps Ethernet mode
	steady/blinking	
100M_B	Off	No link
PRP	Green	The DA-PRP-HSR-I210 is operating in PRP mode
HSR	Green	The DA-PRP-HSR-I210 is operating in HSR mode
Fault	Red	No Ethernet connection on LAN A or LAN B

# Installing the DA-PRP-HSR-I210 Driver and Utility

The following topics are covered in this chapter:

- Installing the Driver and Utility
- **Changing the Default Name of the Expansion Cards**
- Configuring the Operation Mode
- **D** Redefining the Ethernet Information
- PRP/HSR Supervision Frame

## **Installing the Driver and Utility**

NOTE	Th	e DA-PRP-HSR-I210 driver and utility are supported on Windows 10.
	2. 3. 4.	Connect a monitor, keyboard, and a mouse to the DA-820C computer. For more information, see the <i>DA-820C Series Embedded Computer User's Manual</i> . Turn on the computer. Download the DA-PRP-HSR-I210 driver from Moxa's support website at https://www.moxa.com/en/support to the DA-820C computer. Double-click the <b>DA-PRP-HSR-I210_MxPrpSetup_x64.msi</b> file to start the installation process. The installation wizard will show the welcome page. Click <b>Next</b> .
		Hrgsetup − □ ×
		Welcome to the MxPrpSetup Setup Wizard
		The installer will guide you through the steps required to install MxPrpSetup on your computer.
		WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
		Cancel < <u>B</u> ack <u>N</u> ext >

6. Accept the default installation directory or click **Browse** to select one and click **Next**.

🛃 MxPrpSetup			—		×
Select Installation Folde	r				
The installer will install MxPrpSetup to the	following folder.				
To install in this folder, click "Next". To in	stall to a different fol	der, enter it bel	ow or c	lick "Brov	vse''.
<u>F</u> older:					
C:\Program Files\M0XA\MxPrpSetup	\			Browse	
			<u> </u>	<u>D</u> isk Cost.	
Install MxPrpSetup for yourself, or for a	nyone who uses this	computer:			
Everyone					
⊖ Just <u>m</u> e					
	Cancel	< <u>B</u> ack		<u>N</u> ext	:>

7. Click **Next** to continue.

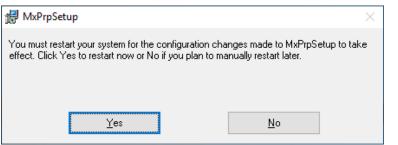
憬 MxPrpSetup			_		×
Confirm Installation					-
The installer is ready to install MxPrpSetup (	on your computer.				
Click "Next" to start the installation.					
	Cancel	< <u>B</u> ack	ĺ	<u>N</u> e	xt >

8. Click **Close** to complete the installation.

🛃 MxPrpSetup	-		×
Installation Complete			
MxPrpSetup has been successfully installed. Click "Close" to exit.			
Please use Windows Update to check for any critical updates to the .NET f	Framev	work.	
Cancel < <u>B</u> ack		<u><u>C</u>I</u>	ose

The Moxa PRP Service is installed on the computer.

9. In the message box that pops up, click **Yes**.



The Moxa PRP Ethernet Information utility will run automatically when you restart the computer.

	Connection Settings	Location	New News	
PRP Index	Name Ethernet 6	Location PCI bus 8, device 0, function 0	New Name	
New Ethernet	Connection Name			

# Changing the Default Name of the Expansion Cards

**NOTE** If a new PRP card in installed on the computer or removed from the computer, the **Moxa PRP Ethernet Information utility** will run automatically when the computer reboots. Use the utility to configure the new card.

The utility sets a default name for each card, which can be changed. In the example below, the **PRP Index** represents the PRP index switch selection and the location of the PRP expansion card, which can be obtained from the device manager.

To change the default name for an expansion card, click on the entry for the card in the utility window, change the default name, and click **Apply**.

G	Moxa PPR Eth	ernet Information		_	×
Г	PRP Ethernet	Connection Settings			
	PRP Index	Name	Location	New Name	
	0	Ethernet 6	PCI bus 8, device 0, function 0	PRPEthernet #1	
	New Ethernet	Connection Name PRPEth	ernet #1		
			Apply		

You will be prompted to restart the computer.

After the computer is restarted, the Moxa PRP Service will run.

q 📑 🛛 📰 🕨 🔲 🖬 🕨						
Services (Local)						
Moxa PRP Service	Name	Description	Status	Startup Type	Log On As	
	Microsoft Storage Spaces S	Host service		Manual	Network Service	
Stop the service	Microsoft Windows SMS Ro	Routes mes	Running	Manual (Trig	Local System	
Restart the service	Moxa PRP Service	Retrieve rela	Running	Automatic	Local System	
	🔍 Net.Tcp Port Sharing Service	Provides abi		Disabled	Local Service	
Description:	🏟 Netlogon	Maintains a		Manual	Local System	
Retrieve relative information on Moxa PRP/HSR Module Card	🌼 Network Connected Device	Network Co		Manual (Trig	Local Service	
PRP/HSR Would Card	🌼 Network Connection Broker	Brokers con	Running	Manual (Trig	Local System	
	🍓 Network Connections	Manages o	Running	Manual	Local System	
	🆏 Network Connectivity Assis	Provides Dir		Manual (Trig	Local System	
	🎑 Network List Service	Identifies th	Running	Manual	Local Service	
	🌼 Network Location Awareness	Collects an	Running	Automatic	Network Service	
	🆏 Network Setup Service	The Networ	Running	Manual (Trig	Local System	
	🆏 Network Store Interface Ser	This service	Running	Automatic	Local Service	
	🍓 Offline Files	The Offline		Manual (Trig	Local System	
	🍓 Optimize drives	Helps the c		Manual	Local System	
	🍓 Peer Name Resolution Prot	Enables serv		Manual	Local Service	
	🍓 Peer Networking Grouping	Enables mul		Manual	Local Service	
	🍓 Peer Networking Identity M	Provides ide		Manual	Local Service	
	🍓 Performance Counter DLL	Enables rem		Manual	Local Service	
	🍓 Performance Logs & Alerts	Performanc		Manual	Local Service	
	🍓 Phone Service	Manages th		Manual (Trig	Local Service	
	🦾 Plug and Play	Enables a c	Running	Manual	Local System	

The DA-PRP-HSR-I210 card uses the same Intel® Ethernet driver as the onboard Ethernet adapters. All expansion cards installed on the computer are shown as individual Ethernet adapters.

Network Connections			-	- 🗆	>
→ · ↑ 😰 › C	Control Panel > Network and Internet	> Network Connections V 🖑	Search Ne	twork Co	nn 🔎
Drganize 🔻					
lame ^	Status	Device Name	C	onnectivi	ty
Ethernet	Network cable unplugged	Intel(R) Ethernet Connection (2) I219-LM			
Ethernet 2	Network cable unplugged	Intel(R) I210 Gigabit Network Connection #3			
Ethernet 3	Network cable unplugged	Intel(R) I210 Gigabit Network Connection #2			
Ethernet 4	Network cable unplugged	Intel(R) I210 Gigabit Network Connection			
PRPEthernet #1	Unidentified network	Intel(R) I210 Gigabit Network Connection #6 (PRPEtherne	t#1) N	lo networl	kacce

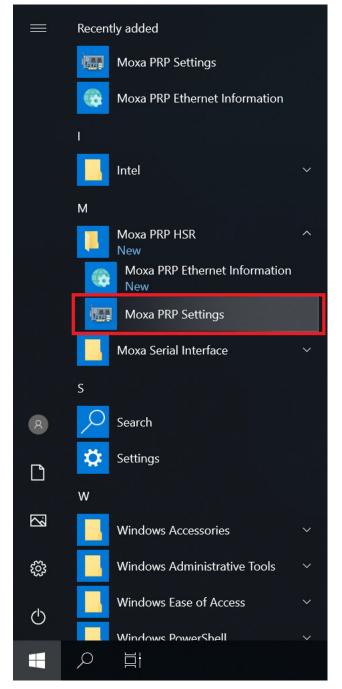
You can also confirm the name change of the expansion card by checking the Ethernet adapter names in the Device Manager.

📇 Device Manager
File Action View Help
> 🙀 Display adapters
> 🎽 Firmware
> 🐺 Human Interface Devices
> 📹 IDE ATA/ATAPI controllers
> 🔤 Keyboards
> III Mice and other pointing devices
> 💻 Monitors
> 🛃 MOXA Embedded Drivers
✓
Intel(R) Ethernet Connection (2) I219-LM
Intel(R) I210 Gigabit Network Connection
Intel(R) I210 Gigabit Network Connection #2
Intel(R) I210 Gigabit Network Connection #3
Intel(R) I210 Gigabit Network Connection #6 (PRPEthernet #1)
🚽 WAN Miniport (IKEv2) 🗇 WAN Miniport (IP)
WAN Miniport (IPv6)
WAN Miniport (L2TP)
WAN Miniport (Network Monitor)
WAN Miniport (PPPOE)
WAN Miniport (PPTP)
WAN Miniport (SSTP)
Ports (COM & LPT)
> 🛱 Print queues
> Processors
Security devices

## **Configuring the Operation Mode**

You can use the **Moxa PRP Settings** utility to set the operating mode (PRP or HSR) for a DA-PRP-HSR\_I210 expansion card.

1. Run the **Moxa PRP Settings** utility from the Start menu.



2. Select the expansion card.

If more than one DA-PRP-HSR-I210 expansion cards are installed on the computer, use the Module Index (0 to 2) drop-down menu to select the card that you want to configure.

🖳 MOXA PRP/HSR S —		×
Module Index		
PRP/HSR Mode PRP ~	Apply	

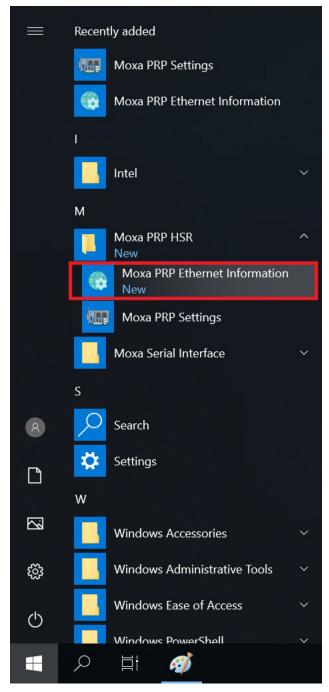
3. From the **PRP/HSR Mode** drop-down list, select an option and click **Apply**.

🖳 MOXA PRP/HSR S	_		×
Module Index 0 ~			
PRP/HSR Mode PRP PRP HSR		Apply	

## **Redefining the Ethernet Information**

The **Moxa PRP Ethernet Information** utility can be used to redefine the DA-PRP-HSR-I210 Ethernet information in the system.

1. Run the Moxa PRP Ethernet Information utility from the Start Menu.



In the utility screen, select the expansion card.
 PRP Index: Select the target PRP card index (the index set by the switch in the expansion card)
 Location: PCI bus location of the target PRP card.
 Name: Type the network connection name of target PRP card.
 In this example, we are redefining the name of the card.
 New Name: The new name to set.

	hernet Information Connection Settings		- 0	>
PRP Index	Name	Location	New Name	
0	Ethernet 6	PCI bus 8, device 0, function 0	PRPEthernet #1	
New Ethernet	Connection Name PRPE	thernet #1		
		Apply		

After the Ethernet information has been successfully redefined, a message is shown. Click  $\ensuremath{\textbf{OK}}$  .

C	Moxa PPR Eth	ernet Information		- 🗆 X
	PRP Ethernet (	Connection Settings		
	PRP Index 0	Name Ethernet 6	Location PCI bus 8, device 0, function 0	New Name PRPEthernet #1
	New Ethernet (	Change N	letwork Connection Name and Firend anager Successfully!!	X IIIy Name of
				ОК

#### 3. Restart the computer.

¢	Moxa PPR Eth	ernet Information		- 🗆 ×
	PRP Ethernet C	Connection Settings		
	PRP Index 0	Name Ethernet 6	Location PCI bus 8, device 0, function 0	New Name PRPEthernet #1
			Setting Information	×
	New Ethernet (	Connection Name PRPEt	Please Restart the Con	nputer.
				ОК

## **PRP/HSR Supervision Frame**

The supervision frame of DA-PRP-HSR-I210 expansion card is based on WinPcap. Before you start sending the PRP/HSR supervision frame, you must download and install the WinPcap tool from <a href="https://www.winpcap.org/">https://www.winpcap.org/</a> and check the supervision frame.

To check the PRP/HSR supervision frame, do the following:

- 1. Install the WinPcap tool on the DA-820C.
- 2. Install DA-PRP-HSR-I210\_MxPrpSetup\_x64.msi
- 3. Wait for the Moxa PRP Service to initialize.
- 4. The Moxa PRP/HSR Supervision Sender service will start running.

I∰ Task Man File Options	-								_		×
	_	App history	Startup	Users	Details	Services	5				
	~				09	6	13%	3%	0%		
Name					CPI	J Me	emory	Disk	Network		
🙆 Micro	osoft OneDriv	e (32 bit)			09	6 3	.6 MB	0 MB/s	0 Mbps		
> 🔳 Micro	osoft Software	e Protection P	latform S	er	09	6 3	.5 MB	0 MB/s	0 Mbps		
> 🔒 Micro	osoft Window	s Search Inde	ker		09	6 4	.7 MB	0 MB/s	0 Mbps		
Moxa	PRP/HSR Su	pervision Send	der		09	61	.0 MB	0.1 MB/s	0 Mbps		
> 🔳 MxPr	pSvc				09	6 7	7.0 MB	0 MB/s	0 Mbps		
Plcor	n startup utilit	y (32 bit)			09	6 0	.8 MB	0 MB/s	0 Mbps		
> 💽 Prese	ntationFontC	ache.exe			09	6 3	.2 MB	0 MB/s	0 Mbps		
📧 Runti	ime Broker				09	6 6	5.9 MB	0 MB/s	0 Mbps		
🔎 Searc	h				09	6 27	.9 MB	0 MB/s	0 Mbps		
🔎 Searc	h Backgroun	d Task Host			09	6 7	.6 MB	0 MB/s	0 Mbps		
💽 Smar	tScreen				09	6 3	.1 MB	0 MB/s	0 Mbps		
> 🖶 Spoo	ler SubSysten	n App			09	6 4	.2 MB	0 MB/s	0 Mbps		
$\oplus$ Wind	lows Defende	r notification i	icon		09	6 2	.3 MB	0 MB/s	0 Mbps		
> 🔳 Wind	lows Modules	Installer			09	6 1	.0 MB	0 MB/s	0 Mbps		
🔳 Wind	ows Modules	Installer Wor	ker		09	6 1	.4 MB	0 MB/s	0 Mbps		
Fewer de	etails									<u>E</u> nd ta	ask

- 5. Install the Wireshark tool on a PC and run the tool with the "hsr\_prp\_supervision" filter to wait for the PRP supervision frames.
- 6. Connect port A or port B of the DA-PRP-HSR-I210 to the Ethernet port of the PC.
- 7. Use the Moxa PRP Settings utility to set the PRP/HSR mode.
- 8. Check the supervision frame using the Wireshark tool.

#### **PRP Supervision Frame**

Image: Constraint of the second sec	Edit View Go	Capture Analyze Statistics Telephor	ny Wireless Tools Help	
Tage_propervision         Protocol         Length         Info           1313         1038.7124365         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1314         1040.729941         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1314         1040.729941         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1316         1044.776562         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1315         1046.776562         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1315         1045.776562         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1312         1056.85444         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1312         1056.854444         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 PRP         Supervision           1312         1056.854444         MoxaTech_00:e5:0f         Icc_00:01:00         HSR/PRP         66 HSR Supervision          1312 </th <th></th> <th></th> <th></th> <th></th>				
Time         Source         Destination         Protocol         Leagh         Info           3133         1314         1313         1314         1313         1314				
3133 1038.714345       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3137 1040.729941       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3140 1042.749453       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3140 1042.749453       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3150 1046.776562       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3151 1046.720514       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3152 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         312 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         312 1056.82444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         312 1056.82444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         312 1066.02724       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         312 1066.02724       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision		Source	Destination	Protocol Length Info
3137 1040.729941       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         3140 1042.745433       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         316 1044.776552       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         315 1046.772552       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         315 1054.83095       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         316 1054.030054       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         317 1064.772544       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP       Supervision         318 1050.085444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR       Supervision         318 1060.0457345       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR       Supervision         319 1066.07734       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR       Supervision         319 1068.068432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR       Supervision         3				
3146 1044.761089       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3150 1046.776562       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3151 1048.776562       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3151 1045.776562       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3190 1064.057315       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072744       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3102 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.11558       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision <tr< td=""><td>3137 1040.7299</td><td>41 MoxaTech 00:e5:0f</td><td>Iec 00:01:00</td><td>HSR/PRP 66 PRP Supervision</td></tr<>	3137 1040.7299	41 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3150 1046.776562       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3153 1048.792191       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3158 1050.887634       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3102 1066.02029       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3102 1066.02039       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision	3140 1042.7454	53 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3153 1948.792191       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3158 1950.807634       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3151 1054.838905       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3121 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1060.04179       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.080432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3204 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision <t< td=""><td>3146 1044.7610</td><td>89 MoxaTech 00:e5:0f</td><td>Iec 00:01:00</td><td>HSR/PRP 66 PRP Supervision</td></t<>	3146 1044.7610	89 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3158 1950.807634       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1952.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3182 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3120 1066.088432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3201 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision <t< td=""><td>3150 1046.7765</td><td>62 MoxaTech_00:e5:0f</td><td>Iec_00:01:00</td><td>HSR/PRP 66 PRP Supervision</td></t<>	3150 1046.7765	62 MoxaTech_00:e5:0f	Iec_00:01:00	HSR/PRP 66 PRP Supervision
3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3162 1052.823302       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         7211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         7280 0000       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision	3153 1048.7921	91 MoxaTech_00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3165 1054.838905       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3201 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision <t< td=""><td>3158 1050.8076</td><td>34 MoxaTech 00:e5:0f</td><td>Iec 00:01:00</td><td>HSR/PRP 66 PRP Supervision</td></t<>	3158 1050.8076	34 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3172 1056.854444       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 PRP Supervision         3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3189 1064.057315       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3102 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3120 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3120 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119558       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3111 074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       thennet       Supervision	3162 1052.8233	02 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3181 1060.030294       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3189 1064.057315       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3196 1068.08432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         sequence number:       II       Science       Go:01:00       HSR/PRP       66 HSR Supervision         sequence number:       483       Iec_00:01:00       HSR/PRP       66 HSR Supervision         TLV length:       6       Source MAC Address:       MoxaTech_00:e5:0f (00:90:e8:00:e5:0f)         TLV length:	3165 1054.8389	05 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 PRP Supervision
3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3189 1064.057315       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3196 1068.08432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         311074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         reme 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       Hternet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00)       SK/PRP         80000	3172 1056.8544	44 MoxaTech_00:e5:0f	Iec_00:01:00	HSR/PRP 66 PRP Supervision
3185 1062.041793       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3189 1064.057315       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3106 1068.088432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         311 074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       Hthernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00)       SK/PRP         80000        Path: 0        0000 0000 = Version: 1         Sequence number: 483       ILV type: Redundancy Box MAC Address (30)       ILV type: Redundancy Box MAC Address (30)         TLV type: Redundancy Box MAC Address: (30)       ILV type: Redundancy Box MAC Address (30)	3181 1060.03029	94 MoxaTech_00:e5:0f	Iec_00:01:00	HSR/PRP 66 HSR Supervision
3192 1066.072794       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3196 1068.088432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       Hsr.PRP       66 HSR Supervision         RFC62439 Part 3)       0000 0000 0001 = Version: 1       Sequence number: 483       Supervision (IEC62439 Part 3)         0000 = Path: 0        0000 0000 0001 = Version: 1       Sequence number: 483         TLV type: PRP Node (Duplicate Discard) (20)       TLV type: Redundancy Box MAC Address (30)       ILV type: Redundancy Box MAC Address (30)         TLV type: Redundancy Box MAC Address (30)       ILV type: End of TLVs (0)       ILV type: Note trailer, Source Port: 806         Sc-Monitoring ethernet trailer, Source Port: 806       Src Port: 806       Src Port: 806       Src	3185 1062.0417		Iec 00:01:00	HSR/PRP 66 HSR Supervision
3196 1068.088432       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       HsR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       HsR/PRP       66 HSR Supervision         skprvision (IEC62439 Part 3)       0000 = Path: 0       0000 00001 = Version: 1       Sequence number: 483         TLV type: PRP Node (Duplicate Discard) (20)       TLV type: Redundancy Box MAC Address (30)       TLV type: Redundancy Box MAC Address (30)         TLV type: Redundancy Box MAC Address (30)       TLV type: End of TLVs (0)       SS-Monitoring ethernet trailer, Source Port: 806         Sor-Noning ethernet trailer, Source Port: 806       Src Port: 806       Src Port: 806	3189 1064.0573	15 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 HSR Supervision
3202 1070.104012       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       Hsr/PRP       66 HSR Supervision         ftnernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00)       SR/PRP Supervision (IEC62439 Part 3)         0000 = Path: 0	3192 1066.0727	94 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 HSR Supervision
3208 1072.119585       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         3211 1074.135104       MoxaTech_00:e5:0f       Iec_00:01:00       HSR/PRP       66 HSR Supervision         rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0       thernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00)       SR/PRP         SR/PRP Supervision (IEC62439 Part 3)       0000 = Path: 0       0000 0000 1= Version: 1         Sequence number: 483       TLV type: PRP Node (Duplicate Discard) (20)       TLV length: 6         Source MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f)       TLV type: Redundancy Box MAC Address (30)       TLV type: End of TLVs (0)         TLV type: End of TLVs (0)       TLV length: 0       SS-Monitoring ethernet trailer, Source Port: 806       Source Mac Madress	3196 1068.0884	32 MoxaTech 00:e5:0f	Iec 00:01:00	HSR/PRP 66 HSR Supervision
3211 1074.135104         MoxaTech_00:e5:0f         Iec_00:01:00         HSR/PRP         66 HSR Supervision           name 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0         thernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00)         SR/PRP           SR/PRP Supervision (IEC62439 Part 3)         0000 = Path: 0         0000 0000 0001 = Version: 1           Sequence number: 483         TLV type: PRP Node (Duplicate Discard) (20)         1000           TLV type: Redundancy Box MAC Address (30)         TLV type: Redundancy Box MAC Address (30)         1000           TLV type: End of TLVs (0)         TLV type: End of TLVs (0)         1000         500           SS-Monitoring ethernet trailer, Source Port: 806         806         500         500		10 Marrata als 00 - 5 - 00	Tec 00:01:00	HSR/DRP 66 HSR Supervision
<pre>rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0 thernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00) SR/PRP Supervision (IEC62439 Part 3) 0000 = Path: 0 0000 0000 0001 = Version: 1 Sequence number: 483 TLV type: PRP Node (Duplicate Discard) (20) TLV length: 6 Source MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: Redundancy Box MAC Address (30) TLV length: 6 RedBox MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: End of TLVS (0) TLV length: 0 SS-Monitoring ethernet trailer, Source Port: 806 Src Port: 806</pre>	3202 1070.1040	12 Moxalech 00:e5:0T		
<pre>rame 3172: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface 0 thernet II, Src: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f), Dst: Iec_00:01:00 (01:15:4e:00:01:00) SR/PRP Supervision (IEC62439 Part 3) 0000 = Path: 0 0000 0000 0001 = Version: 1 Sequence number: 483 TLV type: PRP Node (Duplicate Discard) (20) TLV length: 6 Source MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: Redundancy Box MAC Address (30) TLV length: 6 RedBox MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: End of TLVs (0) TLV length: 0 SS-Monitoring ethernet trailer, Source Port: 806 Src Port: 806</pre>				
Sequence number: 483 TLV type: PRP Node (Duplicate Discard) (20) TLV length: 6 Source MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: Redundancy Box MAC Address (30) TLV length: 6 RedBox MAC Address: MoxaTech_00:e5:0f (00:90:e8:00:e5:0f) TLV type: End of TLVs (0) TLV length: 0 SS-Monitoring ethernet trailer, Source Port: 806 Src Port: 806	3208 1072.11958 3211 1074.13510	85 MoxaTech_00:e5:0f 04 MoxaTech_00:e5:0f	Iec_00:01:00 Iec_00:01:00	HSR/PRP 66 HSR Supervision HSR/PRP 66 HSR Supervision
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#### HSR Supervision Frame

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prp_supervision		Q, Q, Q, ##		
_prp_supervision Time	Source	Destination	Protocol L	ength Info
3165 1054.838905		Iec 00:01:00	HSR/PRP	66 PRP Supervision
3172 1056.854444	_	Iec_00:01:00	HSR/PRP	66 PRP Supervision
3181 1060.030294		Iec 00:01:00		66 HSR Supervision
3185 1062.041793		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3189 1064.057315		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3192 1066.072794		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3196 1068.088432	_	Iec 00:01:00	HSR/PRP	66 HSR Supervision
3202 1070.104012		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3208 1072.119585		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3211 1074.135104		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3222 1076.150654		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3227 1078.166251		Iec_00:01:00	HSR/PRP	66 HSR Supervision
3230 1080.181814	_	Iec 00:01:00	HSR/PRP	66 HSR Supervision
3234 1082.197383		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3239 1082.137583		Iec 00:01:00	HSR/PRP	66 HSR Supervision
3244 1086.228421		Iec 00:01:00	HSR/PRP	66 HSR Supervision
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3256 1088.244045 3266 1090.259591 rame 3181: 66 byt thernet II, Src: igh-availability	MoxaTech_00:e5:0f MoxaTech_00:e5:0f es on wire (528 bits), 66 byt MoxaTech_00:e5:0f (00:90:e8:0 Seamless Redundancy (IEC62435	Iec_00:01:00 Iec_00:01:00 tes captured (528 bits) on interf. 00:e5:0f), Dst: Iec_00:01:00 (01:	HSR/PRP HSR/PRP	66 HSR Supervision 66 HSR Supervision
3256 1088.244045 3266 1090.259591 rame 3181: 66 byt thernet II, Src: igh-availability SR/PR Superviso 0000 Sequence number	MoxaTech_00:e5:0f MoxaTech_00:e5:0f es on wire (528 bits), 66 byt MoxaTech_00:e5:0f (00:90:e8:0 Seamless Redundancy (IEC62439 n (IEC62439 Part 3) = Path: 0 3001 = Version: 1 : 484	Iec_00:01:00 Iec_00:01:00 tes captured (528 bits) on interf. 00:e5:0f), Dst: Iec_00:01:00 (01:	HSR/PRP HSR/PRP	66 HSR Supervision
3256 1088.244045 3266 1090.259591 rame 3181: 66 byt thernet II, Src: igh-availability SR/PRP Supervisio 0000	MoxaTech_00:e5:0f MoxaTech_00:e5:0f es on wire (528 bits), 66 byt MoxaTech_00:e5:0f (00:90:e8:0 Seamless Redundancy (IEC62439 n (IEC62439 Part 3) = Path: 0 3001 = Version: 1 : 484	Iec_00:01:00 Iec_00:01:00 tes captured (528 bits) on interf. 00:e5:0f), Dst: Iec_00:01:00 (01:	HSR/PRP HSR/PRP	66 HSR Supervision
3256 1088.244045 3266 1090.259591 rame 3181: 66 byt thennet II, Src: igh-availability SK/PRP Supervisio 0000	MoxaTech_00:e5:0f MoxaTech_00:e5:0f es on wire (528 bits), 66 byt MoxaTech_00:e5:0f (00:90:e8:6 Seamless Redundancy (IEC62435 n (IEC62439 Part 3) = Path: 0 3001 = Version: 1 : 484 odde (23)	Iec_00:01:00 Iec_00:01:00 tes captured (528 bits) on interfa 30:e5:0f), Dst: Iec_00:01:00 (01:: 0 Part 3 Chapter 5)	HSR/PRP HSR/PRP	66 HSR Supervision
3256 1088.244045 3266 1090.259591 rame 3181: 66 byt thernet II, Src: igh-availability SR/PRP Supervisio 0000 00000 Sequence number: TLV type: HSR Nk TLV length: 6 Source MAC Addre	MoxaTech_00:e5:0f MoxaTech_00:e5:0f es on wire (528 bits), 66 byt MoxaTech_00:e5:0f (00:90:e8:6 Seamless Redundancy (IEC62439 nn (IEC62439 Part 3) = Path: 0 3001 = Version: 1 : 484 bode (23) ess: MoxaTech_00:e5:0f (00:90	Iec_00:01:00 Iec_00:01:00 tes captured (528 bits) on interfa 30:e5:0f), Dst: Iec_00:01:00 (01:: 0 Part 3 Chapter 5)	HSR/PRP HSR/PRP	66 HSR Supervision
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