PMC-1302-3

Ethernet Serial/LoRa Gateway

User Manual

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Table of Contents

Chapter 1 Introduction5
1.1 Overview5
1.2 Features5
1.3 Applications5
1.4 Getting more information5
Chapter 2 Installation
2.1 Appearance6
2.2 Mounting6
2.3 RS-485 Wiring7
2.4 Ethernet Port (10/100BaseT)7
2.5 Power Supply Wiring7
Chapter 3 Operating the PMC-1302-3 ESG8
3.1 Front Panel LED Indicators8
3.2 Reset Button
3.3 Typical Application8
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface9
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password13
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information13
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit13
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG15
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG155.1 Topological Graph15
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG155.1 Topological Graph155.2 Configuring the PMC-1302-3 ESG15
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG155.1 Topological Graph155.2 Configuring the PMC-1302-3 ESG155.3 Configuring PecStar iEMS16
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG155.1 Topological Graph155.2 Configuring the PMC-1302-3 ESG155.3 Configuring PecStar iEMS16Appendix A - Technical Specifications18
Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface94.1 Web Console Login94.2 Ethernet104.3 Serial Port & LoRa104.4 Change Password134.5 Device Information134.6 Exit134.7 Reboot14Chapter 5 Communications through the PMC-1302-3 ESG155.1 Topological Graph155.2 Configuring the PMC-1302-3 ESG155.3 Configuring PecStar iEMS16Appendix A - Technical Specifications18Appendix B - Standards Compliance19

Chapter 1 Introduction

This chapter provides an overview of the PMC-1302-3 ESG and summarizes many of its key features.

1.1 Overview

The PMC-1302-3 ESG is an Industrial Ethernet Serial/LoRa Gateway which provides one 10/100BaseT Ethernet port, two RS-485 ports and an optional wireless LoRa port with configurable ISM Bands. It is the ideal equipment for connecting RS-485 and optionally LoRa enabled devices to an IP-based Ethernet LAN, making it possible to access serial and optionally LoRa enabled devices over your Ethernet network for any SCADA or Automation applications. The PMC-1302-3 ESG has been specifically designed with industrial automation in mind and therefore provides un-surpassed performance and reliability under the harshest industrial or commercial environments.

1.2 Features

- 1x10/100BaseT
- 2xRS-485 port
- Optional LoRa port with configurable ISM Bands for EU863-870, RU864-870, IN865-867, US902-928, AU915-928, AS920-923 and AS923-925
- 8kV ESD protection
- 1.5kV isolation protection for Ethernet port
- 3kV isolation protection for RS-485
- One-key Reset to default factory
- Simple configuration via its built-in web interface
- DIN Rail Mount
- Extended operating temperature

1.3 Applications

The PMC-1302-3 ESG supports the efficient transfer of serial packets between the upstream network-based applications, the downstream RS-485 serial and optionally LoRa wireless devices via a TCP/IP connection. Instead of using a Windows based "Virtual COM" driver with a port-mapping utility, which is often plagued with driver incompatibility among the many different Windows versions, the PMC-1302-3 ESG allows applications to directly connect to it via a TCP/IP connection for the transparent transfer of serial packets inside TCP/IP frames to and from downstream devices. Perfectly suited for communicating with industrial devices that have timing sensitive protocols, the PMC-1302-3 ESG provides a reliable interface which allows SCADA or similar applications that already support direct connection with Ethernet Gateway to communicate with serial devices independent of the serial protocols used.

The PMC-1302-3 ESG optionally supports the LoRa port with configurable ISM Bands for wireless IoT applications in most countries.

1.4 Getting more information

Additional information is available from CET via the following sources:

- Visit <u>www.cet-global.com</u>
- Contact your local representative
- Contact CET directly via email at <u>support@cet-global.com</u>

Chapter 2 Installation

2.1 Appearance



Figure 2-1 Appearance



Figure 2-2 Upper Connector Arrangement



Figure 2-3 Lower Connectors Arrangement

2.2 Mounting

The PMC-1302-3 ESG should be installed in a dry environment with no dust and kept away from heat, radiation and electrical noise sources.

Installation steps:

- Before installation, make sure that the DIN rail is already in place.
- Move the installation clip at the back of the PMC-1302-3 downward to the "unlock" position.
- Align the top of the mounting channel at the back of the PMC-1302-3 at an angle against the top of the DIN rail as shown in Figure 2-4 below.
- Rotate the bottom of the PMC-1302-3 towards the back while applying a slight pressure to make sure that the device is completely and securely fixed on to the DIN rail.
- Push the installation clip upward to the "lock" position to secure the PMC-1302-3 on to the DIN Rail.



2.3 RS-485 Wiring

The PMC-1302-3 ESG provides two RS-485 ports (P2 and P3). Up to 32 devices can be connected on a RS-485 bus. The overall length of the RS-485 cable connecting all devices should not exceed 1200m.

If the master station does not have a RS-485 communications port, a RS-232/RS-485, USB/RS-485 or Ethernet/RS-485 converter with optically isolated outputs and surge protection should be used.

The following figure illustrates the RS-485 communications connections on the PMC-1302-3 ESG:



Figure 2-5 S485 Communications Connections

2.4 Ethernet Port (10/100BaseT)

The PMC-1302-3 ESG comes standard with an Ethernet Port (P1) using the MDI/MIDX Auto-detect RJ45 connector which means users can connect with a straight-through cable or an Ethernet cross-over cable. The table below lists the meaning for each pin.

RJ45 Connector	Pin	Meaning
	1	Transmit Data+
	2	Transmit Data-
	3	Receive Data+
	4,5,7,8	NC
	6	Receive Data-

Table 2-1 RJ45 Connector Pin Description for 10/100BaseT Applications

2.5 Power Supply Wiring

For AC supply, connect the live wire to the L/+ terminal and the neutral wire to the N/- terminal.



Figure 2-6 Power Supply Connections

Chapter 3 Operating the PMC-1302-3 ESG

3.1 Front Panel LED Indicators

There are three or four LED indicators on the PMC-1302-3 ESG's Front Panel as described in the following table.

LED Indicator	Color	Status	Function		
		On	System is running abnormally		
Run	Green	Off	Power off or system is running abnormally		
		Blinking	Power is on and system is running normally		
Data Valleur		On	LoRa is running abnormally		
(LoRa option only)	Yellow	Blinking	LoRa is receiving or transmitting data		
C 0	Green	Blinking	P2 is receiving data		
PZ	Yellow	Blinking	P2 is transmitting data		
20	Green	Blinking	P3 is receiving data		
P3	Yellow	Blinking	P3 is transmitting data		
Table 3-1 LED Indicators					

3.2 Reset Button

There is a **Reset** button at the lower right-hand corner of the PMC-1302-3's front panel. Pressing and holding the **Reset** button for 1 to 5 seconds will cause the PMC-1302-3 ESG to initiate a reboot sequence. The reboot process would be completed in approximately 30 seconds. Pressing and holding the **Reset** button for more than 5 seconds will reset the PMC-1302-3 ESG to default factory configuration.

3.3 Typical Application

The following figure shows the typical application for the PMC-1302-3 ESG.



Figure 3-1 Typical Application

Chapter 4 Configuring the PMC-1302-3 ESG via Web Interface

4.1 Web Console Login

 Open your Internet Explorer with the scripting function enabled. To enable scripting for your browser, right click on your Internet Explorer icon and then select Properties from the pop-up dialog box. The Internet Options window appears. Select the Security tab and then click on the Custom Level button near the bottom of the window. The Security Settings window appears. Enable the three options as shown below and then click OK.



Figure 4-1 Internet Setting

2) The default IP Address of the PMC-1302-3 ESG's Ethernet Port is 192.168.0.127. Configure the IP Address and the Subnet Mask of the PC as 192.168.0.100 and 255.255.255.0 as shown below.

Local Area Connection Properties	Internet Protocol (TCP/IP) Properties
General Authentication Advanced	General
Connect using: Realtek RTL8139 Family PCI Fast Ett Configure	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
This connection uses the following items:	O Obtain an IP address automatically
S Client for Microsoft Networks Network Load Balancing Pite and Printer Sharing for Microsoft Networks Tinternet Protocol (TCP/IP) Install Properties Description Transmission Control Protocol/Internet Protocol. The default	Image: Constraint of the server address: 192,168,0,100 Subnet mask: 255,255,255,0 Default gateway: . Colptain DNS server address automatically Image: Colptain DNS server addresses:
wide area network protocol that provides communication across diverse interconnected networks.	Preferred DNS server: Alternate DNS server:
✓ Notify me when this connection has limited or no connectivity	Advanced
0K Cancel	OK Cancel

Figure 4-2 Setting IP Address

- 3) Enter the IP Address of the PMC-1302-3 ESG in the Address input box of the Internet Explorer and then press **<Enter>**.
- 4) The PMC-1302-3's Web Console Login page appears. Enter the User Name and Password and then click **Login**. The default user name is "user", and the default password is "123456".

PMC-1302 Web Console	
Username: Password: Login Reset	

Figure 4-3 Login Interface

5) Once the log-in credentials are confirmed, the following page appears.

PMC-1302 Web Console						
 >> Ethernet >> Serial Port & LoRa >> Change Password 	Save P1 (Ethernet)					
 Device Information Reboot 	IP Address: 192.168.0.127 Subnet Mask: 255.255.255.0 Default Gateway: 192.168.0.1					

Figure 4-4 Basic Settings

4.2 Ethernet

The **P1 (Ethernet)** port's settings can be configured here based on the actual situation. Click **Save** to confirm your changes. Please be reminded that the **IP Address** and **Default Gateway** for the Ethernet port should be in the same subnet.

>> Ethernet Save		PMC-13	02 Web Console	Quit
Serial Port & LoRa Change Password Device Information Reboot P1 (Ethernet) IP Address: 192.168.0.127 Subnet Mask: 255.255.0 Default Gateway: 192.168.0.1	 > Ethernet >> Serial Port & LoRa >> Change Password >> Device Information >> Reboot 	Save P1 (Ethernet) IP Address: Subnet Mask: Default Gateway:	192.168.0.127 255.255.255.0 192.168.0.1	

Figure 4-5 P1 Settings

4.3 Serial Port & LoRa

The PMC-1302-3 comes standard with two RS-485 ports (P2 and P3) and an optional LoRa wireless port (P4). All setup parameters such as **Baudrate**, **Data Bits**, **Parity**, **Stop Bits**, **IP Port** and **Timeout** can be configured here to match the settings of the downstream RS-485 devices. Please be reminded that the **IP Port** number of the Serial Gateway feature for P2 (default = 20001) and P3 (default = 20002) should be different. Click **Save** to confirm your changes. The following table shows the setup parameters for P2, P3 and P4. Most setup parameters are basic and self-explanatory.

Please note that the **Packet Timeout (s)** parameter refers to the timeout setting for the IP connection instead of the serial or LoRa connection, meaning that the IP connection will be closed if there are no

activities between the application software and the PMC-1302-3 ESG for the specified amount of time. This is to prevent a potential lock up of the IP connection at the PMC-1302-3 ESG if the application software fails to close the IP connection for some unknown reasons. It is recommended that the default **Packet Timeout** of 300 seconds be used.

EET		PM	C-1302 Web	Console		Quit
>> Ethernet	Save					^
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	P2 (RS-485)					
>> Device Information	Baudrate:	9600 🗸	Mode:	TCP Server		
W Reboot	Data Bits:	8 ~	IP Port:	20001		
	Parity:	Even ~				
	Stop Bits:	1 ~				
	Packet Timeout (s):	300				
	Byte Timeout (ms):	20				
	P3 (RS-485)					
	Baudrate:	9600 ~	Mode:	TCP Server ~		
	Data Bits:	8 ~	IP Port:	20002		
	Parity:	Even ~				
	Stop Bits:	1 ~				
	Packet Timeout (s):	300				
	Byte Timeout (ms):	20				
	Region:	AS923-925 ~	Mode:	TCP Server		
	Channel:	CH0 (923.00MHz) ~	IP Port:	20003		
	Baudrate:	1200 ~				
	Data Bits:	8 ~				
	Parity:	Even 🗸				
	Stop Bits:	1 ~				
	Packet Timeout (s):	300				
	Byte Timeout (ms):	20				v

Figure 4-6 Serial Port & LoRa Settings

Parameters	Options/Default*	Parameters	Options/Default*			
P2 (RS-485)						
Baudrate	1200 to 38400 bps, 9600*	Data Bits	8			
Parity	None, Even*, Odd	Stop Bits	1			
Packet Timeout(s)	0 to 60,000s, 300s*	Byte Timeout(ms)	0 to 60,000ms, 20ms*			
	TCP Sever, TCP Client					
Mode	If the Mode is set to TCP Server, only	the IP Port appears.				
Widde	Please note that the TCP Client funct	ion is reserved for futur	e applications so its setup			
	parameters will not be discussed here	е.				
IP Port	1 to 60000, 20001*					
P3 (RS-485)						
Baudrate	1200 to 38400 bps, 9600*	Data Bits	8			
Parity	None, Even*, Odd	Stop Bits	1			
Packet Timeout(s)	0 to 60,000s, 300s*	Byte Timeout(ms)	0 to 60,000ms, 20ms*			
	TCP Sever, TCP Client					
Mode	If the Mode is set to TCP Server, only the IP Port setting appears.					
Widde	Please note that the TCP Client function is reserved for future applications so its setup					
	parameters will not be discussed here	е.				
IP Port	1 to 60000, 20002*					
P4 (LoRa)						
The LoRa parameters o	nly appear when the device is equippe	d with the correspondi	ng option.			
	EU863-870 RU864-870					
Region	IN865-867 US902-928	Channel	See Table 4-2			
-0 -	AU915-928 AS920-923		CH0 (923.00MHz)*			
	AS923-925* Custom		-			
Baudrate	1200*, 3800, 7500 bps	Data Bits	8			
Parity	None, Even*, Odd	Stop Bits	1			
Packet Timeout(s)	0 to 60,000s, 300s*	Byte Timeout(ms)	0 to 60,000ms, 20ms*			
	TCP Sever, TCP Client					
Mode	The following parameters only appea	r when the Mode is set	to TCP Client.			
	Please note that the TCP Client funct	ion is reserved for futur	e applications so its setup			
	parameters will not be discussed here	е.				
IP Port	1 to 60000, 20003*					

Table 4-1 Serial Port & LoRa Settings

CET Electric Technology

Region	EU	RU	IN	US	AU	AS	AS	Custom
Channel	863-870	864-870	865-867	902-928	915-928	920-923	923-925	(Default)
Channel 0	863.00	864.00	865.00	902.00	915.00	920.00	923.00	915.00
Channel 1	863.47	864.41	865.33	903.73	915.87	920.33	923.29	915.33
Channel 2	863.93	864.81	865.66	905.47	916.73	920.66	923.57	915.66
Channel 3	864.40	865.21	865.99	907.20	917.60	920.99	923.86	915.99
Channel 4	864.87	865.61	866.32	908.93	918.47	921.32	924.14	916.32
Channel 5	865.34	866.01	866.65	910.67	919.34	921.65	924.43	916.65
Channel 6	865.80	866.40	866.98	912.40	920.20	921.98	924.71	916.98
Channel 7	866.27	866.80	867.31	914.13	921.07	922.31	924.99	917.31
Channel 8	866.74	867.20	867.64	915.86	921.94	922.64	920.10	917.64
Channel 9	867.20	867.60	867.97	917.60	922.80	922.97	920.46	917.97
Channel 10	867.67	867.99	868.30	919.33	923.67	923.30	920.82	918.30
Channel 11	868.14	868.39	868.63	921.06	924.54	923.63	921.18	918.63
Channel 12	868.60	868.79	868.96	922.80	925.40	923.96	921.54	918.96
Channel 13	869.07	869.19	869.29	924.53	926.27	924.29	921.91	919.29
Channel 14	869.54	869.59	869.62	926.26	927.14	924.62	922.27	919.62
Channel 15	869.99	869.99	869.95	927.99	927.99	924.95	922.63	919.95

Table 4-2 16 Channel Assignments

If **Region** is set as **Custom**, the **LoRa Custom Channels (xxx.xx MHz)** setup parameters will appear to allow the frequencies for the 16 channels to be customized as shown below:

P4 (LoRa)				
Region:	Custom 🗸	Mode:	TCP Server V	
Channel:	CH0 (923.00MHz) 🔽	IP Port:	20003	
Baudrate:	1200 🗸			
Data Bits:	8 🗸			
Parity:	Even 🗸			
Stop Bits:	1 🗸			
Packet Timeout (s):	300			
Byte Timeout (ms):	20			
LoRa Custom Chann	els (xxx.xx MHz)			
Channel 0:	923.00	Channel 8:	924.06	
Channel 1:	923.13	Channel 9:	924.20	
Channel 1: Channel 2:	923.13 923.27	Channel 9: Channel 10:	924.20 924.33	
Channel 1: Channel 2: Channel 3:	923.13 923.27 923.40	Channel 9: Channel 10: Channel 11:	924.20 924.33 924.46	
Channel 1: Channel 2: Channel 3: Channel 4:	923.13 923.27 923.40 923.53	Channel 9: Channel 10: Channel 11: Channel 12:	924.20 924.33 924.46 924.60	
Channel 1: Channel 2: Channel 3: Channel 4: Channel 5:	923.13 923.27 923.40 923.53 923.67	Channel 9: Channel 10: Channel 11: Channel 12: Channel 13:	924.20 924.33 924.46 924.60 924.73	
Channel 1: Channel 2: Channel 3: Channel 4: Channel 5: Channel 5:	923.13 923.27 923.40 923.53 923.67 923.80	Channel 9: Channel 10: Channel 11: Channel 12: Channel 13: Channel 14:	924.20 924.33 924.46 924.60 924.73 924.86	

Figure 4-7 LoRa Custom Channel Settings

Notes:

For the LoRa Custom Channels (xxx.xx MHz):

- 1) The valid range of Frequency is: 860.00-935.00MHz. Otherwise, the error message "Channel x: Invalid value. Please specify a frequency between 860.00 and 935.00" would be shown.
- 2) Up to two decimals can be entered.
- 3) The channel frequency assignment must be unique. Otherwise, the error message "*Channel x: Duplicate frequency. Please enter another value.*" would be shown.

4.4 Change Password

Click **Change Password** on the left-hand pane and the following screen appears on the right-hand pane where the **Username** and **Password** can be changed. Click **Save** to save your changes.

PMC-1302 Web Console				
 >> Ethernet >> Serial Port & LoRa >> Change Password >>> Device Information >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Save Old Username: Old Password: New Username: New Password: Confirm Password:			

Figure 4-8 Change Password Screen

4.5 Device Information

Click **Device Information** on the left-hand pane and the following screen appears on the right-hand pane, which includes **Model** and **Information** of the PMC-1302-3.

	P	MC-1302 Web C	Console	Quit
 >> Ethernet >> Serial Port & LoRa >> Change Descented 	Save			
 Change Password Device Information Reboot 	PMC-1302-3	- T • 2 • T2 • L	T-ET	
	Information			
	Name:	PMC-1302		
	Version:	2.01.01		
	Date:	2018-11-30		
	S/N:	2905058595		
	MAC:	e4-c8-06-07-04-86		

Figure 4-9 Device Information Screen

4.6 Exit

Click the **Quit** button near the top right-hand corner to exit the Web Console. For example, at the **Device Information** page, click **Quit** and then **Confirm** to exit when the dialog box appears.

	PMC-1302 Web Console	Quit
 > Ethernet >> Serial Port & LoRa >> Change Password >> Device Information >> Reboot 	Save Model PMC-1302-3 v - T v - 2 v - T2 v - L v - E v Information Name: PMC-1302 Version: 2.01.01 Date: 2018-11-30 S/N: 2905058595 MAC: e4-c8-06-07-04-86	

Figure 4-10 Quit at the Device Information Screen

4.7 Reboot

Configuration changes will not take effect until the **Reboot** operation has been executed. Click **Reboot** on the left-hand pane and the following screen appears on the right-hand pane. Click the **Reboot** button to initiate the restart sequence. After restart, the user needs to log in again to access to the PMC-1302-3 ESG's Web Console.

	PMC-1302 Web Console	Quit
 Ethernet Serial Port & LoRa Change Password Device Information Reboot 	Reboot Note: The new configuration will take effect after system reboot. Please allow a few seconds for system reboot and then re-connect using the IP address 192.168.0.127	

Figure 4-11 Reboot Screen

Chapter 5 Communications through the PMC-1302-3 ESG

This section provides details on how to communicate with a PMC-660 meter (Unit ID = 100) via the PMC-1302-3 ESG.

5.1 Topological Graph

In this example, a PMC-1302-3 ESG without the LoRa option with the P2 port is used. The default IP address for P1 is 192.168.0.127.



Figure 5-1 Topological Graph

5.2 Configuring the PMC-1302-3 ESG

To configure the PMC-1302-3 ESG, the user can log on to its Web Console page via the Internet Explorer by entering the IP address of the PMC-1302-3 ESG's Ethernet port in the browser's address bar. For example, type <u>http://192.168.0.127/</u> at the address bar and then press **<Enter>**. Enter the default user name "user", the default password "123456" and then click **Login** to open the PMC-1302-3 ESG's Web Console.



Figure 5-2 Login Interface

In this example, P2 of the PMC-1302-3 ESG is used. The PMC-660's serial port has been configured with the following parameters:

- 1. Baud rate = 9600
- 2. Data Bits = 8
- 3. Parity = Even
- 4. Stop Bits = 1
- 5. Mode = TCP Server
- 6. IP Port = 20001

It is important for the communications parameters of the PMC-1302-3 ESG's P2 to be programmed to match those of the PMC-660. The IP Port Number for P2 is 20001.

	PMC-1302 Web Console						
▶ Ethernet ▶ Serial Port & LoRa	Save						
Change Password	P2 (RS-485)						
Device Information	Baudrate:	9600 🗸	Mode:	TCP Server V		ĺ	
> Reboot	Data Bits:	8 🗸	IP Port:	20001]	ĺ	
	Parity:	Even 🗸					
	Stop Bits:	1 🗸					
	Packet Timeout (s):	300					
	Byte Timeout (ms):	20					

Figure 5-3 P2's Setting

After the P2 settings of the PMC-1302-3 ESG has been correctly configured, click **Reboot** on the left-hand pane and then click the **Reboot** button on the right-hand pane to save the settings. The PMC-1302-3 ESG will perform a reboot operation with the new configuration. When the Log-In page returns, the PMC-1302-3 ESG is now ready.

	PMC-1302 Web Console	Quit
 Ethernet Serial Port & LoRa Change Password Device Information Reboot 	Reboot Note: The new configuration will take effect after system reboot. Please allow a few seconds for system reboot and then re-connect using the IP address 192.168.0.127	

Figure 5-4 Reboot Page

5.3 Configuring PecStar iEMS

In PecStar iEMS's **PecConfig** interface, select **Site 1** on the left-hand pane and then click on the **Properties** icon to bring up the **Site Properties** dialog box.

File Edit View Help	🔯 PecConfig						
Print Export Node Save Delete Copy Paste Properties System Network Save Device Name Device Type Data Map Communication Priority Data Point Nur Station Setup PMC660 PMC-660 None 100 High 0 Communication Setup Save Formula Setup	File Edit View Help						
System Network Device Name Device Type Data Map Comm ID Communication Priority Data Point Num Station Setup @ PMC660 PMC-660 None 100 High 0 Device Name Device Type Data Map Comm ID Communication Priority Data Point Num Device Name PMC-660 PMC-660 None 100 High 0 Device Name PMC-660 PMC-660 PMC-660 None 100 High 0 Device Name PMC-660 PMC-660 PMC-660 PMC-660 None 100 High 0 Device Name PMC-660 PMC-660 <th>Print Export Node</th> <th>Save Delete</th> <th>Copy P</th> <th>aste Properties</th> <th></th> <th></th> <th></th>	Print Export Node	Save Delete	Copy P	aste Properties			
Station Setup Image: PMC660 PMC-660 None 100 High 0 Image: Station 1 Image: PMC660 PMC-660 None 100 High 0 Image: Station 1 Image: PMC660 Imag		Device Name	Device Type	Data Map	Comm ID	Communication Priority	Data Point Num
Station 1 Communication Setu Setu Formula Setup Control Point Setup Control P	Station Setup	@ PMC660	PMC-660	None	100	High	0
Communication Setu Setu PMC660 P- Formula Setup Control Point Setup - Control Point Setup	🗄 👰 Station 1						
	Communication Setu						
	📂 Formula Setup						
	📁 Control Point Setup						
2 Alarm Rule Setup	Lock Rule Setup						
	Alarm Rule Setup						
	📂 GRAPH						
	😂 Report Repository						
n - 🜮 Device Management	🗄 🥟 Device Management						
a-🧐 Email Auto-send Configurati	🗄 👙 Email Auto-send Configurati						
a-😕 System Security	🗄 🥟 System Security						
	📁 Logical Map Setup						
Description: D							
- 📂 Power Quality Settings	😥 Power Quality Settings						
n - S TOU Setup	🗄 📂 TOU Setup						

Figure 5-5 Systemconfig Interface

In this example, **P1** of the PMC-1302-3 ESG is used, and **Site 1** has been configured with the following parameters:

- 1. Drive Type = MODBUS Protocol Master Site Driver
- 2. Polling Mode = Serial
- 3. Port Type = Ethernet
- 4. IP = 192.168.0.127
- 5. Port = 20001 (for P2 of PMC-1302-3 ESG)

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Site Properties						×
Basic Properties Site Name: Driver Type:	Site 1	Protocol M	aster Site	Driver		
Polling Mode:	Serial	▼ Port	Type:	Ethernet 💌	Remarks:	0
Port Port: Parity:	Port1 None	▼ Bau▼ Stop	d Rate: o Bits:	9600 v	Data Bits;	8 🔻
TCP/IP	192 .	168 . 0	. 127]	Port:	20001
Other Advanced		INF File		Stand-by	ок	Cancel

Figure 5-6 Site Node Properties

Select **PMC-660** on the right-hand pane under the **Device Name** column and then click the **Properties** icon on the Tool Bar to bring up the **Device Properties** dialog box. Change **Device Type** to PMC-660, **Comm ID** to 100 and then click **OK** to save and exit the dialog box.

Device Properties			×
Basic Properties			
Device Name:	PMC660	Comm ID:	100
Device Type:	PMC-660 💌	Priority:	High 💌
Data Map:	PMC-660_V3.0(WYE)	Data M	lap Sync
Waveform Map:	PMC-660_V1.4	Remarks:	0
Para. Map:	None	Port Type:	Ethernet 💌
Port			
Port:	Port1 💌 Baud Rate: 9600 💌	Data Bits:	8 🔻
Parity:	None 💌 Stop Bits: 1 💌]	
TCP/IP			
🗖 Domain			
IP:		Port:	502
Other			
Advanced	INF File Data Map		Stand-by
Virtual Datalog	Appendix		
		ОК	Cancel

Figure 5-7 Device Node Properties

Right click on **PMC-660** on the left-hand pane, click **Import SNF file** and select the appropriate SNF file from the pop-up dialog box.

PecConfig											
File Edit View Help											
Print Export	Node	Save	X Delete	Сору I	Paste Proper	ties					
👷 System Network		Name			Code	Multiplier	Divisor	Max.	Min.	Reverse Digital	Schedule ID
Station Setup											
🖻 👰 Station 1											
E Communicat	tion Setu										
🗉 📂 TOU Setti	New			Ctrl+N	4						
📁 Formula 🛀	Impo	rt SNF File									
Control P	Expor	t SNF File									
	Delet	_		Delet							
GRAPH	Ceret	-		Chille							
Report Repositor	Сору			Ctrl+C							
Device Managen	Paste			Ctrl+\	/						
🖅 🎲 Email Auto-send	Sort N	lode			>						
🗉 📁 System Security	Synch	nronize real-	-time schedul	e							
	Devic	e Setup									
Power Quality Se	Onlin	e Setup									
TOU Setup											
	Prope	ittes									

Figure 5-7 Import SNF File

Click the **Save** icon on the Tool Bar to save the current configuration into PecStar iEMS's database. The PecStar iEMS software is now ready to communicate with the PMC-660 via P2 of the PMC-1302-3 ESG.

	Communication
Ethernet Port (P1)	10/100 Mbps
Protocol	TCP, UDP, HTTP
RS-485 (P2, P3)	
Baudrate	1200/2400/4800/9600/19200/38400 bps
LoRa (Optional)	
RF Range	860-935 MHz
ISM Bands	EU863-870, RU864-870, IN865-867, US902-928, AU915-928,
	AS920-923 and AS923-925
RF Output Power	19 dBm (Maximum)
Receiver Sensitivity	-137 dBm (Maximum)
Output Watts	0.03 (Typical)
FCC Part 15C	Certified by TCB
	Front Panel LED Indicators
Run (Green)	Blinking - System is running normally
Data (Yellow)	Blinking - LoRa is receiving or transmitting data
P2, P3 (Green)	Blinking - Receiving activity
P2, P3 (Yellow)	Blinking - Transmitting activity
	Power Supply (L/+, N/-)
Standard	95-250VAC/DC, 47-440Hz
Burden	<3W
	Protection
ESD Protection	8kV
Isolation Protection	3kV for RS-485
	1.5kV for Ethernet Port
	Environmental Conditions
Operating Temp.	-25°C to +70°C
Storage Temp.	-40°C to +85°C
Humidity	5% to 95% non-condensing
Atmospheric pressure	70kPa to 110kPa
	Mechanical Characteristics
Unit Dimensions	72x65x95mm
Shipping Weight	TBD
Shipping Dimensions	TBD
Mounting	DIN Rail
IP Rating	20

Appendix A - Technical Specifications

Safety Requirements							
Insulation	EN61010-1: 2010						
	EN61010-2-030: 2010						
Dielectric Test	2kV @ 1 minute						
Insulation Resistance	>100MΩ						
Impulse Voltage	5kV, 1.2⁄50μs						
Electromagnetic Compatibility							
CE EMC Directive 2014 / 30 / EU (EN 61326: 2013)							
Electrostatic Discharge	EN 61000-4-2: 2009						
Radiated Fields	EN 61000-4-3: 2006+A1: 2008+A2: 2010						
Fast Transients	EN 61000-4-4: 2012						
Surges	EN 61000-4-5: 2014+A1: 2017						
Conducted Disturbances	EN 61000-4-6: 2014						
Magnetic Fields	EN 61000-4-8: 2010						
Voltage Dips and Interruptions	EN 61000-4-11: 2004+A1: 2017						
Emission Tests							
Limits and Methods of Measurement of							
Electromagnetic Disturbance Characteristics of	EN 55011: 2016						
Industrial, Scientific and Medical (ISM)							
Radio-Frequency Equipment							
Electromagnetic Compatibility of Multimedia	FN 55032 [,] 2015						
Equipment - Emission Requirements	EN 55052. 2015						
Limits for Harmonic Current Emissions for	FN 61000-3-2: 2014						
Equipment with Rated Current ≤16 A							
Limitation Of Voltage Fluctuations And Flicker In							
Low-Voltage Supply Systems For Equipment With	EN 61000-3-3: 2013						
Rated Current ≤16 A							
Emission Standard for Residential, Commercial and	FN 61000-6-4: 2007+A1: 2011						
Light-Industrial Environments							
Mechanica	l Tests						
Spring Hammer Test	IEC 62052-11: 2003						
Vibration Test	IEC 62052-11: 2003						
Shock Test	IEC 62052-11: 2003						

Appendix B - Standards Compliance



Appendix C - Ordering Guide

Contact us

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