

CINTERION PLS62T-W USB QUICK STARTUP GUIDE

REVISION HISTORY

Rev.	Date	Edited by	Approved by	
01	23 Feb 2024	Alessio Colombo	Alessio Colombo	



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Regional focus	GLOBAL
Frequency bands	LTE (1,2,3,4,5,7,8,12,(17),18,19,20,28) 3G (1,2,4,5,8,9,19) 2G Quad Band
Certifications	RED, GCF, PTCRB, IC, UL,
Dimensions /Mounting	115 x 86 x 26mm / Multiple Mounthing Methods, POE
Special Features	Lifecycle Management - Ready to use.
max. Data RateDL / UL	LTE Cat.1 10.3/5.2 Mbps
Embedded Processing	Java
Voice support	Data only
USB	USB 2.0
Serial interfaces	RS232 (-USB), ETHERNET (-LAN)
Other Interfaces	GPIO, UART, I ² C, SPI, ADC

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1 PACKING LIST DETAILS

The package contains following materials:

- Nr. 1 CINTERION PLS62T-W USB 4G USB Modem
- Nr. 1 AC/DC Adapter with ITA plug
- Nr. 1 250cm cable length Antenna (male connector)
- Nr. 1 120cm length USB cable.



SIM Card is not included in the package and has to be purchased separately by the Customer.

2 DOCUMENTATION

For a detailed description of the modem you received, refer to the official Cinterion Documentation available on SMSServer download section:

- PLS62T-W USB Datasheet
- PLS62T-W USB Hardware Interface Description
- PLS62T-W USB AT-Commands details

On these documents, you will find standards achievements, detailed technical information and detailed mechanical information.

For a quick start, it is possible to follow steps detailed in the next chapters.

3 DRIVERS

On older Windows versions, in order to use the USB Cable it is necessary to install some drivers. You can find the driver package on SMSServer download section.

Otherwise, it is possible to use the RS-232 interface of the modem as specified on chapter 7.



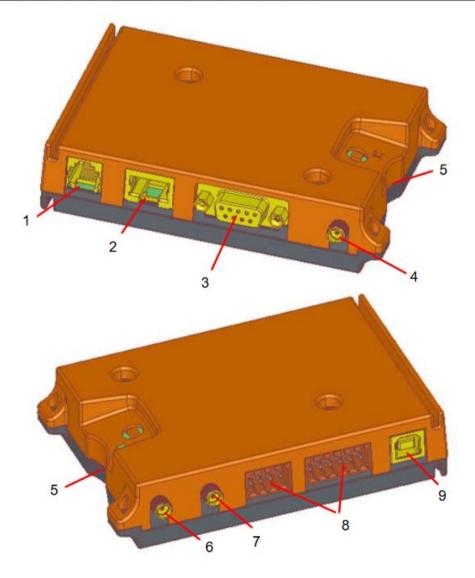
Serial Cable is not included in the package and has to be eventually purchased separately by the Customer.

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4 MODEM INTERFACE DESCRIPTION

No.	Description
1	6-pin Western connector (female) for power supply, ignition, power down signal
2	8-pin (female) RJ-45 Ethernet connector (PLS62T-W LAN only)
3	9-pin (female) D-sub connector (RS-232 interface)
4	SMA connector (female) for RF antenna
5	SIM card reader
6	SMA connector (female) for Rx diversity antenna
7	SMA connector (female) for GPS antennas (for future use, currently not available)
8	12-pin and 8-pin GPIO connectors (male)
9	4-pin (female) USB-B connector (PLS62T-W USB only)



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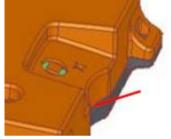


5 PREPARE MODEM

In order to use your new modem, four steps are necessary:

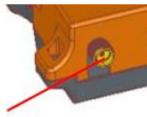
5.1 PLUG IN THE SIM CARD

Plug in the SIM Card in the direction shown under the modem (on the grey side). The SIM - with the circuit side facing upwards - is inserted by gently pushing it into the SIM cardholder until it snaps hold. It is now protected from accidental removal. The SIM can be removed from the cardholder by using a flat object such as a screwdriver to press the inserted SIM carefully until it snaps out again.



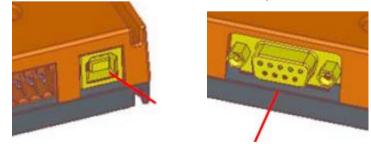
5.2 CONNECT THE ANTENNA

Connect the antenna. Please note that the terminal should be installed and operated with a minimum distance of 20cm between the antenna connected to the terminal and any human bodies. In addition, the transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



5.3 CONNECT MODEM TO THE PC

Connect USB Cable from PC to the MODEM or, alternatively, the serial cable (not included).



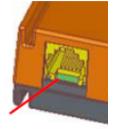
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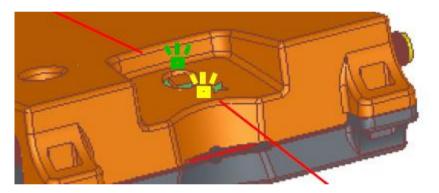
5.4 CONNECT POWER SUPPLY

Connect Power Supply to the modem and power it on. A plug converter may be needed in order to use the received Power Supply.



5.5 POWER ON THE MODEM

When these steps have been performed, the modem will automatically startup and will try to register to the network using the installed SIM Card. Modem status is represented by the meanings of two LEDs visible through the semitransparent casing.



- A green LED indicates whether the modem is ready to operate
- A yellow LED indicates the network registration state of the SIM following this cases:
 - LED Flashing ON/OFF each 1s: Registration phase in progress. If this phase lasts for more than 1 minute, there can be a SIM related problem
 - LED OFF and rapid flash each 5 seconds: SIM registration completed

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5.6 DRIVERS INSTALLATION (ONLY IF REQUEST)

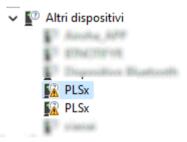
After the modem connection to the PC, if the drivers are not installed automatically, will be shown the message as in the screenshot. Then we have to proceed manually.



Download the USB Cinterion Modem drivers in the <u>SMSServer web site download section</u>. Click on the Download link and extract the zip file in a new folder.

Cinterion PLS62T-W - LTE Worldwide	0
Cinterion PLS62T-W USB Brochure	Details Download
PLS62T-W USB Drivers download PLS62T-W USB Drivers.zip New	Details Download
Cinterion PLS62T-W USB User Manual	Details Download
Cinterion PLS62T-W USB AT Commands details	Details Download

From the *Control Panel,* open the *Device Manager*, in the section *other device* are shown unrecognized device.



Click with the mouse right button on one of the devices and do the **Update Driver Software** then choose **Browser my computer for driver software**.

Choose the Drivers Folder and press the *next* button. Verify that the item *Include subfolders* is enabled.

To the next popup select the voice *Always trust software from "Gemalto M2M GmbH"* and then *Install*.

Follow the same procedure with the other unrecognized device.

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.

All the installed ports will be appear into the item *Ports(COM&LPT)*. Drivers also install a couple of network adapters, but they can be disabled if unnecessary.

🗸 🛱 Porte (COM e LPT)
💭 Dispositivo seriale USB (COM3)
💭 Dispositivo seriale USB (COM4)
💭 Dispositivo seriale USB (COM5)
🛱 Dispositivo seriale USB (COM6)
💭 Dispositivo seriale USB (COM7)
) 🖪 Precessei
) 🗰 Previder di stampa WSD
🗸 🚍 Schede di rete
🖉 Blaetooth Device (Personal Area Network)
🖉 Broadcom Natiliteene Gigabit Shernat
[7] Estimat SS, WW Estual Diversal Adaptor
🖉 Fortinel Websal Diverset Adapter (NDS 5.30)
🚍 Gemalto M2M PLSx LTE USB MB Wireless Ethernet Adapter
Gemalto M2M PLSx LTE USB MB Wireless Ethernet Adapter (2nd context)

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6 CONFIGURE SMSSERVER

With the modem connected and plugged in to the PC using the USB cable, you are three steps far from the complete configuration of your system.

Run SMSServer and select *Settings* tab. Click on *Modify* button in order to edit the settings explained hereafter.

6.1 ENABLE VERBOSE WINDOW

By enabling the verbose window, a new button will appear on the application. Verbose window will show main actions took by SMSServer. On the **Settings** \rightarrow **Program options** tab, select the option **Enable Verbose**.

🗵 SMSServer	>
	Settings
- Server	✓ Modify Apply > Discard Import Import Import
🛱 PhoneBook 🛱	Program Password required
🗟 Calendar 🗟	Enter Password Confirm Password
⊕ _@ Settings 🚱 _©	Enable Verbose Message log history 60 days
	Variables
🖳 Log 🖳	Error tag Signal level tag
	Message tag SMS Service Watchdog tag
Sta	
× Close ×	

In case of modem connection, into Verbose window Customer can see all steps performed by SMSServer to connect to the modem. In case of errors, it will be possible to find some hints to solve problems.

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6.2 ENABLE SMS DELIVERY

For the next step, it is necessary to enable SMS delivery to use the Modem. On the **Settings** \rightarrow **SMS** tab, select the first option (**Enable SMS delivery**).

🖂 SMSServer	×
SMS.	Settings
Jivger	Nodify 💾 Apply 🕉 Discard 💽 Export 💕 Import
	ጵ Program Options 🖹 Messages 🐎 Alarm Servers 🐲 Serial Port 🔤 SMS 🕿 E-mail Miscellaneous
PhoneBook	SMS settings
	Enable SMS delivery 🔽
	Enable remote alarms acknowledge
🗟 Calendar 🗟	Insert sender name when alarm is recognized
	Repeat SMS delivery until ack or timeout
O₀ Settings O₀	Stop delivery in case of acknowledgment from Citect
	Pin code
	Timeout remote acknowledge 2880 minutes
-/- Status -/-	
	Time to wait before repeating delivery 5 minutes
🖳 Log 🖳	Use contacts hierarchy for groups
	Split time equally OR Time interval before changing level 10 minutes
	Modem Redundancy
	Enable Redundancy Standby IP Address
× Close ×	

Moreover, if the SIM card is protected by PIN code, insert it into the relevant text box (**Pin code**). This is a SIM card setting and does not depends on Modem.



CAUTION!

If you enter a wrong PIN Code, SIM card may be locked after several connection tries.

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6.3 SERIAL PORT SETTINGS – USING USB CABLE

After SMS delivery has been enabled, it is necessary to configure the COM Port settings on the **Settings** \rightarrow **Serial port** tab. All of the parameters has to be setted up as shown on the screenshot below **except for the port number settings**.

🖂 SMSServer	×
	Settings
	✓ Modify Apply > Discard Import ②
🛱 PhoneBook 🛱	Serial port settings
🗟 Calendar 📾	Baud Rate 115200
	Port number COM9
ⓒ₀ Settings ⊙₀	Data Bits 8
	Stop Bits 1
y Status y	Parity None
🖳 Log 🖳	Handshaking No handshaking 🔽 🗖 RTS
	Send DTR on port open
Close X	
Close A	

When the modem is connected to the PC using USB cable and then powered on, it creates seven different virtual COM ports and their number depends on the hardware of the PC where the modem is plugged.

On older Windows versions it can be necessary to install specific drivers, please refer to the chapter 3 for further informations.

Ð

Port number	COM9	•
	COM10	~
	COM11	
	COM3	
	COM5	
	COM6	
	COM7	
	COM8	
	COM9	~

On the shown example, Virtual COM Ports have numbers from 5 to 11.

Not all of the COM ports will work with AT commands, normally the 1st, the 2nd and the last are reserved, so it is possible to use one between the remaining spare COM ports.

Click on *Apply* button to save *SMS* and *Serial Port* Tab settings.

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6.4 SERIAL PORT SETTINGS – USING RS232 CABLE



Serial Cable is not included in the package and has to be eventually purchased separately by the Customer.

After SMS delivery has been enabled, it is necessary to configure the COM Port settings on the **Settings** \rightarrow **Serial port** tab. All of the parameters has to be setted up as shown on the screenshot below **except for the port number settings**.

🖂 SMSServer		\times
	Settings	XXXX (S)
🛱 PhoneBook 🛱	Serial port settings	
🗟 Calendar 🗟	Baud Rate 115200 Port number COM1	
ூ⊚ Settings ۞₀	Data Bits 8	
-M Status -M	Stop Bits 1	
🖳 Log 🖳	Handshaking Both RTS and XON/XOFF V RTS	
Verbose	Send DTR on port open	
Close X		
× Close ×		

Port Number has to be chosen between the one installed on the PC. In case there are several ports, check the number of the one connected to the modem.

Click on *Apply* button to save *SMS* and *Serial Port* Tab settings.

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6.5 CHECK MODEM STATUS

To check modem status, click on the **Verbose** button in order to see actions taken by SMSServer. If modem is correctly connected to the selected COM Port, Verbose window should contain following informations:

🖾 SMSServer		×
SMS ver	Verbose	
Server		
	Date Time Message	
🛱 PhoneBook 🛱	2016-03-25 09:30:27.488 SMSServerCOM.SMSManager: Retrieving modem informations 2016-03-25 09:30:26.667 SMSServerCOM.SMSManager: Setting modem storage as SMS repository 2016-03-25 09:30:26.655 SMSServerCOM.SMSManager: GSM Modem in PDU mode 2016-03-25 09:30:26.432 SMSServerCOM.SMSManager: Setting Text or PDU Mode	
🗟 Calendar 🗟	2016-03-25 09:30:25.501 SMSServerCOM.SMSManager: Starting GSM link open routine	
ூ⊚ Settings 😋 _☉		
-M Status -M		
🖳 Log 🖳		
T Verbose		
Close X		

If informations are similar to this, SMSServer is correctly connected to the modem. Click on *Status* button, it will appear a window where it is possible to find some informations about modem type and connection status, *under the SMS Section*.

After you completed settings, SMSServer will take some seconds to start communication with modem, so if details are not immediately as follows please wait some seconds.

In case of USB cable connection, not all of the COM ports will work with AT commands, so in case SMSServer cannot communicate with modem please try another COM port.

In case of RS232 cable connection, check that the selected port is the one connected to the modem.

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In case all of the configurations was correct, system status window should be something like follows:

	System Sta	atus			
PhoneBook	Citect	Connection Status	Alarm Server	Server Status	
🗟 Calendar 🗟					
හ₀ Settings හ₀					
- Status -	SMS Connection	Active		Cinterion	Ø
🖳 Log 🖳	Signal level Messages sent Sent today				58,1%
T Verbose	E-mail				
× Close ×	Messages sent Sent today		0000000 000000		

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6.6 SEND TEST SMS

To send a test SMS there are some steps to perform:

• Create a new contact with the phone number on the *PhoneBook* section;

SMSServer		
	PhoneBook	+ / - 0
	Groups	Contacts
🛱 PhoneBook 🛱	····· 🚉 Phonebook	Pri Name Phone E-Mail - ▲ Modem Test +391654629782
🗟 Calendar 🗟		
ூ⊚ Settings 🚱		
-M- Status -M-		
🖳 Log 📖		Details for Modem Test Phone: +391654629782
🗊 Verbose 🖭		E Mail: Description: Categories: *
		Areas: * Color:
× Close ×	<u> </u>	

• Define it as *Always Available* on the *Calendar* section;

SMSver	Calendar + 🖉 👕 🕼 🛗 Calendar ピ 🕑 🛞 Always available 💡	March , 25 😵
		March , 20
	March, 16	
	March, 17	
PhoneBook 🖽	March, 18 🛞 Availability based on	×
	March, 19 March, 20	
1-1	March, 20 Always available	
, Calendar 🐻	March, 22	
		-
	March, 24	
o Settings 🤣o	March, 25	
	March, 26	
	March, 27	
Status 🥠	March, 28 March, 29	
	March 30	
	March, 31 OK Cance	el
Log 🛄	April, 1	
	April, 2	
	April, 3	
🗋 Verbose 🗐 🗍	April, 4 6:00	18:00
100 March 100	Always Available	
	Contact	
Close 🛛 🛛	Modem Test	

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• Into Settings \rightarrow Miscellaneous tab click on the SMS test button.

🖾 SMSServer		×
	Calendar + 🖉 🗊 🖆 🛗 Calendar ピ 🕝 March . 25 😒	
🛱 PhoneBook 🛱	March, 16 March, 17 March, 18 March, 19 March, 20 Always available	
🗟 Calendar 🗟	March, 21 March, 22 March, 23 March, 23 Modem Test	
\mathfrak{O}_{\odot} Settings \mathfrak{O}_{\odot}	March, 24	
-M- Status -M-	March, 27 March, 28 March, 29 March, 30 OK Cancel	
🖳 Log 🛄	March, 31	
Verbose	Always Available	
× Close ×	Contact Modem Test	

If everything works as expected the available person should receive the message in some seconds. Verbose and log windows will show the operations results.

DataOra Messaggio 2016-03-25 07:59:55.946 SMSServerCOM.SMSManager: Message Sent: SMSServer: SMS test message To: 2016-03-25 07:59:55.726 SendSMS: AT+CMGS=38 2016-03-25 07:59:55.692 SMSServerCOM.SMSManager: Sending SMS to Modem Test: SMSServer: SMS test message

Message Log

📑 Ser	<mark>nt messages</mark> 🚺 Unsent message	s 💽 Received mess	ages 🖸	Messages export	2
Туре	Body	Receiver	Retry	Date	
SMS	SMSServer: SMS test message	Modem Test (+39	0	3/25/2016 9:40:34 A	Μ

If something has gone wrong, check the connection status and/or refer to SMSServer manual.

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6.7 RECEIVE TEST SMS

To qualified the system to receive SMS: go to **Settings** \rightarrow **Modify SMS** and check the voice **Enable remote alarms acknowledge**

SMSServer	X
	Settings Modify Apply Discard
🛱 PhoneBook 😭	SMS settings Enable SMS delivery
🗟 Calendar 🗟	Enable remote alarms acknowledge 🔽
ூ₀ Settings ۞₀	Repeat SMS delivery until ack or timeout Stop delivery in case of acknowledgment from Citect Pin code
-M Status -M	Timeout remote acknowledge 2880 minutes Time to wait before repeating delivery 5 minutes
🖼 Log 🖼	Use contacts hierarchy for groups Split time equally OR Time interval before changing level 10 minutes
C Verbose	Modern Redundancy Enable Redundancy Standby IP Address
× Close ×	

All received SMS are shown in *Log* \rightarrow *Received messages*:

THE R L	Risultato	Testo	Messaggiricevuti	Guster	Data
	×	Messaggio di test	+3933621464722	Clusier	04/03/2016 12.41.46
Rubrica		Key: #4000009A-23299E6B3B#01	+3933621464722		04/03/2016 10.37.26
Calendario	•				
lmpostazioni 🔇	3.				
Stato	*				
Log					
)Verbose 🗎					

It is the message is received but is not understandable from the system;

Ithe message is received and the SMSServer can read the reference alarm.

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7 IN CASE OF PROBLEMS

SMSServer support staff is available Mon/Fri from 8:00 AM to 5:00 PM GMT+1:00. In case of problems or doubts, contact us: <u>support@smsserverweb.com</u>.

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