Teltonika FMx 640 With TCP Link Mode

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Contents

Introduction: Understanding what is FMB640 RS232/RS485 TCP Link mode:

In this mode link with external device (for example PC) using text messages can be established. FMx has to be connected to the external device through RS 232 on COM1/COM2 port of FMx. Any string of data coming to COM port will be routed to server (if link is currently active). Messages that are exchanged between FMx device and server, have to be packed in Codec.12 format. Here for TCP link establishment, we will use Hercules. For sending messages from FMx to server Terminal will be used.

Step 1. Connect the FMx640 to the RS232 on COM1:

Step 2. FMx640 Configuration:

The FMx configurator you have to set parameters for COM1 or COM2 (depends on which COM port you are using) in global parameters window. You have to modify the server sittings to your PC IP and your TCP port.

GPRS Limits

GPRS Limits

Disable	Enable

Home Limit (MB)   100
Roaming Limit (MB)   10

Server #1 Settings

Domain   192.168.12.171
Port
Protocol

TCP	UDP

SIM1 GPRS Settings

GPRS Context

Disable	Enable

APN
APN Username
APN Password

Server #2 Settings

Backup Server Mode

Disable	Backup
Duplicate	EGTS

Backup Server Protocol

TCP	UDP

Backup Server Domain
Backup Server Port   0

SIM2 GPRS Settings

GPRS Context

Disable	Enable

APN
APN Username
APN Password

FOTA WEB Settings

Status

Disable	Enable

Domain   fm.teltonika.lt
Port   5000
Period (min)   720

Side menu:
Status
Security
System
GPRS
Data Acquisition
SMS \ Call Settings
SMS Events
GSM Operators
Features
Accelerometer Features
Auto Geofence
Manual Geofence Settings
Manual Geofence Zones
Trip \ Odometer
Bluetooth 4.0
Beacon List
Authorization ID List
I/O
LVCAN
FMS IO
Manual CAN IO
Tachograph Data

Toolbar: Load from device | Save to device | Update firmware | Reset configuration | Load from file | Save to file | Reboot device

IMEI 867648043451507
FW 01.02.22 Rev:04
Configuration 4.37.17.0

Garmin Settings

Garmin Features

Ping Filter	Unicode filter

RS485 Settings

Mode   Disabled
Baudrate   Default

RS232 Settings

COM1 settings

Mode   TCP/UDP Ascii
Baudrate   115200

Message Timestamp

Disable	Enable

Device IMEI

Disable	Enable

CMD ID   6

COM2 settings

Mode   Satellite backup
Baudrate   19200

Side menu:
Data Acquisition
SMS \ Call Settings
SMS Events
GSM Operators
Features
Accelerometer Features
Auto Geofence
Manual Geofence Settings
Manual Geofence Zones
Trip \ Odometer
Bluetooth 4.0
Beacon List
Authorization ID List
I/O
LVCAN
FMS IO
Manual CAN IO
Tachograph Data
RS232 \ RS485
CAN \ Tachograph
ContiPressureCheck

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· Modify the Mode from silent to TCP/UDP Ascii mode.

· Make sure that the Baud rate is matching with the baud rate in the terminal, in our example it is the sensor

Note: Try to make sure that your TCP Port is open by checking it with any port checker websites.

Message Timestamp

Message Timestamp parameter is used to determine if it is necessary to include a timestamp in the RS232 TCP packet when sending it to the server. If the parameter is Enabled, then Codec 13 is used for data sending. Otherwise, Codec 12 is used.

You can also use RS485 which is also suitable for Ascii TCP Link mode. In order to make a link between FMx640 device and server, Domain and Target Server Port have to be set in the working device profile, GPRS data sending Settings section. When the right parameters are set, you can save the configuration to the FMx640 device.

Step 3. Establishing FMx test link with server through Hercules and sending messages with Hercule:

In this case we have a PC that is considered to be a server and an external device at the same time. When FMx is configured and connected to the external device, next that we have to do is to start Hercules which is in server side and will be used for sending and receiving messages.

Here you have to send acknowledgement after receiving the IMEI from the device. then You have to send 01 as a server response.
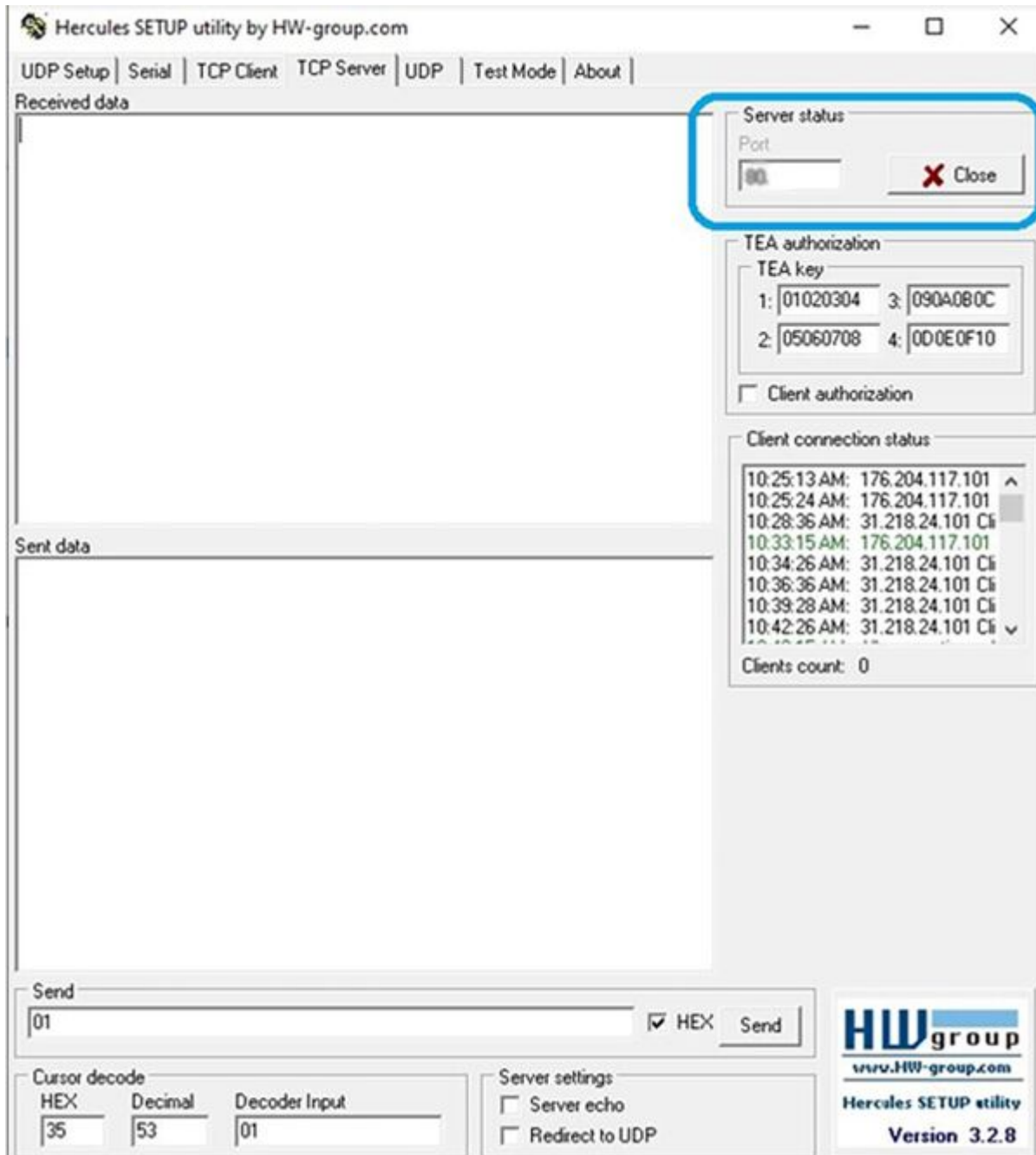
Sending messages with Hercules

You have to choose TCP Server section from the upper menu. In the marked fields.

Step 4. Receiving messages with Hercules:

In this step we need to use the terminal log. When you want to send a message from FMx 640 to the server, write it in Terminal but change your com port and select port which is assigned for COM1/COM2.

Terminal Log Sending Text

After doing the mentioned configuration you can type your message in the marked field, check +CR and press Send button. If sent successfully, you will see it in Hercules Received data field.
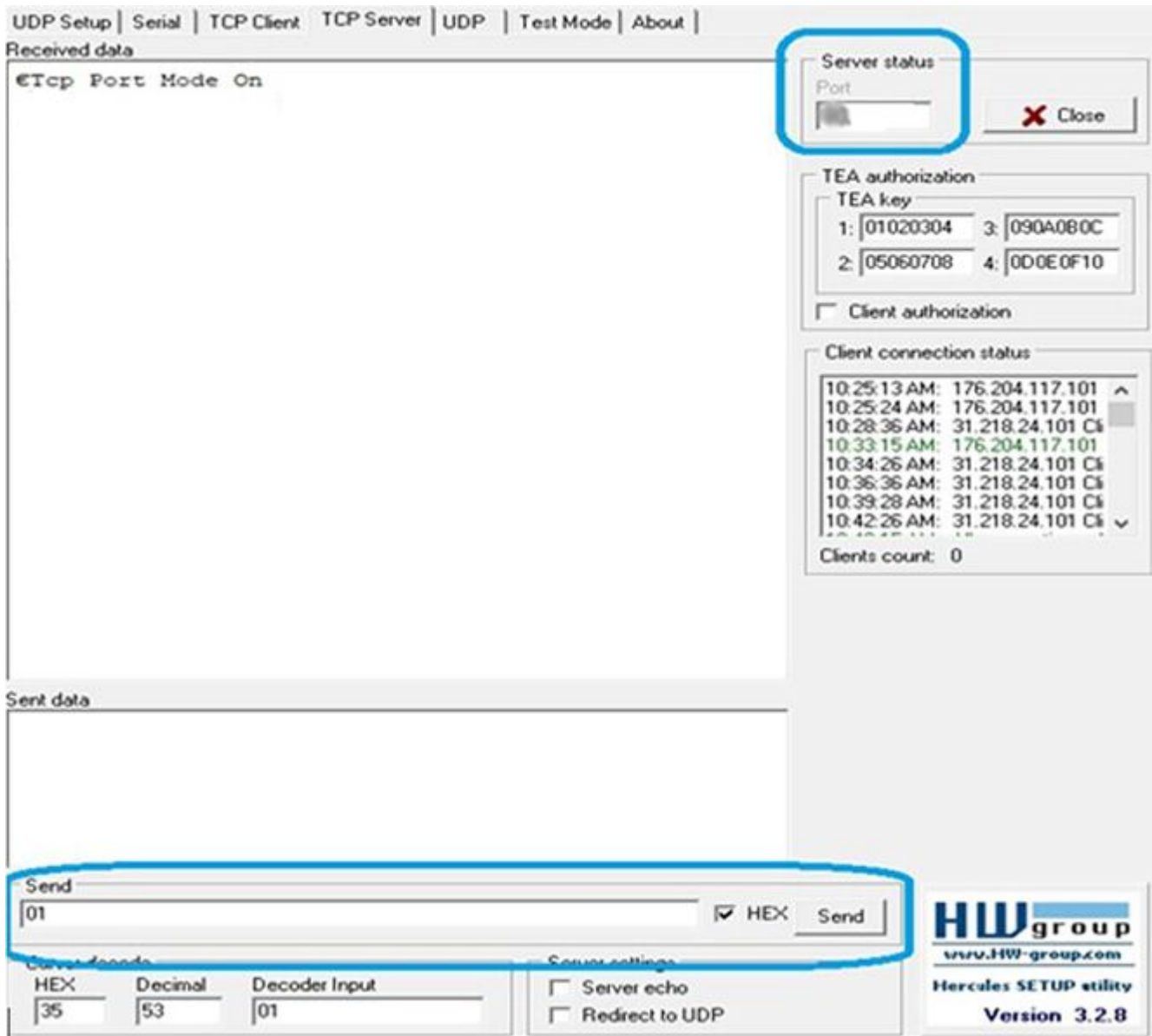
Receiving Text from The Terminal to Server Hercules

The Conclusion:

In this mode link with an external device for example PC using text messages can be established. We can apply this scenario on FMx640 or FMx125 which have to be connected to the external device through RS232 or RS485. Any string of data coming to device via RS232 or RS485 will be routed to the server *(if the link is currently active)*. Messages that are exchanged between FMx device and server, have to be packed in Codec.12 format and will receive to the Hercules receiver successfully.

Links for download

1. Hercules SETUP utility

2. Terminal download