



TRP™-12-LoRa

LoRa radio module with CS or SCR interface

The TRP™-12-LoRa is a radio module capable of reading the data of meters CS (water, gas, electricity meters) or water and gas meter with SCR interface (GWF Coder). It transmits data according to the protocol LoRaWAN.

The TRP™-12-LoRa is the first one "endpoint" LoRa, capable of transmitting the digital information read from meters. Serial number, index and other customizable meter values are transmitted.

Thanks to the advantages of the technology LoRa and the TRP™, the data transmission is made over long distances.

The TRP™-12-LoRa works on a battery with an autonomy going up to 10 years, depending on the configuration.

The TRP™-12-LoRa allows you to transmit the data of your meter easily and to have a reliable reading. Easy to install and small the TRP™-12-LoRa will quickly find a place close to your meters.

Advantages of TRP™-12-LoRa

- ✓ Wired reading and radio transmission
- ✓ Battery operated for several years
- ✓ Compatible with all CS or SCR meters
- ✓ Addition of radio transmission to the existing meters
- ✓ Configurable
- ✓ Compatible LoRaWAN



Applications

- ✓ Remote reading of water meters
- ✓ Remote reading of gas meters
- ✓ Smart metering
- ✓ Energy audit
- ✓ Automatic invoicing
- ✓ For cities, quarters, vilages,...

How does it work ?

The module is configured from an XML file. The module queries the meter by CS (IEC1107 (IEC62056-21)).

Thanks to filters defined in the XML file, only certain fields of the answer CS are kept (for example serial number, register 1.8.0, 1.8.1, 1.8.2). These data are then formatted in a package LoRa and sent on the network.

```
<OBIS_FILTER index="1">
  <OBIS_ITEM header="129" code="1.8.0"/>
  <OBIS_ITEM header="130" code="0.0" type="integer"/>
  <OBIS_ITEM header="131" code="1.8.2"/>
</OBIS_FILTER>
```

The measure frequency of the meter is defined (1x/day, 1x/hour or 1x/15min) as well as the sending frequency of the data in LoRa (for example 1x/day, 1x/hour, 1x/5min)

For configuration, it is necessary to use an adaptater cable USB<=>RJ12 (to order separately). It is also necessary to use the Axiom BASIC program available on the Tetraedre web site.

```
<GSM_INTERVAL value="417" />
<RADIO_CONFIG config="0"
  netID_hex="10"
  devAddr_hex="20AD66"
  nwkSkey_hex="112233445566778899AABBCCDDEEFF00"
  appSkey_hex="112233445566778899AABBCCDDEEFF00" />
```

Protocol: LoRaWAN 1.0 (not yet certified)

Communication:

- LoRa 868 MHz with external antenna (cable 40cm)
- Connector RJ12 for USB communication
- Interface CS
- Compatible with all meters with interfaces CS

Dimensions: 153x89mm, enclosure ABS

Power supply: Battery 16Ah Li-Ion

```
/KAM5 6841138AN110001[0D][0A]
[02]0.0.1(60053)[0D][0A]
97.97.0(0)[0D][0A]
1.8.0(0000451*kWh)[0D][0A]
1.8.1(0000450*kWh)[0D][0A]
1.8.2(0000001*kWh)[0D][0A]
2.8.0(0000000*kWh)[0D][0A]
2.8.1(0000000*kWh)[0D][0A]
2.8.2(0000000*kWh)[0D][0A]
3.8.0(0000000*kvarh)[0D][0A]
3.8.1(0000000*kvarh)[0D][0A]
3.8.2(0000000*kvarh)[0D][0A]
4.8.0(0000000*kvarh)[0D][0A]
4.8.1(0000000*kvarh)[0D][0A]
4.8.2(0000000*kvarh)[0D][0A]
1.6.0(1.084*kW)(00141109161500)[0D][0A]
1.6.1(1.084*kW)(00141109161500)[0D][0A]
1.6.2(0.000*kW)(00141101000000)[0D][0A]
2.6.0(0.000*kW)(00141101000000)[0D][0A]
1.2.0(23.370*kW)[0D][0A]
2.2.0(0.000*kW)[0D][0A]
3.6.0(0.000*kvar)(00141101000000)[0D][0A]
3.2.0(0.000*kvar)[0D][0A]
4.6.0(0.000*kvar)(00141101000000)[0D][0A]
4.2.0(0.000*kvar)[0D][0A]
0.1.0(15)[0D][0A]
96.8.0(11018)[0D][0A]
1.0.0(00141109232637)[0D][0A]
![0D][0A]
[03]'
```

