



# iRZ TU41

A new **iRZ TU41** GSM modem is designed for data transmission over 2G and 3G cellular networks. The modem supports the following frequency ranges depending on the communication standards: 900/1800 MHz for GSM/GPRS/EDGE; 900/2100 MHz for HSPA+/UMTS.

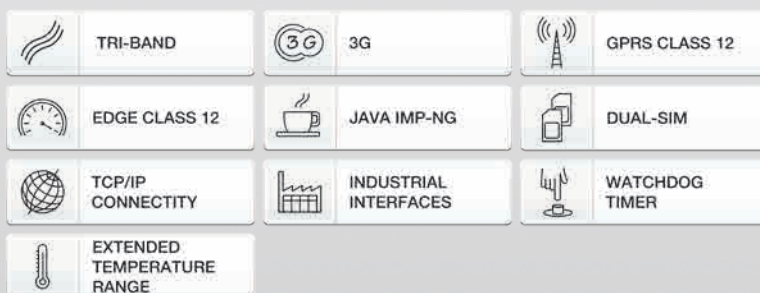
**TU41** is equipped with the USB interface enabling you to connect the modem directly to a computer. In addition, the modem finds a use for industrial applications with the most common physical interfaces - RS232, RS485 and RS422.

To provide more ample opportunities **TU41** has two SIM cards, two analogue inputs (ADC), 7 digital inputs/outputs, 4 of them are the power ones (up to 0,5A, "+" power source switching), and +3,3V output for power supply of external interfaces.

**TU41** supports the main communication functions: data transmission by UMTS/HSPA+/EDGE/GPRS technologies, fax and SMS transmit and receive. The modem control is realised by the standard AT commands, as well as by a proper AT command set. The built-in watchdog timer prevents from the device hanging up.

The **TU41** modem features the built-in TCP/IP stack and supports Java™. Java™ enables you to create user applications easily and quickly thanks to a wide range of tools, reliable application and data protection concept, and application debugging in the module.

High-speed data transmission, extended temperature range and a compact case enable the use of **TU41** in various industrial applications: in telemetry and telemechanics, automated data acquisition systems, vending systems, payment terminals, as well as in various systems requiring wireless data transmission.



The device in the image are presented as 3D model

## Key features

### Frequency bands:

- 900/1800 MHz for GSM/GPRS/EDGE
- 900/2100 MHz for HSPA+/UMTS

### Output power:

- 33 дБм (Class 4) for EGSM900
- 30 дБм (Class 1) for GSM1800
- 27 дБм (Class E2) for GSM900 8-PSK
- 26 дБм (Class E2) for GSM1800 8-PSK
- 24 дБм (Class 3) for UMTS2100, WCDMA FDD BdI
- 24 дБм (Class 3) for UMTS900, WCDMA FDD BdVIII

### Communication standards:

- MS Class B
- USSD
- SMS: MT, MO, Text and PDU

### Standards and data transmission rates :

- HSPA+; download — 7,2 Mbps, upload — 5,7 Mbps
- UMTS PS; download — 384 kbps, upload — 384 kbps
- UMTS CS; download — 64 kbps , upload — 64 kbps
- EDGE Class 12; download — 236,8 kbps, upload — 236,8 kbps
- GPRS Class 12; download — 85,6 kbps, upload — 42,8 kbps

## Interfaces and connectors:

- Mini USB connector - data cable connection, USB 2.0 interface
- DB9 connector (RS232 interface) - data cable connection
- SMA connector - 2G/3G antenna connection
- power connector (Microfit) - modem power supply
- Microfit 10 connector - data cable connection, 2 ADC, 7 GPIO
- terminal connector - modem power supply, data cable connection, RS485/RS422 interface, +3.3V power supply for external interface.

## Special Features:

- built-in TCP/IP stack
- Java™ support

## Power supply:

- power voltage from 7 to 40V
- current consumption:
  - at power supply voltage +12V - max 400 mA
  - at power supply voltage +24V - max 200 mA

## Physical specifications:

- dimensions – max 90x86x34 mm
- weight: max 125 grams
- operating temperature: from -30°C to +60°C
- storage temperature: from -40°C to +85°C

