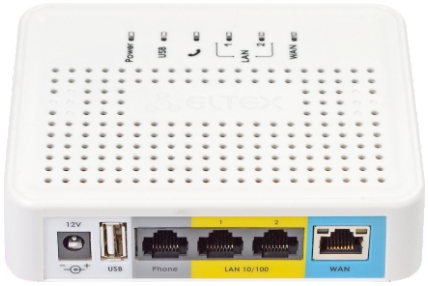
Integrated networking solutions

## TAU-1M.IP



— High-quality sound
— Fax transmission
— 3G/4G USB modems support

**TAU-1M.IP** is a VoIP gateway with an embedded router. The device has an FXS port and two 10/100Base-T LAN ports for PC or set-top boxes connection. The gateway is connected to service provider networks via a 10/100Base-T WAN port and has a USB port for 3G/4G modems or USB storage devices.

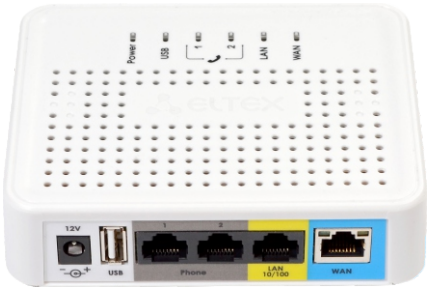
### Eltex.ACS (TR-069) management system

Eltex.ACS autoconfiguration system implemented on the basis of TR-069 protocol provides an operator with convenient functionality for firmware versions and customer devices' configurations management. Eltex.ACS uploads an individual configuration to the device automatically, according to a subscriber's account data. A function of firmware version intellectual upgrading works successively with network devices by updating groups of them according to a certain queue discipline. Eltex.ACS system is provided with NorthBoundInterface (NBI) for interacting with OSS complexes.

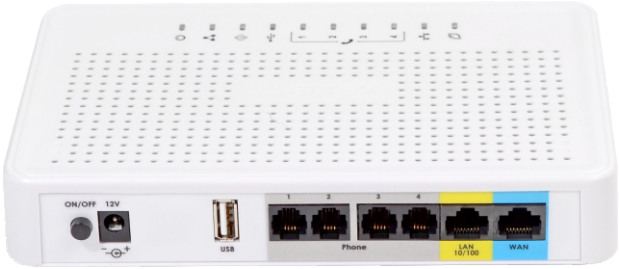
### Ease of usage

User-friendly management interface with multilanguage support provides the ease of usage of TAU-1M.IP VoIP gateway on the operator's network.

## TAU-2M.IP



## TAU-4M.IP



— Triple Play
— VLAN per service
— AutoProvision (TR-069, DHCP)

**TAU-2M.IP** and **TAU-4M.IP** are VoIP gateways intended for connecting analogue telephones and facsimile sets to an IP network. The service is provided via a converge data transmission network, where different IP-PBX systems can be used as a switching node.

### Fax transmission

Transmission of facsimile messages is implemented by means of G.711 pass-through audiocodec and via T.38 protocol.

### High-quality sound

A high-performance hardware platform, support for all basic audio codecs used in VoIP networks (G.711, G.723.1, G.726, G.729), echo cancellation functions, a silence detector, a comfort noise generator, DTMF signal reception and generation, as well as traffic prioritization mechanisms (QoS) provide high quality of voice data.

### Redundancy

In case of a primary SSW connection loss, the device switches to a redundant SSW and monitors the state of the primary one. If the device loses connection with both IP servers, calls between local subscribers still can be switched.

### Interface configuration

| | WAN | LAN | FXS | USB |
|---|---|---|---|---|
| TAU-1M.IP | 1 | 2 | 1 | 1 |
| TAU-2M.IP | 1 | 1 | 2 | 1 |
| TAU-4M.IP | 1 | 1 | 4 | 1 |

Integrated networking solutions

## Technical features

### Interfaces
– 1 FXS port for TAU-1M.IP
– 2 FXS ports for TAU-2M.IP
– 4 FXS ports for TAU-4M.IP
– 1 WAN 10/100Base-T port
– 2 LAN 10/100Base-T ports for TAU-1M.IP
– 1 LAN 10/100Base-T port for TAU-2M.IP
– 1 LAN 10/100Base-T port for TAU-4M.IP
– 1 USB2.0 port

### VoIP protocols
– SIP

### Voice codecs
– G.711 a-law, μ-law
– G.722
– G.723.1
– G.726
– G.729 (A/B)

### Fax transmission
– T.38 UDP Real-Time Fax
– a-law, μ-law G.711 pass-through

### Voice standards
– VAD (Voice Activity Detection)
– CNG (Comfort Noise Generation)
– AEC (echo cancellation, G.165, G.168 recommendations)

### DTMF
– DTMF signal detection and generation
– Transmission via INBAND, RFC 2833, SIP INFO

### Value Added Services
– Call Hold
– Call Transfer
– Call Waiting
– Call Forward on Busy (CFB)
– Call Forward on No Reply (CFNR)
– Call Forward Unconditional (CFU)
– Caller ID
– Calling line identification restriction (CLIR)
– Hotline/Warmline
– Call Group
– 3-Way conference

### VoIP functionality
– Internal connections switching
– Operating without SIP-server
– Flexible dial plan
– Port configuration profiles
– Application of settings without rebooting
– IMS (3GPP TS 24.623) support for Hold, CW, 3-Way conference, Hotline services management
– SIP TLS support
– # symbol transmission as %23
– Support for up to 4 redundant SIP servers

### Quality of service (QoS)
– Diffserv and 802.1p priority assignment for SIP and RTP
– Incoming traffic prioritization according to DSCP and 802.1p

### Connection types
– Static IP address
– DHCP client
– PPPoE
– PPTP
– L2TP

### Network functions
– “Bridge” and “router” operation modes
– NAT
– Static routing
– VLAN per service (Internet, VoIP, IPTV)
– IGMP
– DHCP, DNS server on LAN side
– Port forwarding
– Firewall
– 3G/4G router mode
– UPnP

### Supported specifications
– RFC 3261 SIP 2.0
– RFC 3262 SIP PRACK
– RFC 4566 Session Description Protocol (SDP)
– RFC 3263 Locating SIP servers for DNS lookup SRV and A records
– RFC 3264 SDP Offer/Answer Model
– RFC 3311 SIP Update
– RFC 3515 SIP REFER
– RFC 3891 SIP Replaces Header
– RFC 3892 SIP Referred-By Mechanism
– RFC 4028 SIP Session Timer
– RFC 2976 SIP INFO Method
– RFC 2833 RTP Payload for DTMF Digits, Flash event
– RFC 3108 Attributes ecan and silenceSupp in SDP
– RFC 4579 SIP Call Control - Conferencing for User Agents
– RFC 3361 DHCP Option 120
– RFC 3550 RTP A Transport Protocol for Real-Time Applications
– RFC 3611 RTP Control Protocol Extended Reports (RTCP XR)

### Management
– WEB (English and Russian versions)
– Telnet
– SSH
– FTP
– Syslog
– TR-069 (recommended to work with Eltex.ACS server)
– DHCP autoprovisioning (periodic or scheduled)
– SNMP (configuration and monitoring)

*Current firmware version 2.3.1*

## Technical features

### Diagnostics
– Device status monitoring via Web interface
– Debug information output to Syslog/Telnet
– Subscriber lines parameters testing

### Security
– Username and password verification
– Firewall
– Admin/user/viewer access rights

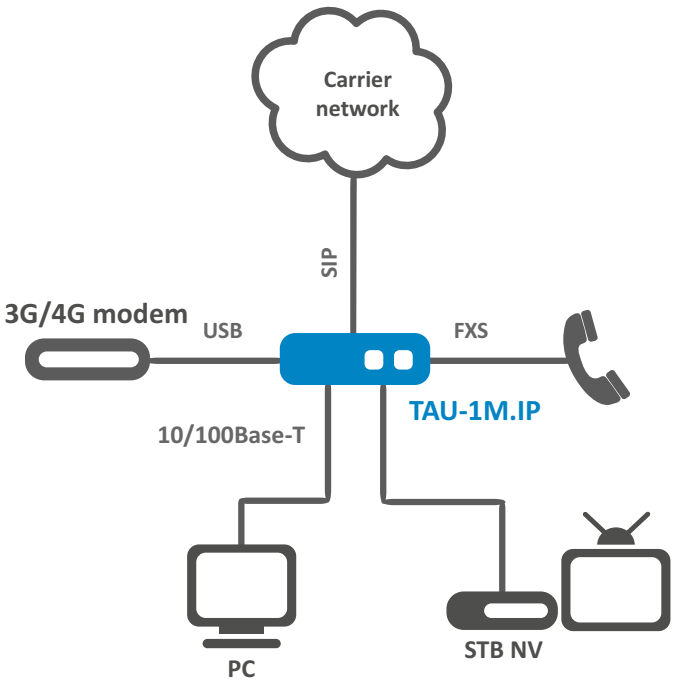
### USB port
– Connection of USB drive with FAT/FAT32/EXT2/EXT3/EXT4/NTFS file systems
– USB 3G/4G modem connection – operating in 3G/4G router mode

### Main technical features
– SDRAM 128 MB
– SPI Flash 8 MB
– OS Linux

### Physical characteristics
– Power adapter: 12V DC, 1 A
– Power consumption: no more than 6 W (TAU-1M.IP),
no more than 7.2 W (TAU-2M.IP),
no more than 12.5 W (TAU-4M.IP)
– Operating temperature: from +5 °C to +40 °C
– Relative humidity: up to 80%
– Dimensions: 122x96x33 mm (TAU-1M.IP and TAU-2M.IP),
187x120x32.5 mm (TAU-4M.IP), desktop design

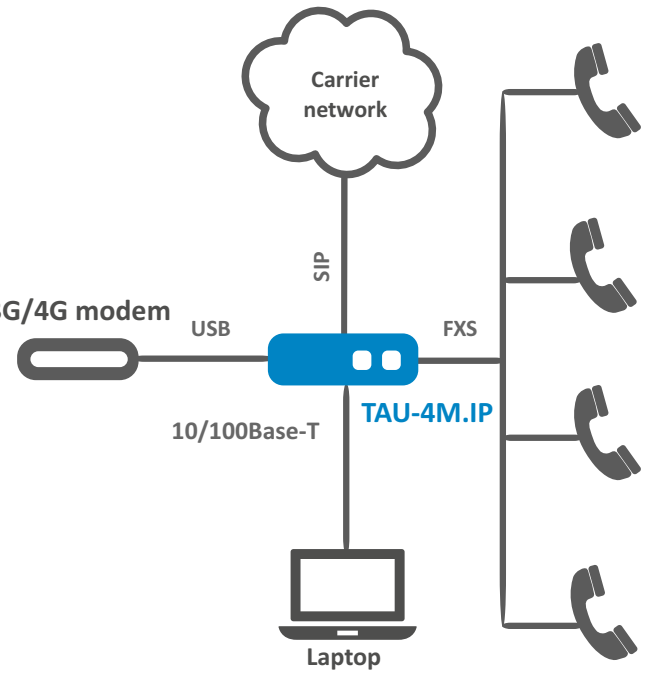
## Use case

TAU-1M.IP




home

TAU-4M.IP




office

*Current firmware version 2.3.1*

## Ordering information

| Name | Description | Image |
|---|---|---|
| **TAU-1M.IP** | Subscriber VoIP gateway with embedded router TAU-1M.IP: 1xFXS, 1xWAN, 2xLAN, 1xUSB, SIP | |
| **TAU-2M.IP** | Subscriber VoIP gateway with embedded router TAU-2M.IP: 2xFXS, 1xWAN, 1xLAN, 1xUSB, SIP | |
| **TAU-4M.IP** | Subscriber VoIP gateway with embedded router TAU-4M.IP: 4xFXS, 1xWAN, 1xLAN, 1xUSB, SIP | |
| **Related software** | | |
| **ACS-CPE-256** | ACS-CPE-256 option of Eltex.ACS system for Eltex CPE autoconfiguration: 256 subscriber devices | |
| **ACS-CPE-512** | ACS-CPE-512 option of Eltex.ACS system for Eltex CPE autoconfiguration: 512 subscriber devices | |
| **ACS-CPE-1024** | ACS-CPE-1024 option of Eltex.ACS system for Eltex CPE autoconfiguration: 1024 subscriber devices | |

## Contact us

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## About company

**Eltex company** is a leading Russian developer and manufacturer of telecommunication equipment with 25 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is a priority area of company development.