

TAU

VoIP Access Gateways TAU Series

- *PBX functionality*
- *High quality Voice*
- *Current and voltage port protection*
- *Enables to provide Testing Measurement of line characteristics*
- *Maximum length of line - 6 km*

Multiport Access VoIP-gateways TAU series are designed and suitable for voice and facsimile information transmission via the IP-network. Gateways provide customers with high-quality Telephone Communications with Value Added Services Support: call-forward, call waiting, 3-way conference, pick up, group call, call line identification presentation etc.

High-Quality Voice

High performance hardware platform based on Mindspeed modern chipset, support of all basic audio codecs used in VoIP-networks (G.711, G.723.1, G.726, G.729), echo elimination functions, silence detector, comfort noise generator, DTMF signal reception and generation, as well as traffic prioritization mechanism (QoS) provide high quality of voice data.

IMS Ready

Support of IMS extensions allows using TAU with different IMS platforms.

Easy-to-Use

The user-friendly control interface as well as supporting means of group-type automated control on the basis of TR-069 and DHCP (DHCP-autoprovision) protocols ensure subscriber's line physical parameters measurement capabilities and ease of using unlimited number of TAU gateways on the operator's network.

Supports capability to measure following subscriber's line parameters :

- extraneous voltage on the wires a and b
- subscriber's line voltage
- ringing voltage
- resistance between wires a and b, cable a and ground, cable b and ground
- capacitance between wires a and b, cable a and ground, cable b and ground

OPTOKON.EMS management system

For gateways mass exploitation on network Eltex offers unified monitoring and control system OPTOKON.EMS. The system provides gateways group centralized management with the ability of ports monitoring via unified web-interface.



TAU-72.IP



TAU-36.IP



TAU-32M.IP



TAU-16.IP/TAU-32M.IP

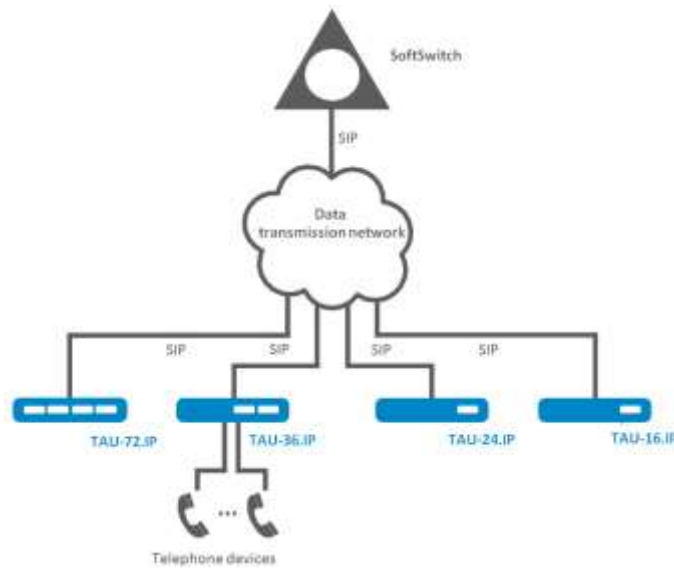
Technical features of VoIP Access Gateways TAU Series

	TAU-72.IP	TAU-36.IP	TAU-32M.IP	TAU-24.IP	TAU-16.IP
Interfaces					
FXS ports	72	36	Up to 32	24	
FXO ports			Up to 32		
Connector type	CETRONICS-36			TELCO-50	
ETH ports 1G	3			2	
SFP module slots 1G	2			1	
VoIP					
VoIP protocols	SIP, H.323, H.248				
Faxing	T.38, G.711 pass through				
WAN connections types	Static, DCHP, PPPoE				
Physical and environmental parameters					
Power supply					
Power consumption at 0.2 Erl	≤ 55W	≤ 45W	≤ 45W	≤ 45W	≤ 45W
Power consumption at 1 Erl	≤ 135 W	≤ 85 W	≤ 85 W	≤ 85 W	≤ 85 W
Dimensions, mm	420x45x240	420x45x240	430x45x191	430x45x134	430x45x134
Operating temperature	from -100 to +450 °C				
Operating humidity	≤ 80%				

Application diagrams

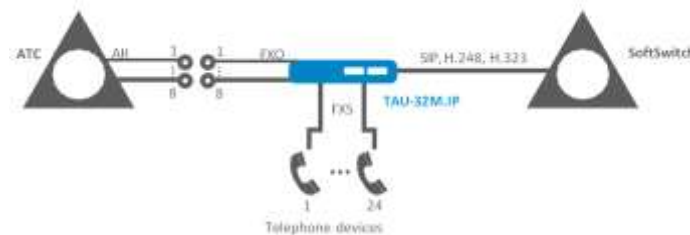
Distributed mini PBX mode

In case disconnection between gateway and superior IP-PBX, possibility of local commutation for gateway subscribers is fully preserved.



TAU-32M.IP recovery scheme

TAU-32M.IP device module construction enables gradual increase of required interfaces number (FXS / FXO).



Functional capabilities

VoIP protocols

- SIP
- SIP-T
- H.323
- H.248

Voice codecs

- G.729 (A, B)
- G.711 a-law, μ -law
- G.723.1 (6,3/5,3 Cbps)
- G.726

Fax support

- T.38 UDP Real-Time Fax
- G.711 (a-law, μ -law) pass-through

Voice standards

- VAD (Voice Activity Detection)
- CNG (Comfort Noise Detection)
- AEC (Acoustic Echo Cancellation, G.168 recommendation)

Funkcional features

- SIP-server authentication with common username and password for all subscribers
- SIP-server authentication with individual username and password for every subscriber
- Direct routing to unregistered devices on SIP-servers
- Internal connections commutation in case connection with SIP-server loss
- Regular expressions in Dialplan
- Concurrent connections limitation
- CPC (Calling Party Control): disconnect signal by circuit disruption
- Signal generation handset unhooked
- Supplementary service management with telephone
- Settings using without rebooting
- IMS (3GPP TS 24.623) Call Hold, Call Waiting, 3-Way Conference, Hotline services management
- Redundant SIP-servers support
- DHCP option 82 generation, Agent client circuit suboptions ID, Agent remote ID

Quality of Service (QoS)

- 4 priority queues
- Packages distribution for queues on the basis of 802.1p priority and/or DSCP
- Diffserv and 802.1p priority assignment for for packets SIP and RTP

Value Added services

- Caller ID
- Caller name and time of call identification in FSK mode
- Calling Line Identification Restriction
- Call Transfer
- Call Pick-Up
- 3-way conference
- Hotline/Warmline
- Call Waiting
- Redirection (CFU, CFB, CFNR, CFOOS)
- Call Group
- Call Hold
- Music on hold
- Message-waiting indicator (MWI)

Types of connections

- Static IP-address
- DHCP-client
- PPPoE-client

Configurations

- HTTP/HTTPS, FTP/FTPS
- TFTP (software and configuration auto-update)
- Telnet, SSH, Console port RS-232
- SIP settings configuration by SNMP
- OPTOKON.EMS management system
- WEB-interface

Remote monitoring

- HTTP/HTTPS
- SNMP
- TR-069

Diagnostics

- Syslog
- Subscriber's line physical parameters testing

Statistics

- Ports detailed statistics
- Call history

















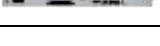
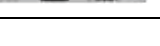


Security

- Username and password verification
- Access rights delimitation: admin / user
- Configuration file encryption

Network Functions

- 802.1Q support
- SNTP support
- Local and external DNS
- Ability to use different VLAN for indication, RTP and management
- STP support
- LLDP support
- Redundancy support (dual homing)

VoIP-Gateways TAU Series ordering Information

Product code	Description	Image
TAU-72.IP		
TAU-72.IP-DC-S	VoIP-gateway TAU-72.IP: 72xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, SIP/H.323, 1U, DC 48V	
TAU-72.IP-DC-M	VoIP-gateway TAU-72.IP: 72xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, H.248, 1U, DC 48V	
TAU-72.IP-AC-S	VoIP-gateway TAU-72.IP: 72xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, SIP/H.323, 1U, AC 220V	
TAU-72.IP-AC-M	VoIP-gateway TAU-72.IP: 72xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, H.248, 1U, AC 220V	
TAU-36.IP		
TAU-36.IP-DC-S	VoIP-gateway TAU-36.IP: 36xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, SIP/H.323, 1U, DC 48V	
TAU-36.IP-DC-M	VoIP-gateway TAU-36.IP: 36xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, H.248, 1U, DC 48V	
TAU-36.IP-AC-S	VoIP-gateway TAU-36.IP: 36xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, SIP/H.323, 1U, AC 220V	
TAU-36.IP-AC-M	VoIP-gateway TAU-36.IP: 36xFXS, 3xRJ45-10/100/1000, 2 slots for SFP, H.248, 1U, AC 220V	
TAU-32M.IP		
TAU-32M.IP-S	Access VoIP-gateway TAU-32M.IP chassis : 4 slots for submodules TAU32M-M8S или TAU32MM8O, 3xRJ-45 (LAN), 2 chassis for SFP, slot for power supply PM150-220/12 or PM75-48/12, 1U, SIP	
TAU-32M.IP-M	Access VoIP-gateway TAU-32M.IP chassis : 4 slots for submodules TAU32M-M8S or TAU32MM8O, 3xRJ-45 (LAN), 2 chassis for SFP, 1 slot for power supply PM150-220/12 or PM75-48/12, 1U, SIP	
TAU32M-M8S	TAU32M-M8S subscriber's line equipment sub module (installed in chassis TAU-32M.IP): analog subscribers ports (FXS)	
TAU32M-M8O	TAU32M-M8O subscriber's PBX line sub module (installed in chassis TAU-32M.IP): 8 analog ports (FXO)	
PM160-220/12	Power module PM160-PM160-220/12 220/12, 220V AC, 160W	
PM75-48/12	Power module PM75-48/12, 48V DC, 75W	
TAU-24.IP		
TAU-24.IP-AC-S	VoIP-gateway TAU-24.IP: 24xFXS, 2xRJ45-10/100/1000, SIP/H.323, 1U, AC 220V	
TAU-24.IP-AC-M	VoIP-gateway TAU-24.IP: 24xFXS, 2xRJ45-10/100/1000, H.248, 1U, AC 220V	
TAU-24.IP-DC-S	VoIP-gateway TAU-24.IP: 24xFXS, 2xRJ45-10/100/1000, SIP/H.323, 1U, DC 48V	
TAU-24.IP-DC-M	VoIP-gateway TAU-24.IP: 24xFXS, 2xRJ45-10/100/1000, H.248, 1U, DC 48V	
TAU-16.IP		
TAU-16.IP-S	VoIP-gateway TAU-16.IP: 16xFXS, 2xRJ45-10/100/1000, SIP/H.323, 1U, AC 220V	
TAU-16.IP-M	VoIP-gateway TAU-16.IP: 16xFXS, 2xRJ45-10/100/1000, H.248, 1U, AC 220V	
Cabels		
UTP-18-X	UTP-18-X: Cabel X length meters 18-pair cable, terminated with connectors CENTRONICS-36 (X=4, 6, 12, 20, 30 meters)	
UTP-25-X	UTP-25-X: Cabel X length meters 25-pair cable, terminated with connectors TELCO-50 (X=4, 6, 12, 20, 30 meters)	
Management system		
EMS-TAU	EMS-TAU option of Eltex system .EMS for OPTOKON network elements control and monitoring. 1 network element TAU-72.IP /TAU-36.IP /TAU-32M.IP/TAU-24.IP/ TAU-16.IP	