

PROTECTED AUTOMATIC TELEPHONE EXCHANGE OF SPECIAL-PURPOSE FMS

СВЯЗ
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The Protected automatic telephone exchange of special purpose FMS is a protected ATS, designed for the organization of telephone voice data exchange and digital data exchange in special cryptographically secure communication networks of public authorities, the Ministry of Defense, security agencies.

The Automatic telephone exchange FMS-repeater provides:

- automatic telephone internal communication, outgoing, incoming and tandem communication with other subscribers of special cryptographically secure communication networks;

- connection of analog 2-wire and 4-wire protected telephone sets (up to 60psc.);
- connection to the superior communication network:
 - via analog 2-wire FXS subscriber lines, 4/ 6-wire TFC, S1-FL-BI, S1-I), using external analog digital equipment of information cryptographic protection;
 - via E1 protected digital flows (up to 2 flows), using built-in digital equipment of information cryptographic protection CA-E1, with an opportunity of allocation of n*64 K bit\ s digital communication channels with Ethernet 10BaseT interface from E1 flows for the organization of categorized data transmission networks;
 - via secure Ethernet interface with SIP support for the organization of voice telephony,
 - using built-in digital equipment of information cryptographic protection CA-Ethernet;
- E1 digital flows transmission via 2-wire copper (SHDSL) or optical communication lines;
- protection of information against an unauthorized access and leakages through compromising emanation channels; meets the technical requirements for information protection and security.



Advantages and peculiarities of the automatic telephone exchange FMS:

- provides security and confidentiality of information at enterprises and in organizations;
- flexibility of the construction of special-purpose direct communication directions and networks. The equipment allows performing functions of the primary multiplexor: allocate TFC-s (tone frequency channels) from E1 digital flow for external loads (the equipment of information cryptographic protection, tone telegraphy, direct communication, alarm etc.), arrange n*64kbit/s secure channels with the Ethernet 10BaseT Interface, operate with NGN networks with voice telephony SIP support;
- opportunity of a combined communication network construction (telephone network + data transmission network) using only one transport communication: E1 flow or Ethernet and, correspondingly information cryptographic protection equipment only of one type: CA-E1 or CA- Ethernet;
- uninterruptible power supply is carried out both from a monophase AC 230V network and from DC power supply 60V or 48V, time of offline operation on the storage batteries is no less than 4 hours;
- time proved high reliability of the equipment. The Automatic telephone exchange FMS is developed by OJSC "SVYAZINVEST" on the base of the electronic automatic telephone exchange FMS FM\FMS unified equipment. It has been operated in operator, departmental, special communication networks for more than 15 years;
- warranty at the Customer's request is up to 5 years;
- the equipment and software customizing is possible at the Customer's request.

The Automatic telephone exchange FMS construction:

The Automatic telephone exchange FMS is a 2-section floor-mounted cabinet with 19" construct active equipment; dimensions are less than 1540(h)*600(w)*460(d) mm.

Section 1(upper) - EMS protected, 12U height, designed for switching and cross equipment layout:

- automatic telephone exchange FMS in 19" case, 8U height with group switching and power supply equipment 100% backup;
- cross switching panel.



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Section 2 (bottom) – not protected, 12U height, designed for extra equipment layout:

- PS60\48u (=48V, 250W) power-supply system with rectifier units 100% backup to provide all cabinet telecommunication equipment with uninterrupted power supply;
- storage batteries with helium electrolyte =12V in the quantity of 4psc. with the capacity providing the cabinet equipment with self-contained power supply for minimum 4 hours;
- power supply filter;
- SHDSL modem TSM-E1 or optic modem MO-4E1 (19" unit 1U height, additional modem for installation on the exchange side is included in the kit);
- digital equipment of information cryptographic protection CA- E1 or CA-Ethernet (19" unit 1U height, settled by the Customer). There is a split between equipment unit CA- E1 (CA-Ethernet) and modem unit TSM-E1 for meeting the leakage protection requirements.

EMC enclosed perforation is available in the cabinet side panels and intersectional baffle in order to provide self-ventilation.

External cable lead-in is realized via RM connectors, placed on the cabinet rear panel. Assembly and access to telecommunication equipment is realized on the front panel. The doors of compartments are equipped with bolt locks and seal cups.



Certificates:

№ BY/112 03.11.030 04537 – The National Certificate of Conformity of the Republic of Belarus, issued by the certification body of telecommunication facilities and services OJCS "Giprosvyaz";

№ BY/112 03.11.068 00008 – The National Certificate of Conformity of the Republic of Belarus, issued by State Security Committee of the Republic of Belarus;

The Certificate of Production of domestic manufacture № 644.1/6473-1, issued by the Chamber of Commerce and Industry of the Republic of Belarus.

The Declaration of Conformance of the Customs Union №TC BY/112 11.01.TP004 030 00858, issued by Minsk State Executive Committee.

Diagram of a combined network organization (network+data transmission network) using E1 transport flows on the base of the automatic telephone exchange FMS equipment and automatic telephone exchange FMS

