

## Purpose:

the electronic automatic telephone exchange FMS - mobile switch is a monoblock compact (19", 1U) protected micro automatic telephone exchange of small capacity, designed for the organization of telephone voice data exchange and digital data exchange at mobile and fixed units as parts of cryptographically secure communication networks of security agencies and public authorities.



## The electronic automatic telephone exchange FMS (FM) – mobile switch provides:

- automatic telephone internal communication, outgoing, incoming and tandem communication with other subscribers of departmental communication networks;
- connection of 16 analog 2-wire subscribers with rotary and frequency dialing (DTMF) and identification of a calling subscriber's number (CLIP function with FSK modulation). Optional connection of 20 2-wire subscribers and 8 local battery subscribers. Optional connection of SIP-subscribers via the Ethernet interface;
- one of the ways of connection to the aforementioned communication network:
  - connection via E1 digital flows (up to 2 flows) with a capability of allocation of  $n \cdot 64$  K bit/s digital communication channels with Ethernet 10BaseT interface from E1 flows for the organization of categorized data transmission networks, using external modern digital equipment of information cryptographic protection with E1 interface. Optional additional connection via analog 2-wire FXS subscriber lines (up to 4 lines), using old external analog digital equipment of information cryptographic protection;
  - connection via Ethernet interface with SIP support for the organization of voice telephony, using external modern digital equipment of information cryptographic protection with Ethernet interface;
- protection of information against an unauthorized access and leakages through compromising emanation channels. It meets all technical requirements for the protection and security of information.

## Advantages and characteristics of electronic automatic telephone exchange FMS (FM) – mobile switch:

- provides information security and confidentiality at mobile and fixed units in distributed secure communication networks;
- provides support both of analog and digital trunks (FXS, E1, Ethernet) and different-type subscriber devices (2 wire telephone sets, common and local battery telephone sets);
- provides operation both in digital classic TDM – networks with channel digital switching via E1 flows and R1, 5; EDSS1 alarm, and in digital networks with packet digital switching via Ethernet 10BaseT interface and voice IP-technology SIP support;
- provides a combined communication network in TDM networks (telecommunication network + data transmission network), using only one transport communication - E1 flow ( $n \cdot 64$  K bit/s voice telephony +  $m \cdot 64$  K bit/s data transmission,  $n + m = 30$  channels);



## ELECTRONIC AUTOMATIC TELEPHONE EXCHANGE FMS (FM) – MOBILE SWITCH



- provides support of information cryptographic equipment both old (TFC, S1-FL-BI) and new (for digital communication lines – via E1 or Ethernet interface);
- provides a PC – based attendant console connection. It allows using the electronic automatic telephone exchange FMS equipment as a manual switch;
- power supply is carried out from 48\60V DC network via interference suppression filter;
- time-proved high reliability of the equipment. The electronic automatic telephone exchange FMS – mobile switch is developed by OJSC «SVYAZINVEST» on the base of the electronic automatic telephone exchange FMS FM\FMS\FMM 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.

### Construction:

The electronic automatic telephone exchange FMS – mobile switch is a 19" 1U monoblock. Dimensions are 482(w) ×355(d)×44(h) mm (without regard to a suppressor). At the Customer's request, the electronic automatic telephone exchange FMS equipment set can include the following items:

- PC-based attendant console;
- uninterruptible power supply system PS60\48u;
- cross switching equipment with voltage and circuit protection;
- distributing frame mobile version with absorbing of vibration and micro climate support MKD2\MKD3.

### Operation conditions:

- operating temperature range is from 0°C to +45°C (on order -40°C...+50°C);
- relative humidity is from 45 to 98% at the temperature 25°C;
- frequentative multiple shocks with a shock acceleration peak value of 98m\с (10g);
- sinusoidal vibration within the frequency range of 10-200 Hz at the acceleration amplitude of 19.6 m\с (2g);

### 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 CU declaration of compliance № TC BY\ 112 11.01.TP004 030 00858 is issued by Minsk city Executive Committee.

### Notes:

- *the mobile switch is manufactured under the title electronic automatic telephone exchange FM for usage in open communication networks;*
- *the technical characteristics may be changed at the Customer's request.*

