"RadioFence"
Perimeter Intruder Detection System

"RadioFence" system is intended to secure long range perimeter zones. It includes intrusion detection set and data acquisition and processing system (DAPS).

The system operating principle is based on intruder detection by security sensors and message transmission to DAPS.

Intrusion detection set includes various security sensors: passive infrared, active microwave double positional, vibration-sensitive triboelectric. All sensors are radio channel, independent from the grid and equipped with antennas.

Power supply of CVD-105, CVD-110 detectors and CVD-931 radio repeater is implemented by means of solar energy, CVD-102 – by means of high capacity non-chargeable battery.

DAPS means a laptop with preinstalled special software and SBSM unit. SBSM unit – connects radio channel detectors and requires power supply.

Bidirectional radio channel communication between SBSM and CVD-105 and CVD-110 ensure remote configuration of security sensors.

Unidirectional communication is effected between SBSM and CVD-102, SBSM and laptop are connected via Ethernet.

All security sensors have tamper switch, low voltage and failure control.

The system supports up to 40 sets operating at different frequencies.

The system includes*:
1. CVD-102 security sensor;
2. CVD-105 security sensor;
3. CVD-110 security sensor;
4. SBSM unit;
5. CVD-931 wireless repeater;
6. Laptop with SW;
7. Adjusting cable.

*All system components can be supplied separately and in needed quantity by order.

The system is applied in areas complicated, impossible or unreasonable for power supply cabling and data transmission from security sensors to data processing system.

Technical specification

Name	Value
Operating frequency, MHz	433
Time of transmission via 16 repeaters, not more, sec.	9
Max number of rebroadcasts in two directions, number	64
Max distance between neighbor detectors with standard antenna, within line-of-sight, m	1000
Max length of secured perimeter, km	31,5
Max number of CVD-105, CVD-110 in one system, pcs.	63
Max number of CVD-102 in one system, pcs.	65000
Data transmission interface of SBSM unit	Ethernet 10Base-T, RJ-45
Remote configuration	for CVD -110
Message reception from other sensors and signal repeating function	for CVD -110, CVD -105, CVD -931
Malfunction detection	for CVD-110, CVD-105, CVD-102, CVD-931

Frequency channel adjustment	for CVD-110, CVD-105, CVD-102, CVD-931
Battery discharge sensor	for CVD-110, CVD-105, CVD-102, CVD-931
Tamper switch	for CVD-110, CVD-105, CVD-102, CVD-931
Voice alarm on sensor disturbance	Yes
Record storage time in event log, not less, days	365
Automatic indication of the alarm location on the site graphic plan	Yes
Complete integration with "Perimeter", "Observer", "Complex Security", "Centaur" systems, "Shmel" UAV	Yes
Auto radio channel routing	Yes
Random radio network topology	Yes
Lifetime	8
Batteries lifetime, up to	3
Ingress protection for devices	IP65
Operating temperatures, °C -Sensors, wireless repeater, SBSM unit -Base set	from -40 to +50 from +5 to +45