

MUROM

Autonomous transportable system of video and thermal imaging surveillance



STVF.424252.003

PURPOSE

The system is designed for 24/7 remote video and thermal imaging surveillance, as well as control and protection of open areas, waypoints, perimeters and movement paths to objects (if applying with MONGOOSE, purchased separately).

FIELDS OF APPLICATION

- ensuring security of temporary deployment areas of groups or military troops through control and securing paths to their deployment location
- applying as ancillary means of facility protection
- ensuring protection of State border on long and open areas

VESTRION

- equipment included in the system is implemented in a collapsible form
- special protected cases are used for packaging and transportation of system parts
- operation under control of MUROM Special software

FEATURES

- real-time intelligent video surveillance of open areas
- defining (pinpointing) the breach spot of the protected terrain section
- manual and automated modes (by preset algorithm) for scanning the controlled area
- indicating sensors' information (if applied with the MONGOOSE) with their location mapping, status monitoring, as well as audio and visual alarm alerting the operator and automatic directing the rotary device with the camera and thermal imager to the alarm site
- autonomous power supply of the system from solar panels / gasoline generator
- arranging a communication channel with a remote monitoring post

PECULIARITIES

- fast system deployment on the guarded section within 1 hour by 3-person team
- long-term operation in autonomous mode
- high mobility of the system due to collapsible design of its parts and cases for their safe storage and transportation
- providing own security of the system with STS-102P sensors when paired with MONGOOSE
- real-time simultaneous playback of streaming video and video archive
- automatic download of terrain maps
- automatic georeferencing via built-in GPS receiver
- target classification by type with indication on the terrain map
- determining azimuth and range to the target

SCOPE OF SUPPLY

Name	Quantity
✓ STS-10901 Mast	1 pc.
✓ STS-10903 Mast	1 pc.
✓ SDP-881 PAN-TILT Unit	1 pc.
✓ SDP-8083 Long-range camera	1 pc.
✓ SDP-8615M Thermal imaging camera	1 pc.
✓ 12V/24V BPM24 Power supply unit	1 pc.
✓ STS-507 Communication controller	2 pcs.
✓ Battery unit	2 pcs.
✓ Charging unit	1 pc.
✓ BRDM-K unit	1 pc.
✓ Rugged notebook set	1 pc.
✓ Packing	1 set
✓ RFE 5300/23HV Antenna	2 pcs.
✓ Connection cables set	1 set
✓ STL-725 Autonomous power supply set	1 set
✓ STL-724 Autonomous power supply set	1 set
✓ Mounting parts set	1 set
✓ Operating guidelines*	–
✓ Formulary	1 pc.

*Operating guidelines are available at: <http://stilsoft.ru>

DESCRIPTION OF SYSTEM PARTS

- SDP-8083 Long-range camera and SDP-8615M Thermal imaging camera mounted on SDP-881 Pan-tilt are used for visible and infrared video surveillance
- Pan-tilt unit enables camera and thermal imager pointing by changing their azimuth and tilt angle
- SDP-8083 Video camera's focal length can be adjusted within a wide range with the motorized lens
- STS-10903 Pneumatic telescopic mast holds a Pan-tilt unit with a video camera and thermal imager and a communication controller
- STS-10901 Roof-mounted mast holds a Pan-tilt unit with a video camera and thermal imager mounted on it
- 12V/24V BPM24 Power supply unit provides power supply of the system equipment from the vehicle's built-in power grid when using STS-10901 mast included in the system set
- STS-507 communication controller is used to organize a high-capacity wireless communication channel between two sites

- battery unit is used to accumulate energy from the solar modules (STL-725), gasoline generator (STL-724) and provide power to the system. A single unit is enough for system operation
- the charging unit facilitates charging of battery units and controls the gasoline generator in automatic mode
- BRDM-K unit is used to receive and process notifications from security sensors and relay them to a rugged notebook via a Pan-tilt unit
- RFE 5300/23HV Antennas are mounted on STS-507 controller enabling the arrangement of a wireless communication channel up to 8 km distance
- STL-725 Autonomous power supply set provides energy to the system and charges the battery unit from solar batteries
- STL-724 Autonomous power supply set provides energy and battery unit charging from a gasoline generator

DESCRIPTION OF SYSTEM SPECIAL SOFTWARE

- rugged notebook set with installed MUROM special software is designed to control, configure and organize a single information space of the system enabling storing and displaying information from the long-range camera and thermal imager, as well as from the sensors if applied with the MONGOOSE

RELIABILITY AND WARRANTY

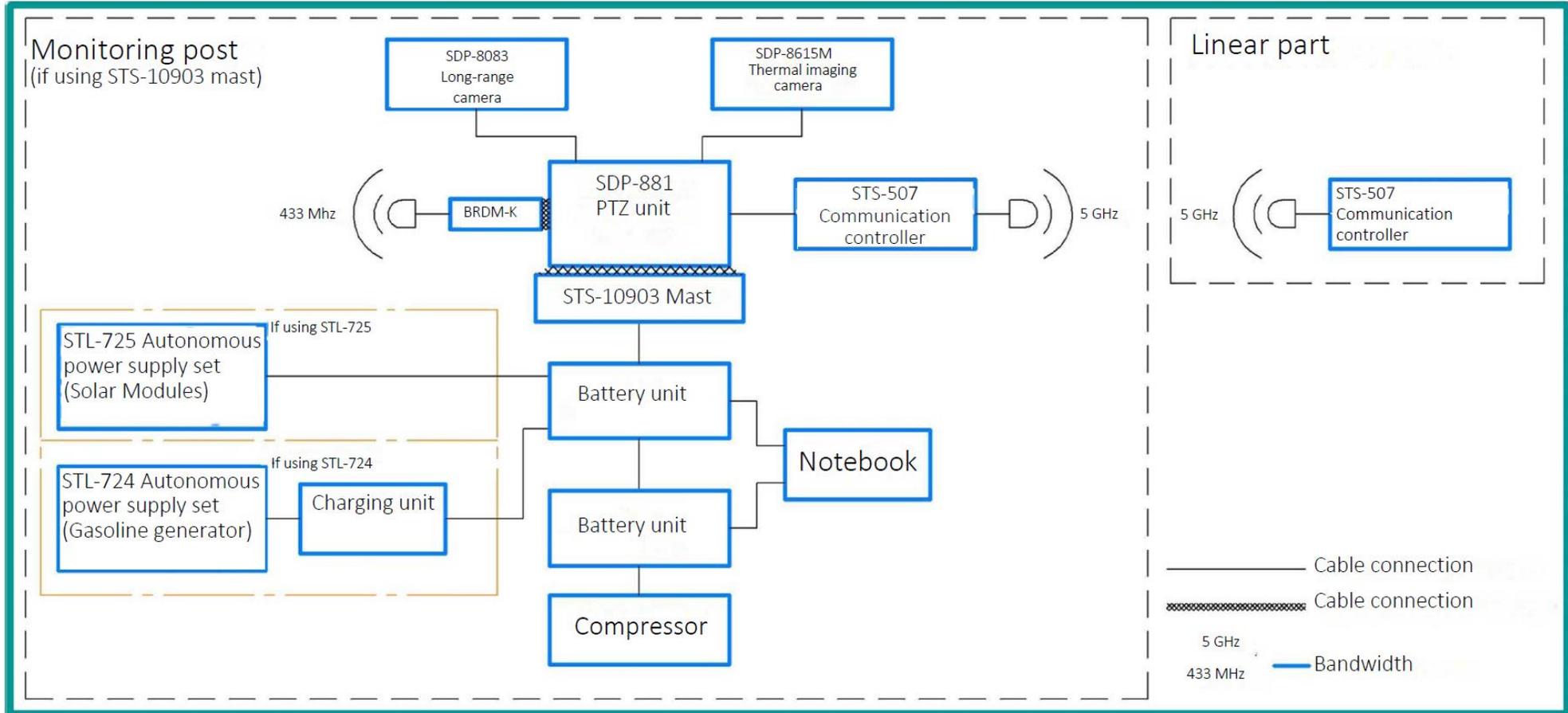
- Warranty operating period – 2 years.
- Designated operating period – 7 years.

TECHNICAL PARAMETERS

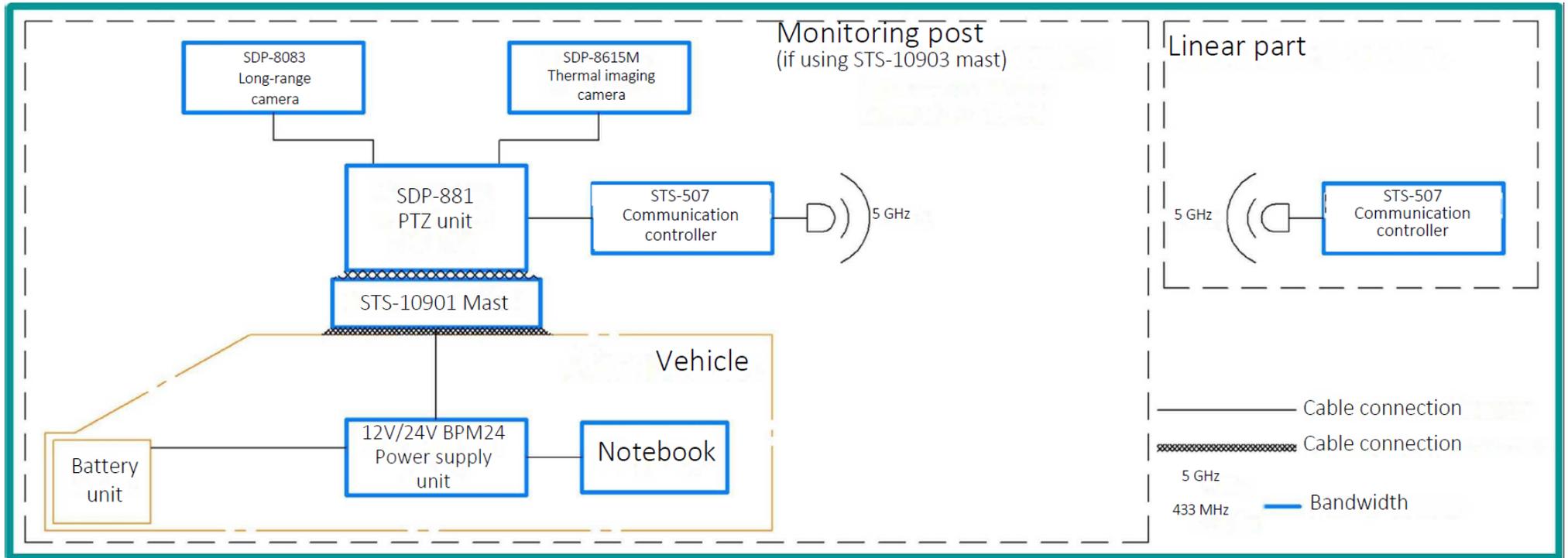
Parameter name	Value
Target detection range by video camera, m: – "human" type, – "vehicle" type	up to 10000 up to 10000
Target detection range by thermal imaging camera, m: – "human" type, – "vehicle" type	up to 4000 up to 7900
Video resolution at 25 fps, pixels: – thermal imaging camera, – long-range camera	640x480 2592x1944
Video camera viewing angle, deg: – horizontally, – vertically	360 ±45
Range of radio relay communication channel, up to, km	8
Mast height, m	5,2
Solar module capacity, W	400
Overall capacity of battery units, Ah	200
Remote voltage monitoring of battery unit	Yes
Automatic mode of scanning predefined control points	up to 30 points
Information transmission bandwidth over radio channel, at least, Mbps	40
Frequency range of communication channels: – BRDM-K unit, MHz – STS-507 Communication controller, GHz	433 5
Product lifespan, years	7
DC power supply voltage, V	24 ± 10%

AC power supply voltage, V/Hz	220/50
Group	3 person
Average deployment time for 3-person group, h	2
Time to enter the operating mode, min	5
System weight, up to, kg	680
Temperature mode of system equipment operation, °C*	from - 40 to + 50
* Temperature mode of operation for equipment from STL-724 Autonomous power supply set, °C	from - 20 to + 50
* Temperature mode of operation for rugged notebook set, °C	from - 20 to + 50

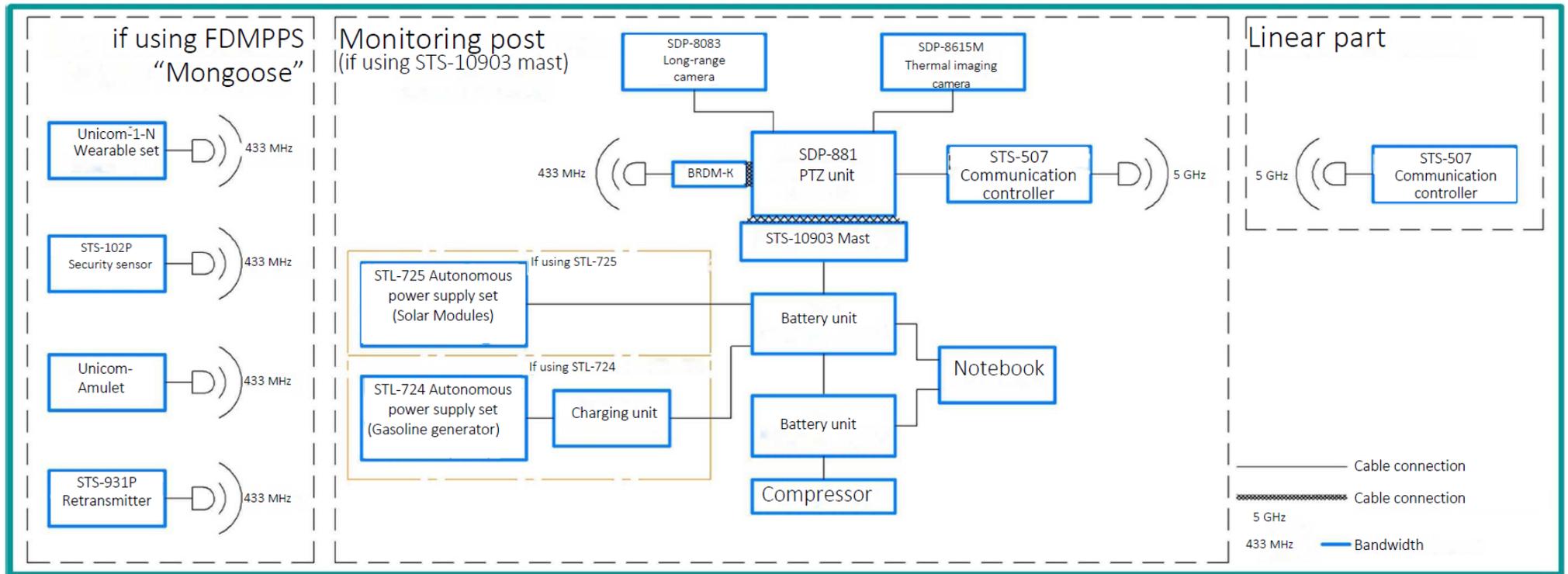
SYSTEM SCHEMATICS IF USING STS-10903 MAST



SYSTEM SCHEMATICS IF USING STS-10901 MAST



SYSTEM SCHEMATICS IF USING WITH ICOUM MONGOOSE





Developed and produced in Russia

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www.stilsoft.ru