

STS-177

Radar



STVF.425142.001

PURPOSE

STS-177 Radar is designed to detect and identify moving objects in open terrestrial and water areas.

FIELDS OF APPLICATION

- long-range detection systems
- as part of integrated facility security systems

VERSION

- the unit is encased in an impact-resistant plastic shell
- electronic boards and antennas are placed inside the device
- The aluminum platform for PTZ unit mounting is located on the device's shell

FEATURES

- detecting moving objects and determining their type
- object trajectory and distance determination
- interference filtering
- deployment of a network setup comprised of several radars with mutual overlapping of surveillance sectors

PECULIARITIES

- 24/7 operation in all weather conditions
- easy deployment and maintenance
- fast high-accuracy object detection
- low power consumption and safe supply voltage level
- low electromagnetic emission power
- low probability of false alarms

SCOPE OF SUPPLY

Name	Quantity
✓ STS-177 Radar	1 pc.
✓ Mounting parts set including:	1 set
– Bolt M10x40 A2 GOST 7805-70	4 pcs.
– Washer M10 A2 DIN 7980	8 pcs.
– Washer M10 A2 ГОСТ 11371-78	8 pcs.
– Bolt M10x25 A2 ГОСТ 7805-70	4 pcs.
– Ziplock gripper bag 100 x 150	1 pc.
✓ Passport	1 pc.
✓ Operating guidelines *	–
* The operating guidelines are supplied in a single copy when shipped with a batch of products or as part of a system. For single deliveries, the operating guidelines are supplied for each unit. Operating guidelines available at: http://stilsoft.ru	

RELIABILITY AND WARRANTY

- Warranty operating period - 2 years.
- Average operation period before decommissioning - 7 years (minimum).

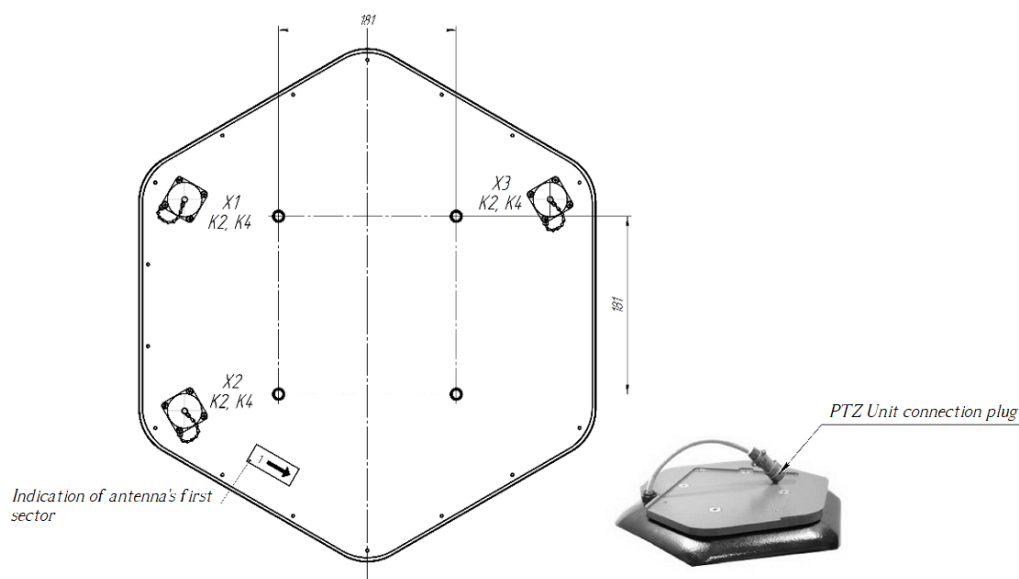
TECHNICAL PARAMETERS

Parameter name	Value
Maximum target detection range of radar (with 11.5-meter minimum altitude difference between the locator and the target), meters (maximum):	
– human-type	2300
– vehicle-type	2300
Minimum target detection range of radar (with 3-meter minimum altitude difference between the locator and the target), meters	20
Radar operating section length, meters (minimum)	2300
Radar operating section width, degrees	360
Antenna beam width by location angle, degrees	18
Range resolution, meters (minimum)	6
Radial speed resolution, km/h (minimum)	0,6
Radial velocity range of detected objects, km/h	from 0,72 to 140
Object detection accuracy range, meters	±5
Object azimuth determination accuracy, degrees	0,25
Maximum number of simultaneously calculated routes of detected objects	90
Operating frequency bandwidth, MHz	от 5350 до 5650
Average emitting power, mW (maximum)	400
Update frequency of output (trajectory) information, Hz (minimum)	12
Type of directional diagram	fixed
Number of frequency literals	8
Time of object route detection by radar (under conditions of radio visibility at the object appearance point), seconds (minimum)	4
External interface	Ethernet
DC power supply voltage, V	10–30
Power consumption, W (maximum)	11
Average MTBF, hours (minimum)	30000
Operating temperature range, °C	from –40 to +50

Parameter name	Value
Overall dimensions, mm (maximum)	466x523x315
Weight, kg (maximum)	15
*With passive jamming (over 50% in the detection zone) achieving an accurate radar picture is impossible. It is also necessary to take into account that with such interference the target detection range decreases to 1500-1600 meters. Uncertain target detection is acceptable at 2100-2300 meters' distances, i.e. possible periodic target losses while it moves in the radar detection zone	

CONNECTION

STS-177 Radar connection



Connectors X1-X3 are equivalent and used to connect devices - STS-507 communication controller and battery unit.

Contact pin designation for radar connection

Contact pin #	Pin designation
1	+24V
2	-24V
3	«Tx+» Transmitted data "+" via Ethernet
4	«Tx-» Transmitted data "-" via Ethernet
5	«Rx+» Received data "+" via Ethernet
6	«Rx-» Received data "-" via Ethernet
7	Not active

Default settings

IP address	172.16.16.250
Port	7001



Developed and produced in Russia

+7 (8652) 52-44-44
www.stilsoft.ru