

SIRIUS HTD-22-PAL VIDEO TRACKER

ELECTRONIC DEVICE FOR AUTOMATIC TRACKING OF OBJECTS ON VIDEO

The **HTD-22-PAL** video tracker is intended for automatic tracking of objects selected by the operator in video stream, as well as for calculating and transferring data to the consumer. The device is a compact electronic module consisting of several electronic boards and is intended to be used as a part of other equipment. The functions of automatic tracking are implemented on the basis of the **RF_VIDEO_TRACKER v2.3.** software library. The device compresses the video and transfers it to the consumer over the RTP protocol via the Ethernet interface.

FIELD OF APPLICATION

Stationary target acquisition systems, precision-guided weapon systems, unmanned aerial vehicles, perimeter security systems.

APPEARANCE



OPERATION PRINCIPLE

The device captures the video frames from three analog video inputs simultaneously. Then, the device compresses the captured video frames and transfers them to the consumer over the RTP protocol via the Ethernet interface. The compressed video is transferred only from the channels allowed by the operator (starting and stopping of the stream is performed by the operator's command). At the same time, the tracking calculation is performed simultaneously for three channels. To capture an object for tracking, it is necessary to send a command via the RS-485 interface. To control the tracking process (to reset or change settings, etc), the special commands must be formed and sent. For each processed video frame of all tracking channels, the device forms the tracking data regardless of the operation modes of the tracking channels. The tracking data formed for each video frame are transferred continuously (at the frequency of 25 Hz) to the consumer via the RS-485 interface.

FEATURES AND CAPABILITIES



Three independent analog video inputs of the PAL standard. The input resistance of analog video inputs is 75 Ohm.



The control is carried out via the RS-422 (RS-485) interface. The control protocol is proprietary. The SDK is provided.



Video transmission is performed via the Ethernet interface. The device contains two independent Ethernet 1000base-T interfaces.



The compression format is JPEG. The video transmission protocol is RTP. The simultaneous compression and transmission of three video channels.



The device contains three independent video channels (one tracking channel per each input analog interface).



The modified correlation algorithm of tracking is implemented, and it is based on the RF_VIDEO_TRACKER_v2.3. software library.



The frame processing frequency and data transmission frequency correspond to the input frequency of video frames - 25 Hz.



No more than 10 ms between receiving the video frame and transmitting data to the consumer (for one active channel).



The device configuration is carried out via the WEB interface when the device is connected over Ethernet.



Dimensions: 85 / 55 / 22 mm (with connectors).
Weight: 200 gram.



Power supply: from 6 to 14 V DC.
Power consumption: up to 15 W.



Extended temperature range: from -40 to +60°C.
The device is vibration-resistant.



Easy integration. The protocols and operation modes can be changed to meet the customer's requirements.