

# PROGRAM COMPLEX

## «The digital satellite channel simulator»

Space Research Institute RAS (Moscow, Russia) offers a program complex «The digital satellite channel simulator» simulating processes of modulation, data transmission on a communication channel and to demodulation. This SIMULATOR appears useful for data transmission development in digital networks. With the help of the SIMULATOR it is possible to estimate an overall performance of the transmission-receiving equipment in various conditions. It will create an opportunity of correct designing for all units of new created communication systems in view of required levels of power efficiency, complexity, speed and realization reliability, a delay of decision-making and other criteria of data transmission quality.

Interaction of the SIMULATOR and the transmission-receiving equipment is carried out in accordance with standard Ethernet adapter under protocol TCP/IP.

The SIMULATOR gives an opportunity on adjustment of the following parameters of the satellite channel:

1. Modulation type (BPSK, QPSK).
2. Signal to noise ratio (from –10 up to 50 dB).
3. Data rate (64, 128, 256, 512, 1024 kbps).
4. A channel delay (from 0 up to 300 mc with step 10 mc).
5. Doppler frequency (from 0 up to 1000 Hz).

For maintenance of necessary accuracy of modeling in the SIMULATOR testing model of the channel without participation of the send-receive equipment is stipulated.

Besides at the Customer request an expansion of the SIMULATOR functionality is possible.

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The contact information for consultations on application and purchase of a program complex «The digital satellite channel simulator»:

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