

## **Affordable and reliable real-time access to high- and medium-resolution Earth observation data in near-real time**

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There is a need for simple and reliable solution in regular access to the Earth observation data from satellites. Research & Development Center ScanEx ([www.scanex.ru](http://www.scanex.ru)) has developed a series of universal personal ground stations (PGS) for data reception from the NOAA, EOS (Terra Aqua), IRS-1C/1D, -P6, RADARSAT-1, EROS-A1 remote sensing satellites. The main features of the PGS are:– small-size antenna system, – standart PC and Microsoft Windows compatible processing software, – program adaptivity to various Earth Observing satellite datalinks. The most capable complex in ScanEx product line is UniScan™ ground station in fixed and mobile versions with 2.4 m or 3.6 m diameter antenna system. It is capable to receive data in X-band with up to 120 Mbps data rate from 8 international remote sensing satellites. The receiving hardware and processing software are upgradable for higher data rate and new satellites data links formats. A compact mobile version of the UniScan™ station can be deployed into operational condition after 1-2 hours. This complex can be useful facility for emergency management, resource exploration and for local authorities. The UniScan™ complex provides access to data from the reliable and high-capable Earth observation satellites; among them are Terra and Aqua (MODIS scanners), the Indian IRS-1C/D, IRS-P6, EROS-A, RADARSAT-1, Meteor-3M-1 and other Russian satellites with MSU-series scanners. The Canadian RADARSAT-1 satellite is most responsive and high-resolution radar mission. It is capable to provide imagery with 8-100 m spatial resolution under any weather and light illumination conditions. In case of emergency a client may place an order 29 hours prior to the acquisition and then receives data in near real time mode: the UniScan™ complex supports the RADARSAT-1 real time receiving mode and is able to synthesize radar imagery 0.5-1 hours after its acquisition. This capability is important for such applications as a disaster management (i.e. flooding), ice surveillance, marine navigation, illegal fishing combating, ecology monitoring, oil and gas exploration and so on. In accordance with a special agreement between Indian Antrix Corp. and ScanEx the UniScan™- series systems can provide access to imagery with 5.8, 23 and 56 m resolution from a new Indian IRS-P6 satellite. This imagery can compensate data loss due to Landsat-7 sensor malfunction. Because of affordable cost the ScanEx personal ground terminal can be used as a backbone of the regional, academician and corporate center for Earth observation data reception, archiving and processing.