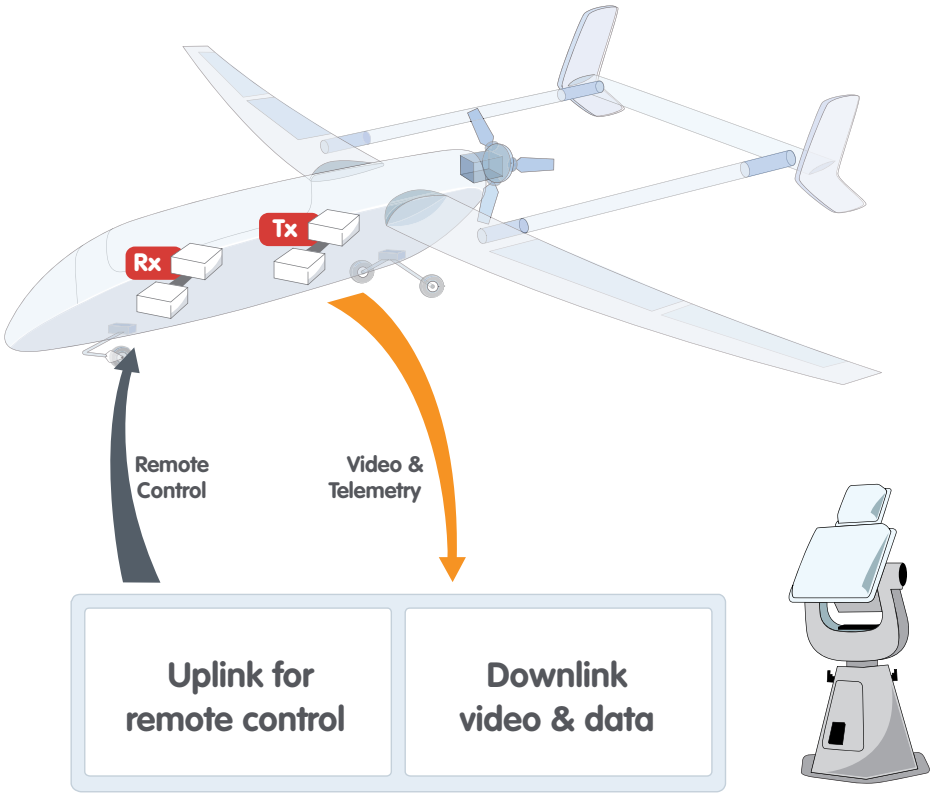
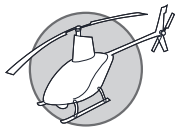
VIEWSYS

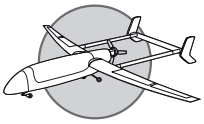
Robust End-to-end radio transmission system for telemetry applications

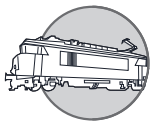
Well beyond the use of state-of-the-art technologies, Advanten's unique offering is their ability to supply a complete transmission system, ready for integration into your application, designed, made and supported by a single team of experienced engineers.

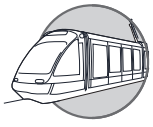
Typical applications are remote control of unmanned terrestrial or flying vehicles (robotics, air-borne), wireless transmission links in railways transportation systems, and any other industrial application requiring robust radio transmission in harsh environments.

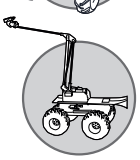












FEATURES

- Video codecs for capture and display of real-time signals.
- Signal multiplexer / demultiplexer for handling video and telemetry data in a single transmission channel.
- Radio modems (S and C Band).
- Transmitting and receiving antennas.
- Operational range up to 250km with only 13W on-board power amplifier.
- Tracking antenna with its control and monitoring software.
- Picture in Picture (PIP) Inserter.

SPECIFICATIONS

Radio:

Frequency Range:	2215-2245 MHz 2400-2480MHz 5700-5800 MHz Specific frequencies
Output Power:	+13 to +40 dBm

Spread Spectrum:	DSSS with RAKE
Code Length :	11 to 255 chips
Code Rate	25 Mchips/s

Interfaces: (Configurable)

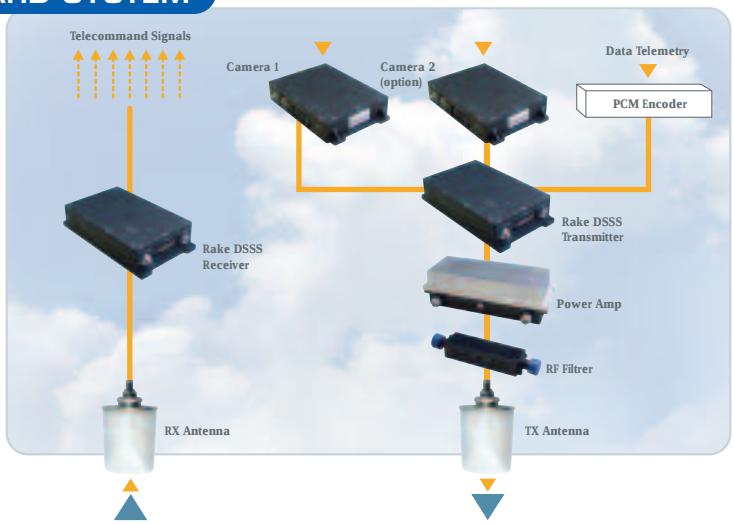
DATA Interface 1:	RS422 (up to 4.4 Mbits/s)
DATA Interface 2:	RS422 (up to 4.4 Mbits/s)
DATA Interface 3:	RS232 (up to 115 kbits/s)
DATA Interface 4:	RS232 (up to 115 kbits/s)

Video:

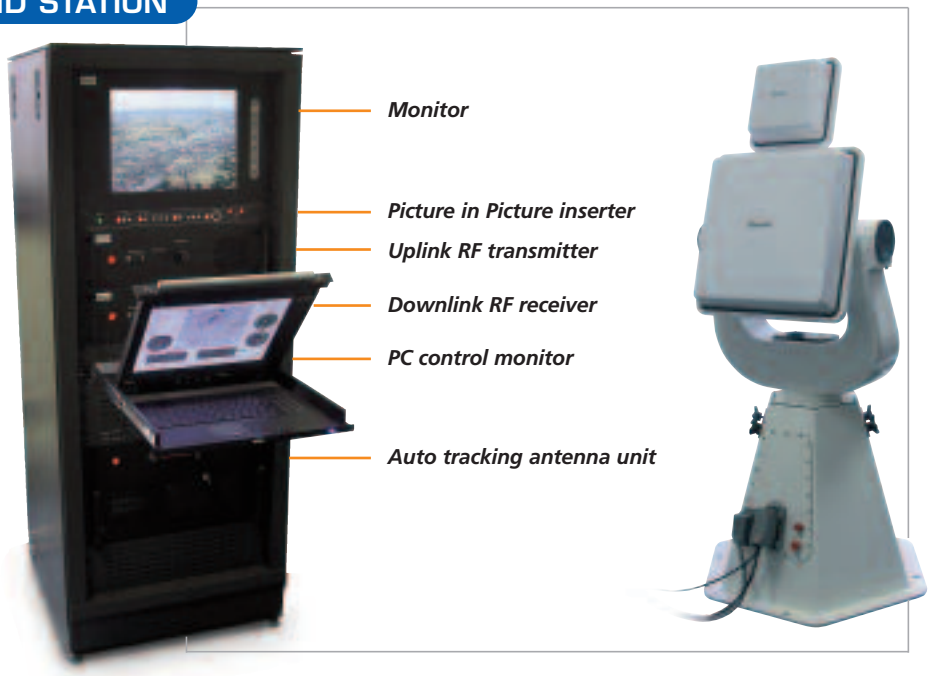
Compression Standard:	JPEG2000 (Wavelet)
Video standard:	PAL (NTSC in option) CVBS (Y/C or YUV in option)

Operating Temperature:	-40 to +70°C

COMPLETE ON BOARD SYSTEM

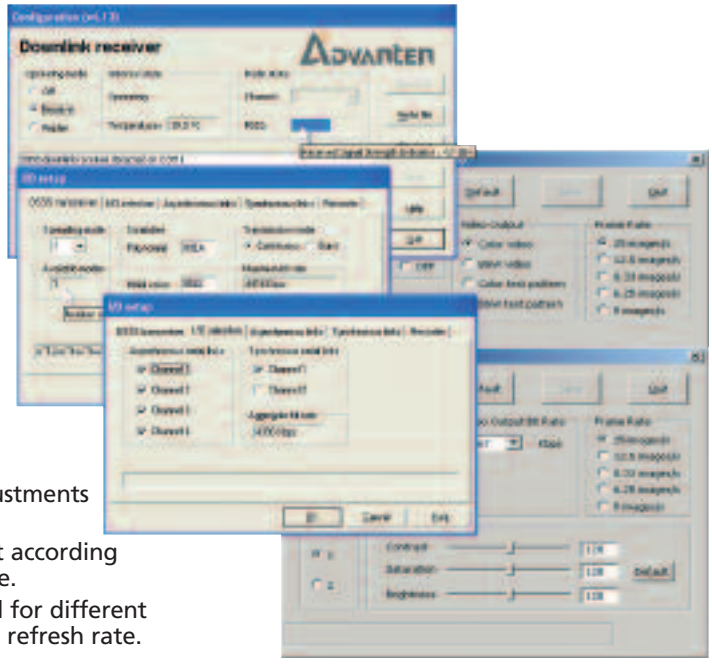


GROUND STATION



SOFTWARE CONFIGURATION

- Adjustable radio parameters: radio channels, output power.
- Selection of spreading and transmission mode, scrambling.
- I/O selection: synchronous serial (RS422) and/or asynchronous serial (RS232 and RS422).
- Synchronous links: adjustable bit rate, clock polarity and output mode.
- Asynchronous links: adjustable baud rate and data format.
- Recorder interface for record and replay.
- Status: RSSI, temperature, state
- Adjustable frame rate.
- Video input selection with video adjustments (contrast, saturation and brightness).
- The compressed video data rate is set according to the radio transmitter raw data rate.
- The frame rate may then be adjusted for different compromises between sharpness and refresh rate.



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Why choosing ADVANTEN

For a totally consistent system:

- Digital processing (source coding, channel coding, modulation).
- Radio systems (up/down converters, amplifiers, filters).
- Antenna design & manufacturing.
- Mechanical design (rugged enclosures).
- System integration.

For the best support services:

- Adapting the system to your specific requirements.
- Integrating the system into your application.
- Training your team.
- Servicing the system.
- A guaranteed link budget, in real application environment, well beyond simple laboratory measurements.
- A strong support for your own system deployment.

For the latest and New Technology:

- Low latency wavelet video coding / decoding (JPEG2000).
- Multipath robust RAKE spread-spectrum modulation / demodulation.
- 2D / 3D antennas, with circular polarization, and omni-directional or directive radiation patterns.
- Field upgradable firmware.
- Robust mechanical design, meeting severe temperature, vibration, dust, and humidity requirements.

Advanten
ADVANCED RADIO SOLUTIONS

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