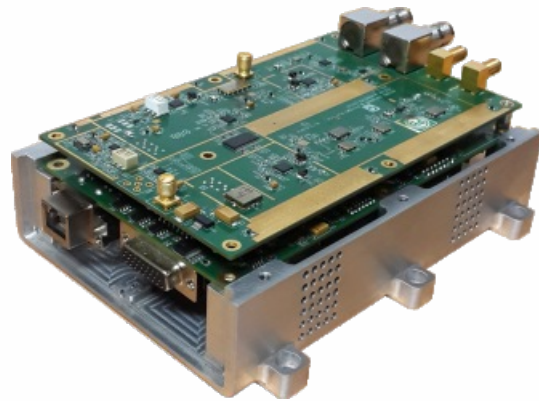


CDMA Based Video Transceiver



Technology

The CDMA Transceiver gives software solution for establishing telemetry and video link between two distant points.

The first transceiver unit shall be a part of the ground segment and the second transceiver unit shall be airborne. The ground segment transceiver unit commands the airborne unit at a data rate of 9.6 kbps and receives video data at a rate of 10 Mbps, whereas the airborne unit transmits the video data to the ground segment and receives command and telemetry data from ground segment. The ground and airborne units are separated by a maximum distance of 20 km.

It also has RF part for up and down conversion. Windows based user interface software (GVISION) supplied along with the transceiver facilitates the user with easier and intuitive interaction with the transceiver.

Features

- Performs FEC, Serpent and AES encryption & decryption, HDLC framing and CRC checksum
- Efficient tracking algorithms for stringent applications
- BPSK, QPSK modulator & demodulator
- I/O interfaces such as RS-232, RS-422, MIL-1553B and Ethernet for video
- Fully customizable input output protocol
- Windows based Accord's own Graphical User Interface
- Facilitates recording of extracted data for offline analysis
- Supports Accord's Proprietary binary message formats for telemetry data
- Easy expandability
- Being used for secured communication over long distances



Technical Specifications

Performance

Airborne Receiver

Airborne Transmitter

Datarate	: 9600 bps	10 Mbps
Modulation	: BPSK	QPSK
Channel coding	: FEC, 1/2Rate, Constraint length-7, Convolution decoding	FEC, 1/2Rate, Constraint length-7, Convolution encoding
Encryption Algorithm	: Serpent, AES	Serpent, AES
No's of RF ports	: 1	1
No's of data channels on each RF	: 1	1
Frequency of operation	: S-band	S-band
Total Bandwidth	: 20 MHZ	20MHZ
Video telemetry support	: -NA-	HD 1080P
On board video recording	: -NA-	HD 1080P for 30minutes
Acquisition time	: <100ms	-NA -
Doppler Range	: 20 kHz to -20 kHz	-NA -
Output Power	: -NA-	2W
Host interface	: MIL-1553B and RS-422 port	Ethernet
Other Communication	: RS-232	RS-232
Upgrades	: Software upgrades through serial port	Software upgrades through serial port

Electrical Characteristic

Power supply	: 28 V ±4 V
Power Consumption	: < 15 W

Environmental Characteristics

Operating temperature	: -20°C to +71°C
Storage temperature	: -40°C to +85°C
Vibration	: 6 g (rms) 3 axes, 5 mins each
Shock	: 15g 11 millisecond, half sine wave
Acceleration	: 15 g
EMI EMC	: CE102, RE102, CS101, CS114, CS115, CS116, RS103 as per MIL STD 461 F, ESD as per IEC-61000-4-2

Mechanical Characteristics

Weight	: < 0.5 Kg
Size	: 100 mm x 60 mm x 55 mm

Performance

Ground Receiver

Ground Transmitter

Datarate	: 10 Mbps	9600 bps
Modulation	: QPSK	BPSK
Channel coding	: FEC, 1/2Rate, Constraint length-7, Convolution decoding	FEC, 1/2Rate, Constraint length-7, Convolution encoding
Encryption Algorithm	: Serpent, AES	Serpent, AES
No's of RF ports	: 1	1
No's of data channels on each RF	: 1	1
Frequency of operation	: S-band	S-band
Total Bandwidth	: 20 MHZ	20 MHZ
Video telemetry support	: HD 1080P	-NA-
Doppler Range	: 20 kHz to -20 kHz	-NA-
Output Power	: -NA-	2W
Host interface	: HDMI	Ethernet
Other Communication	: RS-232	RS-232
Upgrades	: Software upgrades through serial port	Software upgrades through serial port

Electrical Characteristic

Power supply	: 28 V ±4 V
Power Consumption	: < 15 W

Environmental Characteristics

Operating temperature	: -20°C to +71°C
Storage temperature	: -40°C to +85°C
Vibration	: 6 g (rms) 3 axes, 5 mins each
Shock	: 15g 11 millisecond, half sine wave
Acceleration	: 15 g
EMI EMC	: CE102, RE102, CS101, CS114, CS115, CS116, RS103 as per MIL STD 461 F, ESD as per IEC-61000-4-2

Mechanical Characteristics

Weight	: < 0.5 Kg
Size	: 100 mm x 60 mm x 55 mm

**Accord reserves the right to upgrade this product. Please contact us for more information.



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