Overview. The RZ Communications Interface is an optional interface for RZ processor devices that includes a UDP Ethernet connection and a serial port connection. The serial port can support baud rates up to 115200. The port is a standard 9-pin RS232 connection located on the back of the RZ and occupies one of the RZ's DSP expansion slots. The RS232 port can be directly connected to any device that communicates via serial port, such as a head tracker, an eye tracker, or a PC.

The UDP interface is designed to transfer up to 200 data values at low rates to or from a PC. The PC may be directly connected through a dedicated Ethernet card located elsewhere on the user's network or even in a remote location connected via the internet. The RZ UDP interface is located on the back panel of the RZ processor and accepts a standard Ethernet cable.

Typical RZ Transmission Performance with the RZ-UDP-20 Communications Interface

The table below displays the expected throughput for different numbers of packets sent or received per second depending on the number of channels transmitted on an RZ processor.

Number of Channels (32-bit Words)	Packets Sent/Received per Second
1	600
8	500
16	400
32	300
64	150
128	100
192	50

RZ Communications Interface Part Number:
RZ-UDP-20, 10 MBit UDP Interface for RZ

Technical Specifications for the RZ Communications Interface

Interfaces:	Standard Ethernet (for direct connections to a PC an Ethernet crossover cable is required) RS-232 Serial Port (9-Pin)
Ethernet Speed:	10 Mbps
Serial Speed:	115,200 bits/sec
Supported Network Protocols:	DHCP (Dynamic Host Configuration Protocol), UDP, HTTP (for configuration)
Transfer Rates:	Dependent on data packet size (see table)