3 Communication Systems

Table 2: Communication System Specifications

Telemetry Datalink	900 MHz	Frequency Hopping Spread Spectrum
RC Transmitter	72 MHz	Frequency Modulation
Retriever	217 MHz	Frequency Modulation

The telemetry datalink is used to monitor and control the UAV while fully autonomous. This is done using the 9XTend Maxstream spread spectrum RF Modules. The RF module on the UAV is setup with a transmit power output of 500mW with a 3dB dipole antenna. The RF module at the ground station is setup with a 1W transmit power output and a range of antennas. These antennas include a 3dB dipole antenna, a 6dB Omnidirectional antenna, a 8dB Omnidirectional antenna, and a 13 dB sector panel antenna.