

Control Station

The SIERRA can be configured for operation in RC mode only or via the Ground Control Station communicating with the aircraft autopilot.

RC mode control is via a COTS 2.4 GHz radio system. The transmitter is a JR 10X model with a 2.4 GHz Spektrum module installed. The aircraft receiver is a Spektrum AR9000 model.

The Ground Control Station is the Piccolo II system manufactured by Cloud Cap Technologies and is widely used by UAS operators. Complete product specifications can be found at www.cloudcaptech.com.

The Ground Control Station manages the 900 MHz and Iridium SATCOM wireless links to the Piccolo avionics on board the aircraft and serves as a bridge to the operator interface. The operator interface is a software system that runs on a Windows PC and provides the command and control functions for the SIERRA operator.

Through a series of graphical windows, the operator can control the flight parameters of the SIERRA including speed, altitude, and ground track. Waypoints are used to establish the ground track which is presented on a moving map display. Flight plans may be set up in advance or modified during flight. The Ground Control Station also provides the capability for the pilot to fly the aircraft manually using a hand held controller.