

Expository Statement

Equipment Name: ISS-2 Plus SPARS

Model Number: 6328

Description : The 6328 is weather station. It transmits information every 2.5 seconds to a receiving console using Frequency Hopping Spread Spectrum technology with Frequency Shift Keying the carrier at 19200 baud rate. It hops it though 51 channels using a pseudo-random hop table though the 902-928Mhz band. The station consist of an Anemometer, temperature, humidity solar and UV

Circuitry: The 6328 contains 1 circuit boards called the SIM (sensor interface module). The SIM contains the RF transmitter, 5 RJ connectors for the anemometer ,solar ,UV, temperature and humidity The uP on the board runs at 76 kHz. The SIM board has an average current draw of 100 uA and a peak current draw of no more than 20 ma. The board is solar powered during the day and powered by a 3V lithium cell at night. The transmitter is a simple integrated circuit surrounded by passive components and outputs no more than 10 mW.

Antenna: The antenna is 4" helical copper wire inside a 4" long plastic housing. It makes approximately a $\frac{1}{4}$ wave dipole with the ground plane of the SIM board.