Datalogger Specifications

Satellite-Based Dataloggers (DCP) are specialized field computing devices that allow for sensors and telemetry devices to be connected to them, allowing for remote data collection and retrieval by the user. DCP's are able to create data collection intervals, collect raw data from the sensors, and perform calculations to the raw data, store the data, and transmit the data via GOES, EUmetSat, InSat, and FY-2 based on the user set specifications. Information can be transmitted over these satellite systems in many formats SHEF, SHEFIX, ASCII, Binary, and Pseudo Binary.

- Transmitter must include built-In logger.
- Must be able to remotely measure, log, calculate, and transmit data.
- Logging transmitter must support GOES V2.0 channels.
- Must be able to continue GOES transmissions for 1 month if GPS is lost.
- Logging Transmitter must have satellite certification: GOES High Data Rate 300/1200 bps; GOES CGMS International 100.
- Must support GOES, EUMETSAT, MTSAT, FY, ARGOS, SCD, INSAT satellite systems.
- Units must come with 3 year warranty.
- Unit must be manufactured and repaired in the United States
- Unit must be fully programmable through the front panel display
- Must be able to support 32 independent measurements
- Must include 6 Analog Inputs (2 Single Ended, 3 Differential, and one 4-20mA), 2 Digital and 2 Digital Outputs, and tipping bucket input.
- Must have analog input voltage range of 0 to 5 volts, differential range of 78 Millivolts and 625 Millivolts, and ± 0.02% FS at 25˚C, ± 0.03% FS accuracy when transmitting.
- Logging transmitter must be manufactured to exacting ISO 9001 QUALITY STANDARDS.
- Must have built-in WiFi for communication
- Must allow simple connections using smart phone/tablet/PC or connect directly with PC USB port
- Must have expanded SDI capacity with 2 independent SDI-12 inputs
- Must have a GUI Interface for intuitive programming (Android, iPhone, PC, MAC etc…)
- Must have a USB (OTG) Micro AB port, USB Host port and SD Memory (internal)
- Must have built-in lightning protection on all sensor circuitry
- Must have battery backup for real time clock for logging at power-up before GPS resynchronization.
- Must have a log capacity of 1,000,000 readings (32MB), flash memory.
- Logging transmitter must have min/max processing.
- Logging transmitter must have two-level password protection.
- Must be able to process non-linear sensors to copy and paste a formula without programming.
- Must have equation processing and multiple level averaging capabilities
- Must have an IP rating of IP63
- Logging transmitter must have mathematical equation editor and front panel programming.
- Must allow for cellular communications with HSPA, CDMA, GPRS modems and Iridium Satellite communications
- Must have the ability to add a LAN Line Modem for Voice and Data communications.