HydroLynx Systems, Inc.

MODEL 50388/A2
ALERT2 Data Transmitter

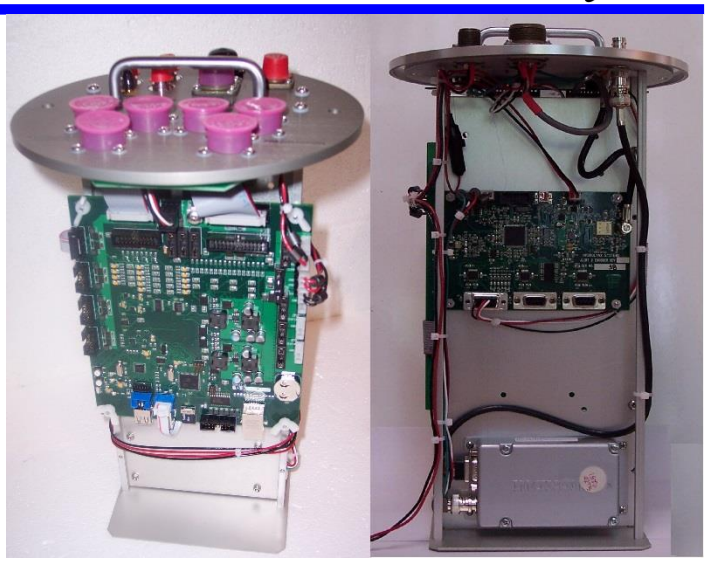
General Description

The HydroLynx Model 50388/A2 ALERT2 Data Transmitter uses the HydroLynx ALERT2 Encoder to transmit ALERT2 data reports; implementing the important design goals of ALERT2: which increases the data through-put and data flexibility while eliminating erroneous data reports. To achieve these goals, ALERT2 combines a high baud rate, state-of-the-art data encryption with Forward Error Correction (FEC), and Time Division Multiple Access (TDMA) communications. The 50388/A2 ALERT2 Data Transmitter with the ALERT2 Encoder achieves these ALERT2 design goals.

High baud rate data transmissions allow the ALERT2 data packet to include more information than standard ALERT transmissions. The data content portion of the ALERT2 data packet is designed for format flexibility; this allows various data types to be included in ALERT2 data reports. To insure reliable data transmission, via RF communication paths at a high baud rate, the data packet must include advanced data encryption with FEC. The HydroLynx Systems ALERT2 Encoder provides this ALERT2 Protocol compliant data packet. ALERT2 TDMA communications eliminates the data report collisions inherent in standard ALERT communications. TDMA communications requires the addition of a GPS antenna/receiver to ensure that the transmitter's clock keeps the ALERT2 data report within the allocated TDMA time slot.

The 50388/A2 is using the same program logic as the 50386SLB, which have provided more than 10 years of reliable field performance using ALERT1, ALERT2 and ScadaLynx protocols. The 50388 collects, processes, and transmits precipitation, analog, digital input and outputs, SDI-12, and serial sensor data. The 50388/A2 is programmable using the same ScadaLynx Toolbox software which includes a full set of commands for data collection, data logging, and ALERT2 data transmission. With the ALERT2 data packet, the sensor data value may now be calibrated and reported in engineering units in unsigned integer format, signed integer format, single precision floating point, and double precision floating. The GPS time sync state can be transmitted as a data value. The ALERT2 Station ID range is now 1 to 65534. In addition to the increase in SID numbers, the ALERT2 data packet format includes individual sensors numbers (SN) for each station: 0…254. Both the SID and the SN are programmable values in the 50388/A2 ALERT2 Data Transmitter.

The 50388 has a battery backed real time clock, battery backed static and flash memory, 4 COM ports, USB-A for data, USB-B for programming, micro SD card for data logging and file storage, ethernet port.



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The HydroLynx Systems ALERT2 Encoder installed between the 50388SLB PCB and the radio provides an ALERT2 Protocol compliant data packet. The GPS antenna/receiver insures that the transmitter's clock keeps the ALERT2 data report within the allocated TDMA time slot.

HydroLynx Systems recommends including a 5033-0.6B Solar Panel along with a 22 amp/hr battery at all sites using the 50388/A2 ALERT2 Data Transmitter.

ALERT2 technology has been licensed from Blue Water Design LLC.

Ordering Information

50388/A2-54 ..... Transmitter in Round Canister, 1 Precipitation Input
50388/A2-88 ..... Same as 50388-54 with 2 Digital Inputs
50388/A2-90 ..... Same as 50388-54 with 2 Digital & 1 Analog Inputs
50388/A2-81 ..... Same as 50388-54 with 3 Digital & 7 Analog Inputs
50388A2-N ..... Transmitter in NEMA 4X Enclosure
50388/A2-PANEL .. Transmitter on metal panel
50388/A2-UP ..... Upgrade 50386 to 50388 Data Transmitter