

330X Series ALERT2 Repeater Concentrator

- Can be Equipped to Receive ALERT
- Programmable
- Optional Sensor Inputs
- Receives and Forwards ALERT2 Data



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DESCRIPTION:

The High Sierra Electronics, Inc. 330X Series of ALERT2 Repeaters/Concentrators is the next generation of wireless communication protocol for use in real-time hydrological monitoring systems. Many configurations add concentrator capability which means that the unit will also receive ALERT data and retransmits it as concentrated ALERT as defined within the ALERT2 Protocol.

The 330X Series of Repeaters / Concentrators are offered in three different types of enclosure with a variety of options available in each of the different enclosures. Refer to the Ordering Matrix for more details.

One of the great advantages of the ALERT2 Protocol is the use of TDMA (Time Division Multiple Access). This allows a network design which assigns specific time slots for every gauge and repeater's transmission. The result is virtually no data loss due to data collision which is a common occurrence in larger ALERT systems.

For existing ALERT Systems transitioning over time from ALERT to ALERT2, a Repeater will also need to operate as a Concentrator. This can be accomplished either through the inclusion of an internal ALERT receiver/decoder, or the ALERT data can be imported via serial cable from an existing ALERT repeaters if it is equipped with a serial output stream. If the ALERT receiver is internal the Repeater/Concentrator will be equipped with three radios; one to receive ALERT2, one to receive ALERT and a third for ALERT2 data retransmission. When the system design permits half duplex, then a single radio can receive and retransmit ALERT2 messages.

All HSE ALERT2 Repeater/Concentrators include an Ethernet port. Data can be exported via the Ethernet port to any Ethernet ready device such as a router or cell modem for transmission to the system base station.

Any unit that includes internal ALERT concentration capability also offers the availability of sensor inputs. The range of sensor inputs is identical to the sensor range of the HSE Models 3306, 3316, and 3512 and include battery and GPS status reports for the repeater. Power requirements vary depending on the Repeater / Concentrator configuration and the anticipated volume of data to be re-transmitted. Most sites will operate effectively with a 75 Watt Solar Panel and 36 Amp hours of battery capacity. If needed, a High Sierra Electronics Applications Engineer can calculate the required power system given the specifics of your site.

02-3302-00 (C)

Environmental Monitoring Solutions

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330X Series ALERT2 Repeater/Concentrator

SPECIFICATIONS:

Data Format	ALERT2 (some models also receive ALERT)
Data Output	Serial port female DB9 connector
Serial Data Rate	19,200 BAUD, 8 Data Bits, 1 Stop Big, No Parity
Frequency Range	VHF 135 to 174 MHz
Switch Selectable	Define up to eight frequencies when ordering unit
Squelch	Open for ALERT2, Squelch for Internal ALERT receive
Radio Type	Ritron DTXL
Operating Voltage	12 to 18 VDC
Current Draw	< 200 mA or 250 mA with Internal ALERT
Fuse	3 Amp
Connectors	
Receive Antenna	SO-239
ALERT2 Transmit Antenna	BNC Female
Ethernet	RJ45
Power	Two 3-Pin MS Connectors (one for power source & one for external back-up battery)
Demod & Encoder Console	9-Pin Serial Male
Serial In.	9-Pin Serial Male (Serial Port for ALERT option)
Enclosure	Aluminum Box with External Connectors
Operating Temperature	-22° to 122° F (-30° to 50° C)
Dimensions (Model 3302-IFPSN)	13 x 3.75 x 14.5 in (33.02 x 9.525 x 36.83 cm) (W x H x D)
Weight (Model 3302-IFPSN)	12 lbs (5.4 kg)
Shipping Weight (Model 3302-IFPSN)	17 lbs (7.7 kg)

ORDERING MATRIX

ALERT2 Repeater Concentrator	Model 330	-					
Enclosure Type	2U Rack Mount 2 HSE Equipment Cabinet 3 8 in. Canister 4						
ALERT Receive Capability	Internal ALERT Receiver I Serial Port for ALERT Messages S No ALERT Messages N						
Duplex	Full Duplex F Half Duplex H						
Power Amp	Power Amp Installed P No Power Amp Installed N						
Splitter/Multicoupler	Splitter Installed S Multi-Coupler Installed M Neither Installed N						
Crystal Filter	Crystal Filter Installed C Two Crystal Filters Installed 2 No Crystal Filters Installed N						

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