## **XTB-XM 2413S X10 Emulator for Smartenit Harmony**

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The XTB-XM is a high-power X10 powerline interface that emulates the X10 subset of commands used by the 2413S Insteon Modem (IM). Since Insteon products are no longer in production, the XTB-XM is an alternative for those who are using the Smartenit Harmony to control their X10 systems. The XTB-XM uses the XTB-232 hardware with new firmware and a minor modification to support the higher baud rate. The XTB-XM ONLY supports the X10 powerline protocol, and will ignore any Insteon commands

An existing XTB-232 can be converted to the XTB-XM with new firmware and a minor hardware modification for the higher baud rate. After the modification, it can be converted back to a XTB-232 just by swapping the microcontroller.



Many of you are familiar with the XTB and XTB-IIR X10 Transmit Boosters that have been available since 2006. Like the other XTB units, the XTB-XM outputs a much stronger signal than normal X10 transmitters. It can deliver over 20Vpp onto the powerline. When combined with a good tuned-circuit passive coupler like the XPCP, the XTB-XM located near the distribution panel can provide strong signals throughout an average home.

The XTB-XM includes the ability to expand a pre-set dim command to an extended command for Leviton and newer X10 dimmers. The LED indicator provides feedback on the state of the unit. It should glow dim green whenever it is active and monitoring the powerline. A bright green flash indicates it is receiving a potential X10 command, and an orange flash indicates it is transmitting. Red flashes indicate various errors: 3 flashes for a X10 receiving error, 4 flashes for a X10 transmission error, and 5 flashes for a serial communication error.

The serial configuration is 19,200 baud, 8 bits, no parity, and one stop bit. Since it was designed to replace the X10 CM11A, a CM11A cable must be used along with a USB to serial converter.