XTB-523 X10 Powerline Interface

JV Digital Engineering

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The XTB-523 is a high-power digital to X10 powerline control interface. Many third-party controllers use the X10 TW523 / PSC05 as their powerline interface. That product was discontinued by X10, and has become almost impossible to find. While the XTB-IIR emulates the proprietary TW523 interface, it is not a convenient plug-in unit like the TW523. The XTB-523 was developed to fill that gap.

Borrowing from the XTB-IIR, the XTB-523 goes way beyond the basic functionally of the simple TW523. Its transmitter is based on the XTB design, and produces a much stronger signal than other X10 transmitters. Depending on line characteristics, the XTB-523 can deliver 20Vpp or more at 120KHz onto the AC line.

While both the TW523 and XTB-523 can transmit extended codes, only the XTB-523 will also receive them. And unlike the TW523, the XTB-523 will receive every dim command in a sequence. The XTB-523 also includes an optional repeater that can boost X10 signals produced by other transmitters throughout the system.

Since the XTB-523 only drives the phase it is plugged into, a good passive coupler like the X10 Pro XPCP is still required to propagate its strong signal to the opposite phase. An active coupler/repeater like the XPCR will not do that. A coupler may also be necessary to receive signals from transmitters on the opposite phase.

The XTB-523 incorporates AGC to make it immune to most powerline noise. It error checks all incoming data before being sent to the digital port. It can function as a "polite" transmitter, and cancel its transmission when a collision is detected. Like the other XTB repeaters, the XTB-523 includes the ability to repeat an unbroken series of sequential dims to avoid their being recognized by some dimmers as micro-dim commands. The XTB-523 includes the ability to both transmit and receive extended commands, but it will only repeat "doublet" extended commands produced by controllers such as the CM15A or HomeVision due to the overlap issue.