



SHoW DMX Neo® With Maximum Bandwidth Technology™



SHoW DMX Neo wireless DMX now has Maximum Bandwidth Technology!

The 2.4GHz broadcast spectrum has become more and more crowded and the competition for this tiny slice of free space has been intense. City Theatrical has developed a new way to broadcast wireless DMX in this crowded area using a method we call **Maximum Bandwidth Technology™**, or **Max Technology™**. Using Max Technology, we can now broadcast on portions of the 2.4GHz band where no Wi-Fi activity takes place at all, giving wireless DMX users a new space for their most mission critical broadcasts while at the same time not disturbing any other users of Wi-Fi that may have mission critical applications themselves.

Maximum Bandwidth Technology allows SHoW DMX Neo to change its broadcast method from full or partial spectrum Frequency Hopping, to a different broadcast method called Wide Band Digital Modulation. This allows SHoW DMX to do some things that were previously impossible, such as broadcasting only in the area of Wi-Fi channel 14 where in the U.S. no Wi-Fi broadcast takes place. This allows SHoW DMX to avoid all Wi-Fi interference in an otherwise saturated spectrum. This is accomplished simply by selecting a Max Technology SHoW ID from the onboard user interface or via RDM. Note: SHoW IDs can be thought of as broadcast channels, but are actually a combination of one of 16 frequency hopping patterns, and one of four bandwidth selections. $16 \times 4 = 64 + 4$ adaptive hopping patterns = 68 total SHoW IDs in SHoW DMX Neo.

Choosing Max Technology is as simple as using the onboard user interface (or RDM) to select one of the two Max Bandwidth SHoW IDs (165 or 166) rather than any other of the 68 SHoW DMX SHoW IDs (101-164 and adaptive hopping IDs 201-204). This is simple and takes only seconds to do.

Max Technology gives SHoW DMX the potential of a clear channel to broadcast its show on, and allows the existing Wi-Fi broadcasts in the area to be completely undisturbed by the wireless DMX broadcast. In most cases, the existing 68 SHoW DMX SHoW IDs are sufficient to achieve a perfect broadcast without interfering with other broadcasts in the 2.4GHz band. But in some extremely demanding conditions, such as cases where venues use Wi-Fi to conduct real-time financial transactions, **Max Technology can allow complete separation of Wi-Fi and wireless DMX broadcasts.**

New City Theatrical wireless products that contain **Maximum Bandwidth Technology** include:

- SHoW DMX Neo Transceiver with Max Technology
- SHoW DMX Neo Receiver with Max Technology
- SHoW DMX Vero® Transceiver with Max Technology
- SHoW DMX Vero Net Transceiver with Max Technology
- D2 SHoW DMX Neo Dimmer with Max Technology
- D4 SHoW DMX Neo Dimmer with Max Technology
- SHoW DMX Neo Radio Module with Max Technology
- SHoW DMX Neo OEM Receiver with Max Technology
- PDS-750 TRX™ with Max Technology
- PDS-375 TRX™ with Max Technology

These new SHoW DMX Neo products with Max Technology are backwards compatible with all previous SHoW DMX Neo products including all SHoW DMX SHoW Baby products, but to utilize the Max Technology SHoW IDs, both transmitting and receiving devices must be Max Technology devices. SHoW DMX SHoW Baby 5, since it contains only five SHoW IDs, is also not able to use Max Technology, but is still able to communicate with the new SHoW DMX Neo with Max Technology via the five SHoW IDs it does support. (SHoW IDs 201, 102, 117, 133, and 149), exactly the same way it always has with SHoW DMX Neo.

SHoW DMX "Classic's" legacy SHoW IDs (SHoW IDs 1-64) are not supported by SHoW DMX Neo with Max Technology.

It is possible to upgrade existing SHoW DMX Neo Transceivers and Receivers to SHoW DMX Neo with Max Technology by returning the units to City Theatrical's Carlstadt, NJ, factory. Contact City Theatrical for more information on this upgrade.

City Theatrical's SHoW DMX® is the wireless DMX of choice for lighting professionals on Broadway and West End shows, permanent entertainment and architectural installations, television broadcasts and major music tours.