

## **W-DMX – frequently asked questions:**

### **Q: What is W-DMX™?**

A: A wireless system offered by Wireless-Solutions of Sweden that is very popular in stage and event lighting situations. We use their new TiNy module, which fits into all of the Luxium product line.

### **Q: What are the differences between ZMX and W-DMX?**

A: There are several technical details, although these systems are more similar than different.

**ZMX**® (using ShowCast™ technology) is the proprietary system offered by Luxium, which has gained acceptance in many venues, for commercial, theatrical and event applications. ZMX uses DSSS (Direct sequence spread spectrum) in the 2.4GHz ISM band, the same physical layer as Zigbee, although ZMX is not a mesh network, as it uses a single transmitter approach with unlimited number of receivers.

**W-DMX** is similar to ZMX, using a single transmitter and multiple receivers (one per light) but it uses Adaptive Frequency Hopping, for theoretically more robust communication. W-DMX also operates in the 2.4GHz ISM band.

Both W-DMX and ZMX can have issues with interference with WiFi and Bluetooth signals, and both systems are subject to being interrupted by other RF signals including cell phones and WiFi, so user is cautioned to take care, to locate antennas for best signal access, both transmitter and each lighting fixture. Line of sight is always better than relying on multiple reflections to get the signal to the receiver.

### **Q: Why should I choose W-DMX?**

A: Most often a customer prefers W-DMX because he is already using this system with other lighting. There is a perception that W-DMX is more robust in noisy environments.

We have done extensive range testing and found that ZMX has similar range in free air (1700 feet), compared to W-DMX (1700 feet), so it is really just a customer preference for the more popular W-DMX protocol.

Each lighting situation is unique and any wireless system is susceptible to interference, be aware what works well when an auditorium is empty, may not work as well when the auditorium is full and there are wireless microphones, as well as an amateur ham radio operating down the street.

From Luxium you can choose either system or wired-DMX or Bluetooth-only operation. If you choose W-DMX there is a small extra cost per light or per fixture.

For operation manuals, quick start guides, and application testimonials, go to [www.luxiumlighting.com](http://www.luxiumlighting.com)