

Wireless DMX Selection Guide

There are a lot of wireless DMX transceivers in the market. The price for wireless DMX transceiver made in Sweden is expensive while China-made transceiver is cheap and affordable. Since a wireless DMX transceiver is a critical piece of hardware for cable-free light installation, looking carefully for the best wireless DMX transceiver can be helpful for those who work at stage lighting company, light leasing company and Light engineering company, or anywhere else that wireless transceiver are used. To save your time and money, here are some common transceivers in the market for your reference. By comparing their differences, it will help you choose a wireless DMX transceiver that will be a good fit for your wireless DMX network at a fair and reasonable price and perfect quality.

Common Wireless DMX Solution in the market:

1. Wireless DMX Transceivers Made in Guangzhou (GZ transceiver):

It is widely acknowledged that all the GZ transceivers use (copy) the same protocol even though they are producing by different manufactories. Therefore they are all compatible with each other. It is called the GZ protocol. The GZ transceivers consist of an 8-bit 8051 MCU and a RF IC. It supports 7 groups of DMX universe and runs mainly in fixed frequency mode. (Although it has frequency agility, it's not FHSS) This communication systems use simple protocol and low-speed baud rate for exchange messages. In this protocol, DMX Signal will be easily delayed or be interfered (especially in the extreme environment like the Lighting & Sound Fair). Even worse, it would lose the data package under strong interference.

2. Wireless DMX Transceivers Made in Sweden (Swedish transceiver):

The Swedish transceivers get a higher market visibility around the world. It developed a lot of communication protocols likes G3 transmit protocol and G4 transmit protocol. Among all the protocols, G3 transmit protocol is widely accepted by the customers. Its system adopts a much more complex protocol and the Frequency Hopping Spread Spectrum (FHSS) method for exchange message. This protocol is not that easy to develop; so far in China, only the transceivers produced by **WIDMX TECHNOLOGY CO., LIMITED** could be compatible with Sweden protocol. Its high-speed baud rate ensures a reliable exchange of the DMX signal by increasing its total link transmissions. Since Swedish transceivers developed very early, it still used the 8-bit AVR MCU. And it has other disadvantages: extremely high cost, long delivery time, non user-friendly operation and weak technical support.

3. Wireless DMX Transceivers Made by WIDMX TECHNOLOGY CO., LIMITED (WIDMX transceiver):

WIDMX TECHNOLOGY CO., LIMITED is the earliest manufacturers in China that produces the wireless DMX transceivers. So far WIDMX transceiver could compatible with Swedish transceivers. It uses the latest 32-bit ARM MCU; direct memory access (DMA) could transfer without any delay. WIDMX transceiver could compatible with Swedish G3/G4 transmit protocol as well as GZ protocol.

Comparison Table:

Comparison	GZ Transceiver	Swedish Transceiver	WIDMX Transceiver
Patent	Copy	None	Design Patent & Utility Model Patent
Certification	None	FCC/CE/ROHS	FCC/CE/ROHS
MCU	8-bit 8051 Core	8-bit AVR Core	32-bit ARM Core
RAM	512 Byte	1K	20K
Transmit Power	< 20dBm	< 20dBm	23dBm
Price	Low	High	Fair
Baud Rate	250 Kbps	1M bps	1M bps
Communication Protocol	GZ Fixed Frequency Protocol	G3/G4 Frequency Hopping Protocol	WIDMX Adaptive Frequency Hopping Protocol; GZ and Swedish Protocol
Time Delay	Date Storage Interrupt; Transfer may be delayed	Date Storage Interrupt; Transfer may be delayed	DMA Transfer without any delay
Spread Spectrum	Fixed Frequency	FHSS 1100 hops/ sec	FHSS 1100 hops/ sec
DMX Signal	Fixed Break, MAB time and Refresh Rate	Fixed Break, MAB time and Refresh Rate	Auto-study of DMX channels; Break, MAB time and Refresh Rate
Customization	NO Ability for Customization	Hard to Customization	Personalized Customization

Recommended Products

- [WIDMX Wireless DMX Transceiver LC-512X](#)
- [WIDMX Wireless DMX Transceiver Module LC-512S](#)