



maxsquare

## MSQ-130E

USB 3.2 Gen 1 Extender over Single CAT.6A/7



MADE IN TAIWAN

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**1. Introduction**

The MSQ-130E USB 3.2 Gen 1 Extender over Single CAT.6A/7 is designed for extending USB device reach up to 330 feet (100 meters) using a single CAT.6A/7 cable. It comprises a local unit for PC connection and a remote unit for peripherals like USB printers, USB cameras, USB storage devices, and USB card readers. Equipped with RS-232 and digital I/O ports, this extender ensures a reliable and convenient method for long-distance USB 3.2 Gen 1 signal transmission.

**2. Package Contents**

- 1x MSQ-130E[TX & RX]
- 1x 12V Power Adapter
- 1x USB 3.0 Type-C to Type-A Cable
- 1x User Manual

### 3. Features

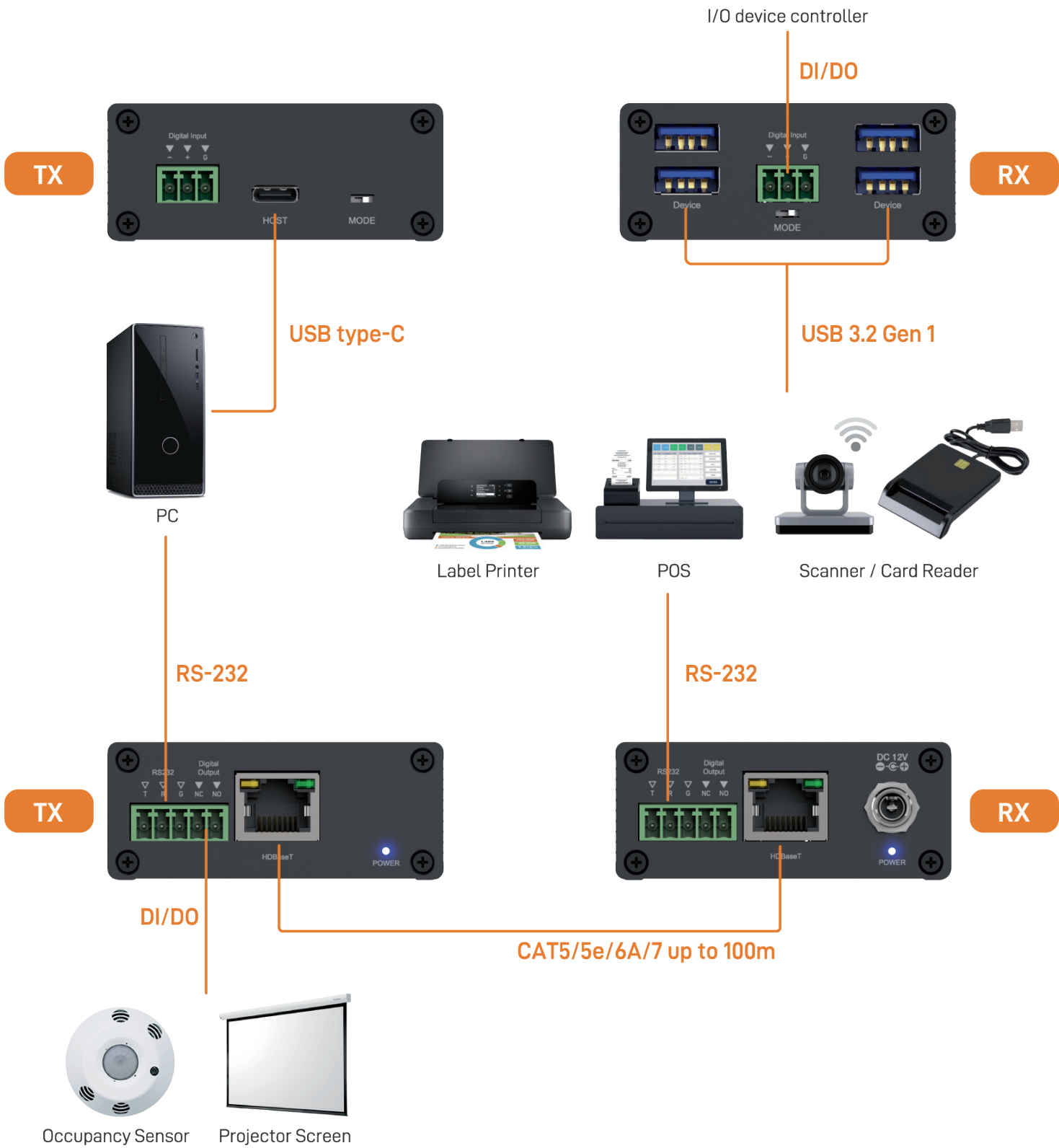
- Extends USB device transmission up to 330 feet (100 meters) over a CAT.6A/7\* cable
- Compatible with USB 1.0 (low-speed), USB 1.1 (full-speed), USB 2.0 (high-speed), and USB 3.2 Gen 1 (up to 5 Gbps)
- Supports connection of up to four USB peripheral devices
- Provides full duplex RS-232 control at 115,200 bps via connector
- Enables bi-directional digital I/O control
- Simple setup process
- HDBase-T technology
- Supports hot-plug functionality
- No additional drivers required

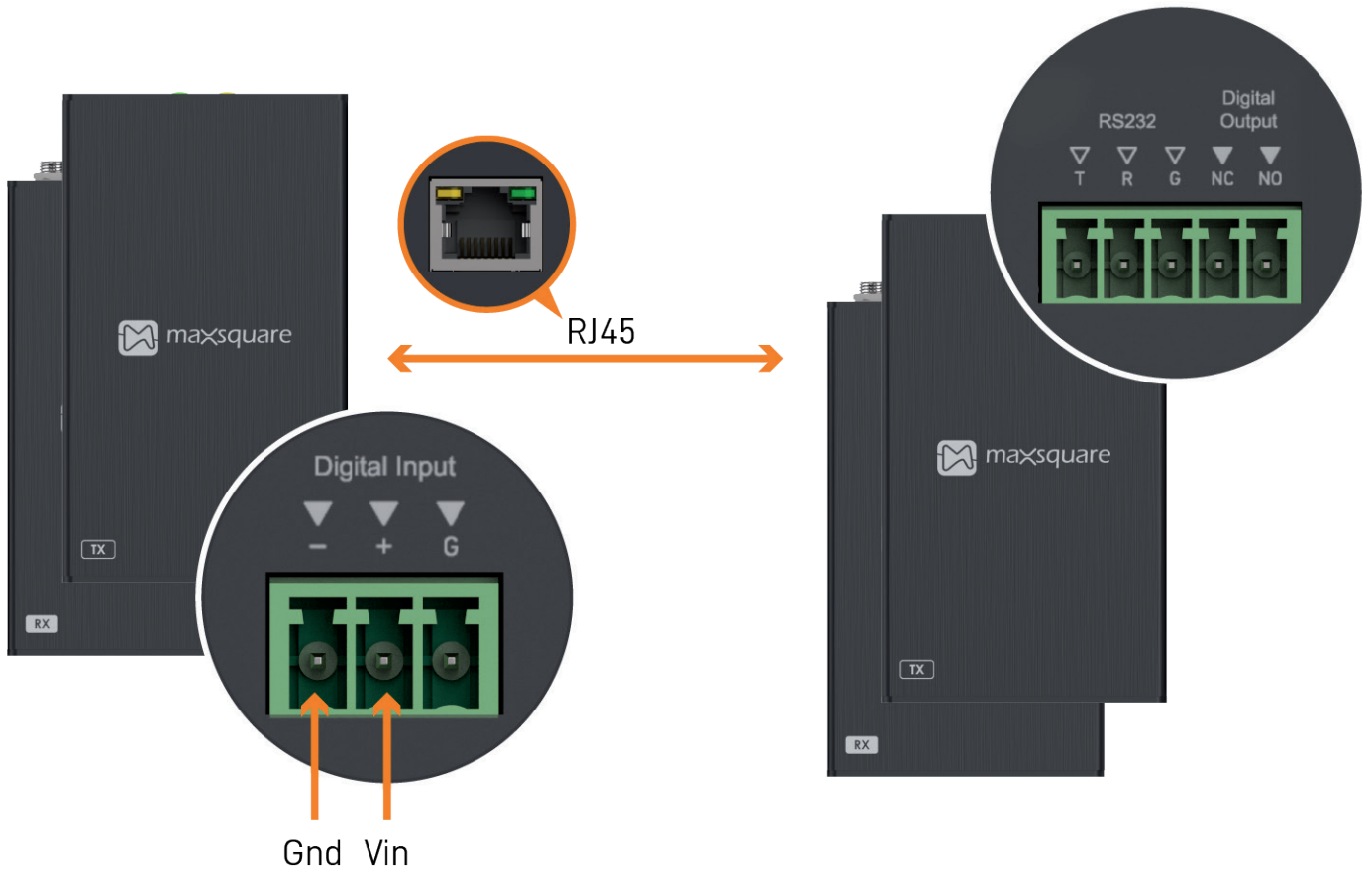
**i** \* CAT.6A/7 cable or better is recommended for better performance.

### 4. Specifications

Technical		
Role of usage	Transmitter [TX]	Receiver [RX]
USB compliance	USB 3.2 Gen 1	
Bandwidth	Up to 5 Gbps	
USB over UTP transmission	Up to 330 feet (100 meters) [CAT.6A]	
ESD protection	[1] Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge] [2] Core chipset-±8kV	
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
Input	1x USB-C	1x RJ-45
Output	1x RJ-45	4x USB(Type A)
In / Out	1x RS-232	1x RS-232
USB connector	USB 3.2 Gen 1 Type A & C	
RJ-45 connector	WE/SS 8P8C with 2 LED indicators	
Mechanical		
Housing	Metal enclosure	
Power supply	12V DC	
Power consumption	3 Watt [max]	15 Watt [max]
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	

5. Connection Diagram





Pin	-	+	N to C Mode	
Input	0	Vin = 5~12V	Connect (Short circuit)	NC NO
Input	0	Vin < 5V	Disconnect (Open circuit)	NC NO

## 6. Panel Description

### MSQ-130E-TX



- 1. RS-232 & Output I/O (terminal block format):** The order of RS-232 & output I/O pin is TX, RX, GND, NC, NO (from the left side to the right)
- 2. RJ-45:** Plug in a CAT-6A/7 cable that needs to be linked to the RJ-45 connector of the matched unit
- 3. Power LED indicator**
- 4. Input I/O (terminal block format):** The order of input I/O pin is -, +, GND (from the left side to the right)\*
- 5. USB-C:** Connect to USB Host
- 6. Slide Switch:**  
 [Left] RS-232 Normal Use  
 [Right] Firmware Update Mode



\* The (-, +) range: from +5V to +12V

MSQ-130E-RX



1. **RS-232 & Output I/O (terminal block format):** The order of RS-232 & output I/O pin is TX, RX, GND, NC, NO (from the left side to the right)
2. **RJ-45:** Plug in a CAT-6A/7 cable that needs to be linked to the RJ-45 connector of the matched unit
3. **12V DC power jack**
4. **Power LED indicator**
5. **USB:** Connect to USB Device
6. **Input I/O (terminal block format):** The order of input I/O pin is -, +, GND (from the left side to the right)\*
7. **Slide Switch:**  
 [Left] RS-232 Normal Use  
 [Right] Firmware Update Mode
8. **USB:** Connect to USB Device



\* The (-, +) range: from +5V to +12V

## 7. Warranty

Maxsquare warrants the MSQ-130E USB 3.2 Gen 1 Extender over Single CAT.6A/7 for one year from the date of purchase from Maxsquare or an authorized dealer from defects in material and workmanship. If this product fails to function properly within the first year of its warranty, Maxsquare may repair or replace it at its discretion, provided that the device has not been subjected to accident, disaster, abuse, or other unauthorized modifications, including static discharge and power surge. Maxsquare provides this warranty to its BUYER solely in the case of a direct transaction. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. These repairs are warranted by a 90-day warranty from the date of reshipment to the buyer. Customers agree to ensure the unit or incur the risk of loss or damage in transit if the unit is delivered by mail. A unit will not be accepted if it does not have a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of purchase may be required to claim the warranty. Customers outside of Taiwan must pay for shipping to and from Maxsquare. Cables and power adapters have a 30-day warranty and must be free of any markings or scratches, as well as neatly coiled.

This manual's material has been carefully reviewed and is believed to be accurate. Maxsquare, on the other hand, takes no responsibility for any inaccuracies or omissions in this manual. Even if advised of the possibility of such losses, Maxsquare will not be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual. Furthermore, the technical information contained in documents on the MSQ-130E's features and specifications is subject to change without further notice.