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URC MRX-4SEN2 Total Control Sensor Extender Owner's Manual

MRX-4SEN2 Total Control Sensor Extender
Owner's Manual

Contents

Introduction

The MRX-4SEN2 Sensor Extender is designed to meet the needs of residential or small commercial environments.
Only Total Control software, products, and user interfaces are supported by this powerful device.

Features and Benefits

- The MRX-4SEN2 utilizes the network (wired or wireless) for a more stable communication to the Total Control System that is less susceptible to interference and more reliable. This grants you the flexibility to install it virtually anywhere in the project.
- Add one or more MRX-4SEN2 throughout your home or office to detect changes in a connected sensor, which may be used to trigger system events.
- The small size of the MRX-4SEN2 allows it to easily fit behind equipment or into places where a traditional base station would not.

Parts List

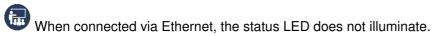The MRX-4SEN2 Sensor Extender includes:

• 1x MRX-4SEN2 Sensor Extender	• 4x Mounting Screws
• 1x AC Power Adapter	• Mounting Plate

Front Panel Description

The front panel of the MRX-4SEN2 Sensor Extender displays the following information:

When connected via Ethernet, the status LED does not illuminate.

1. **Power LED**: Indicates the device has power.
2. **Status LED**: Indicates three (3) possible states:
   - ■ **Green**: Good signal strength.
   - ■ **Red**: Poor signal strength.
   - ■ **Off** No connection.
3. **Data LED:** Indicates the device is transmitting IR data.

Rear Panel Description

The rear panel of the MRX-4SEN2 Sensor Extender displays the following information:

To connect to Wi-Fi, an initial Ethernet connection must be made first.

1. DC 5V: Connect the supplied power adapter to this port, the Power LED becomes solid blue when the device has received power.

2. Sensor Inputs: Connect the sensor's 3.5mm plug to an available port. The following URC sensors, with their respective model numbers, are compatible with the MRX-4SEN2:
   - Voltage Sensor SEN-VOLT
   - Video Sensor SEN-VID
   - Contact Closure Sensor SEN-CCLS
   - Light Sensor SEN-LITE
   - Current Sensor (Magnetic Field) SEN-CMF
   - Audio Sensor SEN-AUD

3. Ethernet: If a wired connection is needed, this port uses a standard Ethernet (RJ-45) plug to communicate via the local area network (LAN).

Bottom Panel Description

The bottom panel of the MRX-4SEN2 Sensor Extender displays the following information:
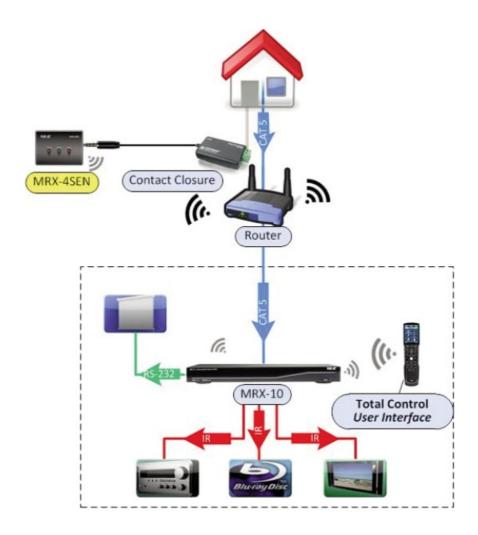

1. **Serial Number Sticker:** The ZIGBEE Address (16 characters) identifies this wireless device when connected to the network.

2. **MAC Number Sticker:** The serial number, located at the bottom of the unit, uniquely identifies the product.

3. **WPS (Wi-Fi Protected Setup):** Functions with other wireless devices (routers, wireless access points, etc.) to

provide a simplified method of connection to the network. Press this button in conjunction with the WPS button found on your other wireless devices to establish.

4. **Reset Button:** Turns the unit OFF then ON again, and reconnects to the network.
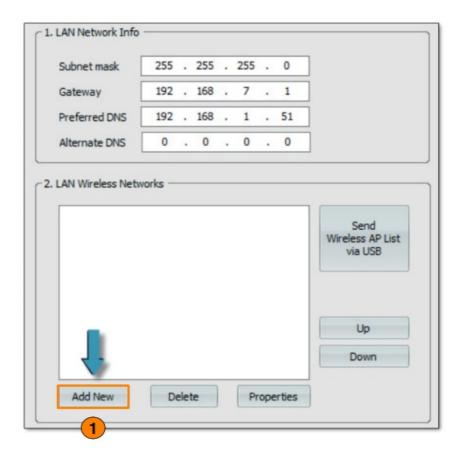
Installing the MRX-4SEN2

The MRX-4SEN2 Sensor Extender can be installed almost anywhere in the home.
Once physically installed, it requires programming by a certified URC integrator in order to function properly.
Connect the 3.5mm sensor plug to the rear of the MRX-4SEN2. When a change in the sensor's state is detected, the MRX-4SEN2 sends a signal to the MRX Advanced Network System Controller and triggers a series of commands.
This home network example showcases a voltage sensor connected to the home's doorbell and the MRX-4SEN2. Whenever the doorbell is pressed, a signal is sent over URC's RF 2.4GHz to the MRX Advanced Network System Controller. The MRX unit triggers a series of commands or an event to gain your attention. A
the programmed event, such as watching a Movie/TV, may pause the movie, mute the audio and display the front door's video camera.

Wireless Setup

1. LAN Network Info

Subnet mask	255	255	255	0
Gateway	192	168	7	1
Preferred DNS	192	168	1	51
Alternate DNS	0	0	0	0

2. LAN Wireless Networks

Send Wireless AP List via USB

Up

Down

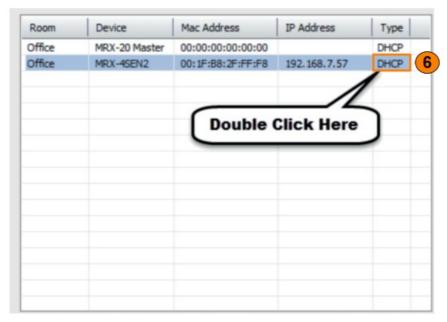Add New   Delete   Properties

1

To connect to Wi-Fi, an initial Ethernet connection must be made first.

The key feature added to the MRX-4SEN2 is adding Wi-Fi connectivity to an already brilliant sensor expander. Wi-Fi connection makes it simple to install the device in difficult-to-reach locations of the home.

Wireless Network Key ✕

Network Name (SSID) :	
	☐ Hidden SSID
Security Mode :	open
Data Encryption :	disabled
Network Key :	
Confirm Network Key :	
Key Index :	1 ☐ Hex

2

OK   Cancel

4

LAN & Wifi   URC Device   Non URC Device
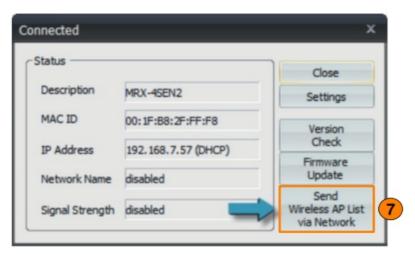
1. Go to Step 6: Network Setup and select Add New.

2. Fill out the wireless network information in the Wireless Network Key window. Select OK when finished.

3. Select Save, located below 2. LAN Wireless Networks.

4. Select URC Device from the sub-menu in Step 6.

5. Discover the MRX-4SEN2 using the method for all URC network devices.

6. Highlight the MRX-4SEN2 and double-click on the area that reads DHCP.

7. Select Send Wireless AP List via Network.

8. Unplug the Ethernet cable from the back of the MRX-4SEN2 unit.

The MRX-4SEN2 connects to Wi-Fi automatically after the Wireless AP list has been downloaded and the Ethernet cable has been removed.

Specifications

Sensor: Four sensor ports support Video, Current, Contact Closure, Ambient Light, Audio, and Voltage sensors from URC.
Network: One 10/100/1000M RJ45 Ethernet port (two LED indicators)
RF Range (Radio Frequency): 50 to 100 feet, depending upon the environment
RF Frequency: 2.405 ~ 2.480 GHz
Weight: 2.98oz
Size: 3.74" X 2.7" X 1.1"
Power: 12V DC 1A
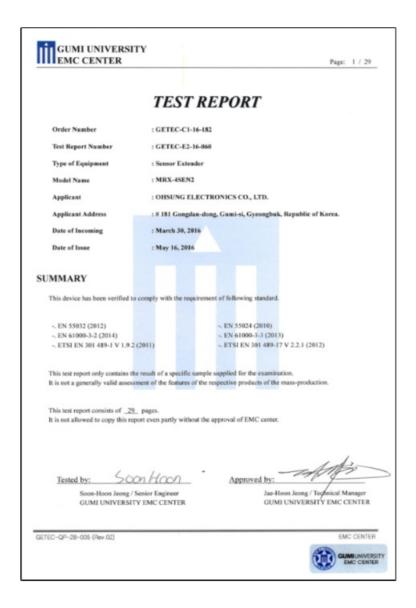
Limited Warranty Statement

End User Agreement

The terms and conditions of the End User Agreement available at https://www.urc-automation.com/legal/end-user-agreement/ shall apply.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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TEST REPORT

Order Number	: GETEC-C1-16-182
Test Report Number	: GETEC-E2-16-060
Type of Equipment	: Sensor Extender
Model Name	: MRX-4SEN2
Applicant	: OHSUNG ELECTRONICS CO., LTD.
Applicant Address	: # 181 Gongdan-dong, Gumi-si, Gyeongbuk, Republic of Korea.
Date of Incoming	: March 30, 2016
Date of Issue	: May 16, 2016

SUMMARY

This device has been verified to comply with the requirement of following standard.

-. EN 55032 (2012) -. EN 55024 (2010)
-. EN 61000-3-2 (2014) -. EN 61000-3-3 (2013)
-. ETSI EN 301 489-1 V 1.9.2 (2011) -. ETSI EN 301 489-17 V 2.2.1 (2012)

This test report only contains the result of a specific sample supplied for the examination.
It is not a generally valid assessment of the features of the respective products of the mass-production.

This test report consists of _29_ pages.
It is not allowed to copy this report even partly without the approval of EMC center.

Tested by: Soon Hoon

Soon-Hoon Jeong / Senior Engineer
GUMI UNIVERSITY EMC CENTER

Approved by:

Jae-Hoon Jeong / Technical Manager
GUMI UNIVERSITY EMC CENTER

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Warning!

The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate

the equipment.

Regulatory Information to the User

• CE conformity Notice Products with "CE" marking comply with EMC Directive 2014/30/EU issued by the commission of the European Community.

1. EMC Directive

   • Emission

   • Immunity

   • Power

   • Declaration of Conformity

"Hereby, Universal Remote Control Inc. declares that this MRX-4SEN2 is in compliance with the Essential requirements."

Rev 1.0
technical support
Toll-Free: 800-904-0800
Main: 914-835-4484
techsupport@urc-automation.com
Hours:9:00anm-5:00pmESTM – F

Documents / Resources

MRX-4SEN2 OWNER'S MANUAL	**URC MRX-4SEN2 Total Control Sensor Extender** [pdf] Owner's Manual MRX-4SEN2 Total Control Sensor Extender, MRX-4SEN2, Total Control Sensor Extender, Total Sensor Extender, Control Sensor Extender, Sensor Extender, MRX-4SEN2 Sensor Extender, Extender

References

- **A** **Automation.com - News & Resources for Industrial Automation**
- ⊕ **End User Agreement - URC Automation**
- ⊕ **Warranty Statement - URC Automation**