

# **G4HDMI1**

## **User Guide**





**The Kroger Co.**  
**Release 1.0**  
**Version 1.1**

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# Table of Content

**1 INTRODUCTION.....5**

**2 G4HDMI1 SPECIFICATIONS.....6**

2.1 PROCESSING ..... 6

2.2 NETWORK CONNECTIONS ..... 6

2.3 POWER..... 6

2.4 CUSTOMER APPLICATIONS ..... 6

2.5 FIRMWARE UPDATES ..... 6

2.6 OPERATING CONDITIONS..... 6

2.7 DIMENSIONS..... 6

2.8 APPROVALS ..... 6

2.9 INCLUDED ACCESSORIES ..... 7

2.10 SAFETY PRECAUTIONS..... 7

2.11 ELECTROSTATIC DISCHARGE ..... 7

**3 POWER REQUIREMENTS .....8**

**4 INTERFACE DETAILS .....9**

4.1 RS232 INTERFACE: ..... 9

4.2 ZIGBEE INTERFACE: ..... 9

**5 FCC COMPLIANCE STATEMENTS .....10**

**6 OPERATIONAL INSTRUCTION .....10**

## Tables

**Table 1: RJ45 Connector Pin Assignment: 8**



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## Revision History

Date	Change Description	Revision
26-DEC-17	Initial Revision	0.1
28-DEC-17	Sent for Kroger Review	0.2
25-JAN-18	Sent to TUV	0.3



## 1 Introduction

G4HDMI1 is a POE+ powered device ZigBee Access Point and support Display on HDMI enabled screen.

### Benefits

- Supports time synchronization with a Network Time Protocol (NTP) server.
- Access point for Zigbee Infrastructure.
- Firmware update via LAN
- Supports display over HDMI



## 2 G4HDMI1 Specifications

### 2.1 Processing

- 1Ghz Single Core SoC
- Upto 512MB DDR3 RAM
- 256MB NAND FLASH
- On-Board ZigBee Modules (4 Nos)
- RS232 Interface
- HDMI Interface
- Linux Kernel 2.6.37

### 2.2 Network Connections

- 10/100/1000 Mbps Ethernet

### 2.3 Power

Input Voltage: 48-57VDC (POE+)

Input Current: 0.2A

### 2.4 Customer Applications

- HDMI Display

### 2.5 Firmware Updates

- Firmware updates over the LAN network

### 2.6 Operating Conditions

- Temperature: 5 to 40° C (41 to 104 °F)
- Humidity: 20 to 80% RHG
- Indoor use only (Industrial/Commercial Environment)

### 2.7 Dimensions

- Height: 30 mm
- Width: 179 mm
- Depth: 179 mm

### 2.8 Approvals

- EMI
  - FCC
- Safety
  - UL



## **2.9 Included Accessories**

Adjustable ceiling mount supporting tile mount, through ceiling mount and tear drop installations.

## **2.10 Safety Precautions**

Below is safety precaution that should be observed when installing device.

## **2.11 Electrostatic Discharge**

The device will be installed over ceiling, there will not threat of ESD during normal operation. The ESD threat will be further reduced due to plastic casing.

The installation of the device will be done through trained person. The person should take care of ESD precautions while installing device.

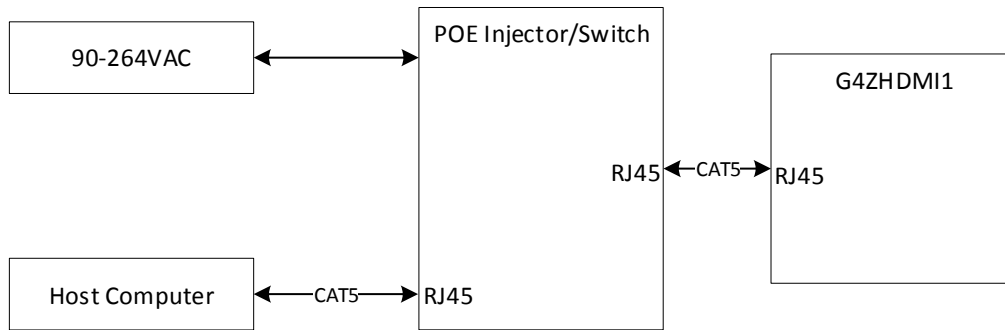
### 3 Power Requirements

The G4HDMI1 can be powered through POE+ Adapter or POE+ Switch through RJ-45 Ethernet connector. Being 802.3at compliant device, G4HDMI1 would draw 10W (< 25.5W as per POE+ standard) power from POE+ source.

The POE+ Adapter/Switch is not part standard packaging. The standard 802.3at Compliant, FCC/CE/UL certified off-the-shelf devices should be used to avoid interference issues to G4HDMI1.

If multiple G4HDMI1 will be powered from single multiport Ethernet switch, proper power rating should be selected to meet individual power requirements of G4HDMI1.

- Specifications for suitable POE+ Injector or Switch are as follows:
  - Input Voltages: 90–264 VAC, 50-60Hz
  - Output Voltage (Typ): 48-57 VDC
  - Output Current: 0.6A per Port
  - Power: 25.5W per Port



Standard	Source Voltage	RJ45 Pin Number							
		1	2	3	4	5	6	7	8
IEEE 802.3at using Spare Data pairs	48-56VDC	TX+	TX-	RX+	DC+	DC+	RX-	DC-	DC-

**Table 1:** RJ45 Connector Pin Assignment





## 4 Interface Details

G4HDMI1 Device provides RJ45 interface for Network connectivity. It also provides HDMI interface s output to an HDMI enabled display. The Ethernet interface and HDMI are the only available interface to the outside world. Apart from RJ45 and HDMI, G4HDMI1 provides ZigBee wireless connectivity through on-board ZigBee modules.

Note that The HDMI display is not part standard packaging. The standard HDMI 1.3 or above Compliant, FCC/CE/UL certified off-the-shelf devices should be used to avoid interference issues to G4HDMI1.

Interfaces available on-board G4HDMI1:

### 4.1 RS232 Interface:

On Board RS232 interface is not accessible from outside enclosure.

### 4.2 ZigBee Interface:

G4HDMI1 has 4 ZigBee modules for wireless connectivity.

## 5 FCC Compliance Statements

### FCC ID: PBR-SZG4HDMI1

FCC compliance statements

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including Interference that may cause undesired operation

#### FCC Caution!!!

- Any changes or modifications not expressly approved by the party Responsible for compliance could void the user's authority to operate this Equipment
- This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

Part 15B compliance statements for digital devices:

NOTE: This equipment has been tested and found to comply with the limits for a Class A 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into 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.

## 6 Operational Instruction

For G4HDMI1 operational instruction, please contact Vendor/Manufacturer for latest updated instruction guide.