CALRAD Electronics

For technical assistance call: **323-465-2131**
www.calrad.com

40-1090-3D
HDMI BALUN OVER SINGLE CAT5e/6 CABLE
Brochure & Typical Application Sheet

The **40-1090-3D** balun provides a single UTP category 5e/6 cable solution to deliver pristine digital signals from all HDTV formats and signal sources from 480i/p to1080i/p. Balun technologies are perfect solutions for replacing HDMI cables that are limited to shorter distances and difficult to route thru walls and cabinets. Balun technology also offers many advantages when HDTV video technology changes by installing new updated baluns with the latest technology. The POE power from the transmitter is limited to 100ft. to remotely power the receiver. The included 5Vdc power supply may be required at the receiver side if the UTP Cat5e, Cat6 cable distance exceeds 100ft.

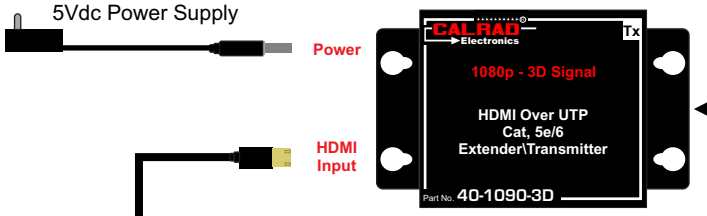
Sold in Pairs
FCC, UL Approved Devices


5Vdc Power Supply

CABLE DISTANCE:
CAT5e: 480i, 720p, 1080i - 125 ft.
CAT6: 1080p - 148 ft.

Please Note! We recommend Cat6 cable for reliable 3D signal delivery.

Single Cat5e or Cat6 Cable



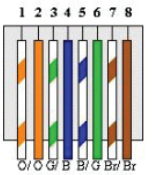
RJ45 Output

40-1090-3D Transmitter

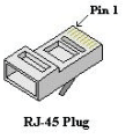
- **HDTV Resolutions:** Cat5e 62M (200 ft. max) 480i/p, 720p, 1080i
- CAT5e 33M (110 ft. max) up to1080P, CAT6 43M (140 ft. max)@1080p @ 24/50/60Hz
- **Connectors:** HDMI In/Out Connectors, 19 pin Female Jack, 1 x RJ45 Shielded Jack each unit.
- **DC Power Supply:** 2 x 5V, 2Amp Regulated
- **Weight: Transmitter:** 150g/ **Receiver:** 140g
- **Transmitter Size:** L-2.6" x W-4.0" x H-1.1"
- **Receiver Size:** L-2.6" x W-5.0" x H-1.1"

HDMI Cable 6 ft. max length

568B



Connector Wiring Diagram

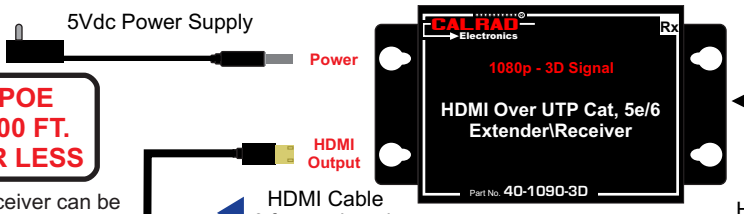


From Start to Finish


Satellite, Bluray, STB, Media PC

Please Note!
Some distances may vary and are dependent on manufactures individual HDMI specifications. All products should be fully tested prior to committing to a UTP Cat5e, Cat6 solution and sealing long runs of cables inside walls, possibly compromising your installation.

40-1090-3D Receiver



RJ45 Input

POE 100 FT. OR LESS

The receiver can be powered by the transmitter over the Cat5e/Cat6 cable up to 50ft. from the transmitter. Use the 5Vdc power supply over 50ft. distances.

HDMI Cable 6 ft. max length

HDMI Input

3D Compliant

Plasma, LCD- L.E.D., Monitor, DLP Projector

40-1090-3D-6172015-WB

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Part No: 40-1090-3D

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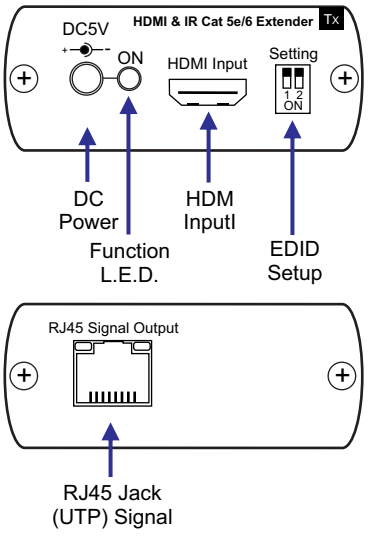
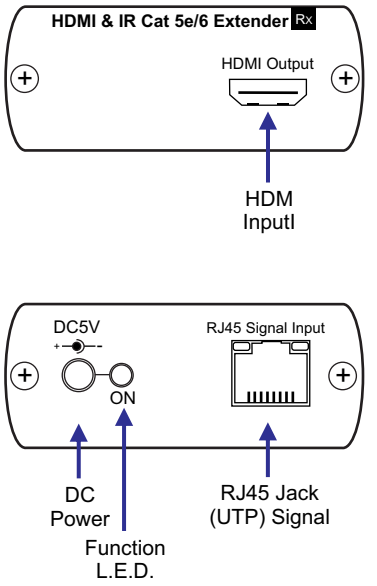
Transmitter



Receiver



Front

Back

Important read first!

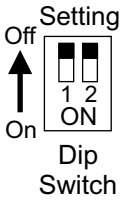
1. The Cat5e, Cat6 wiring should be kept away from any equipment that emits strong electromagnetic interference such as microwave ovens, high frequency lighting or any type of AC high voltage electrical wiring.

2. Do not connect the baluns into a computer network, damage to the baluns or network switch may occur. The baluns will only work from the transmitter to the receiver directly with no additional hardware in the middle.

3. The HDMI cables from the transmitter and receiver should not exceed 6 ft..

Please note ! This balun also supports DVI-D signals and equipment, use the appropriate adapters to convert to a HDMI male plug.

Transmitter EDID Switch Settings (Setup), Extended Display Identification Data. Please note! that the off position is up and the on position is down



Use default EDID

Move DIP switch 1 to off ↑
Move DIP switch 2 to off ↑ will select the first default EDID: supports 1080i / LPCM 2 channel. Power up the transmitter.
Move DIP switch 2 to on ↓ will select the second default EDID: support 1080P / LPCM 5.1 channel. Power up the transmitter.

Use and store external EDID codes into the transmitter

Move DIP switch 1 to on ↓ unplug the DC power supply to the transmitter.
Connect the HDMI from the 40-1090-3D-IR to the TV display for auto backup of the TV EDID code.
Move DIP switch 2 to off ↑ selects the first default EDID: supports 1080i / LPCM 2 channel.
Move DIP switch 2 to on ↓ selects the second default EDID: support 1080P / LPCM 5.1 channel.
Connect the DC power supply to the transmitter when the EDID learning process is complete the function L.E.D. will flash blue.
Remove DC power and reapply DC power to activate the new EDID.

Troubleshooting

No Video: 1. Make sure both the transmitter and receiver L.E.D. indicators are green, most common issues are related to the Cat5e, Cat6 cabling, recheck and verify your wiring and RJ45 connections. **2.** Use a factory pre-made ethernet cable to verify and quickly retest for signal. Check the transmitter and the receiver for power with no ethernet cable connected. Verify that the all HDMI cables work independently of the baluns.

Specifications

HDMI: 1.3 compliant, 3D capable, **Video Resolutions:** 480i/p, 720P, 1080i/p
Distances: Cat5e 62M (200 ft. max) 480i/p, 720p, 1080i, CAT5e 33M (110 ft. max) up to1080P, CAT6 43M (140 ft. max)@1080p @ 24/50/60Hz
DC Power: 5Vdc, 2A, **POE Power from transmitter:** 50 ft. max
Receiver Function L.E.D.: Blue=using external power supply, **Green**=Power and HDMI signal received from transmitter unit, **Yellow**=no data input or the signal is to weak.
Transmitter Function L.E.D.: Solid Blue=power on, **Flashing Blue**=TV EDID backup completed, **Green**=sending power or video to receiver unit, **Yellow**=No data input or unsupported video format.
Connectors: **HDMI:** 2 x Female Jacks, **Power:** Transmitter, 1 x 2.1mm jack, Receiver, 1 x 2.1mm jack, **Ethernet linking jacks:** RJ45 (Female)
Size: Balun transmitter L-4.0" x W-2.6" x H-1.1", receiver L-5.0" x W-2.6" x H-1.1", **Mounting:** 4 hole slotted mounting system