

Introduction: The Accell UltraCat HDMI 1.3 to Cat-5e Super Extender, as know as a “Balun”, enables an HDMI audio and video signal to travel across twisted-pair Cat-5e or Cat-6 cables. The UltraCat extender supports up to 1080p resolution over long cable runs in lengths of up to 164 feet (50m) using Cat-5e cables. For longer runs the UltraCat Super Extenders can be cascaded.

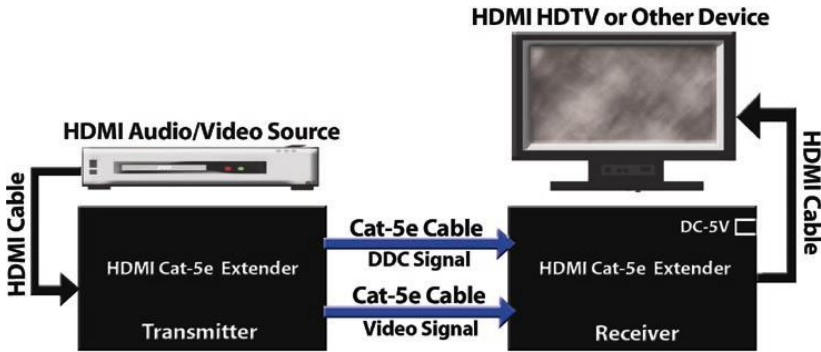
Supported Lengths:

- Using two Cat-5e cables:
 - Extends HD 1080i resolution up to 200 feet*
 - Extends HD 1080p resolution up to 164 feet*

*All cable lengths are approximate depending on cable quality and environmental RF and EMI. Not all Cat-5e and Cat-6 cables are of the same quality. The above supported lengths are achievable using good quality, solid UTP cables that are certified and rated at 350MHz for Cat-5e (500MHz for Cat-6), configured straight through and operating in normal conditions. In normal conditions Unshielded Twisted Pair (UTP) Cat-5e/Cat-6 cables are sufficient. In irregular conditions, those environments containing noise from electromagnetic (EMI) or RF interference, a Shielded Twisted Pair (STP) cable used for the video signal cable may provide improved noise immunity over UTP.

The Cat-5e/6 cable RJ-45 connectors must be shielded and the cables terminated to the TIA/EIA-568B standard. The Cat-5e or Cat-6 cabling should be straight through and not be split or routed through a hub or switcher.

- Setup: The Extender requires a run of two Cat-5e or Cat-6 cables with a pin configuration conforming to the EIA/TIA 568B standard.
1. Using an HDMI cable, connect the HDMI output of the Audio/Video source to the HDMI port located on the HDMI to Cat-5e Transmitter labeled “HDMI IN”. See illustration below.
 2. Using an HDMI cable, connect the port on the HDMI to Cat-5e Receiver labeled “HDMI OUT” to the HDMI input on the display.
 3. Run a Cat-5e/6 cable from the RJ45 port labeled “CAT5e-1” on the transmitter to the RJ45 port labeled “CAT5e-1” on the receiver. The cabling should be straight through with no split pairs or taps.
 4. Run a Cat-5e/6 cable from the RJ45 port labeled “CAT5e-2” on the HDMI to Cat-5e transmitter to the RJ45 port labeled “CAT5e-2” on the receiver.
 5. Plug the power adapter into the port labeled “DC/5V” on the HDMI to Cat-5e receiver. Plug the adapter into a power outlet. Please note: The power adapter may not be needed in some installations. If the installation is working without the use of the power adapter, then the power adapter need not be used.
 6. Turn the video equipment on. The “Power” (red) LED on the HDMI to Cat-5e receiver will illuminate indicating it is receiving power. When the “Status” LED is illuminated (red) this indicates that the extenders are receiving a signal.



Specifications:	
HDTV Resolution.....	Up to 1080P
Computer Resolution.....	Up to 1280x1024
Output Video.....	HDMI 1.3+HDCP1.3
Operating Temperature	-5 to +35°C (-41 to +95°F)
Operating Humidity Range.....	5 to 90 % RH (no condensation)
Signaling Rates.....	6.75 Gbps (225MHz)
Input Video Signal.....	0.5-1.0 volts p-p
Input DDC Signal.....	5 volts p-p (TTL)
Cat-5e/6 Termination.....	TIA/EIA-568B
Power Consumption.....	12W (max.)

Included: HDMI to Cat-5e Transmitter & Receiver, Power Adapter, Mounting Hardware, Instructions

Troubleshooting:

Symptom	Possible Cause	Potential Solutions
No video	Power off	Check power on the HDMI to Cat-5e receiver, video source and display to ensure they are turned on.
No video	Cable connection	Verify the CAT5e-1 and CAT5e-2 ports are sharing the same cable (not crossed). Test Cat cables to ensure they were terminated TIA/EIA-568B correctly. Check that the HDMI cables are connected.
Blinking video	Cable performance	Lower the display resolution. If this helps than the Cat-5e cable cannot support the bandwidth. Try a Cat-6 cable.
Blinking video	EMI (Interference)	Use a shielded Cat-6 cable for the video line. Use metal RJ-45 connector with drain wire soldered to connector.
Red or green tint	Wrong DDC signal	Power off the entire system including the HDMI to Cat-5e extender. Power system back on.
Red or green tint	DDC signal loss	Check CAT5e-2 (DDC) cable to ensure straight through polarity. Replace cable.
Odd colors	Video signal loss	Try a shielded Cat-5e or Cat-6 cable for the video (CAT5e-1) line.
Weak contrast	Exceed distance	Use a higher-grade cable. Increase the contrast on display.
Smeared picture	Exceed distance	Use a higher-grade cable. Lower the video resolution.
Background pattern	Interference	Power lines, wireless LANs, electric motors can cause EMI. Isolate these from the video line. Use shielded cable.

Assistance: If you have questions please check out our Web site at: www.accellcables.com. Technical Support can be reached by E-mail at support@accellcables.com or at 510-438-9288 (M-F 9am-5pm PST).

Warranty Returns Procedure: To return an item under warranty, contact Customer Support by E-mail at support@accellcables.com or call 510-438-9288 to obtain a Return Authorization (RMA) number. RMA numbers are valid for 30 days from the date of issuance. We are unable to accept returns without an RMA number. Returns without an Accell issued RMA number clearly printed on the outside of the package will be returned unopened. All returns must be shipped prepaid at the expense of the shipper. All returns must include a copy of the dated sales receipt.

Warranty: Accell UltraCat HDMI to Cat-5e Extenders that are purchased in the U.S.A., are warranted by Accell Corporation to be free of defects in material and workmanship for **2 years** from the date of purchase. In the event of such defects, the Accell product will be repaired without charge or, at our option, replaced with a new one if delivered to Accell Corporation prepaid, together with a copy of the dated sales receipt. This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use the cable in accordance with the instructions. ACCELL CORPORATION SHALL NOT BE LIABLE FOR DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE CABLE OR OTHER ACCELL PRODUCT, LOSS OF TIME, INTERRUPTED OPERATION OR COMMERCIAL LOSS, OR ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE. This warranty gives you specific legal rights, and you may have other rights that vary from state to state. Limitation of Liability: **IN NO EVENT SHALL ACCELL CORPORATION, ITS SUBSIDIARIES OR AFFILIATES, OR THEIR RESPECTIVE PARTNERS, OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, REPRESENTATIVES OR AGENTS (COLLECTIVELY, "ACCELL") BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR INDIRECT DAMAGES (INCLUDING BUT NOT LIMITED TO, LOSS OF DATA, USE OR PROFITS), HOWEVER CAUSED, WHETHER FOR BREACH OF CONTRACT, NEGLIGENCE, OR OTHERWISE, AND WHETHER OR NOT ACCELL HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH DAMAGES. YOU AGREE THAT ACCELL'S MAXIMUM LIABILITY ARISING FROM ANY PRODUCT SOLD BY ACCELL SHALL NOT EXCEED THE PRICE OF SUCH PRODUCT. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF EXCLUSION OF LIABILITY FOR CERTAIN DAMAGES, SO THE ABOVE MAY NOT APPLY TO YOU TO THE EXTENT SUCH JURISDICTION'S LAW IS APPLICABLE TO THIS AGREEMENT.**

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