



**2183**  
**Frequently Asked**  
**Questions**



## FAQ

### ***What category rating is 2183?***

**A:** 2183 is specifically designed for HDBaseT applications and will transmit ethernet signals as part of the HDBaseT 5-play feature. We found in our HDBaseT test lab that standard category cables, even Cat 6A, 7 and 7a, are not designed for maximum performance in an HDBaseT application. See our HDBaseT Testing white paper on [info.Belden.com/hdbaset](http://info.Belden.com/hdbaset) for details and results of that testing.

### ***Can I use 2183P/2183R instead of my standard Cat 6 or 6A cabling?***

**A:** Not if the intent is to transmit regular ethernet signals on an IT Network. 2183P and 2183R were designed specifically for maximum HDBaseT performance.

### ***What about convergence?***

**A:** In North America, the majority of structured cabling systems designed for converged network use are running on UTP. In AV, the default standard for four pair cable is STP and many AV equipment manufacturers recommend shielded cable for their solutions.

### ***What cable length can I use to transmit 4K signals?***

**A:** 2183 has been tested and verified to transmit 4K signals 100 meters using popular, commercially available extenders that are designed to transmit 100 meters. All extenders are not created the same and could yield different results. Extenders tested and verified: Crestron DM-TX-4K-100-C-1G-B-T and Crestron DM-RMC-4K-100-C and Extron DTP HDMI 330 TX and Extron DTP HDMI 330 RX

### ***In your testing, did other cables transmit 4K HDBaseT signals at this level of picture quality for the same 100 meter distance?***

**A:** Yes, a few did. However, some were 7a 22 AWG type cables that have extra features built in that are "overkill" for an HDBaseT application. 2183 is smaller, more flexible, easier and less costly to install than designs with unnecessary, bulky individually shielded pairs or braids. Category 7a is not an accepted standard in the Americas and therefore is not widely used in IT Networking installations.

### ***What is the right shielding for a 4K HDBaseT cable?***

**A:** It is important to use a shielded cable, but an overall foil shield is sufficient. In our bundled tests, there was no improved performance with an overall braid or individually shielded (IS) pairs. Disadvantages of a braid and IS pairs include: increased material cost, increased installation costs, larger cable diameter leading to space constraints, decreased cable flexibility creating difficulty during installation and potential issues with improper grounding of pairs. 2183 uses an overall shield only, which provides 100% protection and eliminates these issues.

### ***Does 2183 have bonded pairs?***

**A:** Yes. Bonded pairs ensure that the cable will be able to withstand the rigors of installation and perform installed as well as it did right off the production floor. 2183 has a pull tension rating of 45 lbs., vs. standard non-bonded cable pull tension ratings of 25 lbs. With the new REVConnect termination system, there is no need to separate the bonded pairs, so it is easy to terminate.

### ***What makes the unique, corrugated design useful for HDBaseT?***

**A:** This unique look is due to the corrugated flex shield and helical drain wire. These two features make the cable flexible and easy to maneuver around tight spaces in an installation. The helical drain wire also helps to keep all of the components of the cable in place, ensuring reliable performance even after installation. The combination of the more ruggedized flex shield and drain also provides maximum protection from noise without the bulk of individually shielded pairs or braid.

### ***What does the 0.6A LP (Limited Power) rating mean?***

**A:** This means that UL has independently tested and certified our cable to be able to safely withstand 0.6A per conductor. This exceeds the 0.5A required to transmit 100W of power for HDBaseT. If a cable does not have the LP rating, then the installer must follow the bundle size chart in NFPA 725.144. It is a safety rating only, not a performance rating.

### ***What patch cords can I use with 2183P and 2183R?***

**A:** Our testing has shown that to get the maximum distance, it is best to use a patch cord that has the same or better insertion loss (attenuation) as the horizontal cable. Since 2183 has been designed with insertion loss better than that of standard category cables, it is best to use patch cords made with 2183. We are in the process of adding those as standard part numbers. In the meanwhile, contact customer service.

### ***How can I test 2183 in the field?***

**A:** Field testers for HDBaseT are still in the early stages of development, release and widespread usage. Since a Category 6A cable is not designed with the insertion loss needed for transmitting 4K on HDBaseT, a cable can pass Category 6A on a Fluke tester and still fail the HDMI standard of 1 error per billion pixels at 100 meters for 4K. Until field testers are available specifically for HDBaseT video, it is best to use a cable designed specifically for HDBaseT, such as 2183, and use the Fluke tester set at Category 5e or conduct a continuity test to merely ensure the termination was made properly.

### ***What warranty does Belden offer?***

**A:** Belden's warranties are unsurpassed in the industry. 2183 is guaranteed with a 10-year product warranty. In addition, if it is part of an Installed Certification by a Belden Certified Installer, that warranty is extended to 25 years. For more information on finding or becoming a partner, see [info.belden.com/partneralliance](http://info.belden.com/partneralliance).