HDBaseT Installation Guide
This document provides the best practices for installing Ethernet cable with HDBaseT setups.

- We recommend using shielded twisted pair cable (ATEN 2L-2901) to prevent electromagnetic interference (EMI).

- Applying right cable type & length:

<table>
<thead>
<tr>
<th>HDBaseT Type</th>
<th>Cat5e/6</th>
<th>Cat6a/7</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>4K2K@70m 1080P@100m</td>
<td>4K2K@100m 1080P@100m</td>
<td>VE812/VE814/VE813/CE610*</td>
</tr>
<tr>
<td>Class B (lite)</td>
<td>4K2K@35m 1080P@60m</td>
<td>4K2K@40m 1080P@70m</td>
<td>VE801/VE802/VE805R/VE601*</td>
</tr>
</tbody>
</table>

*VE601 and CE610 have a maximum resolution of 1920x1200.

- The HDBaseT Alliance defines the maximum number of Ethernet cables in a bundle to be:

<table>
<thead>
<tr>
<th>Type</th>
<th>30m</th>
<th>50m</th>
<th>70m</th>
<th>100m</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT5e/6</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>CAT6a/7</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

- Tie all cables loosely with appropriate cable wraps, leave space for the cable to move slightly, and do not pull hard on cable because that may cause pairs to untwist and degrade performance. Always try to minimize damage to the cable structure during installation and never drop or install anything on or over an Ethernet cable.

- Always keep cable away from equipment that may cause electromagnetic interference and magnetic fields, such as high voltage electric cables, electric motors, Walkie-Talkies, TVs and elevators.
When installing in an environment with lots of structured cabling, do your best to separate out the Ethernet cable from all other cables to prevent crosstalk with other signals.

The total run of an Ethernet cable may include up to two patch cables, typically serving as connections to RJ-45 wall jacks. This is referred to as a three-segment installation, as shown below:

- Do not use patch cable for the wall segment. The wall segment requires AWG 24/23 infrastructure cable.

If pass-through points are required, use shielded couplers.
- Apply T568A or T568B standards for straight through cabling.
· When using STP/FTP cable, make sure the drain wire is well soldered to the metal casing of the RJ-45 connectors on both ends.

· Make sure the shielding makes tight contact with the top side in the RJ-45 connector.

· Install cable of the shortest length possible between the HDBaseT Transmitter and Receiver while leaving a little wiggle room to ensure the cable does not apply pressure to either device port. Always avoid using unnecessary rolls of cable which will result in performance degradation due to the increased length.

· Do not bend the cable beyond a bend radius of 50 mm.

· Ground all devices.

· Ensure that every source and cable is grounded so that electrical interference does not have a path through your main signal. Ensuring a proper ground will maintain your signal integrity for the life of the installation.