**HDbaseT产品**

1. **网线传输产品**

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| **类别** | **方案** | **性能** | **其他说明** | **成本** | **适配内置HDBT投影机** |
| 很多年前的模拟延长器 | 采用MAX、SONY或者TI均衡芯片 | 最高支持1080p | 稳定性不如HDBT好，不推荐 | 低成本 | 不能 |
| DSC压缩延长器 | 4K60通过DSC压缩成1080p传输 | 最高支持4K444@60Hz | 稳定性不如HDBT好，不推荐 | 低成本 | 不能 |
| IP压缩延长器 | 压缩成H265或者MJPEG传输 | 支持的最高分辨率视具体产品而定 | 画质和延迟，不推荐 | 低成本 | 不能 |
| HDbaseT延长器4K30@40米4K30@70米 | VS010方案VS100方案 | 4K30@40米4K30@70米 | 事实上的工业标准 | 低成本 | 兼容HDBT投影机 |
| HDbaseT延长器4K30@100米 | VS2x00方案 | 4K30@100米 | 事实上的工业标准 | 中成本 | 兼容HDBT投影机 |
| HDbaseT延长器4K60@40米4K60@100米 | VS3x0方案VS3x00方案 | 4K60@40米4K60@100米 | 事实上的工业标准 | 高成本 | 兼容HDBT投影机 |

1. **基于HDbaseT技术的产品**

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| **类别** | **技术方案** | **传输距离** | **适配产品** | **成本** | **适配投影机** |
| SSH70延长器HDbaseT 1.0延长器+CSC压缩带宽 | 444转420VS010传输 | 4K60@40米1080p@70米 | 988系列插卡式矩阵板卡：2K输入卡：板卡\_9VMC-IN-HDBT-70米4K输入卡：板卡\_BVMC-IN-HDBT-40米2K输出卡：板卡\_9VMC-OUT-HDBT-70米4K输出卡：板卡\_BVMC-OUT-HDBT-40米QVM系列插卡式矩阵板卡：2K输入卡：板卡\_Q2K-IN-HDBT-2K70米4K输入卡：板卡\_Q4K-IN-HDBT-4K40米2K输出卡：板卡\_Q2K-OUT-HDBT-2K70米4K输出卡：板卡\_Q4K-OUT-HDBT-4K40米无缝切换器：PS512，DMH32 | 低成本 | 兼容HDBT投影机 |
| SSH100延长器HDbaseT 1.0延长器+CSC压缩带宽 | 444转420VS100传输 | 4K60@70米1080p@100米 | 988系列插卡式矩阵板卡：2K输入卡：板卡\_9VMC-IN-HDBT-100米4K输入卡：板卡\_BVMC-IN-HDBT-70米2K输出卡：板卡\_Q2K-OUT-HDBT-2K100米4K输出卡：板卡\_BVMC-OUT-HDBT-70米QVM系列插卡式矩阵板卡：2K输入卡：板卡\_Q2K-IN-HDBT-2K100米4K输入卡：板卡\_Q4K-IN-HDBT-4K70米2K输出卡：板卡\_Q2K-OUT-HDBT-2K100米4K输出卡：板卡\_Q4K-OUT-HDBT-4K70米无缝切换器：PS913，KVM913（4K@100米版本） | 低成本 | 兼容HDBT投影机 |
| HDbaseT 2.0延长器+DSC压缩带宽 | DSC压缩VS2xxx传输 | 4K60@150米 | PS913，KVM913（4K@150米版本） | 中成本 | 不兼容 |
| SSH18G40HDbaseT 3.0延长器 | 444无压缩VS3x0传输 | 4K60@40米 | Q18G系列插卡式矩阵板卡：18G输入卡：板卡\_Q18G-IN-HDBT-4K40米18G输出卡：板卡\_Q18G-OUT-HDBT-4K40米 | 高成本 | 兼容HDBT投影机 |
| SSH18G100HDbaseT 3.0延长器 | 444无压缩VS3x00传输 | 4K60@100米 | Q18G系列插卡式矩阵板卡：18G输入卡：板卡\_Q18G-IN-HDBT-4K100米18G输出卡：板卡\_Q18G-OUT-HDBT-4K100米 | 高成本 | 兼容HDBT投影机 |

1. **CSC, DSC**
	1. CSC = Color Space Conversion. 4:4:4 converts to 4:2:0 and vice versa.
		1. Low cost solution to support 4K 444@60Hz, compatible with 3rd party.

Colour Space Conversion (CSC) Technology in HDBaseT™

Due to the data rate of HDBaseT™ technology being capped at 10.2Gbps, it is unable to pass the latest native 4K UHD resolutions of 4K 60Hz 4:4:4. There is now a requirement to integrate video resolutions with data speeds up to 18Gbps across a multi-zone AV environment. Blustream have implemented CSC (Colour Space Conversion) technology into our latest products to ensure 4K HDR signals can now be supported over the limited infrastructure of HDBaseT™. Colour Space Conversion reduces the data rate of the HDMI signal by converting the colour space from 4:4:4 or 4:2:2 to a lower format. Within Colour Space Conversion technology the native resolution and frame rate remain constant from end to end. The only part of the signal that is converted during transmission is the colour. Blustream CSC products do not support HDR10+ or the dynamic variation of Dolby Vision due to the way these specific variations of dynamic HDR (dHDR) are encoded. These codecs transmit repeated metadata packets throughout the transmission of any media making it impossible at this stage to convert in the same way using CSC technology.

* 1. DSC = Digital Streaming Compression. 18Gbps (4K/60) compress down to 1080p and vice versa.
		1. Low cost solution to support 4K 444@60Hz, point to point transmission.
		2. DSC is promoted by VESA.
1. **HDbaseT chips**

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| **Feature** | **VS100** | **VS010** | **VS2310** | **VS210** | **VS2010** | **VS3000** | **VS3100** | **VS300** | **VS310** |
| Cable length[meters] | 1080P,100m 4K30,70m | 1080p,70m 4K30,40m | 4K30,100m | 1080P,70m 4K30,40m | 4K30,100m | 4K60,100m | 4K60,100m | 4K30,70m 4K60,40m | 4K30,70m 4K60,40m |
| Long Reach | Y | N | Y | N | Y | Y | Y | N | N |
| USB 2.0 | N | N | Y | Y | Y | Y | N | Y | N |
| Ethernet | 100M | N | 100M | 100M | N | 1G | 1G | N | N |