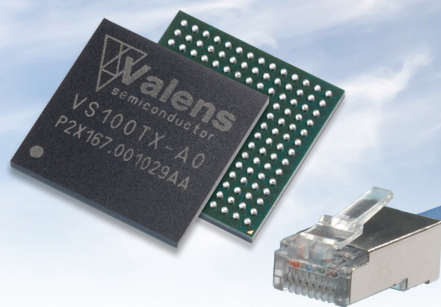




VS100TX HDBaseT™ Transmitter

HD Connectivity and
Multimedia Distribution –
Longer Distances,
Improved Reliability,
Lower Cost

Controls
Power
Ethernet
Audio
HD Video



Features

- **5Play convergence – simultaneous distribution of:**
 - Uncompressed high definition (HD) video: 1080p@60Hz@48 bits, 3D, 4K x 2K
 - High-quality audio
 - Ethernet 100BaseTx
 - PoH - Power over HDBaseT
 - Control signals including RS232 and infrared
- **HDCP Compliant**
- **HDMI Rx and Tx interfaces for easy integration**
- **CISPR/FCC Class B EMC/EMI compliance**
- **Support of 100BaseTx according to IEEE 802.3u**
- **Power:**
 - 1V, 1.8V and 3.3V
 - 5V tolerant IOs
- **196-pin LPGA, 15mm x 15mm**
- **0°C to 70°C operating temperature**
- **RoHS and Green compliant**

Applications

- **Blu-ray, DVD players and recorders**
- **Digital set-top-boxes (STBs)**
- **Game consoles**
- **PCs**
- **HDMI repeaters, splitters, switches**
- **HDBaseT Switch**
- **A/V Receivers**
- **Surveillance Cameras**

Overview

The Valens VS100™ is the first HDBaseT-compliant chipset. It transmits and receives uncompressed HD, video, audio, Internet, power and control signals through a single 100m/328ft LAN cable.

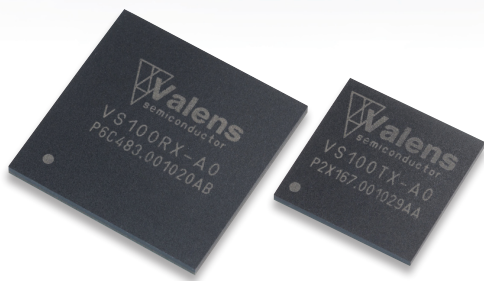
HDBaseT delivers a significant value to the entire home and commercial entertainment ecosystem, from CE/PC equipment manufacturers and audio/video connectivity product suppliers, through systems integrators and retailers, to installers and consumers. Homes, offices, hotels, airports and other public places can now install a robust HD ecosystem easily, effectively and at a very low cost.



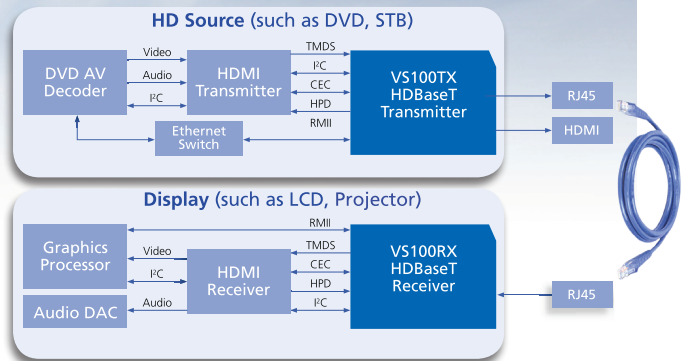
VS100TX HDBaseT™ Transmitter

The VS 100 family consists of two chips:

- **VS100TX** (Transmitter): For DVDs, STBs and other HD source equipment.
- **VS100RX** (Receiver): For HDTVs, projectors and other display equipment.



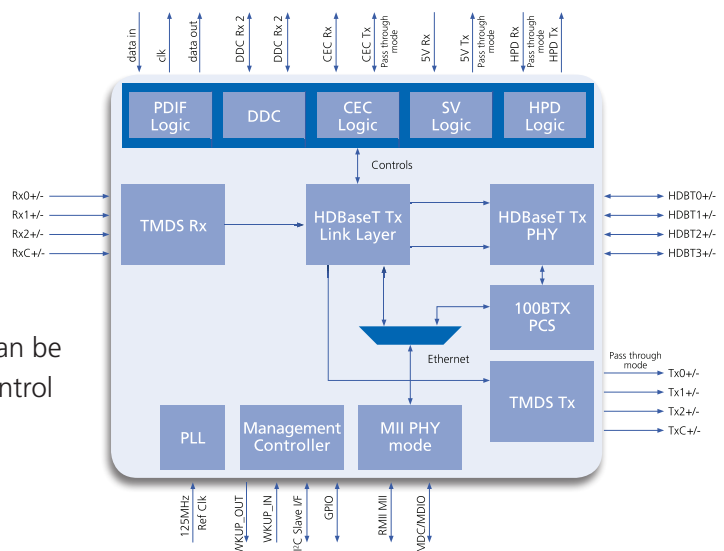
System Functional Diagram



The VS100TX supports the following interfaces:

- HDBaseT Tx
- HDMI in
- HDMI out
- MII/RMII bi-directional interface to interact with external Ethernet MAC /switch
- Bi-directional control channel which can be used for example for RS232 and IR control
- I²C slave management

VS100TX High-level Block Diagram



About Valens

Valens Semiconductor is a leading provider of semiconductor products for the distribution of uncompressed HD multimedia content. The company invented HDBaseT™, the first technology to enable long-reach connectivity of multimedia devices over a single 100m/328ft standard CAT5e/6 LAN cable.

In late 2009, Valens joined with world market leaders to found the HDBaseT Alliance to promote and standardize HDBaseT™ technology.

Established in 2006, Valens is a private company with offices in Israel, Japan, Hong Kong and the USA.

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