

Applications of Obonok HDMI-over-Single-CAT5/6 Products

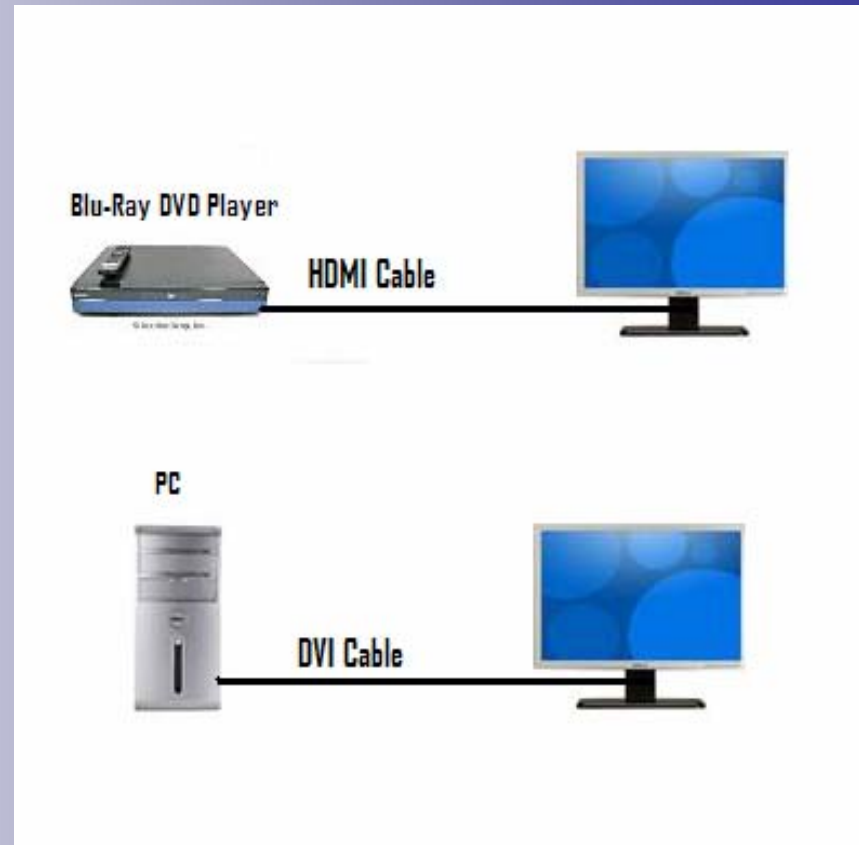
Ours Work while the Other's Don't

To Distribute Full HD Video
Cost-effectively

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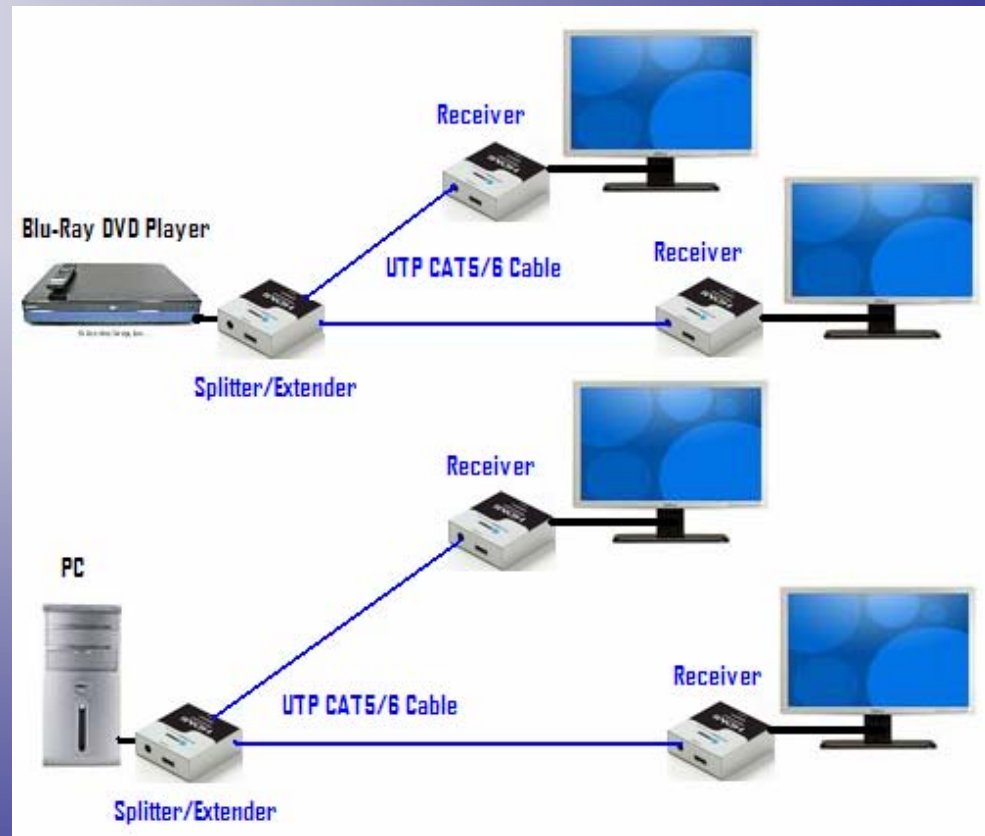
Problems

- Limited to one source and one display.
- Limited to 75 feet.
- Expensive HDMI/DVI cables.
- Costly multiple fibers and multiple shielded CAT5/CAT6 extenders.



Obonok Solutions

- One source distributes to up to 2049 displays.
- Extends up to 600 feet.
- Inexpensive UTP CAT5/6 Ethernet cables.
- Easy deployment.



Introduction to Obonok HDMI-over-UTP-CAT5/6 products

- Designed based on two cutting-edge core technologies.
- Enable customers to distribute a single HD video source to up to 2049 displays and up to 600 feet of distance in a highly cost-effective manner.
- Distribute HD video in all-digital and uncompressed mode to achieve the highest possible quality.
- Support full HD (1080p) and are fully HDCP compliant.

Core Technologies

- ASIC based HDMI splitters

A single ASIC splits one HDMI source into two identical sources.

A 1xN HDMI splitter is built using (N-1) ASIC chips.

All Obonok HDMI-over-UTP-CAT5/6 products use the same ASIC as the basic building block.

Core Technologies – cont'd

- Patent pending (US 6,0956,684 and 6,0968,046) HDMI over a single UTP CAT5/6 Technology

HDMI signals are converted to transmit through a single UTP CAT5/6 Ethernet cable up to 150 feet each hop.

This is the key to distributing HD video in a highly cost-effective way.

HDMI-over-UTP Products

- HD-SP0104
1x4 Splitter (one HDMI in, 4 HDMI out).

H->4H

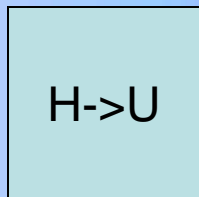


HDMI-over-UTP Products –cont'd

- HD-EX0101T

1x1 Extender Transmitter (one HDMI in, one UTP out).

Works with HD-EX0101R or HD-EX0101RD to extend 150 feet through UTP CAT5/6 cable.



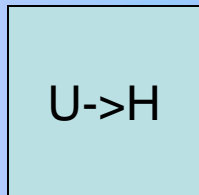
HDMI-over-UTP Products –cont'd

- HD-EX0101R

1x1 Extender Receiver (one UTP in, one HDMI out).

No DC adaptor is needed.

Works with HD-EX0101T to extend 150 feet.

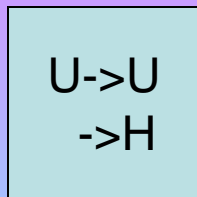


HDMI-over-UTP Products –cont'd

- HD-EX0101RD

1x1 Extender Daisy-chain Receiver (one UTP in, one UTP out, one HDMI out).

Works with HD-EX0101T to extend 150 feet.



HDMI-over-UTP Products –cont'd

- HD-EX0104T

1x4 Extender (one HDMI in, one HDMI out, 4 UTP out).

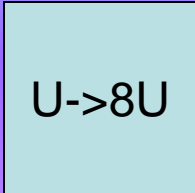
The HDMI output is ideal for a local monitor.

H->H
->4U



HDMI-over-UTP Products –cont'd

- HD-DS0108T
1x8 Distributor (one UTP in, 8 UTP out).



U->8U

HDMI Cable vs UTP Cable

- Technically an HDMI cable can reach up to 75 feet. But HDMI cables over 30 feet are bulky, expensive and usually need special orders.
- A 60-foot HDMI cable costs about \$350.
- UTP cables are widely available.
- A 150-foot UTP CAT6 cable costs around \$35.

HDMI Cable vs UTP Cable – cont'd

- HDMI cables are heavier, thicker and less flexible; their length is fixed.
- UTP cables are lighter, thinner and more flexible; multiple shorter cables can be easily connected to create a longer one.
- Most buildings are pre-wired with UTP cables.
- Using UTP cable can greatly reduce over-all engineering costs.

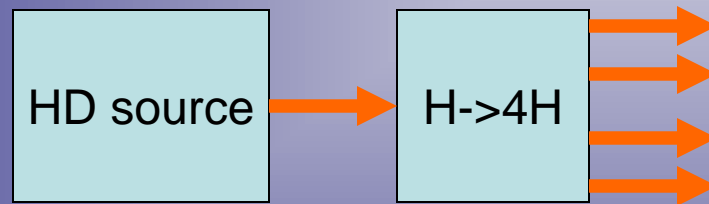
Application 1

- Extending one HD source to one display up to 150 feet



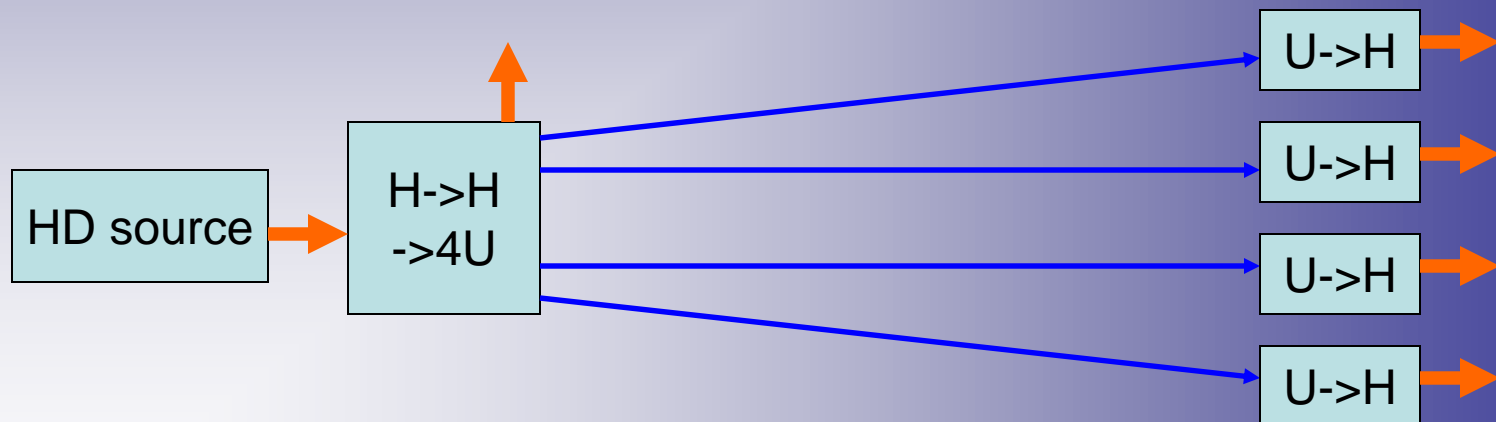
Application 2

- Splitting one HD source to 4 displays



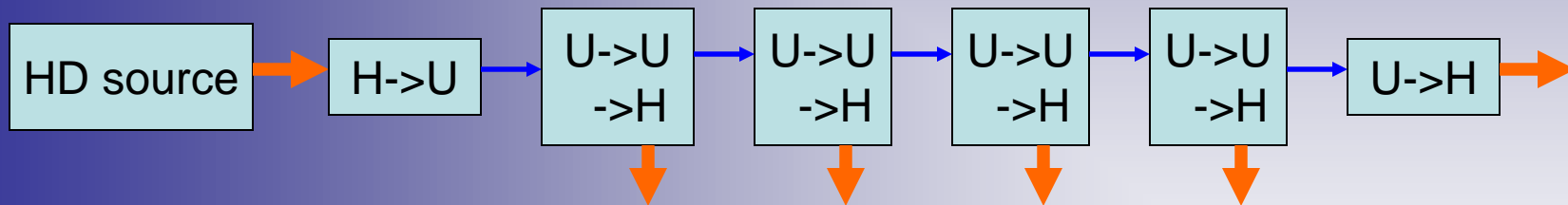
Application 3

- Splitting one HD source to 4 displays and extending to 150 feet, plus a local monitor



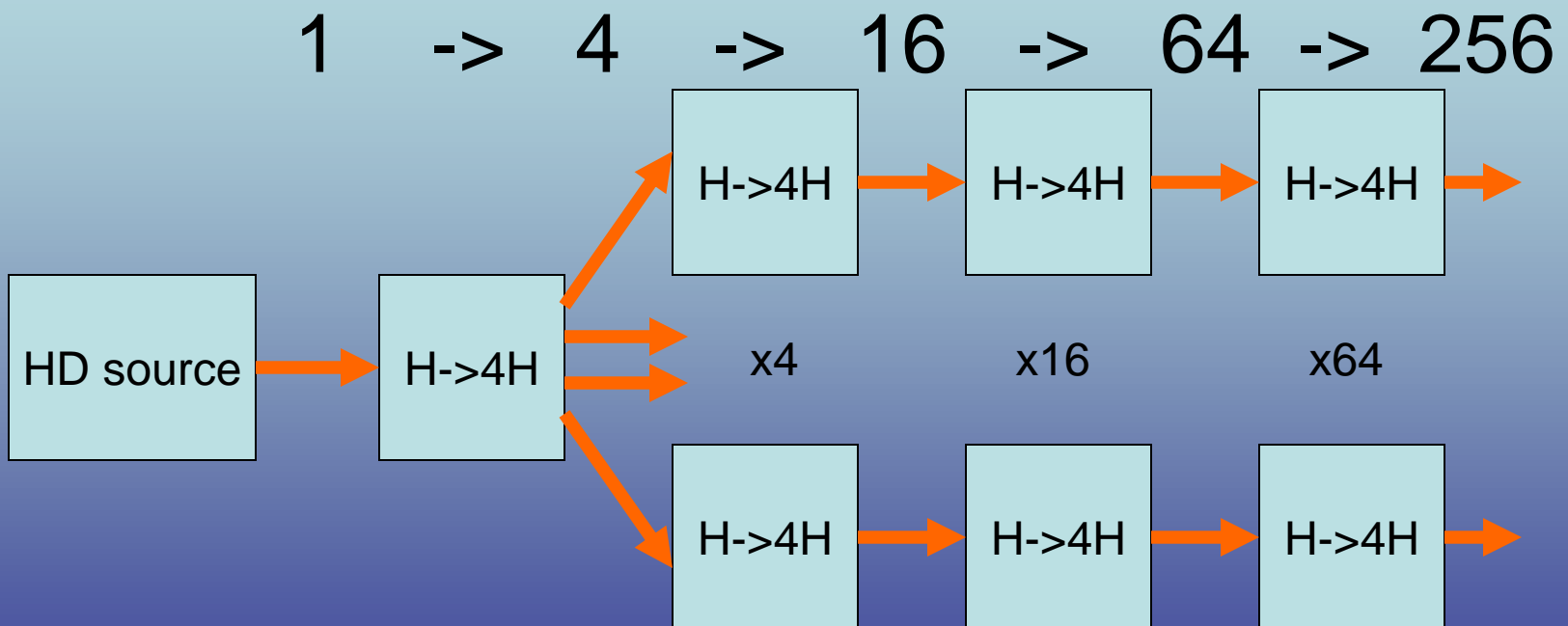
Application 4

- Distributing one HD source to 5 displays which are each located 150 feet apart from each other. Highly cost-efficient.



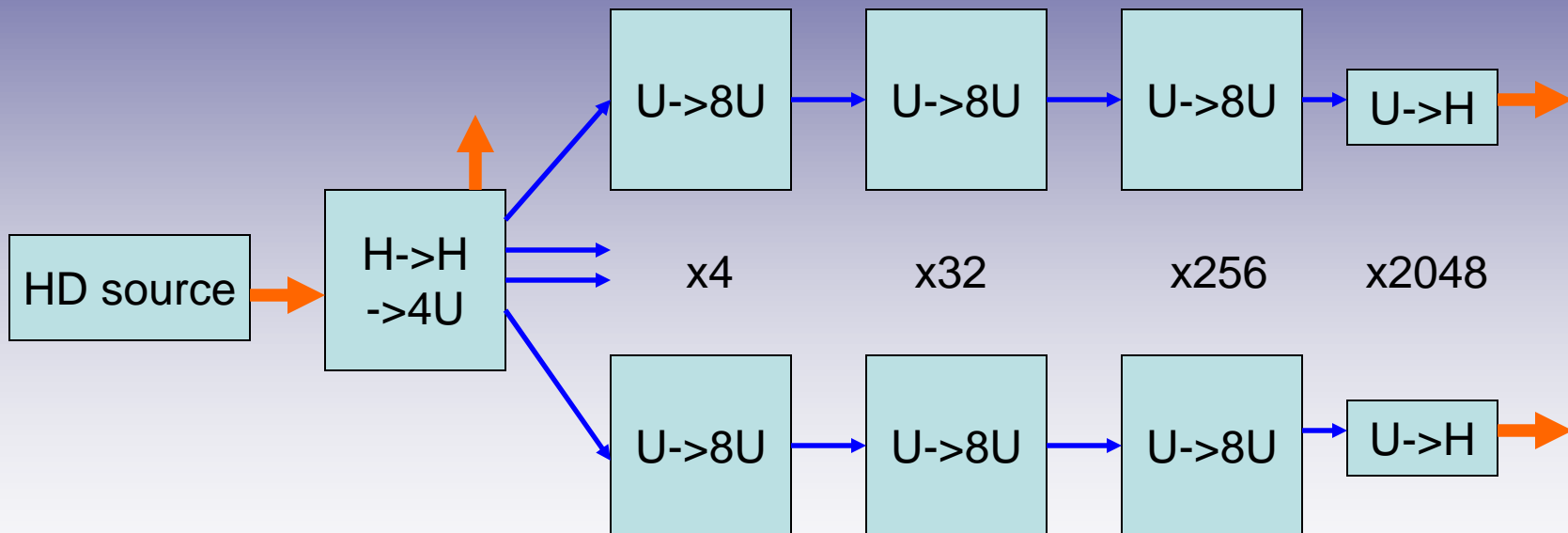
Application 5

- Splitting one HD source to up to 256 by cascading





Application 6

- Distributing one HD source to up to 2049 displays and up to 600 feet by cascading



Application Notes

- The above are six typical applications.
-  represents UTP cables up to 150 feet.
-  represents short HDMI cables.
- HDMI and DVI are interchangeable by using an HDMI/DVI adaptor or an HDMI/DVI converter cable.
- UTP cables are hot-pluggable.
- HDMI/DVI cables are generally not hot-pluggable.

Application Notes – cont'd

- The above six applications can be combined to create an almost unlimited number of variations.
- To reduce cost, only use HDMI cables when connected either to the source or to the displays; use UTP cables for all intermediate transmission.

Thank You!

Q & A