

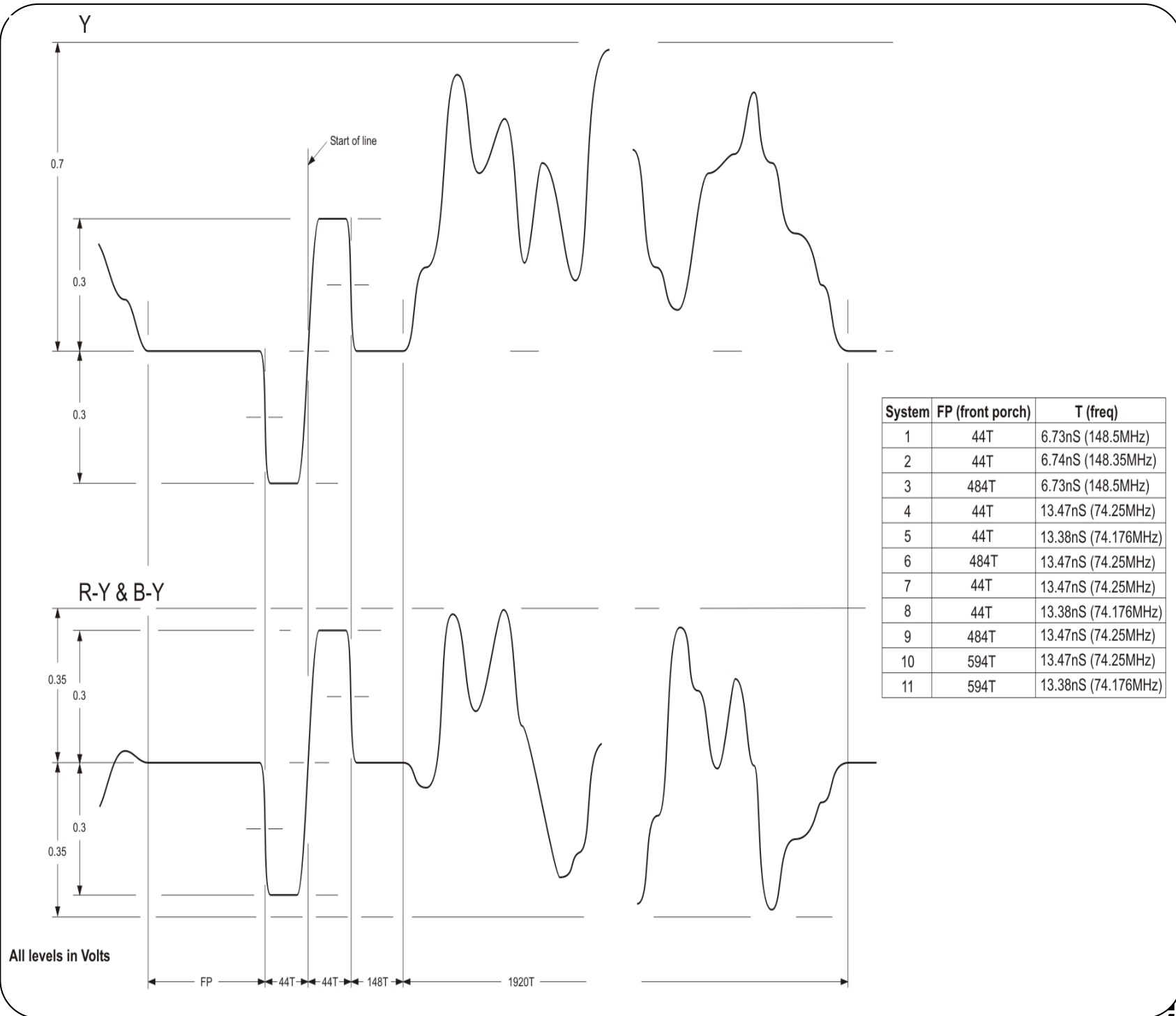
Introduction to  
HD signals & connectors  
supported by:

*Visual Impact*  
**academy**

**HDHUB**   
A Visuals Group company.

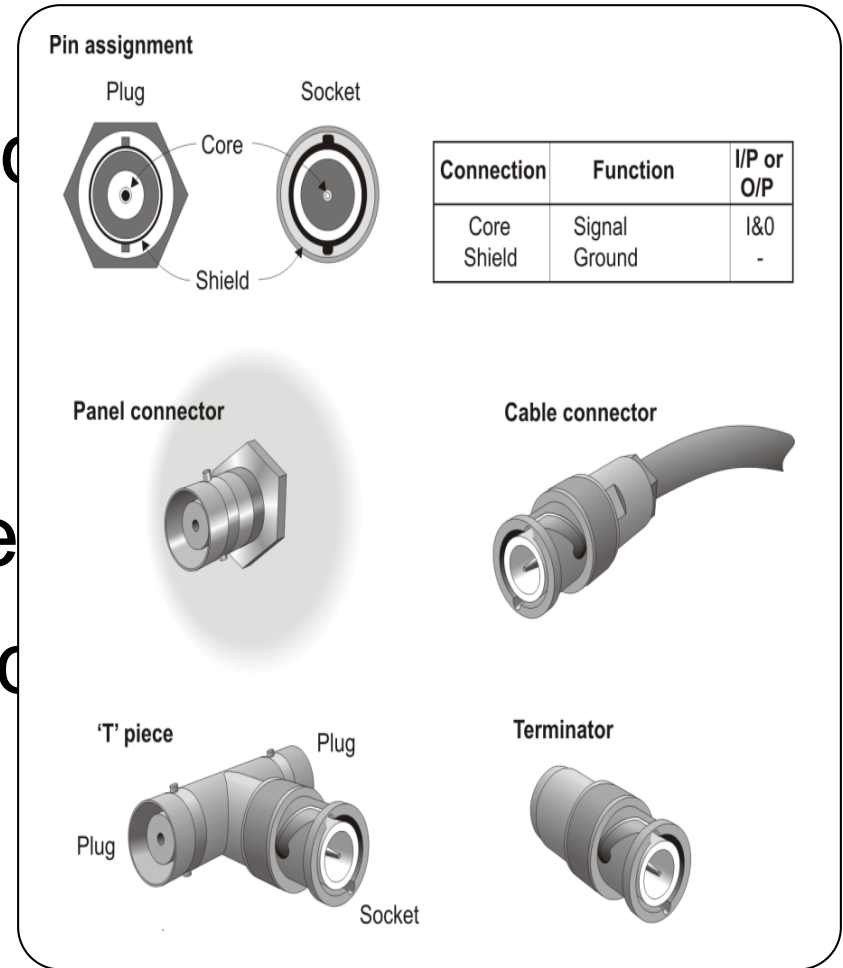
# Carrying the signal

# An



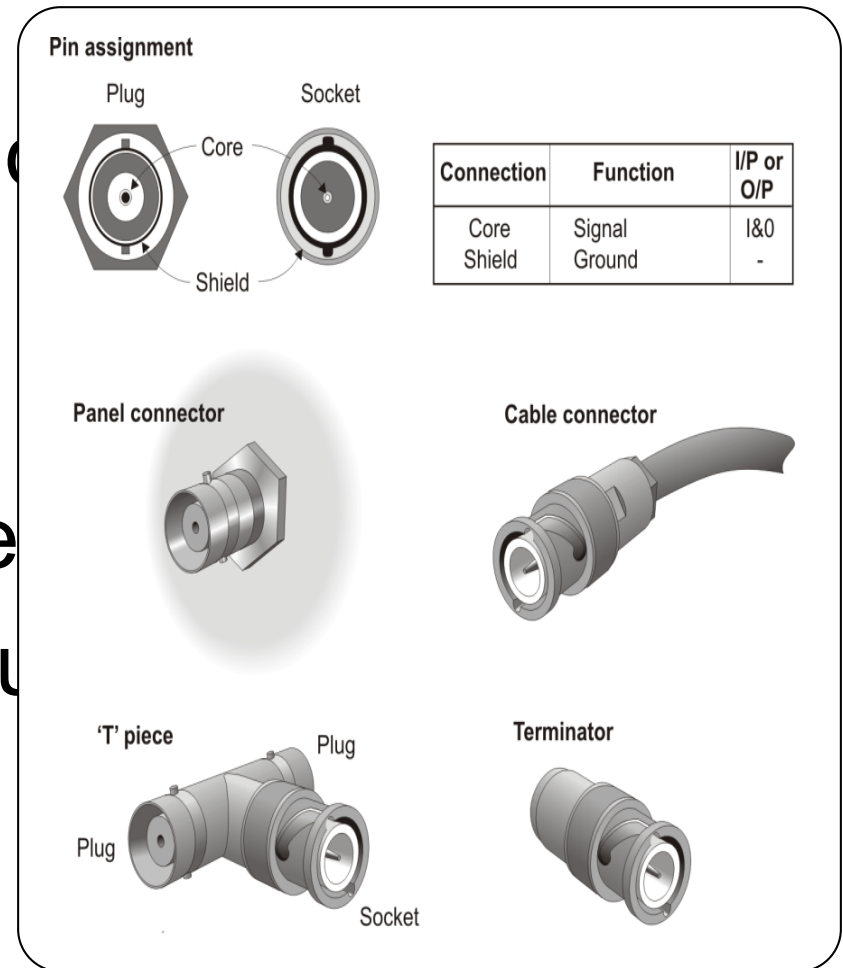
# SDI (Serial Digital Interface)

- Industry standard SDI connector
- 270Mbps.
- 10 bits.
- 4:2:2 sample structure
- Up to 8 e
- 300 metr



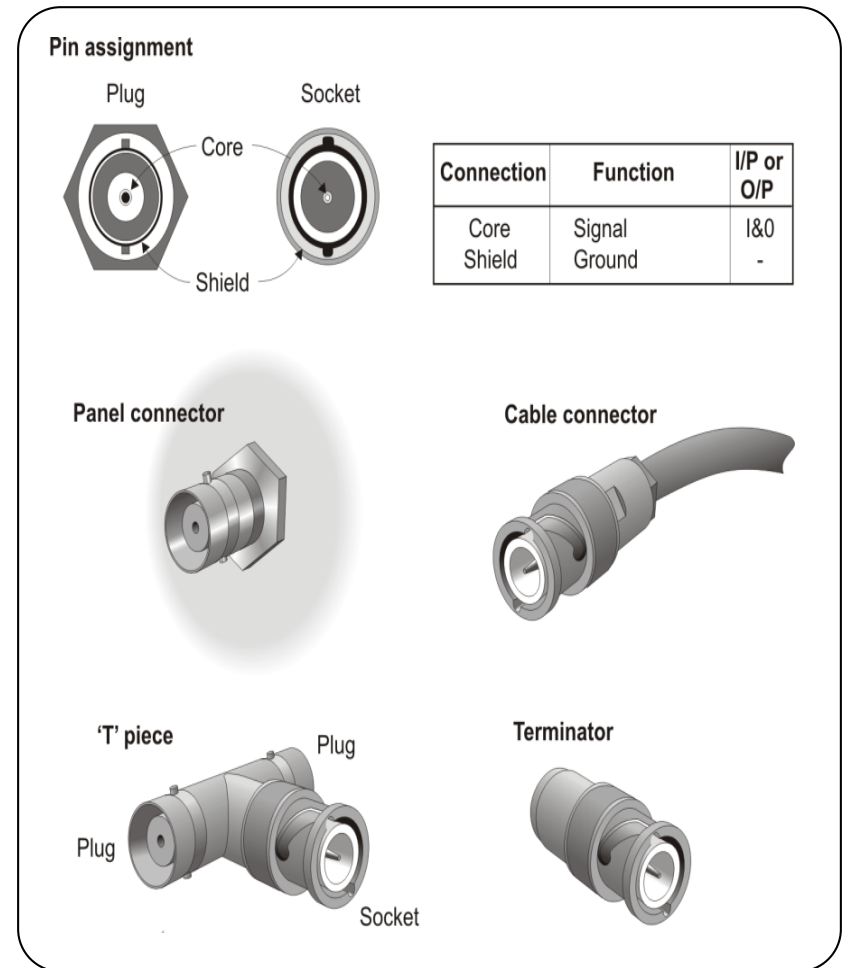
# HD-SDI (High Definition Serial Digital Interface)

- Industry standard HD
- 1.485Gbps.
- 10 bits.
- 4:2:2 sample structure
- Up to 12
- 150 metr



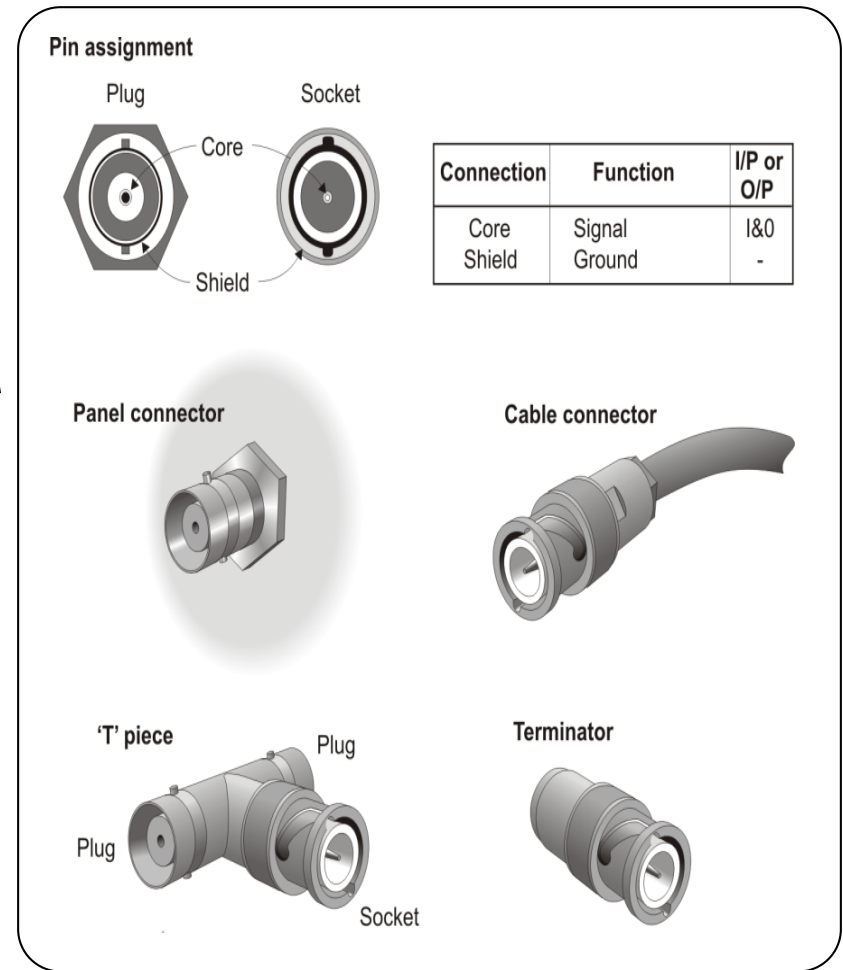
# Dual Link HD-SDI

- 4:4:4 RGB
- 1080 50P
- Two cables



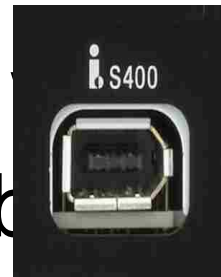
# SMPTE 424

- Double speed HD-SDI
- 3 Gbps
- Very little current support



# High definition signals

- Serial digital signals generally used.
  - HDSDI : Professional @1.5Gbps
  - HDMI : Industrial/domestic.
- Analogue signals sometimes used.
  - Y component for HD studio ref (level sync).
  - Component HD not used.
- Data signals used by DV and XDCAM-HD.
  - iLink/Firewire/IEEE1394.



# High definition converters

- HDMI to DVI converters.

- Electrical connection between DVI and HDMI.

- DVI often not HDCP compliant.

- HDMI to HD-SDI converters.

- Electrical/format conversion between HDMI/DVI and HD-SDI.

- No HDCP in HD-SDI.



USB (for comparison)

