

Here's a natural and professional English translation of the technical Q&A document:

Q1: How to calculate a 16:9 LED screen based on customer requirements?

Calculation can be done based on modules. Typically, there are two main module types.

Take a rectangular module (size: 320x160mm) as an example: two modules stacked vertically form one square. A width of 16 squares and a height of 9 squares achieves a 16:9 ratio.

**This means 16 modules wide and 18 modules high (each 320x160mm).**

To make it smaller, divide both dimensions by 2: 8 modules wide and 9 modules high also achieves 16:9.

(Similarly: count modules for small screens, cabinets for large screens).

**\*\*Q2: What are the common video processor interfaces?\*\***

- \* HDMI
- \* DVI
- \* DP (DisplayPort)
- \* VGA

Q3: 2K vs. 4K

2K Common Resolution: 1920x1080 (1080p)

4K Common Resolution: 3840x2160

Q4: Common Interfaces for 2K and 4K

2K Interfaces: HDMI 1.3, HDMI 1.4, DVI, VGA

4K Interfaces: HDMI 2.0, DP 1.2

Q5: Difference between HDMI 1.3 and HDMI 1.4

HDMI 1.3: Supports 2K (1920x1080 @ 60Hz).

HDMI 1.4: Supports "pseudo 4K" (3840x2160 @ 30Hz - halved refresh rate, 30 frames per second). It is backward compatible and supports 1920x1080 @ 60Hz.

Q6: Can 4K interfaces accept 2K video sources? Can 2K interfaces accept 4K?

A 4K interface can accept a 2K video source.

A 2K interface may not accept a 4K video source. Some devices can down convert 4K to 2K, but others cannot. Since compatibility is unreliable, always assume 2K interfaces cannot handle 4K sources.

#### Q7: TB Box Content Resolution

Programs/content for the TB box should not exceed 2K resolution (1920x1080 @ 60Hz). Content exceeding this may fail to publish, or appear published successfully but result in a black screen on the LED display.

#### Q8: Regarding Live Streaming

When customers use the live streaming function, it's generally recommended to use a processor. Configure it so the LED display shows the **exact same image** as the computer screen. This ensures the content played on the customer's computer is fully mirrored to the LED display.

#### Q9: Calculating LED Screen Power and Current

Formula: Current (i) = Power (P) / Voltage (V)

LED screens specify the number of power supplies used.

**\*Example:\*** Using 10 x 200W power supplies gives a maximum power (P) of 2000W. If customer voltage (V) is 110V, then current (i) =  $2000W / 110V \approx 18.18A$ .

#### Q10: Calculating Load per Ethernet Port

The load capacity per Ethernet port can be checked using NovalCT software.

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Operating Connection: Max load = Width (in points) \* Height (in points)

This is equivalent to loading 10 units of 320x240 (resolution).