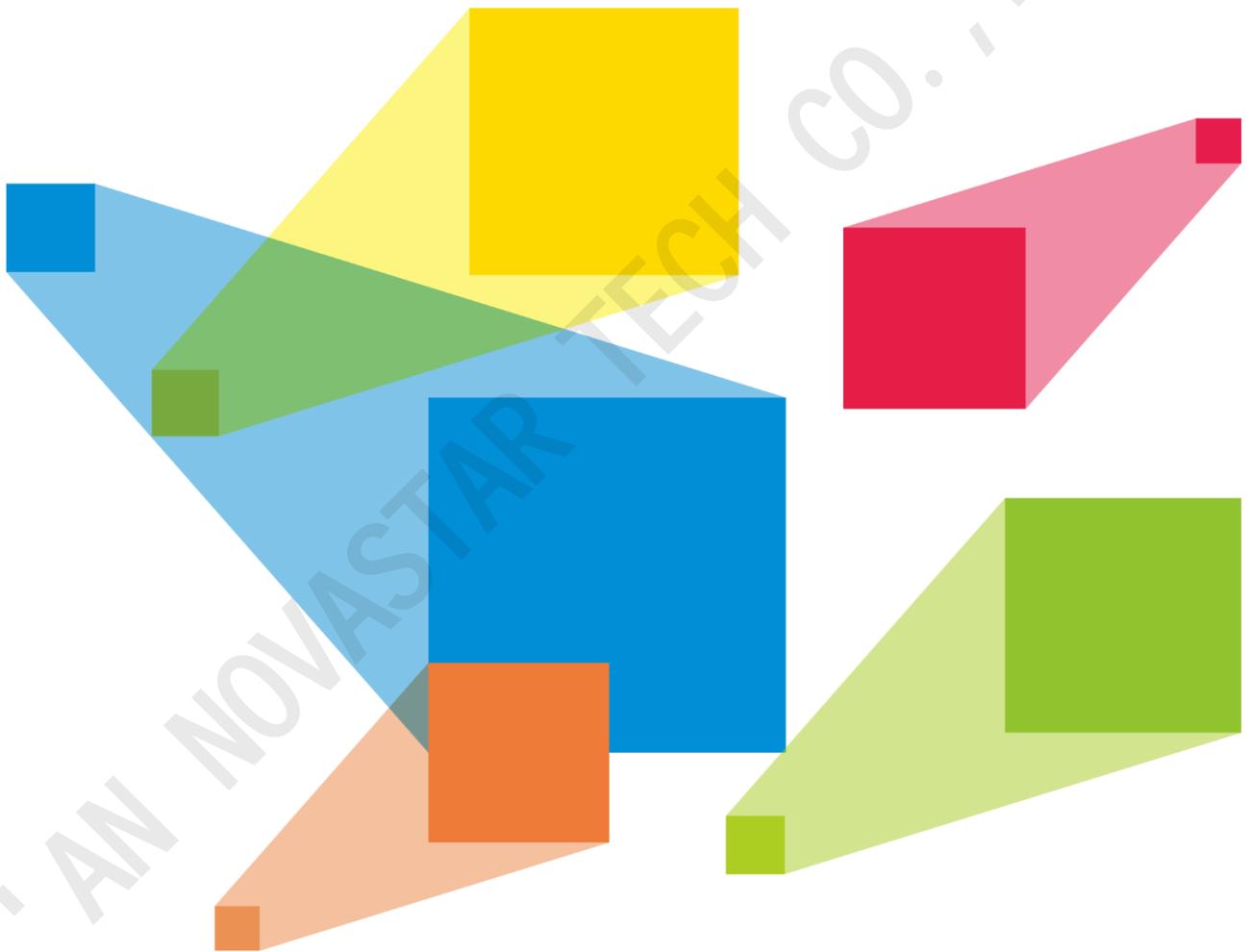# VC4

All-in-One Controller
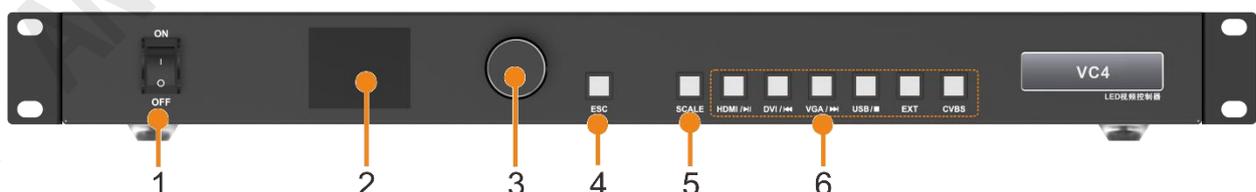
Specifications

Introduction

The VC4 all-in-one controller is a pure hardware device that is easy to operate. It features different types of high-definition input connectors, and integrates professional LED screen control technologies and video processing capabilities, making on-site installations effortless. Designed with an industrial-grade casing, the VC4 is well suited for complex operational environments and can be widely used in applications such as malls, hotels, exhibition sites and TV studios.

Features

- Five input connectors
  - 1x DVI
  - 1x HDMI1.3
  - 1x VGA
  - 1x USB
  - 1x CVBS
- 4x Gigabit Ethernet ports
  - Max. loading capacity: 2.6 million pixels
  - Max. width: 3840 pixels
  - Max. height: 1920 pixels
- Easy screen configuration
  - Quick configuration to easily configure the LED screen
  - LED screen color adjustment, such as brightness and Gamma

- Layer adjustment
  - Adjustable layer position and size, and input cropping supported
  - Personalized image scaling: Full screen, pixel to pixel and custom
  - Press input source buttons to easily switch between the input sources.
- External independent audio
- Input resolution management supported

  Supports custom and standard input resolutions of the HDMI and DVI connectors.
- Easy preset saving and loading

  Up to 6 user-defined presets
- Connect to the central control device via RS232 protocol.

Appearance

Front Panel

NO.	Area	Function
1	Power button	Power on or power off the device.

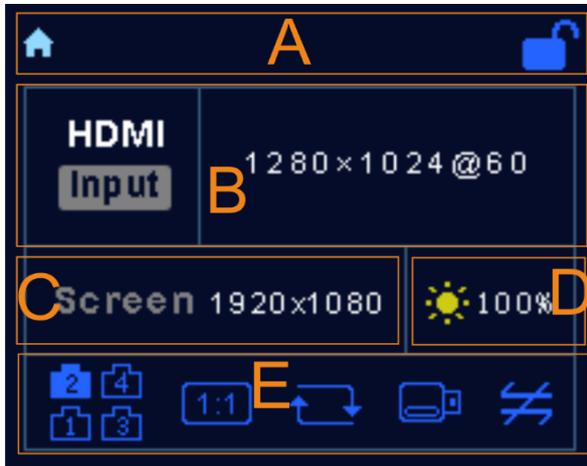| NO.	Area	Function
2	LCD screen	Display the current device status and settings menu.
3	Knob	• Rotate the knob to select a menu item or adjust the parameter value. • Press the knob to confirm the setting or operation.
4	ESC button	Exit the current menu or cancel an operation.
5	SCALE	A shortcut button for the full screen function. Press the button to make the layer of the lowest priority fill the entire screen.

6	Input source buttons	• Description for input source buttons:
		  – HDMI: HDMI input source button
		    When you play the media files saved in the USB drive, this button is used to pause or play the files.
		  – DVI: DVI input source button
		    When you play the media files saved in the USB drive, this button is used to play the previous file.
		  – VGA: VGA input source button
		    When you play the media files saved in the USB drive, this button is used to play the next file.
		  – USB: Reserved button
		    When you play the media files saved in the USB drive, this button is used to stop the playback of the file.
		  – EXT: Reserved button
		  – CVBS: CVBS input source button
		• Status LEDs
		  – On: An input signal is accessed and used.
		  – Flashing: The input connector is used, but no input signal is accessed.
		  – Off: The input signal is not used.

Rear Panel

Input Connectors

Connector	Qty	Description
DVI-D	1	• VESA standard video inputs with the resolution of 1920×1080@60Hz • Custom resolutions supported • HDCP 1.4 and EDID 1.4 supported • Interlaced signal inputs supported
HDMI 1.3	1	• HDMI 1.3, VESA standard • Supports 1920×1080@60Hz video inputs. • Custom resolutions supported • HDCP 1.4 and EDID 1.4 supported • Interlaced signal inputs supported
VGA	1	Input resolution up to 1920x1080@60Hz, downward compatible
CVBS	1	PAL/NTSC standard video inputs
USB (Type A)	1	1x USB 2.0 • Connect to a USB drive. • 1080p@30fps video files supported • File system: NTFS, FAT32 and FAT16 (supported), exFAT (FAT64) (not supported) • Supported image formats: jpg, jpeg, png and bmp • Supported video coding: MPEG1/2, MPEG4, Sorenson H.263, H.263, H.264 (AVC1), H.265 (HEVC), RV30/40, Divx and Xvid • Supported audio coding: MPEG1/2 Layer I, MPEG1/2 Layer II, MPEG1/2 Layer III, AAC-LC, VORBIS, PCM and FLAC
AUDIO	2	Analog audio input and output
Output Connectors		
RJ45 Ethernet ports	4	4x Ethernet output connectors • Connect to the receiving cards. • Max. loading capacity: 2.6 million pixels • Max. width: 3840 pixels • Max. height: 1920 pixels
Control Connectors		
ETHERNET (RS232)	1	Connect to the central control device.

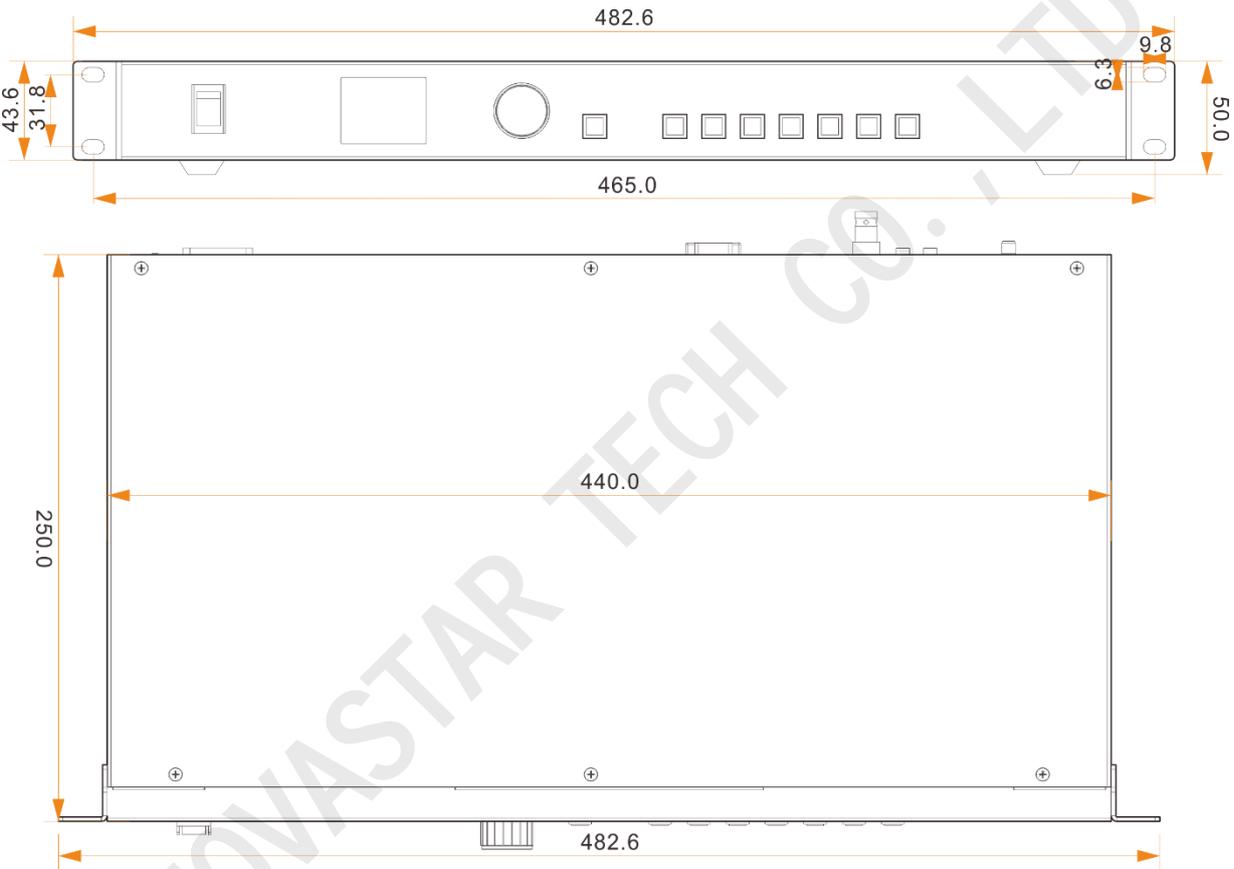| USB (Type B)	1	Connect to the control PC for program updating or debugging.

Home Screen

Area	Icon	Description
A	🏠	The device home screen
	🔒	The front panel is locked.
B	Input	The input source and resolution
C	Screen	The loaded screen resolution
D	☀	The screen brightness, 0% (black) to 100% (brightest)
E		The Ethernet port is not connected.
		The Ethernet port is connected.
		The Ethernet port serves as the backup output port.
		The function of full screen display is turned on.
	1:1	The function of pixel-to-pixel display is turned on.
		The function of custom scaling is turned on.
		Loop playback of a single file (USB playback).
		Play the files in order (USB playback).
		The USB drive is not inserted.

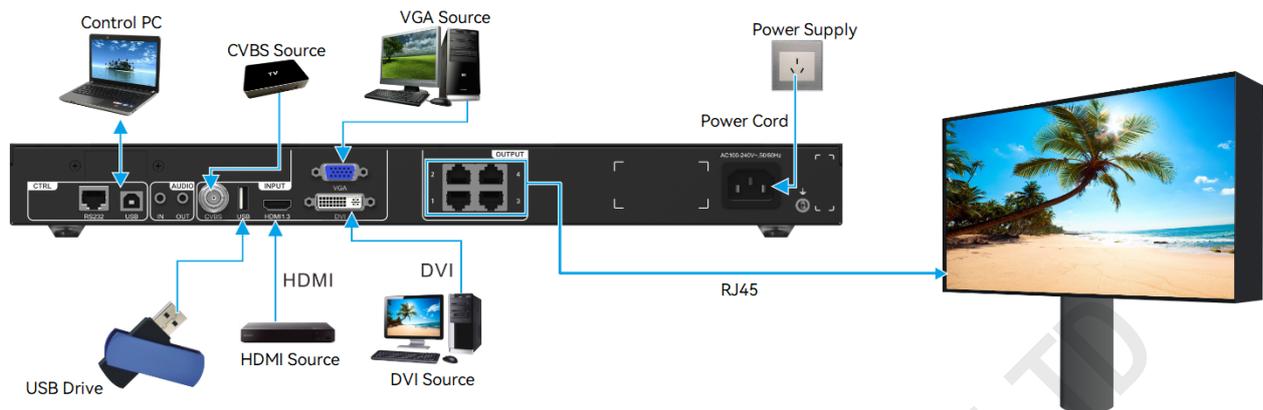| Area	Icon	Description
		The USB drive is inserted.
		The device is connected to the control PC via a USB port.
		The device is not connected to the control PC.

Dimensions

Tolerance: ±0.3   Unit: mm

Applications

Specifications

Overall Specifications		
Electrical Parameters	Power connector	AC 100–240V~ , 50/60Hz
	Rated power consumption	25 W
Operating Environment	Temperature	−20℃ to +60℃
	Humidity	20% RH to 90% RH, non-condensing
	Storage humidity	10% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm × 250.0 mm × 50.0 mm
	Net weight	2.82 kg
	Total weight	5.1 kg
Packing Information	Packing box	565 mm× 328 mm × 88 mm
	Accessories	1x Power cable, 1x USB cable, 1x DVI cable, 1x HDMI cable, 1x Certificate of Approval
	Large Outer Case	586 mm × 353 mm × 113 mm
Noise Level (typical at 25℃/77℉)		38 dB (A)

Video Source Features

Input Connectors	Bit Depth		Max. Input Resolution
HDMI 1.3	8bit	RGB4:4:4	1920×1080@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
		YCbCr4:2:0	Not supported
	10bit	RGB4:4:4	1920×1080@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
		YCbCr4:2:0	Not supported
	12bit	RGB4:4:4	Not supported
		YCbCr4:4:4	
		YCbCr4:2:2	
		YCbCr4:2:0	
DVI	8bit	RGB4:4:4	1920×1080@60Hz