

VIRB ULTRA 30

Weight

Without Battery: 66g

With Battery: 88g

With Battery In Waterproof Housing: 155g

With Battery In Cage Housing: 106g

Size (HxWxD)

Bare Camera: 43.1 x 57.5 x 20.4mm

In Waterproof Housing: 57.7 x 79.0 x 33.5mm

In Cage Housing: 51.2 x 62.0 x 29.8mm

G-Metrix

Native Sensors

GPS	10 Hz location capture
Barometer	25 Hz elevation capture
Accelerometer	100 Hz force and motion capture
Gyroscope	100 Hz rotation capture
Compass	100 Hz bearing capture

Data Overlays:

Speed, Pace, Altitude, G-Force, Orientation, Hang Time, Jump Height, Jump Distance, Rotations in Air, Jump Count, Distance, Grade, Relative Elevation, Vertical Speed, Pitch, Roll, Course, Bearing, Coordinates, Track Shape and Position, Lap Times (Automatic/CC, Manual), Lap Count (Automatic/CC, Manual)

Accessory Sensors

Heart Rate Strap	Heart Rate - Instantaneous/Average/Min-Max/Graphing
vivosmart HR (+)	Heart Rate - Instantaneous/Average/Min-Max/Graphing
HRM-Run	Heart Rate - Instantaneous/Average/Min-Max/Graphing Vertical Oscillation - Instantaneous/Average/Min-Max/Graphing Ground Contact - Instantaneous/Average/Min-Max/Graphing
tempe	Temperature - Instantaneous/Average/Min-Max/Graphing
Bike Speed Sensor	Speed - Instantaneous/Average/Min-Max/Graphing
Bike Cadence Sensor	Cadence - Instantaneous/Average/Min-Max/Graphing
Vector	Power - Instantaneous/Average/Min-Max/Graphing Cadence - Instantaneous/Average/Min-Max/Graphing Speed - Instantaneous/Average/Min-Max/Graphing

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Vehicle Speed, Engine RPM, Engine Load, Engine Torque, Engine Fuel Rate, Engine Coolant Temperature, Throttle Position, Intake Air Temperature, Mass Air Flow Rate

OBD2 Data Relay
(ELM327-compatible product)

**Data Availability Dependent on Vehicle Make and Model*

Connex
G3X Touch
FlightStream 110/210

Position, Altitude, Course Over Ground, Pitch, Roll, Lateral Acceleration, Normal Acceleration, Turn Rate

Chartplotters

GPSMap 74xx/76xx/8xxx* Position, Course Over Ground, Speed Over Ground, Heading
 + Engine Sensor Engine Speed
 + Wind Sensor Apparent Wind Angle, Apparent Wind Speed, True Wind Angle, True Wind Speed
 + Transducer Water Depth, Water Temperature, Speed Through Water
 * 8XXX models require Wi-Fi Adapter (Picostation)

Voice Control

OK Garmin Activation Phrase
Start Recording Begin recording video in currently selected mode
Stop Recording Stop recording video
Take a Photo / Picture Capture a photo using current photo settings
Remember That (While Recording) Tag the video at that point in time for fast recall later

Video Modes

Mode	Type	Resolution	Frames Per Second - NTSC (PAL)	Field of View	Playback Speed
Video		4K	30, 24 (25)	W	
		2.7K	60, 48, 30, 24 (50, 25)	W, Z	
		1080p	96, 90 (100)	W, UZ	
		1080p	72, 60, 48, 30, 24 (100, 75, 50, 25)	W, Z, UZ	
		720p	60, 30 (50, 25)	W, Z, UZ	
Slow-Mo		1080p	120 (100)	W, Z, UZ	Playback: 1/4, 1/2, 1x
		720p	240	W, Z, UZ	Playback: 1/8, 1/4, 1/2, 1x
		720p	120	W	Playback: 1/4, 1/2, 1x
		480p	300	W	Playback: 1/10, 1/5, 1x (1/12, 1/6, 1x)
Time Lapse	TimeLapse	4K / Expansive	Interval (s): 0.5, 1, 2, 5, 10, 30, 60, or Custom	W	
		2.7K / Expansive / Tall		W, Z	
		1440p		W	
		1080p / Expansive		W, Z, UZ	
	Travelapse	4K / Expansive	Distance Interval:	W	
		2.7K / Expansive / Tall	Custom Entry [0.01 miles/kilometers]	W, Z	
		1440p		W	
		1080p / Expansive		W, Z, UZ	

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Expansive	Widescreen	4K Expansive	24	W
		2.7K Expansive	30, 24 (25)	W
		1080p Expansive	80, 72, 60, 48, 30, 24 (75, 50, 25)	W
		720p Expansive	200, 120, 60, 30 (50, 25)	W
	Tall	2.7K Tall	30, 24 (25)	W
		1440p	80, 72, 60, 48, 30, 24 (75, 50, 25)	W
960p		200, 120	W	

- Lens Correction** Eliminate the slight image curvature in wide angle setting. Not available in 4K or Expansive Widescreen modes.
- Light Boost** Automatically adjust the recorded frames per second to the best level given lighting conditions. Available in 60, 50 and 48 FPS modes.
- Stabilizer** Improve video stability using the built-in electronic gyroscope to counteract movement. Available in Resolutions under 2.7K and 60FPS and under.
- Looping** Record video continuously while ultimately only saving the final specified duration. Available in Video and Expansive Modes.
- Auto Pause** Record video only when moving.
- Orientation** Automatically adjust recorded video to be right-side up regardless of camera orientation. Manual overrides available.

Video Format .MP4 File Format; H.264 Encoding

Photo Modes

<i>Mode</i>	<i>Type</i>	<i>Description</i>
Single	Standard	Capture one still photo when shutter button is pressed
	Night	Extended Exposure for shots captured in low lighting
	Bracket	Captures three photos in rapid succession with different exposures for HDR compositing
Burst		Trigger a series of photos over time when shutter button is pressed
		<i># of Photos</i> <i>Time Interval (in seconds)</i>
		60 1*, 2, 3, 6, 12
		30 1, 2, 3, 6
		20 1, 2
		10 1, 2
		5 1
	3 1	
Time Lapse	Standard	Capture a series of photos at a set interval of time. Press shutter button again to stop.
		<i>Type</i> <i>Time Interval (in seconds)</i>
		Preset 1/2, 1, 2, 5, 10, 30, 60
		Custom Enter whole second value from 1 to 999
	Night	Capture a series of photos with extended exposures in low lighting
	Extended Timelapse	Capture a series of photos at a set interval of time over long periods. To extend battery life, the camera sleeps in between captures.
	Start Time Designated time to begin the time lapse. Can start immediately or delay until a specific time of day.	

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	Duration	Amount of time to capture the time lapse. Can be continuous until manually stopped or set to a specific length of time for automatic stop.
	Interval	Amount of time between each image capture. Can be set from 1 to 999 minutes.
Travelapse	Capture a series of photos at predetermined distances for geospatial-aware photosets/to eliminate variations in speed	

* 60/1 available only in 8MP Widescreen

Aspect Ratio - Configure to capture either immersive full frame photos, or widescreen to fit to common monitor or smartphone displays.

<i>Setting</i>	<i>Megapixels</i>	<i>Resolution</i>
Full Frame	12MP	4000x3000
Widescreen	8MP	3840x2160

Self Timer Delay start of photo capture by 2, 5, 10, 30 or 60 seconds. Only applies to first photo captured when set to Time Lapse.
Lens Correction Eliminate the slight image curvature in wide angle setting. Available in all photo modes.
Date Stamp Enable to write time of day and today's date onto each photo captured.

Photo Format .JPG File Format

Audio

Format 48 kHz Sampling, AAC Compression
Gain Control AGC (Automatic Gain Control)
Internal Microphone Mono - Waterproof, Rugged, Exposed for sensitive audio capture
External Microphone Stereo - 3.5mm connection (when using compatible cable)
Wireless Microphone Mono - Bluetooth, HD Audio-compatible

Video Pro Settings

Enable to unlock manual video controls and take greater control of the look of the final video

Color - Adjust the richness of the recorded image

Vivid - default	Rich colors with deeper contrast
Flat	Flatter color profile with higher dynamic range, allowing for more flexibility in post-processing

White Balance - Adjust the color of the environment and scene

Auto - default	Automatic adjustments to white balance based on environment and scene
2800K	Incandescent lighting
4000K	Flourescent lighting
5000K	Average Daylight Conditions
6500K	Sunny Conditions
7500K	Snowy or Cloudy Conditions

Sharpness - Adjust level of detail sharpness applied in-camera

High	Crisp footage with the sharpest level of detail
Medium - default	Somewhat reduced sharpening
Low	Least amount of in-camera sharpening, resulting in soft edges. Beneficial for post-production

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High Bitrate - Adjust compression levels to reduce filesize or increase final picture quality. Bitrate up to 60Mbps.

Normal - default	Smaller file sizes. Some high motion scenes may show some artifacts.
High	More detail with larger file sizes. Provides clearest final picture regardless of motion.

ISO Limit - Adjust maximum image brightness and image noise (grain) levels

6400	Ensure maximum amount of image brightness at the expense of introducing some image noise in lower lighting conditions
3200	Elevated levels of image noise, but higher brightness in lower lighting
1600 - default	Medium level of image noise and image brightness
800	Reduced image noise, reduced image brightness in lower lighting conditions
400	Least amount of noise, lowest image brightness in lower lighting conditions

Live Exposure Adjust	Increase or lower brightness of the image on the viewfinder by 1/3 stops. Range of -2.0 EV to +2.0 EV. Default is 0.
Exposure (EV) Lock	Lock the exposure to the environmental conditions at beginning of filming. Useful for Timelapses in fairly stable conditions. Default is Off.

Framing Tools - Bring more information to the viewfinder to guarantee the shot

Grids	Composition Tool - Thirds, Phi, Golden
Overexposure	Ensure a good exposure by flashing over exposed areas in red

Spot Metering - Control how the Auto Exposure is calculated

On	Bias to the center of the image
Off - default	Calculate to the full scene

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ISO Limit - Adjust maximum image brightness and image noise (grain) levels

800 - default	Ensure maximum amount of image brightness at the expense of introducing some image noise in lower lighting conditions
400	Elevated levels of image noise, but higher brightness in lower lighting
200	Reduced image noise, reduced image brightness in lower lighting conditions
100	Least amount of noise, lowest image brightness in lower lighting conditions

Live Exposure Adjust	Increase or lower brightness of the image on the viewfinder by 1/3 stops. Range of -2.0 EV to +2.0 EV. Default is 0.
HDR Bracketing	Set exposure offsets to capture a series of three photos to build a high quality HDR photo. Default is +/- 1.0 EV - Available in Bracket Only.
Exposure Time	Set longer exposure times for creative control over photo capture (Auto, 1, 5, 10, 15, 20, 30, 60s). Default is Auto - Available in Night Shot Only

Framing Tools - Bring more information to the viewfinder to guarantee the shot

Grids	Composition Tool - Thirds, Phi, Golden
Overexposure	Ensure a good exposure by flashing over exposed areas in red

Metering - Control how the Auto Exposure is calculated

Spot (Center)	Bias to the center of the image
Full Frame - default	Calculate full scene

Optics

Lens	6-element, all-glass, wide-angle lens with low distortion
Depth of Focus	50cm to ∞
Effective Focal Length	2.73mm
Fixed Aperature	f/2.6
Distortion	-28.00%
Pixel Count	12 MP
Sensor	1/2.3" Backside-Illuminated CMOS
Pixel Size	1.55um

35mm Equivalent Focal Length

Wide	14.66mm
Zoom	19.55mm
UltraZoom	29.1mm

Field Of View

Aspect Ratio	Setting	Horizontal FOV (deg)	Vertical FOV (deg)	Diagonal FOV (deg)
4:3	Wide	123	94.6	148.5
	Zoom	95	72.4	116
	UltraZoom	65	47.8	79.6
16:9	Wide	118	69.2	133.6
	Zoom	91.6	52.6	103.6
	UltraZoom	61.8	35	70.2

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Storage

Format	microSD memory card, see garmin.com/VIRBcards for details
Capacity	Up to 128 GB
Record Time	1 Hour of 1080p30 = approx 13GB, Varies based on Resolution and Frame Rates

Battery

Type	Rechargeable Lithium-Ion
Capacity	1250mAh, 3.6V, 4.5Wh
Battery Life	4K 30FPS: Up to 1 hour 15 minutes 1080p 30FPS: Up to 2 hours 15 minutes

Connectivity

ANT+	Yes - Remote and Sensors
Bluetooth	Yes - Audio and Data
Data Interface	USB 2.0
Wi-Fi	802.11 b/g/n
HDMI	HDMI 1.4 - Live output and playback at 1080p

Headset Compatibility

Users may pair a compatible Bluetooth® headset to VIRB® Ultra 30. Recommended headsets include:

- Jabra Extreme
- BlueAnt Q3
- BlueParrott B250-XT
- Plantronics M55

Streaming

Livestream	Integrated Livestream to YouTube via Mobile Device (with compatible iOS devices only)
Playback	Miracast Integration for wireless in-home viewing on devices like Roku
Chartplotter	View and Control up to 4 cameras on the water

Mobile App

Highlights	Videos are automatically highlighted and ready to share using G-Metrix and Tagging
Video Editor	Full editing of videos, including music and slow-motion
G-Metrix Engine	Render G-Metrix gauges and graphs into the clip
Remote Control	Wirelessly view and control your camera
Mobile Stream	Videos save an extra HD 720p stream for incredibly fast, high quality share and transfer to the cloud (not available in all video modes)

Presets

Build Your Own	Save off complete camera settings for fast application later on
Share	Transfer Presets across cameras
Custom Reset	Automatically apply a custom preset when SD card is installed for fast multi-camera setup (by renaming Preset file to *.autoapply extension)

Operating Environment

Water Rating	Waterproof to 131 ft (40m) when enclosed in waterproof housing
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