PHYSICAL

Weight
Without Battery: 133g
With Battery: 160g

Size (H x W x D)
39.0 x 59.3 x 69.8mm

Water Rating
Waterproof to 33 ft (10m)

Temperature Range
Operating: 0 to 40°C (32 to 104°F)
Cold Operation with Warmed Battery: -20 to 40°C (-4 to 104°F); Battery at 25°C (77°F)
Charging: 0 to 45°C (32 to 113°F)
Storage: -40 to 85°C (-40 to 185°F)

Battery
Replaceable, Rechargeable Lithium-Ion
1250mAh, 3.8V, 4.7Wh
Run Time:
  Stitched 4K 30FPS – 1 hour 5 minutes
  Unstitched 5K 30FPS – 1 hour 5 minutes

Supported SD Cards
Micro SD
Max Capacity: 128GB
FAT32 (≤ 32GB), exFAT (≥ 32GB)
Write Speed ≥15MB/s. UHS-I, Class U3 Or Higher Rating Required
Click Here For Recommended Card List

Data Interface
Micro USB
USB 2.0

Video Output Port
Equirectangular, Stitched Output Resolution up to 4K at 30FPS (3840 x 2160)

Status Display
Sunlight-visible, transflective memory-in-pixel (MIP)
1.00” x 0.42” (25.3 x 10.7 mm)

VIDEO

Lens Modes
360: Capture Stitched-In-Camera, Fully Spherical Videos in Equirectangular Format.
Front Only: Capture Videos in Traditional Fixed-Frame Format Using the Front Lens.
Rear Only: Capture Videos in Traditional Fixed-Frame Format Using the Rear Lens.
RAW: Capture Unstitched, Fully Spherical Videos. Each Video produces 2 high-res files; 1 for each lens.
**Video Modes**

- **5.7K**: 2880×2880 (2 files) / 30fps @ 120Mbps (60Mbps per file) : 360 Unstitched
- **5K**: 2496×2496 (2 files) / 30fps @ 100Mbps (50Mbps per file) : 360 Unstitched
- **4K**: 3840×2160 / 30fps @ 80Mbps : 360 Stitched
- **3.5K**: 1760×1760 (2 files) / 60fps @ 100Mbps (50Mbps per file): 360 Unstitched
- **FHD**: 1920x1080 / 120fps @ 50Mbps: Traditional 16:9
- **FHD**: 1920×1080 / 60fps @ 40Mbps : Traditional 16:9

Timelapse Video: Available in 4K and 5K Resolutions. Interval 2/5/10/30/60s

* Requires Mobile App to enable. Run Times May Be Reduced.

**Stabilization Modes**

- **Stabilize**: Smoothes out quick movements and vibrations and levels out the horizon
- **Lock**: Stabilizes and counteracts the camera orientation in full 360, locking the stabilized orientation to a specified direction.
- **Follow**: Stabilizes and counteracts the camera orientation in full 360, the stabilized orientation follows the GPS trajectory.

* Stabilization applied during playback and in videos produced using VIRB mobile app or VIRB Edit desktop software. Available only for videos stitched in camera.

**Video Format**

- .MP4 (AVC / H.264 Encoding)

**Max Video Bitrate**

- 120 Mbps

**ISO Range**

- 100 – 1600 (Automatic)
- 100 – 6400 (Manual)

**Manual Settings**

- **Color**: Vivid or Flat
- **White Balance**: Auto or Manual
- **Sharpness**: Low/Medium/High
- **ISO Limit**: 400/800/1600/3200/6400
- **Exposure Bias**: ± 2.0 EV Range
- **Exposure Lock**: Enable/Disable
- **Exposure Balance**: Balanced Exposure/Front Lens Bias/Rear Lens Bias/Independent

*Requires Mobile App

**PHOTO**

**Lens Modes**

- **360**: Capture Stitched-In-Camera, Fully Spherical Photos In Equirectangular Format.
- **Front Only**: Capture Photos in Traditional Fixed-Frame Format Using the Front Lens.
- **Rear Only**: Capture Photos in Traditional Fixed-Frame Format Using the Rear Lens.
- **RAW**: Capture Unstitched, Fully Spherical Photos. Each Photo produces 2 high-res files; 1 for each lens.

**Photo Resolution**

- **15MP**: 5640 × 2816 (Stitched 360)
- **2 × 9MP**: 2 × 3008 × 3000 (Unstitched 360, 2 Files)
- **3MP**: 1920 × 1440 (Traditional, Single Lens)
VIRB 360 SPECS

**Photo Modes**
- Single Shot Capture
- Burst Shooting: 20 frames / sec
- Auto Exposure Bracketing (AEB): 3 bracketed frames at ±1.0 EV Bias. Adjustable with App.
- Time Lapse: Interval 2/5/10/30/60 s
- Travelpase: Interval 0.01 miles and up. Requires Mobile App.

**Photo Format**
- JPEG

**ISO Range**
- 100 – 800 (Automatic)
- 100 – 800 (Manual)

**Timer Delay**
- 2, 5, 10, 30 or 60 seconds. Only applies to first photo captured when set to Time Lapse.

**Manual Settings***
- Color Vivid or Flat
- White Balance Auto or Manual
- Sharpness Low/Medium/High
- ISO Limit 100/200/400/800
- Exposure Bias ± 2.0 EV Range
- Exposure Balance Balanced Exposure/Front Lens Bias/Rear Lens Bias/Independent
*Requires Mobile App

**AUDIO**

- **Format**
  - 48 kHz Sampling, AAC Compression, 4-Channel Ambisonic
- **Spatial Output**
  - Planar, 4-Channel First-Order Ambisonic (ACN Ordering, SN3D Normalization)
- **Gain Control**
  - AGC (Automatic Gain Control)
- **Internal Microphones**
  - MEMS - Waterproof, Rugged, Exposed for sensitive audio capture
- **Wireless Microphone**
  - Bluetooth - Mono, upsampled to 48kHz
  - Mixed Output: Combined omnidirectional (mono) Bluetooth mic with ambisonic/environmental audio

**OPTICS**

- **Sensor**
  - 1/2.3” Backside-Illuminated CMOS
  - Sensor Count: 2
  - Pixel Count: 12MP per Sensor
  - Pixel Size: 1.55 um

- **Lens**
  - 8-Elements, Replaceable Strengthened Glass Cover Lens
  - Lens Count: 2
  - FOV (Unstitched): 201.8° per Lens
VIRB 360 SPECS

FOV (Traditional 16:9): 141⁰ Horizontal
Depth of Focus: 40cm to ∞
Effective Focal Length: 1.036mm
35mm Equivalent Focal Length: 6mm
Fixed Aperture: f/2.0

Electronic Shutter Speed
30 – 1/8000s

SENSORS AND AUGMENTED REALITY (A/R)

On-Board Sensors
GPS + GLONASS: 10 Hz location capture
Barometer: Elevation capture
Accelerometer: Force and Motion capture
Gyroscope: Rotation capture
Compass: Bearing capture

A/R Data Overlay Settings
Vehicle Mode: Lock Overlays to the mounted subject, even when stabilization is enabled
Fine Adjustment Tools: Scale, Tilt, Rotate, Color

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

Accessory: Pulse
Heart Rate: Instantaneous, Average, Minimum, Maximum and Graphing
Compatible Products:
- vivosmart HR /
- vivosmart HR+
- vivoactive HR
VIRB 360 SPECS

fenix 5
fenix 3HR
HRM-RUN
HRM-TRI

Accessory: Running Metrics
Heart Rate: Instantaneous, Average, Minimum, Maximum and Graphing
Vertical Oscillation: Instantaneous, Average, Minimum, Maximum and Graphing
Ground Contact: Instantaneous, Average, Minimum, Maximum and Graphing
Compatible Products:
HRM-RUN
HRM-TRI

Accessory: Ambient Temp
Temperature: Instantaneous, Average, Minimum, Maximum and Graphing
Compatible Products:
tempe

Accessory: Cycling Metrics
Power: Instantaneous, Average, Minimum, Maximum and Graphing
Speed: Instantaneous, Average, Minimum, Maximum and Graphing
Cadence: Instantaneous, Average, Minimum, Maximum and Graphing
Compatible Products:
Vector
Bike Speed Sensor
Bike Cadence
Sensor

Accessory: Vehicle Metrics
Vehicle Speed
Engine RPM
Engine Load
Engine Torque
Engine Fuel Rate
Engine Coolant Temperature
Throttle Position
Intake Air Temperature
Mass Air Flow Rate
Compatible Products:
OBDLink LX
Other ELM-327 Compatible Sensors

Accessory: Flight Metrics
Position
Altitude
Course Over Ground
Pitch
VIRB 360 SPECS

Roll
Lateral Acceleration
Normal Acceleration
Turn Rate
Compatible Products:
- G3X Touch
- FlightStream
- 110/210

Accessory: Boating Metrics
Engine Data: Engine Speed, RPM
Wind Data: Apparent Wind Angle, Apparent Wind Speed, True Wind Angle, True Wind Speed
Water Data: Water Depth, Water Temperature, Speed Through Water
Compatible Products:
- GPSMAP 74XX / 76XX
- GPSMAP 84XX / 86XX
  Engine Data: Requires NMEA 2000 accessory
  Wind Data: Wind Sensors
  Water Data: Transducer

WIRELESS

Wi-Fi
802.11 b/g/n
Mobile App Connection
Local Area Network Connection

NFC
Passive
Location: Top, Center of Camera, Under the Display

ANT+
Garmin Remote and Sensor Connectivity
Compatible Remotes:
- VIRB Remote
- Fenix 5 Series
- Fenix 3 Series
- vivoactive HR / HR+
- vivosmart
- Forerunner 935
- Edge

Bluetooth
Bluetooth 4.0
Sensor Connectivity
Wireless Headset Microphone Connection
Recommended Headsets:
  - Jabra Extreme 2
  - BlueAnt Q3
  - BlueParrott B250-XT
  - Plantronics M55

Voice Control
- OK Garmin: Activation Phrase
- Start Recording: Begin recording video in the currently selected mode
- Stop Recording: Stop recording video
- Take a Picture: Capture a photo or set of photos in the currently selected mode
- Remember That: Tag the video at that point in time for fast recall later (Only While Recording)
- Enable/Disable Wi-Fi: Turn Wi-Fi On or Off

Supported Languages: English(US, UK), French, Italian, German, Spanish, Swedish, Japanese, Mandarin

APP
Mobile App
  - VIRB Mobile

Streaming Playback
  - Equirectangular, Stitched Up to 1280 × 720 at 30FPS

Live Stream
  - Supported Devices: iOS 10.0 or Later
  - Format: Equirectangular, Stitched
  - YouTube: Up to 1280 × 720 at 30FPS at up to 5Mbps
  - Facebook: Up to 1280 × 720 at 30FPS

Required Operating System
  - iOS 10.0 or Later
  - Android 5.0 or Later

Recommended for 4K sharing
  - iPhone SE
  - iPhone 6 / 6 Plus
  - iPhone 7 / 7 Plus
  - iPad Air 2
  - Samsung S7 / S7 Edge
  - Google Pixel / Pixel XL
  - Sony Z5
## DESKTOP SOFTWARE

<table>
<thead>
<tr>
<th>Application Name</th>
<th>VIRB Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Operating System (PC)</td>
<td>Windows 7 SP1 (64-bit) + Platform Update</td>
</tr>
<tr>
<td>Operating System (Mac)</td>
<td>Mac OS X 10.10 Yosemite</td>
</tr>
<tr>
<td>Processor</td>
<td>2.5GHz Quad-Core Intel Core i7 or AMD FX</td>
</tr>
<tr>
<td>Memory (RAM)</td>
<td>8 GB</td>
</tr>
<tr>
<td>Graphics Card</td>
<td>Intel HD 5000 / nVidia GeForce GT 630 / AMD Radeon 8570</td>
</tr>
<tr>
<td>Graphics Memory (RAM)</td>
<td>2 GB</td>
</tr>
<tr>
<td>Display Resolution</td>
<td>1920 × 1080</td>
</tr>
<tr>
<td>Storage</td>
<td>20GB Free Space</td>
</tr>
</tbody>
</table>

| Recommended Configuration | | |
| Operating System (PC) | Windows 10 (64-bit) |
| Operating System (Mac) | Mac OS X 10.12 Sierra |
| Processor | 3.0GHz Quad-Core Intel Core i7 or AMD FX |
| Memory (RAM) | 16 GB |
| Graphics Card | Intel HD 530 / nVidia GeForce GTX 960 / AMD Radeon R9 380 |
| Graphics Memory (RAM) | 4GB |
| Display Resolution | 3840 × 2160 |
| Storage | 20GB Free Space |