



# PERCEPT

Expand your senses.

INNOVATIVE

## Wearable IoT Solution.

The IONODES PERCEPT body camera is more than just a wearable camera, it's a complete IoT-connected multi-sensor device. Extensive remote networking capabilities allow you to interact with the camera through 4G LTE and/or Wi-Fi networks. On-board capabilities include world-leading 180° immersive video capture at up to 4K resolution, bi-directional audio, GNSS tracking, high-performance Qualcomm™ processing and a true open-platform API for ease of integration into any management software solution.



# See more, see better.

Record critical video events in high resolution and never miss a detail through a Panomorph lens with 180° field of view. Panomorph lens technology offers exceptional level of detail from the center of the image to the edge, as opposed to traditional fisheye lenses.

Combined with market-leading hi-resolution video, H.265 / HEVC video compression and motion-based image stabilization the video quality is simply the best you can get from a mobile wearable device.



**Embedded QR Codes** – Every video frame includes watermarked metadata such as GNSS position, wearer ID and 9-axis motion information.



**Image Stabilization** – A 9-axis motion sensor captures real-time orientation and acceleration of the camera, allowing for accurate image stabilization.



**High Quality Video** – Panomorph lens technology provides a higher level of detail across the entire 180° field of view when compared to standard wide-angle or fisheye lenses.





## KEY FEATURES

# Designed for real-time applications.

### Live Connectivity

Always-on networking through 4G LTE or Wi-Fi allows for live remote access to the camera for alert notifications, live streaming and remote control.

### Flexible Recording

On-board recording functions allow for local recording to secure flash storage as well as automated upload to on-premise or cloud-based VMS solutions.

### Location Tracking

Accurate GNSS positions can be captured, streamed and recorded, allowing for complete control over device location tracking functions.

### Task Optimized

Built tough, the camera is designed to operate in harsh environments and power optimizations allow it to be used during entire work shifts (+12H) without compromise.



Qualcomm™



Bluetooth



4G LTE



Rugged



GNSS



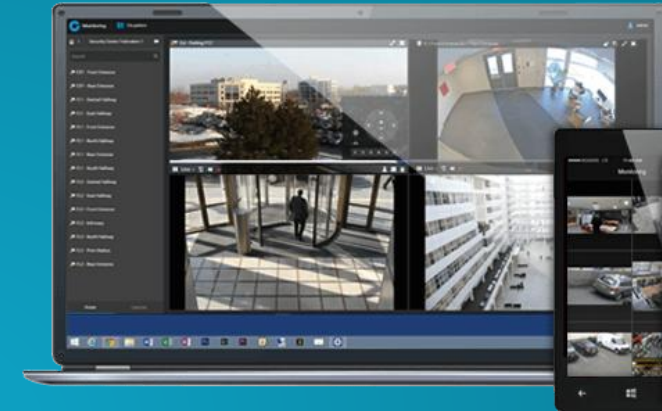
Wi-Fi

## INTEGRATIONS

# Open Platform.

Integrate your fleet of wearable IoT devices into your existing VMS solution, seamlessly.

The IONODES PERCEPT body camera is designed to be integrated into practically any software solution, on-premise or cloud through ONVIF, the global open standard for IP device integration. ONVIF Profiles G, S and T compatibility enables virtually limitless control over configuration, media streams, events, metadata and recorded content.



**Function Buttons**  
Event Recording  
Still Image Capture  
Flashlight

**Speaker**  
Action Feedback  
Alert Notifications

**Flashlight**

**Dual Mic**  
Noise Filter  
Stereo Audio

**Camera**  
4K Video  
180° FoV

**Status**  
Recording  
Health

**Power**

**Function Buttons**  
Event Recording  
Still Image Capture  
Flashlight

**Mount**  
Klick Fast System



**SIM Card**  
Accessible SIM

**Status**  
Recording  
Health

**OLED Screen**  
Alert Notifications  
System Status  
Network Status



**USB-C Port**  
Charging  
Data Transfer

## INTUITIVE Designed to be worn.

Ergonomics takes center stage, ensuring user interactions are instinctive, and the position of each element is tuned to ensure optimal performance when worn.



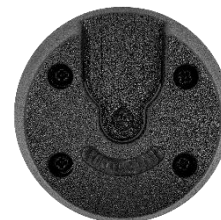
Clip-On Dock



Harness Strap  
Dock



Anti-Tilt Dock



Screw to fit



Handlebar Dock



Shoulder Chest  
Harness



Four-Point  
Chest Harness

## Klick Fast Mounting System

- Locks securely in place
- Undocking is fast and easy
- A dock for every application



Leather Belt Clip



Rucksack Dock



Screw-On Dock



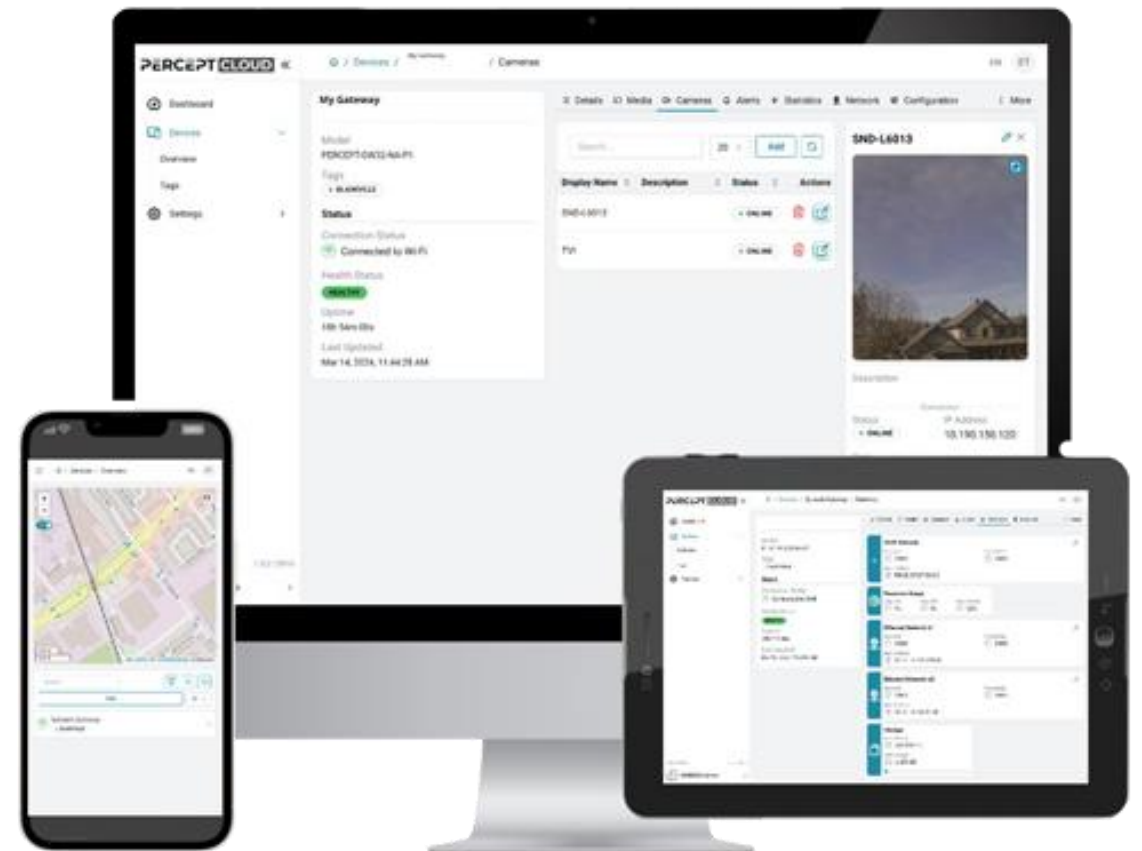
Magnetic Dock



# PERCEPT CLOUD

## Freedom of movement.

The PERCEPT Cloud Solution is a secure and reliable on-demand live video streaming solution accessible from anywhere, anytime via web app. Offering direct camera-to-cloud connectivity, the PERCEPT Cloud Solution is a complete camera management solution offering innovative features such as real-time location tracking, centralized camera software upgrades and remote access for camera control and configuration. Combined with the PERCEPT Body Camera's Wi-Fi and LTE connectivity options, the PERCEPT Cloud Solution can easily adapt to any deployment scenario.





# Innovative solution for wide-ranging applications.



## Solving Industry Challenges

A growing number of private and public organizations are looking towards wearable cameras as a means to improve safety, enhance security, optimize business processes and provide transparency.

The inclusion of a live-accessible body camera in day-to-day operations can help solve operational challenges by providing real-time feedback and situational awareness. Typical applications include private security, public safety, manufacturing, logistics and transportation services.

## Market Driven Design

Designed as a ruggedized open platform device, the PERCEPT Body Camera boasts the durability, flexibility and performance needed to address the needs of a wide range of applications in a diverse set of markets.

The use of Qualcomm™ technology, global leader in mobile processors headquartered in North America, ensures compliance to multiple worldwide government regulations restricting the use of foreign technology in specific markets and applications.

# PERCEPT-BC100 Technical Specifications

|             |                                     |   |
|-------------|-------------------------------------|---|
| Networking  | 3G / 4G LTE<br>(Dual-Sim Supported) | <b>North America</b><br>LTE-FDD: B2/B4/B5/B7/B12 to B14/B17/<br>B25/B26/B66/B71<br>LTE-TDD: B41<br>WCDMA: B2/B4/B5<br><br><b>EMEA / LATAM</b><br>LTE-FDD: B1 to B5/B7/B8/B20/B28<br>LTE-TDD: B38/B39/B40/B41<br>WCDMA: B1/B2/B4/B5/B8<br>GSM/EDGE: 850/900/1800/1900MHz |
|             | Wi-Fi                               | 2.4G/5GHz, 802.11 a/b/g/n/ac  |
|             | Bluetooth                           | BT 4.2LE  |
| Camera      | Still Image                         | Image capture at up to 8.3MP (JPEG)   |
|             | Video                               | 4K (8.3MP) / 6MP / 4.2MP / 2.3MP / 1MP / 0.6MP at up to 30 FPS; H.264 / H.265 HEVC compression  |
|             | Lens                                | Type: Panomorph, 180° Horiz. / Vert. Field of View<br>Focus range: 24cm to infinity   |
|             | Watermarking                        | Data in picture includes date, time, GNSS position, Wearer ID and 9-axis motion for ROI stabilization   |
| Audio       | Microphones                         | Dual microphones / left and right<br>AAC audio compression  |
|             | Speaker                             | Speaker output / 1.3W max. power  |
| USB         | USB Type-C                          | Supports Quick Charge 3.0 / max. 2A charge current<br>Data transfer via optional charging dock  |
| Sensors     | Motion Sensing                      | 9-axis, accelerometer, gyroscope and magnetometer   |
|             | Haptics                             | Vibration feedback on commands and alerts   |
| Indicators  | Status LED                          | Top facing and front facing RGB status LED  |
|             | OLED Display                        | 0.9 inch, top facing, 128 x 32 dot OLED display   |
| Positioning | Satellite Positioning               | GPS / BeiDou / GLONASS  |
| Storage     | Internal microSD                    | 64GB<br>* Upgrade available up to 256GB   |

|                               |                      |  |
|-------------------------------|----------------------|--|
| Recording                     | Pre-Event Post-Event | Configurable, up to 120 sec. pre-recording<br>Configurable, up to 300 sec. post-recording                                  |
|                               | Types                | On-Alarm and on-demand   |
|                               | Encryption           | AES256 data encryption at rest   |
| Auxiliary                     | Flashlight           | 1 Watt front facing white LED light  |
| Battery Pack (Li-Po)          | Capacity             | 6,000 mAh  |
|                               | Operating Time       | Up to 16 hours depending on configuration  |
|                               | Charging Time        | <= 4 hours   |
| Integration                   | Supported API's      | ONVIF Profile G, S and T<br>IONODES ION API (HTTP-based RESTful API)   |
| Compliance and Certifications | EMC / ESD            | FCC part 15 subpart B, ICES 003 Class B, EN 55032 Class B, EN 55035, EN 61000-6-1, EN 61000-6-3, EN 301489-1, EN 301489-17 |
|                               | Safety               | IEC 62368-1, NOM (Mexico), SAR (FCC + CE)  |
|                               | Environmental        | IP66, MIL-STD-810H   |
|                               | Operating. Temp.     | -20C to 50C (-4F to 122F)<br><i>When charging: 5C to 35C (41F to 95F)</i>  |
|                               | Storage Temp.        | -20C to 45C (-4F to 113F) for less than 30 days<br>-20C to 35C (-4F to 95F) for longer than 30 days                        |
| Mechanical                    | Dimensions           | 95mm x 65mm x 35mm   |
|                               | Weight               | 248g (including 6,000 mAh battery)   |
| Accessories                   | Standard             | Klick Fast belt clip, USB-C cable  |
|                               | Optional             | Klick Fast mounting accessories  |
|                               | Power adapter        | Not included. Use provided USB-C cable to connect to a Quick Charge 3.0 USB charger or use a PERCEPT docking station.      |
| Warranty                      | Standard Warranty    | 2 Years<br>* Upgrade available up to 5 years   |

# PERCEPT-DCK1

## Single Port Smart Dock

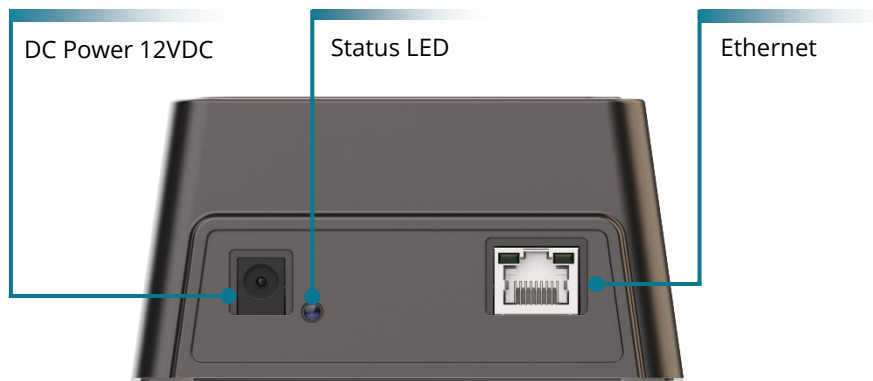
Supports QuickCharge 3.0, up to 2A charging

Dynamic auto-switching between charging and data upload

Compatible with Onvif "Trickling" modes

Auto MAC address bridging between Camera and Dock

Gigabit Ethernet, allows for video offloading at up to 300Mbps



# PERCEPT-DCK1 Technical Specifications

|                             |                  |   |  |
|-----------------------------|------------------|---|--|
| Networking                  | Interface        | 1000 BASE-T Gigabit Ethernet (RJ45)   |  |
|                             | Throughput       | Up to 300 Mbps  |  |
|                             | Protocols        | IPv4, IPv6, TCP, UDP, DHCP, DNS, HTTP(s), RTSP, Onvif Profile G/S/T, ION API, RTSP  |  |
| System                      | Power Input      | 9-12 VDC, min. 24W<br>* External AC/DC power supply included  |  |
|                             | Charging Port    | USB Type-C<br>* Charging at up to 2A  |  |
|                             | Visual Indicator | Bi-color status LED<br>Charging status available on camera OLED   |  |
| Software                    | Features         | Auto-camera detection<br>Auto switching to Gigabit Ethernet link<br>Supports Quick Charge 3.0<br>Secure and encrypted data access<br>Enables Onvif over Ethernet access to camera |  |
| Compliance / Certifications | EMC              | EN 55032<br>EN 61000-3-2<br>EN 61000-6-1<br>FCC Part 15 Subpart B<br>AS/NZS CISPR   | EN 55035<br>EN 61000-3-3<br>EN 61000-6-3<br>ICES-003 |
|                             | Safety           | IEC 62368-1   |  |
|                             | Environmental    | RoHS, REACH   |  |
|                             | Temperature      | Operating: 0C to 40C (32F to 104 F)<br>Storage: -20 C to 65 C (-4F to 149F)   |  |
| Other                       | Dimensions       | 4.25" x 3.20" x 2.40" (W x D x H)   |  |
|                             | Chassis          | PVC free plastic, black aluminum base   |  |
|                             | Accessories      | 12 VDC AC/DC external power adapter with US/EU/UK/AU plugs (included)   |  |
|                             | Warranty         | 2 years standard  |  |



## PERCEPT-DCK6

### Six Port Smart Dock

Gigabit Ethernet, allows for video offloading at up to 300Mbps (combined)

Dynamic auto-switching between charging and data upload

Auto MAC address bridging between Camera and Dock

Supports QuickCharge 3.0, up to 2A charging per port

Compatible with Onvif "Trickling" modes



# PERCEPT-DCK6 Technical Specifications

|            |                  |  |
|------------|------------------|--|
| Networking | Interface        | 1000 BASE-T Gigabit Ethernet (RJ45)  |
|            | Throughput       | Up to 300 Mbps per camera,<br>1 Gbps total   |
|            | Protocols        | IPv4, IPv6, TCP, UDP, DHCP, DNS,<br>HTTP(s), RTSP, Onvif Profile G/S/T,<br>ION API, RTSP   |
| System     | Power Input      | 12 VDC, min. 150W<br>* External AC/DC power supply included  |
|            | Charging Port    | 6 x USB Type-C<br>* Charging at up to 2A   |
|            | Visual Indicator | Bi-color status LED<br>Charging status available on<br>camera OLED   |
| Software   | Features         | Auto-camera detection<br>Auto switching to Gigabit Ethernet link<br>Supports Quick Charge 3.0<br>Secure and encrypted data access<br>Enables Onvif over Ethernet access to<br>camera |

|            |               |   |  |
|------------|---------------|---|--|
| Compliance | EMC           | EN 55032<br>EN 61000-3-2<br>EN 61000-6-1<br>FCC Part 15 Subpart B<br>AS/NZS CISPR | EN 55035<br>EN 61000-3-3<br>EN 61000-6-3<br>ICES-003 |
|            | Safety        | IEC 62368-1   |  |
|            | Environmental | RoHS, REACH   |  |
|            | Temperature   | Operating: 0C to 40C (32F to 104 F)<br>Storage: -20 C to 65 C (-4F to 149F)       |  |
| Other      | Dimensions    | 14,29" x 6.69" x 2.44" (W x D x H)  |  |
|            | Chassis       | Metal, black<br>Aluminum base   |  |
|            | Accessories   | 12 VDC AC/DC external power adapter<br>with US plugs (included)                   |  |
|            | Warranty      | 2 years standard  |  |



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### SOCIAL



IONODES is focused on pushing the boundaries of video technology, developing the latest in IoT and wearable video solutions. Our experience in IP video and our strong partnership with industry leaders allow us to deliver innovative products designed to enhance people's lifestyle while ensuring their safety and security.

\* Panomorph lens technology is powered by IMMERSIVISION

