

VEHICLE TELEMATICS VIDEO

VisionAI Enterprise

Your trusted co-pilot, for a safe trip every time



VisionAI Enterprise is an advanced dual-camera dash cam which detects risky driving behaviour such as unsignaled lane departure, imminent forward collision, unsafe following distance, driver fatigue, distraction, smoking and mobile phone usage. VisionAI Enterprise utilises machine vision-based technology to detect risky driving behaviours.

VisionAI Enterprise combines vehicle tracking with a single camera device advanced video for a comprehensive solution that's quick to perform and easy to install.

It helps you monitor vehicle location, driver behaviour, and driving quality. This integrated data aids in making informed decisions to enhance fleet safety and efficiency at a cost-effective price.

Safety is the pulse of transport industry, a mandate beyond mere goals. Powerfleet stands as your ally in the mission.

AI in telematics is a groundbreaking development that is revolutionising the way fleet management operates. By combining artificial intelligence with dashcams, video telematics empowers fleet managers with deeper insights and data-driven analysis.

Risky driving behaviour events and respective video files are uploaded to Unity for review by fleet managers and drivers to aid them in coaching driver performance.

VisionAI Enterprise consists of the following components:

- Main unit with Road and In-cab Camera
- Optional: AI Driver Coach
- Ability to support two additional cameras



Key features



GPS tracking location and positioning



Driver behaviour data



Driver ID via MyMiX app



Fast installation without an onboard computer



Cost-effective video telematics to maximise safety



AI-based
video

telematics (ADAS
& DMS)

Designed to Revolutionise Your Fleet Operations

Gain complete control over videos, trip and driver data all in one place with **VisionAI Enterprise**, with a full view of your fleet's performance with easy-to view and use dashboards that transform complex data into quick-to-action information to streamline your business.



Driver safety monitoring



Alerts for road events



Driver performance management



Location-based events



Asset movement/utilisation management



Real-time driver coaching

Technical Specifications

Main Unit

Connectivity

| | |
|--------------|--|
| Connectivity | Quectel EC25, LTE Cat4 with fall back |
| Positioning | GPS L1 1575.42 MHz, GALILEO E1B/C1, GLONASS L1OF 1602MHz, SBAS: WAAS, EGNOS, MSAS, GAGAN |
| Sensors | 6-axis sensor |
| Storage | 2 x TF-Cards with maximum 256GB per card |

ADAS Camera Parameter

| | |
|------------------------|--|
| Video Resolution – HD | 5MP (2592 × 1920) @ 20 Frames per second (recommended) |
| Video Resolution – SD | 576p (704 × 576) @ 10 Frames per second (recommended) |
| Image Sensor | 1/2.7" 5 megapixel CMOS Sensor |
| Shutter speed | 1/30s-1/100000s (Rolling shutter) |
| Lens | 2.8mm |
| Illuminance | Colour 0.05 Lux/F1.2 |
| Wide dynamic range | Digital WDR |
| Backlight compensation | Supported |
| FOV (H x V x D) | 123° x 65° x 140° |
| Singla-to-Noise Ratio | ≥ 48dB |

Video/Audio

| | |
|-------------------|---|
| Image Setting | Adjustable brightness, chroma, contrast, colour saturation, and sharpness |
| Video Encoding | H.264 |
| CMR/VBR | Options: VBR and CBR. Default: VBR |
| Audio Compression | ADPCM, G.711, and G.726 |
| Speaker | Built-in 3W loudspeaker |
| Microphone | Built-in Microphone for audio recording |

Technical Specifications (cont'd)

Interface

| | |
|------------------|--|
| Serial | 1 x RS232 |
| Video Out | 1 x AHD, 1 x IPC |
| Video In | 1 x AHD |
| IO Alarm | 4 x Input |
| CAN | 1 (J1939 protocol) |
| Speed (analogue) | 1 |
| Button | 1 (Panic, Privacy mode, AP Mode) |
| LED Indicators | Power, Alarm, GPS, Network, Wi-Fi, Recording |

Environmental

| | |
|-------------------------|----------------------------------|
| Dimensions (L x W x D) | 113×67.8×88.2mm 4.4×2.7×3.5" |
| Temperature (operating) | -40°C - +70°C -40°F - +158°F |
| Temperature (Storage) | -40°C - +85°C -40°F - +185°F |
| Power Input | 9 – 36Vdc |
| Power Consumption | +/- 12.66W (<8W Typical) |
| Backup Power | SuperCap for controlled shutdown |
| Relative Humidity | 15% - 90% |
| IP Rating | IP 30 |

Modem Specifications

Quectel EC25-EC (EMEA/ South Korea/ Thailand/ India)

| | |
|----------------|--|
| Device Details | Quectel EC25-EC Cat4 LTE with 3G fallback compatible with 3GPP E-UTRA Release 11 standards |
| 4G Bands | LTE FDD: B1 / B3 / B7 / B8 / B20 / B28A LTE TDD: B38 / B40 |

Technical Specifications (cont'd)

| | | |
|----|--------------|----------------------------------|
| 3G | Output Power | Class 3 (23dBm±2dB) for LTE FDD |
| | Bands | WCDMA: B1 / B8 |
| 2G | Output Power | Class 3 (24dBm+1/-3dB) for WCDMA |
| | Bands | GSM: B3/B8 |
| | Output Pow | B3: 30dBm / B8: 33dBm |

Quectel EC25-AFXD (North America)

| | | |
|----------------|--------------|--|
| Device Details | | Quectel EC25-AFXD Cat4 LTE with 3G fallback compatible with 3GPP E-UTRA Release 11 standards |
| 4G | Bands | LTE FDD: B2 / B4 / B5 / B12 / B13 / B14 / B66 / B71 |
| | Output Power | Class 3 (23dBm±2dB) for LTE FDD |
| 3G | Bands | WCDMA: B2 / B4 / B5 |
| | Output Power | Class 3 (24dBm+1/-3dB) for WCDMA |

Quectel EC25-AUX (Latam/ Australia/ New Zealand)

| | | |
|----------------|--------------|---|
| Device Details | | Quectel EC25-AUX Cat4 LTE with 3G fallback compatible with 3GPP E-UTRA Release 11 standards |
| 4G | Bands | LTE FDD: B1 / B2 / B3 / B4 / B5 / B7 / B8 / B28 LTE TDD: B40 |
| | Output | Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD |
| 3G | Bands | WCDMA: B1 / B2 / B4 / B5 / B8 |
| | Output Power | Class 3 (24dBm+1/-3dB) for TD-SCDMA Class 3 (24dBm+1/-3dB) for WCDMA |
| 2G | Bands | GSM: B2 / B3 / B5 / B |
| | Output Power | Class E2 (27dBm±3dB) for EDGE 850/900MHz Class E2 (26dBm+3/-4dB) for EDGE 1800/1900MHz Class 4 (33dBm±2dB) for GSM 850/900MHz Class 1 (30dBm±2dB) for GSM 1800/1900MHz |

Technical Specifications (cont'd)

Wi-Fi/Bluetooth Specifications

Realtek RTL8723DU

| | |
|-----------------|--|
| Standard | WI-FI: IEEE 802.11 b/g/n (HT20); BT: v2.1/v4.2 |
| Frequency | 2.412~2.4872GHz |
| Modulation | DSSS ,DBPSK, DQPSK, CCK and OFDM (BPSK/QPSK/16-QAM/64-QAM) |
| Data Rates | 11b:1, 2, 5.5 and 11Mbps 11g:6, 9, 12, 18, 24, 36, 48 and 54 Mbps 11n: MCS0~7, up to 150Mbps |
| Current – WI-FI | TX 11b mode: 130mA , RX 11b mode: 90mA |
| Current - BT | OPP TX : 40mA, OPP RX:24mA |

Optional: Driving Coach Display

Display

| | |
|-------------------|----------------|
| Dimension (L x W) | 40mm x 45mm |
| Resolution/ Size | 128*128 1.4" |
| Brightness | 400 cd/m3 |
| Light Sensor | Support |
| Lens | Glass |
| Communication | RS485 |

Other

| | |
|-------------|--|
| Buzzer | Built-in, adjustable volume, volume not less than 80db |
| Power Input | 5 – 12V DC |
| IP Rating | IP30 |

Technical Specifications (cont'd)

Optional: Additional Cameras

VisionAI Enterprise supports two additional camera options, 1 x IPC and 1 x AHD type. When using the Driver camera (IPC port) an additional camera can be added on AHD port.



Driver Camera (AI)



Rear Camera



Side Camera

IPC Camera Option

Features – Driver Camera (AI)

| | |
|-----------------------|---------------------------------------|
| Model | C29N |
| Video Output | IPC, 6Pin Aviation connector |
| Video Resolution – HD | 1280H x 800V @ 20 Frames/s |
| Video Resolution – SD | 576p (704 × 576) @ 10 Frames/s |
| Image Sensor | 1/4"100Mp Global Shutter Sensor" |
| Minimum Illuminance | 0.1Lux (infrared light filling), F1.4 |
| IR Range | 1.5m |
| Shutter speed | 1/30s-1/5000s |
| Signal-to-Noise Ratio | ≥ 48dB |
| Lens | 3mm M12-type, F1.6 |
| FOV (H x V) | 76° x 44° |
| Audio | Built-in microphone |

Environmental

| | |
|--------------------|----------------------------------|
| Dimensions (LxWxH) | 98×30×43mm 3.9×1.2×1.7" |
| Temperature | -40°C to +70°C / -40°F to +158°F |

Technical Specifications (cont'd)

| | |
|-------------------|--------------|
| Humidity | 0% - 90% |
| Power | DC 9-18V |
| Power consumption | <2.1W |
| Net weight | 230g 8.1oz |
| IP Rating | IP53 |

Features

Side Camera (non-AI)

Rear View Camera (non-AI)

| Model | C39 | 953C4XR |
|-----------------------|--------------------------------|------------|
| Video Output | IPC, 6Pin Aviation connector | |
| Video Resolution – HD | 1920H x 1080V @ 20 Frames/s | |
| Video Resolution – SD | 576p (704 × 576) @ 10 Frames/s | |
| Image Sensor | 1/2.9" 2.0M pixel CMOS | |
| Minimum Illuminance | 0.1Lux (colour), 0Lux (IR on) | |
| IR Range | 5-10m | 8-10m |
| Shutter speed | 1/30s-1/10000s | |
| Signal-to-Noise Ratio | ≥ 48dB | |
| Lens | 2.8mm M12, F1.2 | |
| FOV (H x V) | 135° x 76° | 108° x 61° |
| Audio | Built-in microphone | |

AHD Camera Options



Side Camera



Rear Camera



Rear Plate Camera

Technical Specifications (cont'd)

AHD Camera Options (non-AI)

| Features | Side Camera (non-AI) | Rear View Camera (non-AI) |
|-----------------------|-------------------------------------|----------------------------------|
| Model | CA39 (SVT-A6320HS) | CA39A (SVT-A6410HS) |
| Video Output | AHD, 4Pin Aviation connector | |
| Video Resolution – HD | 1080P (1920H x 1080V) @ 20 Frames/s | 720P (1280H x 720V) @ 20Frames/s |
| Video Resolution – SD | 576p (704H x 576V) @ 10 Frames/s | |
| Image Sensor | 1/2.8" 2.13M pixel CMOS | 1/3" 1.3M pixel CMOS |
| Minimum Illuminance | 0.0lux (IR on), 0.05Lux (IR off) | |
| IR Range | 10-15m | |
| Shutter speed | 1/25s-1/25,000s (auto) | |
| Signal-to-Noise Ratio | ≥ 50dB | |
| Lens | 2.8mm M12, F2.2 | 2.8mm M12, F2.0 |
| FOV (H x V) | 103° x 56° x 121° | 91° x 50° x 107° |
| Audio | n/a | |

Environmental

| | | |
|--------------------|--------------------------------|-----------------|
| Dimensions (LxWxH) | 66x58x46mm 2.6x2.3x1.8" | |
| Temperature | -40°C - +70°C -40°F - +158°F | |
| Humidity | <90% (no condensation) | |
| Power | DC 12V ± 10% | |
| Power consumption | 260mA/DC12V ± 5% | 240mA/DC12V ±5% |
| Net weight | ± 180g 6.3oz | |
| IP Rating | IP69K | |

| Features | Rear Camera (1080P) | Rear Plate Camera (720P) |
|----------|---------------------|--------------------------|
| Model | CA4 | CA39A (SVT-A6410HS) |

Technical Specifications (cont'd)

| | | |
|-----------------------|-------------------------------------|----------------------|
| Video Output | AHD, 4Pin Aviation connector | |
| Video Resolution – HD | 1080P (1920H x 1080V) @ 20 Frames/s | |
| Video Resolution – SD | 576p (704H x 576V) @ 10 Frames/s | |
| Image Sensor | 1/2.8" 2.13M pixel CMOS | 1/3" 1.3M pixel CMOS |
| Minimum Illuminance | 0.0lux (IR on), 0.05Lux (IR off) | |
| IR Range | 10m | 3-5m |
| Shutter speed | 1/25s-1/25,000s (auto) | |
| Signal-to-Noise Ratio | ≥ 50dB | ≥ 48dB |
| Lens | 2.8mm M12, F2.2 | 2.2mm M12 |
| FOV (H x V) | 103° x 56° x 121° | 91° x 50° x 107° |
| Audio | n/a | |

Environmental

| | | |
|--------------------|--------------------------------|--------------------------------|
| Dimensions (LxWxH) | 75×65.1×37.7mm 3×2.6×1.5" | 196.7×29.5×30mm 7.7×1.2×1.2" |
| Temperature | -40°C - +70°C -40°F - +158°F | |
| Humidity | <90% (no condensation) | 0% - 95% |
| Power | DC 12V ± 10% | |
| Power consumption | 260mA/DC12V ± 5% | 130mA/DC12V ± 5% |
| Net weight | ± 280g 9.9oz | ± 200g 7.1oz |
| IP Rating | IP67 | IP69K |

Powerfleet (Nasdaq: PWFL; JSE: PWR; TASE: PWFL) is a global leader in the artificial intelligence of things (AIoT) software-as-a-service (SaaS) mobile asset industry. With more than 30 years of experience, Powerfleet unifies business operations through the ingestion, harmonisation, and integration of data, irrespective of source, and delivers actionable insights to help companies save lives, time, and money. Powerfleet's ethos transcends our data ecosystem and commitment to innovation; our people-centric approach empowers our customers to realise impactful and sustained business improvement. The company is headquartered in New Jersey, United States, with offices around the globe. Explore more at www.powerfleet.com.