# **APPENDIX 1: DETAILED TECHNICAL SPECIFICATION**

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| **Specification** |  |
| IR Resolution | 320 x 240 pixels |
| Focus | Manual Focus |
| Detector Pitch | 30 μm |
| Thermal Sensitivity/NETD | <10 mK at 30°C (86°F) |
| Gas Sensitivity | 9.0 ppm m, 0.07 g/h (ΔT =10 °C , 1 m/s wind speed, distance 2m (Methane)) Appendix K sensitivity 0.15 g/h (ΔT 5°C 1 m/s wind speed distance 1m (Methane)) |
| Hazardous Location Compliance | CSA C22.2 No. 213-M1987, Non-Incentive Electrical Equipment for Use in Class I, Division 2, ANSI/ ISA-12.12.01 – Class I and II, Division 2, and Class III, ATEX. Intrinsically safe for Zone 2 ratings as: Ex II 3 GD; Ex ic nA nC IIC T6 Gc; Ex ic tc IIIC T85°C DC |
| Gas leak detection capabilities | WITH SPECTRAL FILTER OF 3.2µM TO 3.4µM FOR VOCs GASES DETECTION: 400+ compounds such as: Methane, Acetic acid, Benzene, Butadiene, Butene, Butane, Dimethyl-Benzene, Ethane, Ethylene, Ethyl benzene, Ethylene oxide, Hexane, Heptane, Isobutylene, Isopropyl alcohol, Isoprene, Methanol, MEK Methyl Ethyl Ketone, Octane, Pentene, Propane, Propanal. |
| **Detector and Optical Data** |  |
| Detector Type | Focal plane array (FPA), cooled MCT |
| Spectral Range | 3.1 μm to 4.4 μm |
| Optical filters | Std. 3.2–3.5 μm; Long range 3.3–3.6 μm; CO₂ 4.1–4.4 μm |
| Sensor Cooling | Stirling Microcooler |
| Digital Image Enhancement | High sensitivity mode (HSM), noise reduction filter |
| Supplied lenses | 7.5° (75 mm); 18° (30 mm) |
| F-Number | 1.1 |
| **Image Presentation** |  |
| Display | 3.5" (10’equivlent using glare shield), 640 × 480 pixel, LCD |
| Image Presentation Modes | IR image, visual image, Normal, Enhanced & Thermography |
| Color Palettes | 6 color palettes (Rainbow, Iron, ISO red, ISO green, Grey Scale and Vivid) |
| Zoom | x2, x4, x8 and x16 (only for visible camera) |
| **Measurement & Analysis** |  |
| Measurement Temperature Range | -20°C to 350°C (-4°F to 662°F) |
| Accuracy | At Least ± 1 °C (0 – 100 °C), ± 2% (> 100 °C), ± 2°C (-20 – 0 °C) |
| Gas emission Quantification | Built-in real-time and offline Image processing VOC gas quantification for desktop or handheld application (offline/online operation) |
| **Accessories & Apps** |  |
| Head up display | Seamless integration including voice commands with Realware® head up display |
| Mobile APP | Android 10 /IOS 14 and up |
| **Communication interface & Data Storage** |  |
| GPS | Included, can be added to any still or video recording |
| Storage Media | Up to 20 hours and more of video storage over a 64GB solid state memory |
| Image File Formats | JPG Format (on available modes) |
| Communication Interfaces | USB: Data transfer, video streaming and video images file transfer Wi-Fi: 2.4 GHz for video streaming and file transfer Bluetooth: Bluetooth 4.2 with other devices: RMLD, TVA2020, LDAR software etc… GPS: Built in or external |
| Video Out | Digital video recorder build-in generates a .ts format video on all modes. |
| **Video Recording and Streaming** |  |
| IR or Visual Video | Digital video recorder build-in generates a .ts format video on all |
| Radiometric IR Video Streaming | Over Wifi |
| **Environment & Certifications** |  |
| Operating Temperature Range | -20°C to 50°C (-4°F to 122°F) |
| Storage Temperature Range | -40°C to 70°C (-40°F to 158°F) |
| Encapsulation | IP65 (Intrinsically safe) |
| Drop | ASTM-D 4169-06 Schedule A |
| Vibration | ASTM-D 4169-08 Schedule F Test method D999 |
| HALT | Max temp: 55°C, Min temp: -20°C |
| Safety | EN60950-1:2006 |
| **Additional Information** |  |
| Battery Type | Rechargeable Li-ion battery; 7.4 V, charger included |
| Battery Operating Time | >4.5 hours continuous operation |
| Battery Charging Time | 3 hours to 95% capacity, charging status indicated by LEDs |
| Camera Size | 9″ x 4.3″ x 5.1″ (230 x 110 x 130) mm |
| Camera Weight | 3.0 kg (6.6 lb) |
| Mounting Interfaces | UNC ¼"-20 |
| Warranty | 4 years (Detector & cooler – 2 years; Batteries 1 year) |
| **Box Contents** |  |
| Packaging | Infrared camera with lens, Batteries (2), Battery Charger, USB Cable, Neck strap, Glare Shield, Carrying Case, Cleaning Kit. |