

TO WHOM IT MAY CONCERN

IQSIGHT LLC
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United States

Product Test Report

Product

AUTODOME 7100i (IR)

NDP-7802-Z40	PTZ 2MP HDR 40x IP66 pendant
NDP-7802-Z40L	PTZ 2MP HDR 40x IP66 pendant IR
NDP-7804-Z12L	PTZ 8MP 12x IP66 pendant IR

AUTODOME 7100s (IR)

NDP-7803S-Z30	PTZ 4MP HDR 30x IP66 pendant GenAI+
NDP-7803S-Z30L	PTZ 4MP HDR 30x IP66 pendant IR GenAI+

The above-mentioned products have been tested in accordance and were found to comply with the tests listed below which were carried out during the development phase of the product.

Safety approvals

Directive or standard	Description
IEC 62368-1:2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements
EN IEC 62368-1:2020 +A11:2020	Audio/video, information and communication technology equipment - Part 1: Safety requirements
AS/NZS 62368.1:2022	Audio/video, information and communication technology equipment - Part 1: Safety requirements
GB 4943.1-2022	Audio/video, information and communication technology equipment - Part 1: Safety requirements
J62368-1(2023)	Audio/video, information and communication technology equipment - Part 1: Safety requirements
SASO-IEC 62368-1:2020	Audio/video, information and communication technology equipment - Part 1: Safety requirements
UL 62368-1, 3rd Edition, Issue Date: 2019-12-13, Revision Date: 2021-10-22	Audio/video, information and communication technology equipment - Part 1: Safety requirements
CSA C22.2 No. 62368-1:19, 3rd Edition, Issue Date: 2019-12-13, Revision Date: 2021-10-22	Audio/video, information and communication technology equipment - Part 1: Safety requirements
IEC 62471:2006 EN 62471:2008	Photobiological safety of lamps and lamp systems

Environmental tests

BS EN 50130-5:1999 Alarm systems Part 5: Environmental test methods	Specific Test Description (Temperatures stated are outside of the camera housing,)
Dry heat Operational IEC 60068-2-2, edition 5.0 (2007-07-16)	Temp. +65 °C, duration 48 hours
Dry heat Storage IEC 60068-2-2, edition 5.0 (2007-07-16)	Temp. +65 °C, duration 4 hours
Cold Storage IEC-60068-2-1, edition 6.0 (2007-03-13)	Temp. -45 °C, duration 4 hours
Cold operational IEC 60068-2-1, edition 6.0 (2007-03-13)	Temp. -45 °C, duration 48 hours
Cold start test	Power off, soak overnight (8 hours) @ -40 °C, with 4 hours minimum without power and warm-up period of 1 hour.
Cold Endurance IEC 60068-2-1, edition 6.0 (2007-03-13)	Temp. -45 °C, duration 48 hours
Humidity, operational Damp heat, steady state operational IEC 60068-2-30, edition 3.0 (2005-08-10)	Temp. 65 °C / 95 % RH for 6 hours, 25 °C / 85% RH for 16 hours.
IEC 60529 Ingress Protection Rating (IPxx) Degrees of protection provided by enclosures (IP Code) [Dust, water ingress (operational)]	Dust tight (no dust ingress; complete protection against contact). Hose down 100 L per minute IP66
UL Type rating (similar to NEMA XX)	Hose down 240 L per minute Type 4X (UL)
Dry Heat Endurance Storage 50130-5 Section 9.3	Temp. +70 °C for 21 days
Damp Heat Storage IEC-60068-2-78	Temp. +40 °C @ 85% RH for 21 days
Condensation Test	
Salt Spray (Corrosion Test) EN 50130-5: IEC 60068-2-42	Salt Spray Test: <ul style="list-style-type: none"> • 2 Hours Salt Mist at 35°C ± 2K • 166 Hours Damp Heat at 40°C ± 2K; 93±3% RH • Repeat 4 times, 4 cycle(s)
Sulfur Dioxide IEC 60068-2-52	Sulfur Dioxide (SO ₂): <ul style="list-style-type: none"> • SO₂: 25e-6 ± 5e-6 • Other sulfur oxides: < 1% • Temperature: 25°C ± 2°C • Humidity: 75% ± 5% • Duration: 21 Days
External Mechanical Impact (IK Code or Impact rating) IEC 62262:2002-02	IK10- Energy 20J, 5.05 kg steel mass test slug, 50 mm striking radius, drop height 0.4037 m 5 drops per side, impact 5 sides, 25 total impacts. Excludes window.
Vibration sinusoidal operational IEC 60068-2-6 Test Fc: Vibration (sinusoidal), 10m/s ² (1.0G)	Freq. Range 10-150Hz, 10m/s ² , 3 axes, sweep rate 1 octave/m 20 sweeps/axis, (1.0g)
Shock operational IEC 60068-2-27	Shock, Half Sine Impulse, 6ms, 40G, non-repetitive shocks (three shocks in each axis and in each direction)
Wind speed (150 mph wind tunnel test)	Sustained 120-150 mph winds for a 40-minute period without structural damage, loss of video, or PTZ function. Camera will hold its position in gusts up to 170 mph.

Additional Reliability test

Activity	Specific Test Description
MTBF (Mean Time Between Failures)	276,000 hours Calculation of used components according to Siemens SN29500.
Environmental Type 4X (Raintight) UL50E	Type 4X Hose down Test, Icing Test, Gasket Tests
Operating Temperature	IR off: -40 °C - 60 °C / -40 °F - 140 °F IR on: -40 °C - 50 °C / - 40 °F - 122 °F
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements (Section 2.2.7.2 - 2.2.7.7, 2.2.10)	-34 °C and 74 °C
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements	TS 2 Section 2.2.8 Vibration - 5-30 Hz, 0.5g, Resonant Frequency Search 1 hour endurance test
NEMA TS-2 Traffic Controller Assemblies with NTCIP Requirements	TS 2 Section 2.2.9 Shock (Impact) Test Half Sine Impulse, 11ms, 10g
Quality (Q) and Reliability (Z) testing	Annual product compliance. Verification tests to secure that products remain compliant to the specified requirements.

Environmental approvals

Directive or standard	Description
RoHS EU, 2011/65/EU EN IEC 63000:2018	Restriction of the use of certain hazardous substances (RoHS)
WEEE EU, 2012/19/EU	Waste Electrical and Electronic Equipment (WEEE)
Packaging EU, 94/62/EC	Packaging and packaging waste
N2580-1 (company standard)	Central directive Norm N 2580-1: "Prohibition and declaration of substances" Norm N 2580-1 regulates prohibited substances and those rated declarable in materials, and it is part of the requirements for materials.
N33.6 (company standard)	Design for Environment (DfE): Design and manufacturing rules.

Approvals Safety, EMC and Environmental

Specific Approval	Description
EMC Europe	
Directive 2014/30/EU	EMC Directive- Electromagnetic compatibility (recast) Text with EEA relevance
EN 50130-4:2011+A1:2014	Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems.
EN 61000-4-2	ESD Susceptibility
EN 61000-4-3	Radiated electromagnetic fields
EN 61000-4-4	Electrical Fast Transient (EFT) Burst

Specific Approval	Description
EN 61000-4-5	Levels ±0.5, 1 and 2kV common mode. ± 0.5, 1 and 2kV differential mode. To ALL input / output - and supply-wiring.
EN 61000-4-6	Conducted Immunity
EN 61000-4-11	Voltage Dip and Short Interruption
EN 50121-4:2017	Railway applications
EN 55032:2015+A11:2020 (Class A)	Radiated and Conducted Emissions
CISPR 32:2015 (Class A)	Radiated and Conducted Emissions
EMC USA	
CFR 47 FCC part 15 Class A	Conducted + Radiated Emission based on VERIFICATION procedure
Mains Voltage Tolerance Test (Brown out supply voltage test)	Camera fully operational down to 105V (230 V PSU) and 55V (120V PSU). Below this voltage, the camera is not operational. Camera must be power- cycled for the camera block to reset.

Management system

Directive or standard	Description
ISO 9001:2015	Quality management systems -- Requirements Scope: Development, production, installation and sales.
ISO 14001:2015	Environmental management systems -- Requirements with guidance for use Scope: Development, Production, Sales and After Sales.

Cybersecurity

Directive or standard	Description
IEC 62443-4-1	Industrial Cyber Security Capability Secure product development lifecycle (SDL) for control system components.
IEC 62443-4-2	Technical cybersecurity requirements for Industrial Automation and Control Systems (IACS) components
FIPS 140-2 Level 3	Federal Information Processing Standard Publication 140-2 for physical tamper-resistance and identity-based authentication of cryptographic hardware
FIPS 140-3 Level 3	Successor to FIPS 140-2 Level 3

Data subject to change without notice.

Lancaster, May 2026