

4 September 2020

Security Systems 1706, Hempstead Rd., Lancaster, PA 17601

TO WHOM IT MAY CONCERN

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# Product Tests Report

Product name: Human Skin Temperature Detection Solution

Kit Model number and description: NKI-9000-F19QSC: UNITY PKG thermal <9Hz QVGA 19mm RM C NKI-9000-F19QS1: UNITY PKG thermal <9Hz QVGA 19mm RM x1 NKI-9000-F19QS2: UNITY PKG thermal <9Hz QVGA 19mm RM x2

**NBT-9000-F19QSM:** FIXED THERMAL <9Hz QVGA 19mm Radiometric **VJD-7513:** High-performance H.265 UHD decoder

The above-mentioned Bosch Security Systems product has been tested in accordance and was found to comply with the tests listed below which were carried out during the development phase of the product. Please note that for some tests, test conditions exceed the range that Bosch recommends for effective continuous operation of the camera.

Data subject to change without notice.

## **ENVIRONMENTAL TEST**

BS EN 50130-5:1999 Alarm systems Part 5:	Specific Test Description (Temperatures stated are outside of the	Comments	Passed
Environmental test methods	camera housing)		
Dry heat (operational) EN 60068-2-2 test Bb	Temp. 55 °C, duration 16hours		Yes
Cold (operational) EN 60068-2-1:2007 Test Ad	Temp10 °C, duration 16hours		Yes
Cold start test	Temp10 °C, duration 4 hours		Yes
Damp heat, steady state (endurance) EN 60068-2-78:2001	Temperature +40°C, Relative Humidity 93%, Duration 21 days.		Yes
Damp heat, cyclic (operational) EN 60068-2-30:2005 Variant 2	Temperature +25°C to +40°C, Relative humidity 93%, 2 cycles.		Yes

#### ADDITIONAL CERTIFICATIONS

Functional tests description	Description	Comments	Passed
Conformant with NTCIP protocols 1205, 2301,			Yes
1101:1996, 2202:2001, 2101:2001, 2102:2003			

## ADDITIONAL ENVIRONMENTAL – FUNCTIONAL BOSCH TESTS

Environmental test methods	Specific Test Description	Comments	Passed
MTBF calculation of used components	MTBF > 107,608 hours		Yes
Based on: for electronics, MIL-HDBK-217FN1,			
GB, GC, 25C.			

#### Approvals Safety, EMC and Environmental

Specific Approval	Description	Comments	Passed
EMC Europe			Passed

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Specific Approval	Description	Comments	Passed
EN 55032:2015	Electromagnetic compatibility of multimedia equipment - Emission Requirements, Class A.		Yes
EN 55024:2010 + A1:2015	Information technology equipment - Immunity characteristics - Limits and methods of measurement		Yes
EN 50130-4:2011 + A1:2014	Alarm systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems		Yes
EMC USA			Passed
FCC 47 CFR Part 15 Subpart B	Conducted + Radiated Emission based on VERIFICATION procedure, Class A		Yes
Safety Europe			
EN 62368-1	Audio/video, information and communication technology equipment		Yes
Safety USA + Canada			
UL 62368-1	Audio/video, information and communication technology equipment		Yes
CSA-C22.2 No. 62368-1-14	Audio/video, information and communication technology equipment		Yes
Environmental			
Restriction of Hazardous	2011/65/EU (RoHS) compliant		Yes
Substances			
Restriction of Hazardous	REACH (no substances prohibited in REACH annex XVII and no information about possible SVHCs contained).		Yes
Substances			

The product is produced by a manufacturing organization which is certified on **ISO9001** and **ISO14001** standards.

## ADDITIONAL Thermography- FUNCTIONAL BOSCH TESTS

Thermography test methods	Specific Test Description	Comments	Passed
Laboratory Accuracy IEC 80601-2-59:2017	+/- 0.5∘C	U <sub>U</sub> , U <sub>ER</sub> , U <sub>MRTD</sub> U <sub>CS</sub> per manufacture's specifications.	Yes
Stability IEC 80601-2-59:2017	<0.2		Yes
Drift IEC 80601-2-59:2017	< 0.06		Yes