IEC 62368-1:2023 Certificate of Compliance

Products: Single Protection and Reinforced Non-Optical Digital Isolators, Models

IL2xx Series, IL2xx-1 Series, IL2xxV Series, IL6xx Series, IL6xxA Series, IL7xx Series, IL7xx-1 Series, IL7xxV Series, IL5xx Series, IL5xx-1 Series, IL7xxV Series, IL5xx-1 Series, IL6xx-1 Se

IL4xx Series, IL4xxV Series, IL30xx Series, IL3085T, IL31xx Series,

IL32xx Series, IL34xx Series IL35xx Series, IL35xxV Series, IL36xx Series,

IL36xx-1 Series, IL36xxT Series, IL36xxV Series, IL46xx Series, IL4822 Series, IL41050TFD Series, IL4150TTV Series, IL8xx Series,

IL8xx-1 Series, IL8xxV Series, IL76xxV, and IL78xxV.

Name and address of

manufacturer:

NVE Corporation

11409 Valley View Road Eden Prairie, MN 55344-3617

Trademark/Brand:



A sample of the products was tested and found to conform with the following standard(s):

IEC 62368-1:2023 Audio/video, information, and communication technology equipment – Part 1: Safety requirements

Certification Details:

This certification signifies that the product has undergone rigorous testing and assessment in accordance with the hazard-based safety engineering approach outlined in IEC 62368-1. The product design has been analyzed to identify and mitigate potential hazards, ensuring that it meets the safety requirements specified in the standard.

Testing Laboratory: UL

Certification Reference Number: 20141210-E207481

Testing laboratory: VDE

Certification Reference Number: 5016933-4880-0001/281909/TL7/SCT

| Clause | Requirement + Test | Result-Remark | Verdict |
|---------|----------------------|-----------------------------|---------|
| 5.4.3 | Creepage | See VDE | Pass |
| | | certification in | |
| | | Appendix A | |
| 5.4.3.3 | IEC 60112 evaluation | Comparative | Pass |
| | and material | Tracking Index | |
| | classification | ≥600 V _{RMS} (mold | |
| | | compound has | |
| | | been measured in | |
| | | accordance with | |
| | | IEC60112) | |
| 5.4.2 | Clearance | See VDE | Pass |
| | | certification in | |
| | | Appendix A | |
| 5.4.4.2 | Distance through | Minimum: | Pass |
| | insulation | 0.012 mm | |
| 5.4.9.1 | Dielectric after | >10 ¹⁴ Ω | Pass |
| | temperature test | | |

Authorized Signature:

Name: Daniel A. Baker Title: President & CEO

NVE Corporation

Date: January 18, 2024

Appendix A:

| Part Number | Input | Output | Package | Clause 5.4.3: Creepage | Clause 5.4.2: Clearance |
|--|------------------|-------------------|----------------------|---|---|
| Type(s) | Eingang Input | Ausgang Output | Gahause Package | Außere Kriechstrecke Eingang - Ausgang External creepage distance Input - Output [mm] | Außere Luftstrecke Eingang - Ausgang External clearance Input - Output [mm] |
| IL26 (0;1;2) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL26 (0;1;2) -3 | CMOS chip | CMOS chip | 8pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL30 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL30 (22;85) -3 | CMOS chip | CMOS chip | 8pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL31 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL31 (22;85) -3 | CMOS chip | CMOS chip | 8pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL32 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL32 (22;85) -3 | CMOS chip | CMOS chip | 8pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL34 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL34 (22;85) -3 | CMOS chip | CMOS chip | 8pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL35 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL36 (22;85) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL4 (22;85) (blank;W) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL51 (4;5;6) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL51 (0;1;4;6) -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL51 (0;1;4;6) -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL61 (0;1;2;3;4) (blank;A) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL61 (0;1;2;3;4) (blank;A) -2 | CMOS chip | CMOS chip | PDIP | ≥ 7,0 | ≥ 7,0 |
| IL61 (0;1;2;3;4) (blank;A) -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL61 (0;1;2;3;4) (blank;A) -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL41050 (A;B;C;;Z) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL41050 T (A;B;C;;Z) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL41050 (A;B;C;;Z) -3 | CMOS chip | CMOS chip | 16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL41050 T (A;B;C;;Z) -3 | CMOS chip | CMOS chip | 16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL71 (0;1;2;5;6;7) (blank;S) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL71 (0;1;2;5;6;7) (blank;S) T | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL71 (0;1;2;5;6;7) (blank;S) -2 | CMOS chip | CMOS chip | PDIP | ≥ 7,0 | ≥ 7,0 |
| IL71 (0;1;2;5;6;7) (blank;S) T -2 | CMOS chip | CMOS chip | PDIP | ≥ 7,0 | ≥ 7,0 |
| IL71 (0;1;2;5;6;7) (blank;\$) -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL71 (0;1;2;5;6;7) (blank;S) T -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL71 (0;1;2;5;6;7) (blank; S) -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL71 (0;1;2;5;6;7) (blank;\$) T -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL721 (blank;\$) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 4,3 |
| | | | • | | - |
| IL721 (blank;\$) T | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL721 (blank;\$) -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL721 (blank;\$) T -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| IL721 (blank; S) -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |
| IL721 (blank;S) T -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥4,5 |
| IL81 (0;1;4;5;6) | CMOS chip | CMOS chip | 16pin SOIC - WB | ≥ 8,0 | ≥ 8,0 |
| IL81 (0;1;4;5;6) -1 | CMOS chip | CMOS chip | 8pin MSOP | ≥ 3,5 | ≥ 3,5 |
| ,,,,,, | <u> </u> | | | | |
| IL81 (0;1;4;5;6) -3 | CMOS chip | CMOS chip | 8pin/16pin SOIC - NB | ≥ 4,5 | ≥ 4,5 |

Table 1: Creepage and Clearance (Source: VDE Certification <u>5016933-4880-0001/281909/TL7/SCT</u>)