# KOLAS 공인시험기관 인정서

## 한온시스템(주) 연구개발본부

인 정 번 호 : KT799

법인등록번호 : 134711-0002206
(또는 고유번호)

사업장소재지 : (소재지)대전광역시 대덕구 신일서로 95

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인정분야 및 범위 : 별첨

발 행 일 : 2021년 05월 20일

상기 기관을 국가표준기본법 제23조, 적합성평가 관리 등에 관한 법률 제8조 및 KS Q ISO/IEC 17025:2017에 의거하여 KOLAS 공인시험기관으로 인정합니다. 또한 ISO-ILAC-IAF 공동성명에 언급된 바와 같이 인정된 분야 및 범위에 대한 기술적 능력과 시험기관의 품질경영 시스템이 적절함을 인정합니다.

한국인정기구장
(Korea Laboratory Accreditation Scheme)

제 KT799호

## 03. 전기시험

03.011 전자기적합성

| 규격번호 | 규격명 | 시험범위 | 사업장 | 현장시험 |
|---|---|---|---|---|
| CISPR 25 Ed4.0:2016 | Vehicles, boats and internal combustion engines - Radio disturbance characteristics -Limits and methods of measurement for the protection of on-board receivers. 6.3 Conducted emissions from components/modules - Voltage Method 6.4 Conducted emissions from components/modules - Current method 6.5 Radiated emissions from components/modules - ALSE method | 6.3 CE-VM: 150 KHz ~ 108 MHz<br>6.4 CE-CM: 150 KHz ~ 108 MHz<br>6.5 RE-ALSE: 150 KHz ~ 2.5 GHz | 소재지 | N |
| ECE Regulation No.10 Revision 05:2014 | Uniform provisions concerning the approval of vehicles with regard to electromagnetic compatibility 6.5. Specification concerning broadband electromagnetic interference generated by ESAs. 6.6. Specifications concerning narrow band electromagnetic interference generated by ESAs. 6.7. Specifications concerning the emission of transient conducted disturbances generated by ESAs on 12/24 V supply lines. 6.8. Specifications concerning immunity of ESAs to electromagnetic radiation. 6.9. Specifications concerning the immunity of ESAs to transient disturbances conducted along 12/24 V supply lines. | 6.5. 30 MHz ~ 1 GHz<br>6.6. 30 MHz ~ 1 GHz<br>6.7. -450 V ~ 150 V<br>6.8. 20 MHz ~ 2 GHz<br>6.9. -600 V ~ 200 V | 소재지 | N |

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| 규격번호 | 규격명 | 시험범위 | 사업장 | 현장시험 |
|---|---|---|---|---|
| ES96200-00 15th:2016 | ELECTROMAGNETIC COMPATIBILITY<br><br>[Exception]<br>6.1 Helmholtz coil method<br>9. EQUIPMENT CONNECTED TO POWER MAINS | BCI : 1 MHz ~ 400 MHz<br>ALSE-Immunity : 80 MHz ~ 3 GHz<br>RE : 100 kHz ~ 2.5 GHz<br>CE-VM : 100 kHz ~ 108 MHz<br>CE-CM : 100 kHz ~ 108 MHz<br>MI : DC, 15 Hz ~ 150 kHz<br>MFE : 20 Hz ~ 200 kHz<br>TI-supply lines : -150 V ~ 100 V<br>TI-signal lines : -60 V ~ 30 V<br>ESD : (Direct : -8 kV ~ 8 kV)<br>(Air : -25 kV ~ 25 kV) | 소재지 | N |
| ES96200-00 16th:2017 | ELECTROMAGNETIC COMPATIBILITY<br><br>[Exception]<br>6.1 Helmholtz coil method<br>9. EQUIPMENT CONNECTED TO POWER MAINS | BCI : 1 MHz ~ 400 MHz<br>ALSE-Immunity : 80 MHz ~ 3 GHz<br>RE : 100 kHz ~ 2.5 GHz<br>CE-VM : 100 kHz ~ 108 MHz<br>CE-CM : 100 kHz ~ 108 MHz<br>MI : DC, 15 Hz ~ 150 kHz<br>MFE : 20 Hz ~ 200 kHz<br>TI-supply lines : -150 V ~ 100 V<br>TI-signal lines : -60 V ~ 30 V<br>ESD : (Direct : -8 kV ~ 8 kV)<br>(Air : -25 kV ~ 25 kV) | 소재지 | N |

제 KT799호

| 규격번호 | 규격명 | 시험범위 | 사업장 | 현장 시험 |
|---|---|---|---|---|
| ES96200-00 17th:2017 | ELECTROMAGNETIC COMPATIBILITY<br><br>[Exception]<br>5.1.3.4.2 시뮬레이티드 트랜스미터<br>5.3.1 Helmholtz coil method<br>7. Equipment connected to AC power mains의 평가 절차와 요구사항 | BCI : 1 MHz ~ 400 MHz<br>ALSE-Immunity : 80 MHz ~ 3 GHz<br>RE : 100 kHz ~ 2.5 GHz<br>CE-VM : 100 kHz ~ 108 MHz<br>CE-CM : 100 kHz ~ 108 MHz<br>MI : DC, 15 Hz ~ 150 kHz<br>MFE : 20 Hz ~ 200 kHz<br>TI-supply lines : -150 V ~ 100 V<br>TI-signal lines : -60 V ~ 30 V<br>ESD : (Direct : -8 kV ~ 8 kV)<br>(Air : -25 kV ~ 25 kV) | 소재지 | N |
| ES96200-00 18th:2020 | ELECTROMAGNETIC COMPATIBILITY<br><br>[Exception]<br>5.1.3 Portable Transmitters<br>5.3.1 Helmholtz coil method<br>7. Equipment connected to AC power mains의 평가 절차와 요구사항 | BCI : 1 MHz ~ 400 MHz<br>ALSE-Immunity : 80 MHz ~ 3 GHz<br>RE : 100 kHz ~ 2.5 GHz<br>CE-VM : 100 kHz ~ 108 MHz<br>CE-CM : 100 kHz ~ 108 MHz<br>MI : DC, 15 Hz ~ 150 kHz<br>MFE : 20 Hz ~ 200 kHz<br>TI-supply lines : -150 V ~ 100 V<br>TI-signal lines : -60 V ~ 30 V<br>ESD : (Direct : -8 kV ~ 8 kV)<br>(Air : -25 kV ~ 25 kV) | 소재지 | N |
| ISO 10605:2008 | Road vehicles - Test methods for electrical disturbances from electrostatic discharge | Direct : -15 kV ~ 15 kV<br>Air : -25 kV ~ 25 kV | 소재지 | N |

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|---|---|---|---|---|
| ISO 11452-2:2004 | Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure | 80 MHz ~ 4 GHz | 소재지 | N |
| ISO 11452-2:2019 | Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure | 80 MHz ~ 4 GHz | 소재지 | N |
| ISO 11452-4:2011 | Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part4: Harness excitation methods<br><br>[Exception]<br>6.2 TWC test Method | 1 MHz ~ 400 MHz | 소재지 | N |
| ISO 11452-8:2015 | Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 8: Immunity to magnetic fields<br><br>[Exception]<br>6.2.2 Helmholtz coil<br>7.5 Helmholtz coil method<br>8.3.2  Helmholtz coil method | DC, 15 Hz ~ 150 kHz | 소재지 | N |
| ISO 7637-2:2011 | Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only | -600 V ~ 300 V | 소재지 | N |

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|---|---|---|---|---|
| ISO 7637-3:2016 | Road vehicles - Electrical disturbances from conduction and coupling - Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines | -150 V ~ 150 V | 소재지 | N |

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