UCS CO., LTD.

CORPORATE OVERVIEW

Global sales michael.yu@ucs.co.kr

AGENDA

01 **COMPANY OVERVIEW**
Established at 1999, 20th anniversary

02 **COMPETENCIES**
Certified or Accredited Laboratory by National and International

03 **SERVICE SCOPE AND PRODUCT LINES**
OFF, TRON, LITE, HOUS, MEAS, MED, INST, OTHERS

04 **PLAN 2020**
IoT, 5G, Robot, Smart-things

05 **KC(KOREA CERTIFICATION) INTRODUCTION**
Safety Certification, Safety Confirmation, Supplier's Declaration of Conformity system

COMPANY HISTORY

1999 — **ESTABLISHMENTS**
Started with safety lab
by Mr. H. M. Jung

2000 — Working agreement
UL(WTDP), CSA, TUV

2002 — JV with 3 companies

2003 — Investment
Lab expanded in Anyang

2004 — **KC accredited test lab.**
RRA(Radio Research Agency)

2005 — **KOLAS accredited test lab**
ITE, A/V, HOUS

2006 — **IECEE CBTL Accredited**
TUV SUD certified

2007

2008 — **ESTABLISH R&D**
project with organization

2009 — **ESTABLISH EMC/RF**
EMI, EMS, EMC, RF

2010 — TUV Ohtama accredited
EMC/RF

2011 — FCC registered
CSA Accredited

2012 — **IECEE CBTL scope extended**

2013 — **KOLAS scope extended**

2014 — **RRA scope extended**

2015

COMPANY HISTORY

2019

KC TIC ORGANIZATION
MoU with ROBOT ORGANIATION
LAB SCOPE EXTENSION(IoT, ROBOT}
NATIONAL PROJECT(SMART-things)

MoU WITH SZU
MDR, MD, EMC,
ROBOT, ATEX, PED

2018

INVESTMENT to EMC
10 M chamber

2017

RRA SCOPE EXTENDED
Elevator(KN 12015, KN 12016)
RF Charger(KN17)
Rolling stock(KN50)

2016

KOLAS SCOPE EXTENDED

LOCATION

UCS CO LTD

HEAD OFFICE - Electrical safety

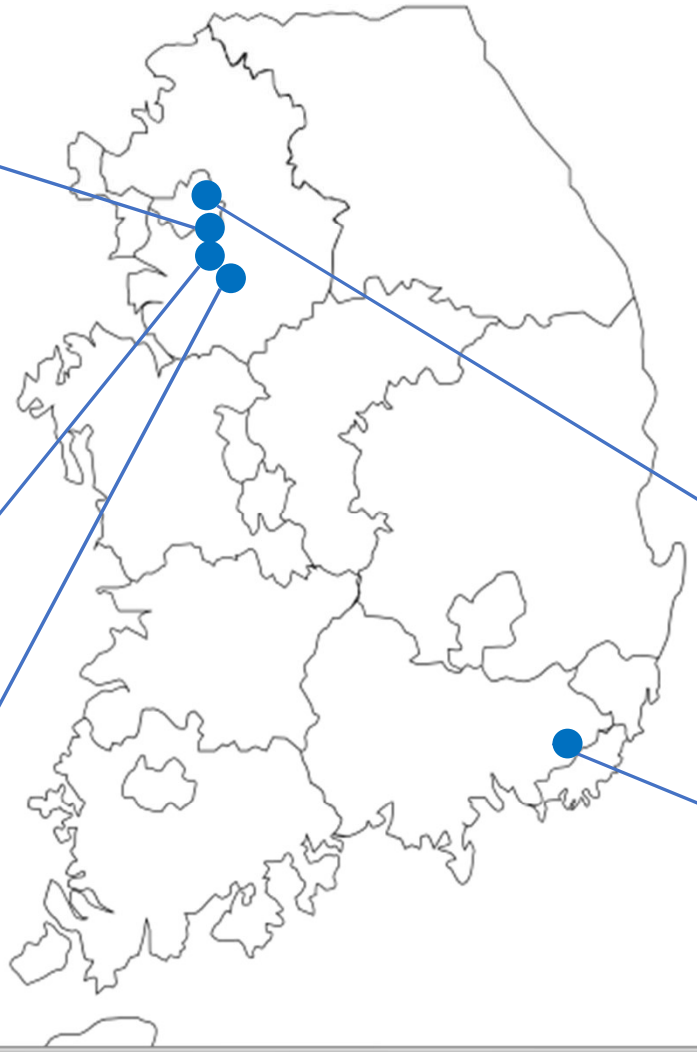
Consumer product:
OFF, TRON, LITE, HOUS, MEAS
Medical devices
Marine equipment
Machinery directive
Industry 4.0 products
IoT, 5G, Smart Factory equipment

SUBSIDIARY 1 (Hwasung)

EMC TEST LAB - 10 M Chamber
RF(Radio Frequency)

SUBSIDIARY 2 (Hwalcho)

EMC TEST LAB - Open site



1	STOP SOLUTION
5	OFFICES AND LAB
20	YEARS KNOWHOW
70	EMPLOYEES

MOU ORG.

SEOUL OFFICE

MDR, MD, IND. 4.0, EnE
GAS, PPE, ATEX, PED,
CONSTRUCTION, ENERGY

BUSAN OFFICE

IND. 4.0,
COOPERATIVE ROBOT

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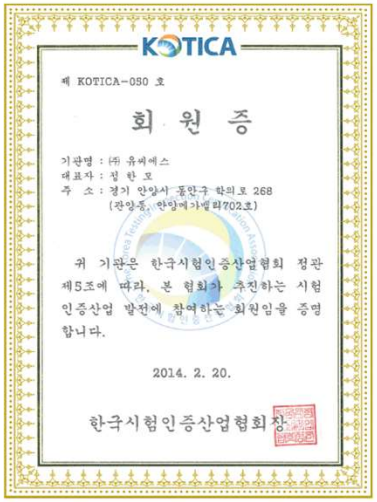
Safety Certification, Safety Confirmation, Supplier's Declaration of Conformity system

ACCREDITATION


KOTICA

제 KOTICA-030 호

회 원 증

기관명 : (주) 유씨에스
대표자 : 정 한 모
주 소 : 경기 안양시 동안구 학의로 268 (관양동, 안양메가밸리702호)

귀 기관은 한국시험인증산업협회 정관 제5조에 따라, 본 협회가 추진하는 시험인증산업 발전에 참여하는 회원임을 증명합니다.

2014. 2. 20.

한국시험인증산업협회장


제 R110602-01069 호

경영혁신형 중소기업(MAIN-BIZ) 확인서

업 체 명 : (주)유씨에스
대표자명 : 정한모
주 소 : 경기 안양시 동안구 학의로 268 (관양동, 안양메가밸리 702호)
유효기간 : 2014.06.10 ~ 2017.06.09

위 업체는 경영혁신형 중소기업 발굴 육성사업에 의해 선정된 경영혁신형 중소기업(MAIN-BIZ)임을 확인합니다.

2014 년 06 월 03 일

중 소 기 업 청


제 2008110223 호

기업부설연구소인정서

1. 연 구 소 명: (주)유씨에스 기업부설연구소
[소속기업명: (주)유씨에스]
2. 소 재 지: (주)경기 안양시 동안구 관양동 799 안양메가밸리 702호
(부)경기 화성시 향포동 476-4
3. 신고인정일: 2008년 6월 26일
(최초인정일: 2008년 7월 17일)

* 변경내역: 성우 및 연구소장 변경: 2010년 10월 20일

기술개발촉진법 제16조 및 동법 시행령 제15조 제1항의 규정에 의하여 위와 같이 기업부설연구소로 인정합니다.

2010년 10월 20일

kolta 사단법인 한국산업기술진흥협회장


Certificate of conformity

No. H221215_K005-1

Holder of certificate : UCS Co., Ltd.
702, Anyang Megavalley, 799 Kwanyang-dong, Dongan-gu, Anyang-si, Kyunggi-do, 431-767, Korea

Scope of this certificate : Non licensed radio equipment in Technical Regulations for Specified Radio Equipment in Japan

Date of issue : 15th December 2010

This certificate is issued on the holder has adequate calibrated measuring equipment and experienced engineers within the scope as above.

TÜV SÜD Ohtama, Ltd.

TÜV SÜD Ohtama, Ltd. 2-8-20 Kurigi, Asao-ku, Kawasaki, Kanagawa, 215-0033 Japan

TÜV


CERTIFICATE OF ACCEPTANCE

Certificate of Qualification

This is to certify that
UCS Co., Ltd.
799 Kwanyang-dong, MEGAVALLEY #702, Anyang-city, Kyunggi-do 431-767 Korea
has been qualified by CSA Group, Certification and Testing, as a Testing Facility for
WITNESSED MANUFACTURER'S TESTING FOR CERTIFICATION PROGRAM
Based on ISO/IEC 17025:2005


지 정 서

Certificate of Designation

지정번호(Designation No.) : KR0045

기관명(Name of CAB) : (주)유씨에스

주소(Address) : 경기도 안양시 동안구 학의로 268 안양메가밸리 702호

시험분야(Scope of Designation) : 무선, 지정범위통신, 미국 MRA

시험종목(Items of Tests) : 무선 장치

위 기관을 「전파법」 제58조의3에 따라 ISO/IEC17025:2005에 의하여 방송통신기자재등 적합인증의 시험업무를 수행하는 기관으로 지정합니다.

This Laboratory is accredited and designated in accordance with the provisions of Radio Waves Act and International Standard ISO/IEC 17025:2005

2013. 8. 14.

국 립 전 파 연 구 원 장

National Radio Research Agency

Ministry of Science, ICT & Future Planning


CERTIFICATE

CARAT

Recognition of Agent's Testing

UCS Co., Ltd.
#702, Anyang Megavalley, 799, Kwangyang-Dong, Dongan-Gu
Anyang-City, Kyunggi-Do
REPUBLIC OF KOREA

This document proves that the above named laboratory is included in the TÜV SÜD PRODUCT SERVICE Division (TPS) Listing of Recognized Laboratories and is qualified in compliance with the TPS CARAT program for the mutually agreed product categories and/or standards.

With this certificate TPS confirms that the laboratory has been audited and continues to meet the CARAT program requirements which are based on standards for certification and testing.

Although these requirements include the current revision ISO/IEC 17025 this document is only for use in the TPS CARAT program and does not indicate any certification or accreditation.

Certificate No.: CARAT 13 10 86373 001
Issued: 2013-10-30
Expiration Date: 2014-10-13

For the Executive Committee of TPS:
(Klaus Lorenz)


제263호 (1/57)

국제공인시험기관인정서

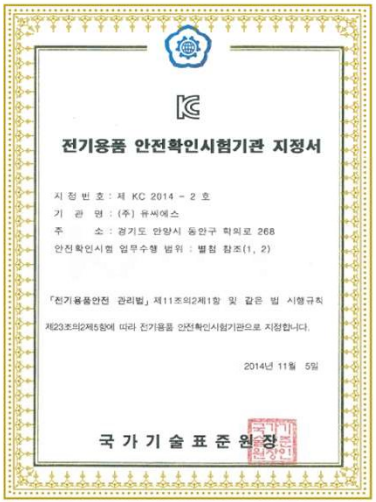
기 관 명 : (주)유씨에스
대 표 자 : 정 한 모
법인등록번호 : 110111-1752024
사업자등록번호 : 207-81-56399
법 인 주 소 : 경기도 안양시 동안구 학의로 268 (관양동, 안양메가밸리 702호) 경기도 화성시 향포로 109번길 35-13(향포동)
사업장소재지 : 경기도 안양시 동안구 학의로 268 (관양동, 안양메가밸리 702호) 경기도 화성시 향포로 109번길 35-13(향포동)
유 효 기 간 : 2013년 12월 31일 ~ 2017년 12월 30일

인정분야 및 범위 : 별첨

상기 시험기관을 KS Q ISO/IEC 17025 인정요건 및 국가표준기본법 제23조의 규정에 의거하여 국제공인시험기관으로 인정합니다. 또한 ISO-ILAC-IAF 공동성명(2009.1.30에 언급된 바와 같이 인정된 분야 및 범위에 대한 기술적 능력과 시험기관 품질경영시스템이 적절함을 인정합니다.

2014년 7월 2일

한 국 인 정 기 구 장


전기용품 안전확인시험기관 지정서

지 정 번 호 : 제 KC 2014 - 2 호
기 관 명 : (주) 유씨에스
주 소 : 경기도 안양시 동안구 학의로 268
안전확인시험 업무수행 범위 : 별첨 참조(1, 2)

「전기용품안전 관리법」 제11조의2제1항 및 같은 법 시행규칙 제23조의2제5항에 따라 전기용품 안전확인시험기관으로 지정합니다.

2014년 11월 5일

국 가 기 술 표 준 원 장


강소기업 확인서

업 체 명 : (주)유씨에스
대 표 자 : 정한모
소 재 지 : 경기 안양시 동안구 학의로 268
유효기간 : 2014년 01월 01일 ~ 2014년 12월 31일

위 업체는 고용노동부가 선정한 청년과 함께 성장하는 강소기업임을 확인합니다.

2014년 01월 01일

고 용 노 동 부 장 관

UCS NETWORK SERVICES

DOMESTIC

1. KOLAS
Korea Laboratory Accreditation Scheme.

2. KOITA
Korea Industrial Technology Association.
.

3. KC
Korea Certification

4. RRA
National Radio Research Agency.

GLOBAL

1. PCN
No. 1 market leader of GMA (Global Market Access)

2. IECEE
IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components

3. UL. CSA
Underwriters Laboratories
Canada Standards Association

4. TUV, SZU
Technischer Uberwachungsverein –
Strojirensky (Engineering)
Zkusebni (Test) Ustav (Institute)

UCS NETWORK SERVICES

DOMESTIC

1. KOLAS
Korea Laboratory Accreditation Scheme.

2. KOITA
Korea Industrial Technology Association.

3. KC
Korea Certification

4. RRA
National Radio Research Agency.

1. KOLAS
Part of ILAC(International Laboratories Accreditation Cooperation)

2. KOITA
The Korean government introduced the Corporate R&D Center Accreditation System in 1981, UCS entered in 2010

3. KC

4. RRA
RF(Radio Frequency), Wire / Wireless
EMC, SAR, EMF

UCS NETWORK SERVICES

1. PCN
   Focusing to worldwide market

2. IECEE
   CBTL(Certification Body Testing Laboratory)
   OFF, TRON, ITAV,
   EN - HOUS, LITE, MEAS, MED

3. UL, CSA
   Focusing to NAFTA market

4. TUV, SZU
   Focusing to EU market

GLOBAL

1. PCN
No. 1 market leader of GMA
(Global Market Access)

2. IECEE
IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components

3. UL. CSA
Underwriters Laboratories
Canada Standards Association

4. TUV, SZU
Technischer Uberwachungsverein –
Strojirensky (Engineering)
Zkusebni (Test) Ustav (Institute)

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Safety Certification, Safety Confirmation, Supplier's Declaration of Conformity system

SERVICE SCOPE

KOLAS(Korea Laboratory Accreditation Scheme), KC(Korea Certification), RRA(National Radio Research Agency), KOITA R&D center IECEE CBTL, CSA(Certified of Qualification), TUV CARAT(Certified Agency Recognized Lab), TUV OHTAMA LAB, SZU KOREA MoU LAB.

ITA(Information Technology Appliance)
CCTV Camera, Computer,
Monitor, Network switch,
DVR, Printer, Beam projector, etc

AV(Audio & Video) equipment
TV and TV Accessories, Audio amplifier,
Display terminal, Multi media
equipment, Satellite receiver, etc

Household
Bidet, Massage equipment, Hair dryer,
Mixer, Air fresher, Hand dryer, Water
purifier, Home sauna, Air cleaner, etc

SERVICE SCOPE

KOLAS(Korea Laboratory Accreditation Scheme), KC(Korea Certification), RRA(National Radio Research Agency), KOITA R&D center IECEE CBTL, CSA(Certified of Qualification), TUV CARAT(Certified Agency Recognized Lab), TUV OHTAMA LAB, SZU KOREA MoU LAB.

MEASURING EQUIPMENT
IVD(In-vitro Directive),
Laboratory equipment,

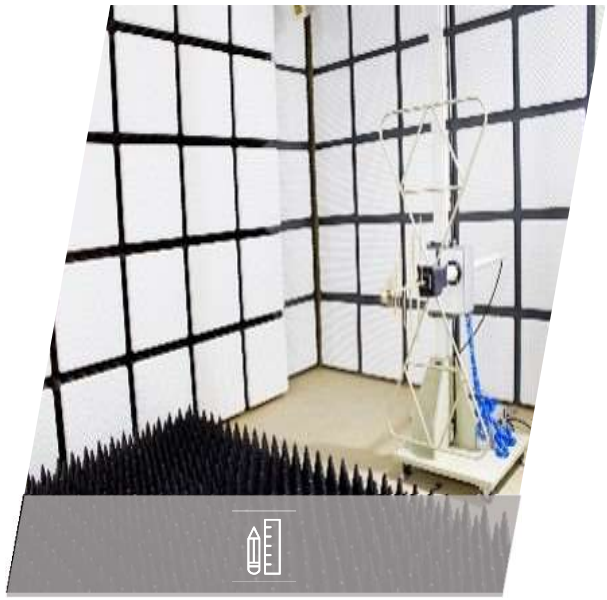
Medical equipment
X-Ray equipment, Dental chair,
Diagnosis, Clinical trials

LED LIGHTS
LED Control gear, LED Module, LED Lamp

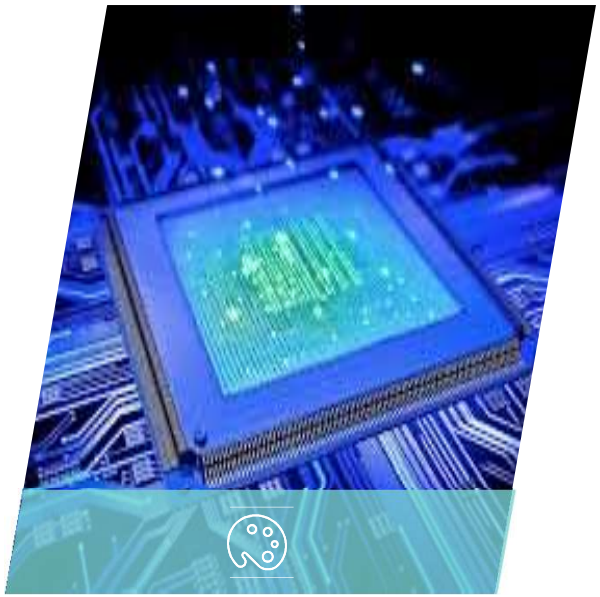
SERVICE SCOPE

KOLAS(Korea Laboratory Accreditation Scheme), KC(Korea Certification), RRA(National Radio Research Agency), KOITA R&D center IECEE CBTL, CSA(Certified of Qualification), TUV CARAT(Certified Agency Recognized Lab), TUV OHTAMA LAB, SZU KOREA MoU LAB.

OTHER EnE PRODUCT
Insulation transformer,
Motor operated equipment,
Industrial equipment



RF(Radio Frequency)
BT(Bluetooth), WiFi(2.4GHz/5GHz), Low power radio apparatus, RFID, Marine radio communication equipment



Reliability
Temperature/Humidity Test,
Vibration/Impact/Salt mist/Safety test

SAFETY STANDARDS 1 - MEAS

IEC 61010-1:2001	Safety requirements for electrical equipment for measurement, control, and laboratory use
IEC 61010-2-101 2015	Safety requirements for electrical equipment for measurement, control, and laboratory use Part 2-101: Particular requirements for in vitro diagnostic (IVD) medical equipment (Exception same as IEC 61010-1:2010)
EN 61010-2-101:2002	Safety requirements for electrical equipment for measurement, control, and laboratory use Part 2-101: Particular requirements for in vitro diagnostic (IVD) medical equipment(Exception same as EN 61010-1:2001)
EN 61010-2-081:2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes(Exception same as EN 61010-1:2010)
EN 61010-2-081: 2002 + A1:2003	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes(Exception same as EN 61010-1:2001)
IEC 61010-2-081: 2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes(Exception same as IEC 61010-1:2010)
EN 61010-2-051:2015	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-051: Particular requirements for l aboratory equipment for mixing and stirring
IEC 61010-2-051:2015	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-051: Particular requirements for l aboratory equipment for mixing and stirring
EN 61010-2-040:2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials
IEC 61010-2-040:2005	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials
EN 61010-2-032 :2012	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-032: Particular requirements fo r hand-held and hand-manipulated current sensors for electrical test and measurement(Exception same as EN 61010-1:2010)
IEC 61010-2-032 :2012	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-032: Particular requirements fo r hand-held and hand-manipulated current sensors for electrical test and measurement(Exception same as IEC 61010-1:2010)
	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 031: Safety requirements for hand-

SAFETY STANDARDS 2 - MEAS

EN 61010-1:2010	Safety requirements for electrical equipment for measurement, control, and laboratory use-Part1: General requirements
KS C IEC 61010-1:2014	Safety requirements for electrical equipment for measurement, control, and laboratory use-Part1: General requirements
UL 61010-1:2012	Safety requirements for electrical equipment for measurement, control, and laboratory use-Part1: General requirements
CAN/CSAC22.2NO.61010-1-12	Safety requirements for electrical equipment for measurement, control, and laboratory use-Part1: General requirements
IEC 61010-2-010:2014	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of material(Exception same as IEC 61010-1:2010)
EN 61010-2-010:2014	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of material(Exception same as EN 61010-1:2010)
IEC 61010-031:2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test

SAFETY STANDARDS 3 – HOUS, OFF, TRON

KS C IEC 60335-2-23:2012	Household and similar electrical appliances - Safety Particular requirements for appliances for skin or hair care
K 60335-2-23:2013	Household and similar electrical appliances - Safety Particular requirements for appliances for skin or hair care
KC 60335-2-23:2015	Household and similar electrical appliances - Safety Particular requirements for appliances for skin or hair care
IEC 60335-2-23:2003 + A1:2008 + A2:2012	Household and similar electrical appliances - Safety Particular requirements for appliances for skin or hair care
EN 60335-2-23:2003 + A1:2008+ A11:2010 + A2:2015	Household and similar electrical appliances - Safety Particular requirements for appliances for skin or hair care
K 60335-1 (4.1):2012	Household and similar electrical appliances-Safety
KC 60335-1:2016	Household and similar electrical appliances-Safety
KS C IEC 60335-1:2013	Household and similar electrical appliances-Safety
EN 60335-1:2012 + A11:2014	Household and similar electrical appliances-Safety
IEC 60335-1:2010	Household and similar electrical appliances-Safety
EN 60950-1:2005 + A1:2009 + A2:2013	Information technology equipment -Safety- Part 1: General requirements
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013	Information technology equipment - Safety- - Part 1: General requirements Annex U Insulated winding wires for use without interleaved insulation test
KS C IEC 60950-1:2014	Safety of information technology equipment-Part 1:Gernal requirements
K 60950-1:2011	Safety of information technology equipment-Part 1:Gernal requirements
IEC 60065:2014	Audio, video and similar electronic apparatus - Safety requirements
EN 60065:2014	Audio, video and similar electronic apparatus - Safety requirements

SAFETY STANDARDS 4 - MED

IEC 60601-1:1988 + A1:1991 + A2:1995	Medical Electrical Equipment - Part 1: General requirements for safety
EN 60601-1:1990 + A1:1993 + A2:1995	Medical Electrical Equipment - Part 1: General requirements for safety
IEC 60601-1:2005 + A1:2012	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance
EN 60601-1:2006 + A1:2013	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance
KS C IEC 60601-1:2011	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance
UL 60601-1:2003	Medical Electrical Equipment - Part 1: General requirements for safety
EN 60601-2-49:2015	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment
IEC 60601-2-49:2011	Medical electrical equipment - Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring
EN 60601-2-27: 2014	Medical electrical equipment - Part 2-27: Particular requirements for the safety, including essential performance, of electrocardiographic monitoring equipment
IEC 60601-2-27:2011	Medical electrical equipment - Part 2-27: Particular requirements for the safety, including essential performance, of electrocardiographic monitoring equipment
EN 60601-2-25: 2015	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs
IEC 60601-2-25: 2011	Medical electrical equipment - Part 2-25: Particular requirements for the basic safety and essential performance of electrocardiographs
EN 60601-2-22: 2013	Medical electrical equipment - Part 2-22: Particular requirements for the basic safety of diagnostic and therapeutic l aser equipment
IEC 60601-2-22: 2007 + A1: 2012	Medical electrical equipment - Part 2-22: Particular requirements for the basic safety of diagnostic and therapeutic l aser equipment
EN 60601-2-19:2009	Medical electrical equipment - Part 2-19: Particular requirements for the basic safety and essential performance of i nfant incubators
IEC 60601-2-19:2009	Medical electrical equipment - Part 2-19: Particular requirements for the basic safety and essential performance of i nfant incubators
EN 60601-2-18:2015	Medical electrical equipment - Part 2-18: Particular requirements for the safety for endoscopic equipment

SAFETY STANDARDS 5 - MED

IEC 60601-2-10:2012 + A1:2016	Medical electrical equipment - Part 2-10: Particular requirements for the safety of nerve and muscle stimulators
EN 60601-2-10:2015 + A1:2016	Medical electrical equipment - Part 2-10: Particular requirements for the safety of nerve and muscle stimulators
CAN/CSA-C22.2No.60601-1:14	Medical electrical equipment - Part 1:General requirements for basic safety and essential performance
IEC 60601-1-1:2000	Medical electrical equipment - Part 1-1: General requirements for safety - Collateral standard: Safety requirements for medical electrical systems
EN 60601-1-1:2001	Medical electrical equipment - Part 1-1: General requirements for safety - Collateral standard: Safety requirements for medical electrical systems
KS C IEC 60601-1-1:2002	Medical electrical equipment - Part 1-1: General requirements for safety - Collateral standard: Safety requirements for medical electrical systems
IEC 60601-1-6:2010+A1:2013	Medical electrical equipment - Part 1-6: General requirements for safety - Collateral standard: Usability including IEC 62366: Application of usability engineering to medical device
EN 60601-1-6:2010+A1:2015	Medical electrical equipment - Part 1-6: General requirements for safety - Collateral standard: Usability including IEC 62366: Application of usability engineering to medical device
KS C IEC 60601-1-6: 2012	Medical electrical equipment - Part 1-6: General requirements for safety - Collateral standard: Usability including: Application of usability engineering to medical device
IEC 60601-1-11:2015	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance – Collateral Standard: Requirements for medical electrical equipment and and medical electrical systems used in the home healthcare environment
EN 60601-1-11:2015	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance – Collateral Standard: Requirements for medical electrical equipment and and medical electrical systems used in the home healthcare environment
KS C IEC 60601-1-11: 2012	Medical electrical equipment - Part 1-11: General requirements for basic safety and essential performance – Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment
IEC 60601-2-2: 2009	Medical electrical equipment - Part 2: Particular requirements for the basic and essential performance of high frequency surgical equipment and high frequency surgical accessories
EN 60601-2-2: 2009	Medical electrical equipment - Part 2: Particular requirements for the basic and essential performance of high frequency surgical equipment and high frequency surgical accessories

SAFETY STANDARDS 6 - ENERGY

Ministry of Trade, Industry and Energy No. 2017-91	Regulation on Standby Power Reduction Program
Ministry of Trade, Industry and Energy No. 2018-99	Regulation on Energy Efficiency 20. Adaptor, Charger
KS C IEC 62301:2011	Household electrical appliances - Measurement of standby power.
IEC 62301:2011	Household electrical appliances - Measurement of standby power.
IEC62087:2011(Ed.3.0)	Methods of measurement for the power consumption of audio, video and related equipment
KS C IEC 62087:2006	Methods of measurement for the power consumption of audio, video and related equipment
IEC62018:2003(Ed.1.0)	Power consumption of information technology equipment - Measurement methods
KS C IEC 62018:2006	Power consumption of information technology equipment - Measurement methods

SAFETY STANDARDS 7 - ENVIRONMENTAL

KS C IEC 60068-2-1:2007	Environmental Testing-Part 2-1 : Tests -Test A : Cold
KS C IEC 60068-2-2:2014	Environmental Testing - Part 2-2: Tests - Test B : Dry heat
KS C IEC 60068-2-14:2014	Environmental testing-Part 2-14 : Tests -Test N : Change of temperature
KS C IEC 60068-2-30:2014	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)
MIL-STD-810G	DEPARTMENT OF DEFENSE Test Method Standard for Environmental Engineering Considerations and Laboratory Tests
KS R 9191:1996	High temperature and low temperature test method of railway signal security parts
KS R 9192:1996	Temperature cycle test method of railway signal security parts
KS R 9193:1996	Test method of insulation resistance and withstand voltage of railway signal security parts
KS R 9197:1996	Test method for insulation resistance and withstand voltage of railway vehicles

EMC STANDARDS 1

KN 11 Test methods of EMC for industrial, scientism and medical equipment
KN 60601-1-2 Medical electrical equipment
Part 1-2: General requirements for basic safety and essential performance Collateral standard: Electromagnetic compatibility Requirements and tests
KN 14-1 Test methods of radio disturbance for household appliances, electric tools and similar apparatus
KN 14-2 Test method of immunity for household appliances, electric tools similar apparatus
KN 15 Test methods of radio disturbance for electrical lighting and similar equipment
KN 61547 Equipment for general lighting purposes EMC immunity requirements
KN 17 Test Methods of radio disturbance for residential wireless power-transmission equipment
KN 22 Information technology equipment — Radio disturbance characteristics — Limits and methods of measurement
KN 24 Information technology equipment – Immunity characteristics - Limits and methods of measurement
KN 32 Test Methods of radio disturbance for multimedia equipment
KN 35 Electromagnetic Compatibility (EMC) - Immunity standard for multimedia products
KN 50 Test method of radio disturbance for railway applications

KN 62040-2 Test Methods of radio disturbance of EMC for Uninterruptible Power System(UPS)
KN 60945 Maritime navigation and radio communication equipment and systems - General requirements - Methods of testing and required test results
KN 60947 Test Methods of EMC for low-voltage switchgear and control gear
KN 61000-6-1 Immunity for residential, commercial and light-industrial environments
KN 61000-6-2 Immunity for industrial environments
KN 61000-6-3 Emission standard for residential, commercial and light industrial environments
KN 61000-6-4 Emission standard for industrial environments

EMC STANDARDS 2

KN 301 489-1 Test method of common technical EMC for radio equipment
KN 301 489-2 Test method of EMC for radio paging equipment
KN 301 489-3 Test method of EMC for radio equipment of short-range
KN 301 489-5 Test method of EMC for private land mobile radio (PMR) and ancillary equipment
KN 301 489-6 Test method of EMC for digital enhanced cordless telecommunications (DECT) equipment
KN 301 489-7 Test method of EMC for mobile and portable radio telecommunications systems
KN 301 489-9 Test method of EMC for low-output radio equipment for voice and audio signal transmission
KN 301 489-13 Test method of EMC for citizens' band (CB) radio and ancillary equipment
KN 301 489-15 Test method of EMC for amateur radio equipment
KN 301 489-17 Test method of EMC for radio equipment of low-output for wireless data transmission system
KN 301 489-18 Test method of EMC for radio telecommunication equipment using common frequency
KN 301 489-20 Test method of EMC for radio equipment for mobile satellite services
KN 301 489-32 Test method of EMC for ground and wall probing radar equipment
KN 301 489-50 Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment;
KN 301 489-52 Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment;

KN 12015 Electromagnetic compatibility — Product family standard for lifts, escalators and moving walks — Emission
KN 12016 Electromagnetic compatibility — Product family standard for lifts, escalators and moving walks — Immunity
KN 101 Electromagnetic compatibility — Product family standard for Fire fighting supplies
Devices with induction heating (IH) function in kitchen heating appliances
Devices with induction heating (IH) function among electric liquid heating appliances
Electric blankets and mats, electric bed linen. Except DC power only

RF STANDARDS

281	Radio equipment for simple radio stations	Town broadcasting, radio equipments
220	Industrial and public wireless equipment	Industrial radios, data transmission device
221	Medical application equipment	
227	Wireless data communication equipment	Text data transmission(Pippi)
229	Devices of wireless probing	
231	Devices of radio equipment for radio stations	Life Radio Device
233	Equipment for radio equipment for amateur radio stations.	HAM
235	Emergency radio equipment	
238	Magnetic induction type wireless device	Wireless charger
241	Radio Equipment for specified Low-Power Radio station (Wireless device for wireless control.)	Toys Controllers
242	Radio Equipment for specified Low-Power Radio station (data transmission)	Industrial crane manipulators, vehicle climbing devices, meters
243	Radio Equipment for specified Low-Power Radio station (Wireless devices for safety systems)	Disabled Indicator, Security device
244	Radio Equipment for specified Low-Power Radio station (For voice and sound signal transmission)	Wireless microphone
245-1	Radio Equipment for specified Low-Power Radio station (wireless access system)	Wifi
248	Radio Equipment for specified Low-Power Radio station (wireless data communication system)	BT, wifi, zeebee, Wireless Mouse, Wireless Keyboard ect.
249	Radio Equipment for specified Low-Power Radio station (mobile identification)	
251	RFID/USN용 무선기기	
256	electric field strength	
257	Radio equipment for emergency communications	
258	Radio equipment for marine security safety net.	

AGENDA

01 **COMPANY OVERVIEW**
Established at 1999, 20th anniversary

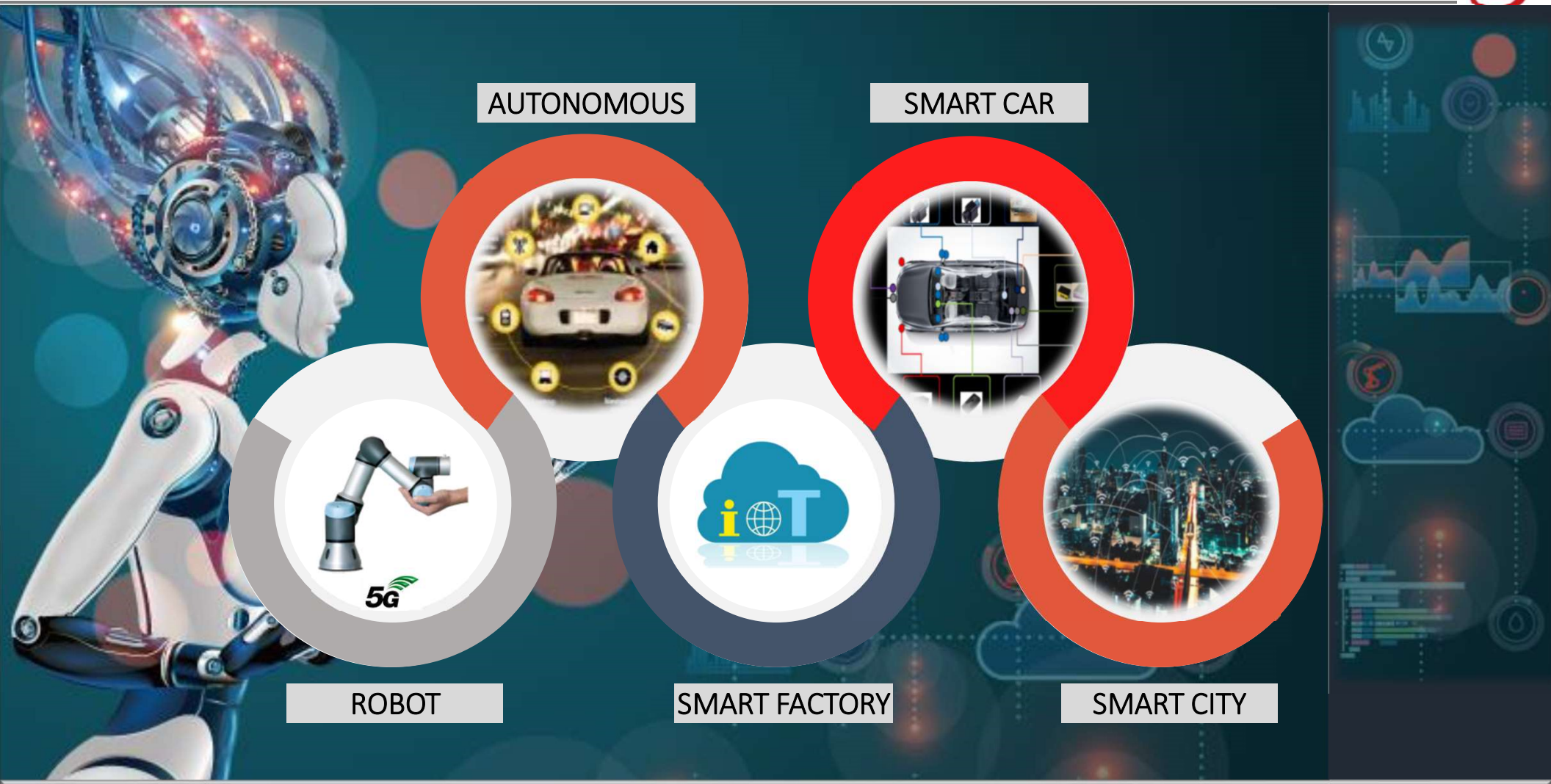
02 **COMPETENCIES**
Certified or Accredited Laboratory by National and International

03 **SERVICE SCOPE AND PRODUCT LINES**
OFF, TRON, LITE, HOUS, MEAS, MED, INST, OTHERS

04 **PLAN 2020**
IoT, 5G, Robot, Smart-things

05 **KC(KOREA CERTIFICATION) INTRODUCTION**
Safety Certification, Safety Confirmation, Supplier's Declaration of Conformity system

UCS PLAN 2020



UCS MISSION

U nceasing ideas

- Ideas from customers
- Develop the test method
- New investment
- Provide service

C ooperate

- Customer meeting anytime
- Project meeting by weekly, semimonthly, monthly
- Corporate WS by quarterly

S trict time schedule

- Lab booking system
- Inform the status in time
- Issue the report on time

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05 **KC(KOREA CERTIFICATION) INTRODUCTION**
Safety Certification, Safety Confirmation, Supplier's Declaration of Conformity system

WHAT IS KC CERTIFICATION

It is a mandatory system to authorize to sell only the products certified by safety certification agency in order to prevent electrical appliances from causing accidents by risks and malfunction such as fire and electric shock.

KINDS OF CERTIFICATION

Safety Certification System

Manufacturers of electrical appliances
(including foreign manufacturers)

↓

Apply for safety certification
(Safety certificate authority)

↓

Factory inspection
(Check the availability of self-inspection system)

Product test
(Check the conformity for safety standards)

↓

Issue safety certification
(Safety certificate authority)

↓

Mark safety certification
(manufacturers of electrical appliances)

Safety Confirmation System

Manufacturers or importers of electrical products
(including foreign manufacturers)

↓

Request for voluntary safety confirmation
(Safety certificate authority)

↓

Product test
(Check conformity with safety standards)

↓

Issue report certificate
(valid for 5 years)
(Safety certificate authority)

↓

Mark safety certification
(manufacturers and importers of electrical appliances)

SDOC System

Manufacturers or importers of electrical products
(including foreign manufacturers)

↓

Product test
(on its own or by a third party)
(Check conformity with safety standards)

↓

Create test report and confirmation of supplier's declaration of conformity

↓

Mark safety certification
(manufacturers and importers of electrical appliances)

UCS Can help you!!!

UCS

Have authorities for Safety Confirmation and Supplier's Declaration of Conformity system

KC CERTIFICATION – Requiring documents

Documents and Samples for New Application

Required Documents

①Application for Electrical Appliances Safety Certificate
②List of safety components and insulation materials
③Circuit diagram
④Safety certification
⑤Product manual in Korean
⑥Category of derivative model and product specifications
⑦Power of attorney
⑧Questionnaire of factory inspection (for initial screening only)
⑨CB Test Certificate (if available)
⑩CB Test Report (if available)
⑪Transformer Spec (about the product)
⑫LED Chip Spec (about the product)

Sample preparation

① 2 units of applicable products (1 unit when there is no need for electromagnetic interference test) or the amount set by the safety standards
② Other materials or parts needed for the test (if necessary)

Required Documents and Samples for Modification

When adding the derivative model or parts

① Application for safety certification
② Summary of change request
③ The original copy of Electrical Appliances Safety Certificate (via mail)
④ Fees (Additional fee for a derivative model test)
⑤ Related samples/photos needed for the test

What is the basic model?

It refers to the model(s) of electrical appliances with standard safety certification which the electrical appliances have the same parts that directly affect the safety applicable standards and their safety.

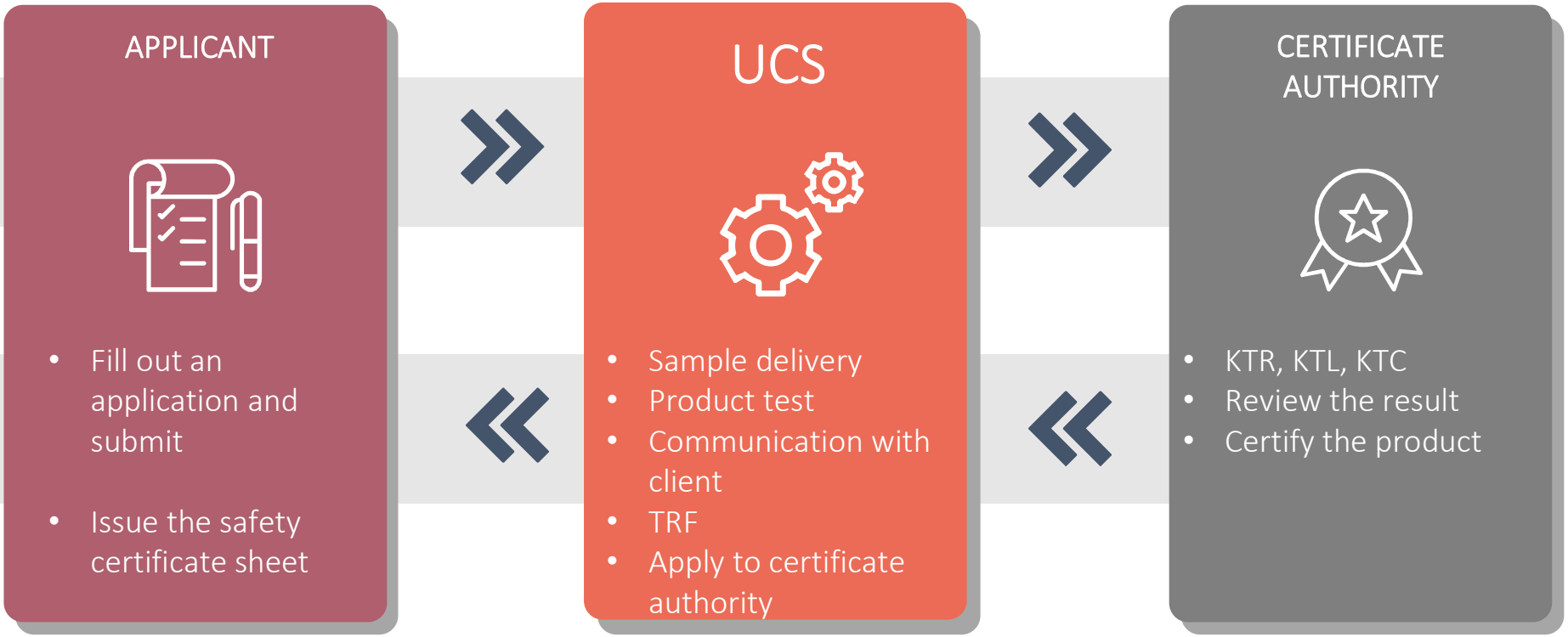
What is the derivative model?

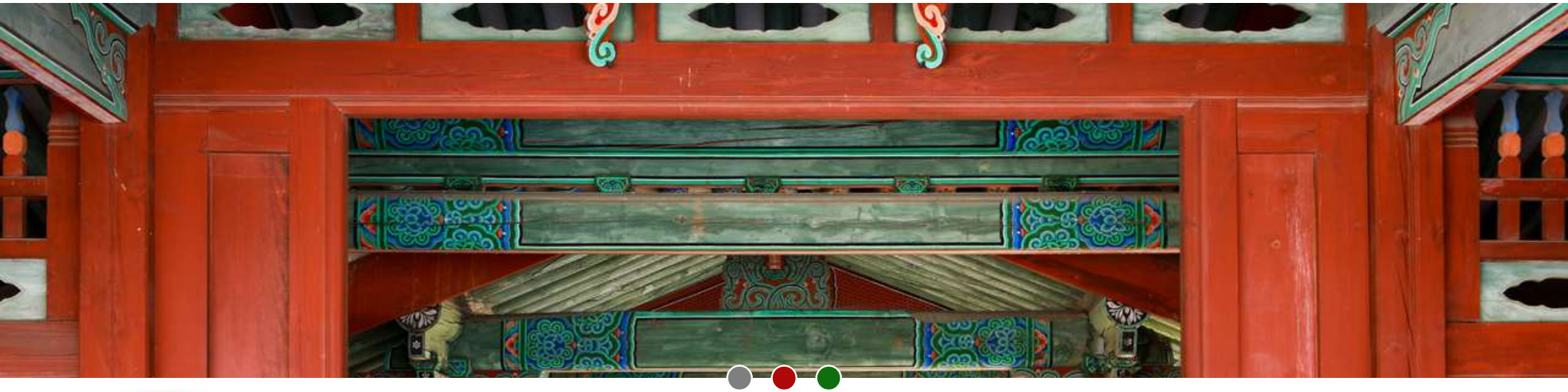
Compared to the basic model, the basic structure related to electrical circuits and safety are the same as the basic model, but the parts of these models that directly affect electrical safety do not change while additional functions are added or deleted (including a change in electrical circuit that does not directly affect electrical safety) or the shape or trademark is changed.

BUSINESS PROCESS

Currently, we have authorities for Safety Confirmation and Supplier's Declaration of Conformity system

We'll be a Safety Certification system center in accordance with law changes by Korea near soon.





THANK YOU

michael.yu@ucs.co.kr

+82-2-1833-5681
+82-10-2354-8733