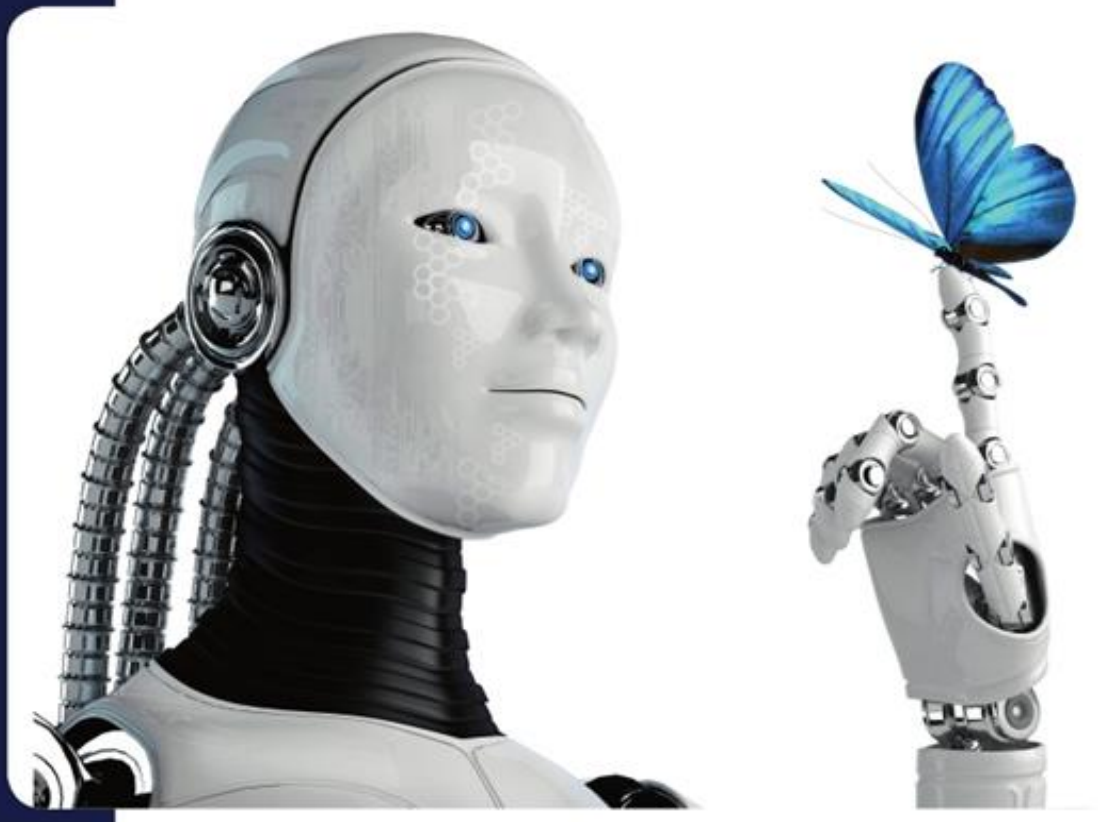
Newsletter
April, 2023

ICR



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Hot Issue

1. IAS certification body registration information
2. Revision of Hyundai/Kia Motors lead-free solder test standards
3. IEC 62619 tests of ICR Battery Testing Center
4. Revision of KS C 9610-6-4:2022 General standards
5. Notice on the designation and management of testing agencies for broadcasting and communication equipment, etc.

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IAS certification body registration information

▣ IAS Accreditation

On March 03, 2023, ICR was officially registered as a quality management system, environmental management system, safety and health management system, and medical device quality management system certification body from IAS, an accreditation body in the United States.

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

IAS INTERNATIONAL ACCREDITATION SERVICE®

CERTIFICATE OF ACCREDITATION

This is to attest that

ICR CO., LTD.
1501, DAERUNG POST TOWER 6TH, 298, BEOTKKOT-RO, GEUMCHEON-GU, SEOUL, KOREA
SEOUL, 08510
REPUBLIC OF KOREA

Management System Certification Body MSCB-321

has met the requirements of AC477, *IAS Accreditation Criteria for Management System Certification Bodies*, and has demonstrated compliance with ISO/IEC Standard 17021-1:2015, *Conformity assessment – Requirements for bodies providing audit and certification of management systems.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date March 3, 2023

(Valid as per IAS 4-year accreditation cycle subject to periodic assessments and satisfactory closure of findings)

Accredited Since March 3, 2023

IAS ACCREDITED

President

Visit www.iasonline.org for current accreditation information.

IAS certification body registration information

▣ What is IAS?

The International Accreditation Service (IAS) is a traditional American accreditation corporation that has provided testing and system accreditation services since 1975. It is a signatory of the MRA and is a world-leading international accreditation body that maintains the status of an MLA signatory of the International Accreditation Forum (IAF).

▣ IAS certificate of accreditation

You can check the IAS certificate on the ICR website → About ICR → Accreditation → IAS, and you can check the IAF Code (Certification Sectors) granted by IAS.

▣ Expected effects of IAS accreditation

ICR has been able to provide safety and health management system and medical device quality management system certification services as a US accreditation body through the acquisition of IAS accreditation. We expect to be able to meet the needs of customers who want to be certified as an American accreditation body.

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IAS certification body registration information

In addition, it is expected that future audits will be improved more efficiently by integrating the certifications received from different accreditation agencies for each standard into one accreditation body.

▣ Objective of the ICR System Certification Division

ICR's objective is to satisfy the needs of various customers.
In the past, safety and health management systems and medical device quality management systems have been provided with certification services only by Korean accreditation body.
By acquiring IAS accreditation, we expect to be able to satisfy the needs of customers who wanted to be provided with certification services by an accreditation body in the US.

In this way, ICR will become a certification body that always strives to satisfy needs.

☎ Inquiries

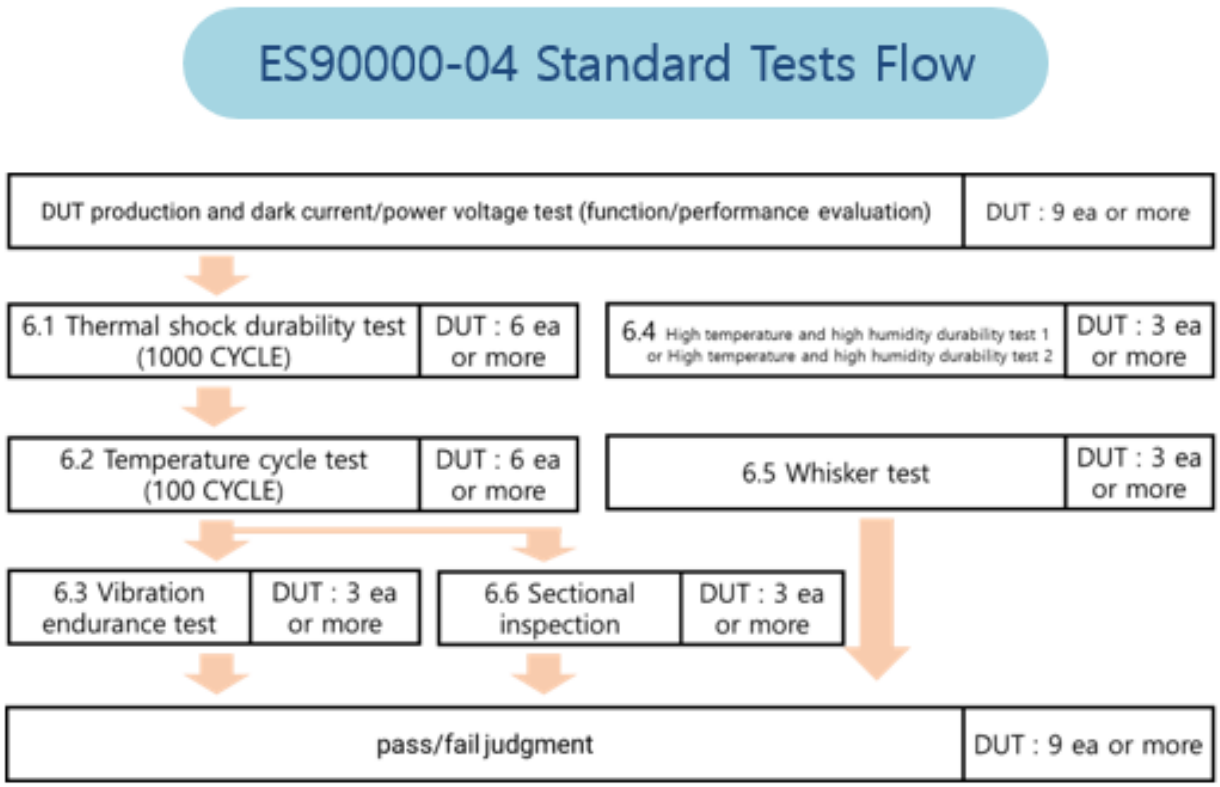
System Certification Div. / Lee, Jae-Min
T. 070-5083-2612 / lee2750@icrqa.com

Revision of Hyundai/Kia Motors lead-free solder test standards

▣ ES90000-04 is reliability test standard for electric components of Hyundai/Kia Motors.

This is a standard that indicates test methods and requirements for securing reliability in the vehicle environment for alternative bonding materials for lead (Sn/Pb) used for mounting electrical components and bonding wire terminals.

▣ ES90000-04 Standard Tests Flow (Rev.8)



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Revision of Hyundai/Kia Motors lead-free solder test standards

▣ ES90000-04 ES90000-04 standard revision contents (8th)

1) In Rev.7, analysis was conducted through cross section inspection after vibration durability test, but in Rev.8, **analysis was conducted through cross section inspection after temperature cycle test.**

2) The number of products for vibration durability test is reduced from 6 ea to 3 ea, **reducing test time and test cost.**

3) Added picture of FPC whisker measurement area during whisker inspection

☎ Inquiries

Mobility Center / Ahn, Min-Ho

T. 070-5083-2686 / amh328@icrqa.com

IEC 62619 Standard tests

▣ **IEC 62619** specifies requirements and tests for the safe operation of **secondary lithium cells and batteries** used in industrial applications, including stationary applications.

▣ Test items

Category	Tests		Test unit	
			Cell/Cell block	Battery system
Product safety test	7.2.1 External short-circuit test		Required	-
	7.2.2 Impact test		Required	-
	7.2.3 Drop test		Required	Required
	7.2.4 Thermal abuse test		Required	-
	7.2.5 Overcharge test		Required	-
	7.2.6 Forced discharge test		Required	-
	7.3 Internal short-circuit (select one of the two options)	7.3.2 Internal short-circuit test	Required	-
		7.3.3 Propagation test	-	Required
Functional safety test	8.2.2 Overcharge control of Voltage		-	Required
	8.2.3 Overcharge control of Current		-	Required
	8.2.4 Overheating control		-	Required

IEC 62619 Standard tests

▣ The scope of application of **IEC 62619** is from Stationary applications to Motive applications and it **includes UPS, AGV, golf cart and forklift truck as well as ESS.**

▣ If you have any inquiry about battery testing and certification service as well as IEC 62619, please feel free to contact our Battery Testing Center.

☎ Inquiries
Battery Testing Center / Yang, Chul-Ho
T. 02-6351-9003 / yangch@icrqa.com

Revision of KS C 9610-6-4:2022 General standards

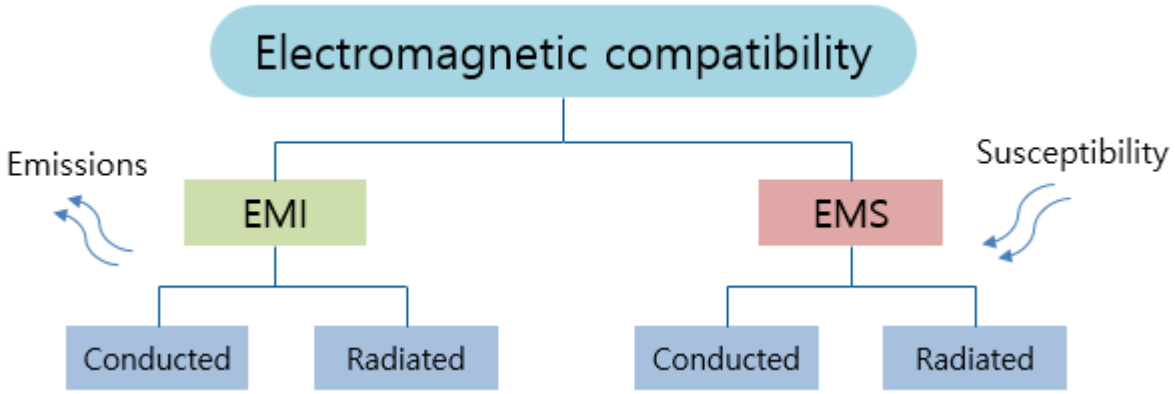
▣ 28 February, 2022, KS C 9610-6-4:2022 Generic standards - Emission standard for industrial environments were revised.

▣ Electromagnetic interference(EMI)

- EMI can cause the instrument to malfunction by causing the instrument to emit electromagnetic waves to the outside, interfering with other instruments or control circuits.

- To prevent malfunction or damage to the device, standards should be set for electromagnetic interference.

- EMI is largely classified as conducted emission (CE) and radiated emission (RE).



Revision of KS C 9610-6-4:2022 General standards

▣ Revised items

1) Revised scope

Before the revision	After the revision
This part of KS C 9610-6-4 for emission requirements applies to electrical and electronic equipment intended for use within the industrial environment locations, and emission requirements in the frequency range 0 Hz to 400 GHz are covered. No measurement needs to be performed at frequencies where no requirement is specified.	This part of KS C 9610-6-4 for emission requirements applies to electrical and electronic equipment intended for use within the industrial environment locations. The environments encompassed by this document cover both indoor and outdoor locations. Emission requirements in the frequency range 9 kHz to 400 GHz are covered in this document and have been selected to provide an adequate level of protection of radio reception in the defined electromagnetic environment. No measurement needs to be performed at frequencies where no requirement is specified.

2) Add operating conditions

Intended operational arrangement(s) of EUT	Test arrangement	Remarks
Table-top only	Table-top	-
Floor-standing only	Floor-standing	-
Can be floor-standing or table-top	table-top	-
Rack mounted	In a rack or table-top	-
Other, for example wall mounted, ceiling mounted, handheld, body worn	Table-top	With normal orientation If the equipment is designed to be mounted on a ceiling, the downward- facing portion of the EUT may be oriented facing upward.

Revision of KS C 9610-6-4:2022 General standards

▣ ICR, EMI Test photographs

<Conducted emission test>

<Radiated emission test>

▣ **The ICR** has test equipment for **KSC 9610-6-4** specification and **can be tested**. **We can also be field tested Fixed-installation equipment** used in industrial environments.

☎ Inquiries

Industrial Safety Center / Yang, Dae-Song

T.070-5083-2658 / yds@icrqa.com

Notice on the designation and management of testing agencies for broadcasting and communication equipment, etc.

National Radio Research Institute Notice No. 2023-10

The purpose of this notice is to prescribe details necessary for **the examination and designation** (including modification, abolition and approval) **of agencies conducting conformity assessment tests** as prescribed by Articles 58-5 to 58-7 of **the Radio Act** (hereinafter referred to as the "Act") and Articles 77-12 of the same Act (hereinafter referred to as the "Decree").

03/06/2023
Director of the National Radio Research Agency

▣ When filing a complaint with a testing agency, it shall be revised to simplify the submission of data on administrative information of disclosure and to make the format and the attached table according to the revision of international standards and EM compatibility test methods.

▣ 1. Simplified submission of data and improved format when filing a complaint with a testing agency

(Article 4 (2) and Attached Forms 1, 4, and 5)

Notice on the designation and management of testing agencies for broadcasting and communication equipment, etc.

- In the case of public administrative information pursuant to the "Electronic Government Act", the public official in charge shall confirm the joint use system of administrative information, removing clues to the relevant provisions and improving related forms.

▣ 2. Currentization of the form of the designation in accordance with the revision, etc. of standards for international quality control of testing institutions

(attached Form 2)

- Revision of ISO/IEC 17025 (2005→2017 version), an international standard for the qualification of conformity evaluation testing institutions such as broadcasting and communications equipment, etc., is the current form of designation.

▣ 3. Currentization of test items in the field of electromagnetic compatibility(1)

(Attachment 1 to Article 3 (1))

- The KN standard of the EM compatibility test items in accordance with the revision of the EM compatibility test method (National Radio Research Institute Notice No. 202-40, 2.5.31.) is the current KS standard.

Notice on the designation and management of testing agencies for broadcasting and communication equipment, etc.

▣ 4. Change Terminology

- Application for designation → Application for designation of a testing agency such as broadcasting and communication equipment
- Application for approval of transfer → Application for approval of transfer of broadcasting communication equipment, etc. test institution
- Application for merger approval → Application for merger approval of testing institutions such as broadcasting and communication equipment, etc.
- Test field within the specification → Designation field within the specification
- Test item 339 KN 60945 (radio equipment for marine business)
  → KS X 340 (radio equipment for marine business)

☎ Inquiries
EMC&RF Test Center / Son, Min-Gi
T. 070-5081-0023 / thsalsrl@icrqa.com