

Newsletter October, 2025



ICR



Hot Issue

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Implementing Agency
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**(Railway applications – Electromagnetic
compatibility – Part 3-1**





Selected as an Export Voucher Program Implementing Agency

■ ICR Designated as Official Export Voucher Service Provider

On September 1, 2025, ICR was officially designated by KOTRA (Korea Trade-Investment Promotion Agency) and the Korea SMEs and Startups Agency as an authorized service provider under **the government's Export Voucher Program**.

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수출지원기반활용사업 수행기관 확인서

기업명	(주)아이씨알		
대표자명	김덕용		
사업자등록번호	105-86-35114	법인등록번호	110111-2431479
주소	(10048) 경기도 김포시 양촌읍 황금3로7번길 112 전층		
선정분야	해외규격인증		
협약 기간	2025년 09월 01일 ~ 2027년 12월 31일		
위 기업은 대한무역투자진흥공사, 중소벤처기업진흥공단에서 운영하는 상기 서비스 분야의 수행기관임을 확인합니다.			
2025년 09월 01일			
대한무역투자진흥공사 사장		중소벤처기업진흥공단 이사장	

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Selected as an Export Voucher Program Implementing Agency

■ Export Voucher Program

This is one of the Korean government's flagship initiatives designed to accelerate the global expansion of domestic companies. The program streamlines support systems across various ministries and enables small and medium-sized enterprises(SMEs) as well as mid-sized firms to freely choose export support services tailored to their needs, using a voucher-based framework.

■ International Standard Certifications

areas	Certifications
International	IECEE CB, IECEX 등
Europe	CE(MD, ATEX, EMC, LVD, RED, MDR), E-Mark 등
US or NA	NRTL, FCC, FDA 등
Asia	CCC, CFDA 등

■ Key Benefits of the Export Voucher Program

- Companies can reduce costs by up to 70% through government-funded support (voucher issuance).
- Acquiring international certifications enhances credibility and trust with overseas buyers.



Selected as an Export Voucher Program Implementing Agency

■ Companies That Can Benefit Most

- Businesses preparing for global expansion but facing financial or procedural challenges.
- Companies requiring global certifications such as CE, FCC, and others.
- Companies in industries that demand specialized certifications.
(automotive, medical devices, defense industry, etc.)

■ About ICR

❖ KOLAS-Accredited International Testing Laboratory

ICR has been accredited by KOLAS (Korea Laboratory Accreditation Scheme) after meeting the accreditation criteria set by KOLAS and the requirements of KS Q ISO/IEC 17025.

ICR is capable of testing almost all electrically operated products, including IT equipment, household appliances, medical devices, industrial equipment, and explosion-proof products.

❖ Management System Certification Body

As a management system certification body registered with KAB (Korea Accreditation Board) and IAS (International Accreditation Service, USA), we proactively provide management system audit and certification services based on our expertise. Through these services, we support companies in enhancing their credibility and obtaining management system certifications necessary for entering overseas markets.



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❖ ICR Polska(Notified Body 2703), EU Certification Body

ICR Polska, a wholly owned subsidiary established in Poland is a designated European CE certification body. It issues **CE certificates and ISO management system certifications** essential for companies exporting to Europe. Currently, ICR Polska offers certification services for **EMC, MD, ATEX, RED, and Drone standards, with MDR certification services to be launched in the near future.**

■ ICR, Export Voucher Implementing Agency for Overseas Standard Certification

As a one-stop certification organization capable of performing both conformity assessments and testing, **ICR** provides end-to-end services including product certification, product inspection, validation, testing, system certification, and international approvals such as **CE** and **FCC**. Through the government-supported Export Voucher Program, we help companies successfully enter and expand in overseas markets.

 **Inquiries**

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Introduction of CAN FD fiber optic testing equipment

■ Introducing additional of CAN FD fiber optic equipment

ICR Mobility Center has added CAN FD fiber optic equipment to support **automotive EMC test**. With this new equipment, we will do our best to provide high-quality testing services to ensure customer satisfaction.

■ Details of the test equipment

- 1) Manufacturer: MK messtechnik.GmbH/Germany
- 2) Quantity: 1 channel
- 3) Specification
 - Data rate: up to 8Mbit/s
 - Connector type: Input (SUB-D9), Output (SUB-D9)
 - Size: 135 mm x 86 mm x 65 mm
 - Optical connector: 2x FSMA ode fiber 62.5/125 μ m



Introduction of CAN FD fiber optic testing equipment



■ Large thermo-hygrostatic chamber is operating

ICR has been operating a large thermo-hygrostatic chamber capable of handling **large products (displays, heavy items)** for defense, railways, and **automobiles** since September 2025.

❖ **The possible standards (MIL Series, KS C 60068 2-1, 2-2, 2-30, 2-38, etc)**

■ Specifications of the test equipment

- 1) Tem'p Range : -70 °C ~ 180 °C
- 2) Humu'd Range : 30 ~ 98 % R.H
- 3) Tem'p Change rate : 5.0 °C / min
- 4) Inside size : 1600 mm x 1100 mm x 1000mm



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Management Systems, The Era of Integration

■ Overview

Today's business environment is becoming increasingly complex. Quality, environment, and occupational health & safety systems often operate separately, leading to duplicated tasks and heavier administrative burdens. The solution is the Integrated Management System (IMS), which brings these frameworks together into one unified approach.



■ What is an Integrated Management System (IMS)?

- ❖ An Integrated Management System (IMS) **combines** Quality (**QMS**), Environment (**EMS**), and Occupational Health & Safety (**OHSMS**) into **a single, easy-to-manage system**.
- ❖ In the past, companies had to run each system separately, which meant duplicated documents, internal audits, and certification audits—creating a heavy burden. IMS reduces this overlap and inefficiency by connecting all management systems in an integrated way, maximizing overall efficiency.

Management Systems, The Era of Integration

■ ISO 9001/14001/45001 Integrated Guide

Clause	ISO 9001	ISO 14001	ISO 45001	Integration Approach
Context of the Organization	Customer requirements, quality issues	Environmental aspects, stakeholder needs	Safety risks, worker expectations	Conduct one organizational context analysis that integrates stakeholder needs and risks/opportunities across quality, environment, and safety
Leadership	Establish quality policy	Establish Environmental policy	Establish OH&S policy	Develop one Integrated Policy (IMS Policy) covering quality, environment, and OH&S
Planning	Quality objectives and risks	environmental objectives and risks	Safety objectives and risks	Set integrated objectives and KPIs , with a unified risk & opportunity management process
Support	Resources, competence, communication, documentation	Same	Same	Operate shared procedures for training, internal communication, and document control
Operation	Product/service operational control	Environmental impact control	Hazard identification and workplace safety	Integrate controls within operational procedures (e.g., combined checklist for quality, environment, and safety in production)
Performance Evaluation	Internal audit, customer satisfaction, quality KPIs	Internal audit, environmental performance	Internal audit, safety performance	Run a single internal audit program and Management Review indicators collectively (Q/E/S)
Improve-ment	Nonconformities & corrective actions	Environmental incident prevention & improvements	Accident prevention & improvements	Manage through one improvement process

Management Systems, The Era of Integration

■ Key Benefits of IMS Implementation

❖ Enhanced Operational Efficiency

- Consolidates duplicated procedures, documentation, and audits into a single framework
- Saves time, resources, and costs

❖ Consistent Strategy and Goal Management

- Enables integrated KPI setting
- Ensures the entire organization moves in one direction

❖ Reduced Audit Burden

- One integrated audit instead of multiple individual audits
- Fewer audit preparations and reduced internal workload
→ greater resource efficiency

❖ Strengthened Risk Management

- Identifies risks holistically across quality, environment, and safety

❖ Increased Stakeholder Confidence

- Demonstrates systematic and transparent management capabilities
- Builds trust with customers, investors, and regulatory bodies.



Management Systems, The Era of Integration

■ Conclusion

An Integrated Management System (IMS) is not simply about combining multiple certifications into one process. It is a strategic tool to improve efficiency and competitiveness across corporate management.

At **ICR System Certification Center**, we provide expert support throughout your IMS certification journey, helping your organization achieve sustainable growth as a trusted partner.

 **Inquiries**

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IEC 62236-3-1

Railway applications – Electromagnetic compatibility– Part 3-1

■ IEC 62236-3-1

This standard specifies the emission limits of electromagnetic noise emission from rolling stock through air or cables.

■ Scope

- ❖ This standard covers traction stock, hauled stock and trainsets including urban vehicles for use in city streets.
- ❖ The frequency range considered is from 0 Hz(DC) to 400 GHz.

■ Example of application

- ❖ IEC 62236-3-1 Applies to the following railway vehicles, etc.



Light railway vehicles

(Source of information: KRiC)



Main line vehicles

(Source of information :
Korea Rail Economy News)

IEC 62236-3-1

Railway applications – Electromagnetic compatibility– Part 3-1

■ Stationary test

- ❖ The auxiliary converters shall operate and the traction converters shall be under voltage but not operating.
- ❖ All values are measured at a distance of 10 m from the centre of the track.

■ Limits for stationary test – Tram/trolleybus systems for use in city streets

Field	Frequency range	Limits (Quasi-peak)
H Field (Magnetic)	150 kHz ~ 30 MHz	40 ~ -5 dB(μA/m)
E Field (Electric)	30 MHz ~ 1 GHz	50 dB(μV/m)

■ Limits for stationary test – Other rail vehicles

Field	Frequency range	Limits (Quasi-peak)
H Field (Magnetic)	150 kHz ~ 30 MHz	55 ~ 5 dB(μA/m)
E Field (Electric)	30 MHz ~ 1 GHz	60 ~ 50 dB(μV/m)

IEC 62236-3-1

Railway applications – Electromagnetic compatibility– Part 3-1

■ Slow moving test

- ❖ The recommended speed range is (20 ± 5) km/h for urban vehicles and (50 ± 10) km/h for main line vehicles.
- ❖ All values are measured at a distance of 10 m from the centre of the track.

■ Limits for slow moving test – 20/25 kV AC

Field	Frequency range	Limits (Quasi-peak)
H Field (Magnetic)	150 kHz ~ 30 MHz	70 ~ 20 dB(μ A/m)
E Field (Electric)	30 MHz ~ 1 GHz	90 ~ 65 dB(μ V/m)

■ Limits for slow moving test – 15 kV AC, 3 kV DC, 1.5 kV DC

Field	Frequency range	Limits (Quasi-peak)
H Field (Magnetic)	150 kHz ~ 30 MHz	65 ~ 15 dB(μ A/m)
E Field (Electric)	30 MHz ~ 1 GHz	85 ~ 60 dB(μ V/m)

IEC 62236-3-1

Railway applications – Electromagnetic compatibility– Part 3-1

■ Limits for slow moving test

- 750 V and 600 V DC including tram/trolleybus systems for use in city streets (catenary and conductor rail)

Field	Frequency range	Limits (Quasi-peak)
H Field (Magnetic)	150 kHz ~ 30 MHz	55 ~ 5 dB(μ A/m)
E Field (Electric)	30 MHz ~ 1 GHz	75 ~ 50 dB(μ V/m)

IEC 62236-3-1

Railway applications – Electromagnetic compatibility– Part 3-1

■ Test photos



■ **ICR** has test equipments for IEC 62236-3-1 standard and can perform on-site testing.

 **Inquiries**

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