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(REAJ)

**Test methods for continuous induction
type automatic train control**

ICS 45.020

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Land, Infrastructure and Transport through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by the Railway Electrical Engineering Association of Japan (REAJ) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law. Consequently **JIS E 3007:1973** is replaced with this Standard.

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In the event of any doubts arising as to the contents,
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Contents

	Page
1 Scope	1
2 Normative references	1
3 Definitions	1
4 Classification of tests	2
5 Test items	2
6 Test conditions	3
6.1 Standard atmospheric conditions for testing	3
6.2 Test voltage	3
6.3 Tester for on-board receiver	3
7 Test procedures	3
7.1 Constant test	3
7.2 Operation test	4
7.3 Receiving level fluctuation test	6
7.4 Frequency characteristic test	6
7.5 Test for resistance to interference	6
7.6 Endurance test	6
7.7 Voltage fluctuation test	7
7.8 Vibration resistance test	7
7.9 Temperature test	7
7.10 Insulation resistance test	8
7.11 Dielectric withstand voltage test	8
7.12 Fail-safe test	8
7.13 Combination test	8
7.14 Dimension, construction and appearance tests	8

Test methods for continuous induction type automatic train control

1 Scope This Japanese Industrial Standard specifies test methods for the transmitter, wayside receiver, receiving coil for ATC and on-board receiver in the continuous induction type automatic train control with the signal current running through the track circuit or the guideway wire (hereafter referred to as "track circuit").

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions (including amendments) of the standards indicated below shall be applied.

JIS B 7507 *Vernier, dial and digital callipers*

JIS C 1302 *Insulation resistance testers*

JIS E 3014 *Parts for railway signal — Vibration test methods*

JIS E 4031 *Railway rolling stock parts — Test methods for vibration*

JIS E 5004 *Control equipment for electric rolling stock — Test methods*

JIS E 5006 *Railway rolling stock — Electronic equipment — General rules for tests*

JIS E 6005 *Railway rolling stock — Automatic train control and automatic train stop device on board — Test methods*

JIS Z 8703 *Standard atmospheric conditions for testing*

3 Definitions For the purposes of this Standard, the following principal definitions apply:

- a) **continuous induction type automatic train control** A safety system which consists of transmitter, wayside receiver, receiving coil for ATC, on-board receiver, on-board control, etc., receives continuously the signal current flowing through the track circuit on the train by means of induction, and limits the train speed automatically by comparing the speed conditions given by the said procedure with the train speed.
- b) **transmitter** A transmitter which sends the signal current to the track circuit. It principally consists of oscillator portion, modulator portion, power amplifier portion, speed control logic portion, etc.
- c) **wayside receiver** A receiver which detects the signal current sent to the track circuit. It consists of filter part, demodulator part, selector part, received signal determining parts.
- d) **receiving coil for ATC** An equipment which picks up the signal current flowing through the track circuit by means of electromagnetic induction.
- e) **on-board receiver** A receiver which receives the signal current from the receiving coil for ATC and gives the permissible speed of train or the like to the on-board control. It consists of filter part, demodulator part, selector part, interphase part, etc.