

This is a preview of "ISO 15622:2010". [Click here to purchase the full version from the ANSI store.](#)

Second edition  
2010-04-15

---

---

## **Intelligent transport systems — Adaptive Cruise Control systems — Performance requirements and test procedures**

*Systèmes intelligents de transports — Systèmes stabilisateurs de  
vitesse adaptés — Exigences de performance et modes opératoires*



Reference number  
ISO 15622:2010(E)

© ISO 2010

This is a preview of "ISO 15622:2010". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 15622:2010". [Click here to purchase the full version from the ANSI store.](#)

## Contents

Page

Foreword .....	iv
Introduction.....	v
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>1</b>
<b>4 Symbols and abbreviated terms .....</b>	<b>3</b>
<b>4.1 Symbols.....</b>	<b>3</b>
<b>4.2 Abbreviated terms .....</b>	<b>4</b>
<b>5 Classification .....</b>	<b>5</b>
<b>5.1 Type of ACC systems.....</b>	<b>5</b>
<b>5.2 Classification of curve capabilities .....</b>	<b>5</b>
<b>6 Requirements.....</b>	<b>5</b>
<b>6.1 Basic control strategy.....</b>	<b>5</b>
<b>6.2 Functionality .....</b>	<b>6</b>
<b>6.3 Basic driver interface and intervention capabilities .....</b>	<b>9</b>
<b>6.4 Operational limits .....</b>	<b>10</b>
<b>6.5 Activation of brake lights (ACC type 2 only).....</b>	<b>11</b>
<b>6.6 Failure reactions.....</b>	<b>11</b>
<b>7 Performance evaluation test methods .....</b>	<b>12</b>
<b>7.1 Environmental conditions .....</b>	<b>12</b>
<b>7.2 Test target specification .....</b>	<b>12</b>
<b>7.3 Target acquisition range test (see 6.2.4.2).....</b>	<b>13</b>
<b>7.4 Target discrimination test (see 6.2.4.3).....</b>	<b>14</b>
<b>7.5 Curve capability test (see 6.2.4.4).....</b>	<b>16</b>
<b>Annex A (normative) Technical information .....</b>	<b>19</b>
<b>Bibliography.....</b>	<b>25</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

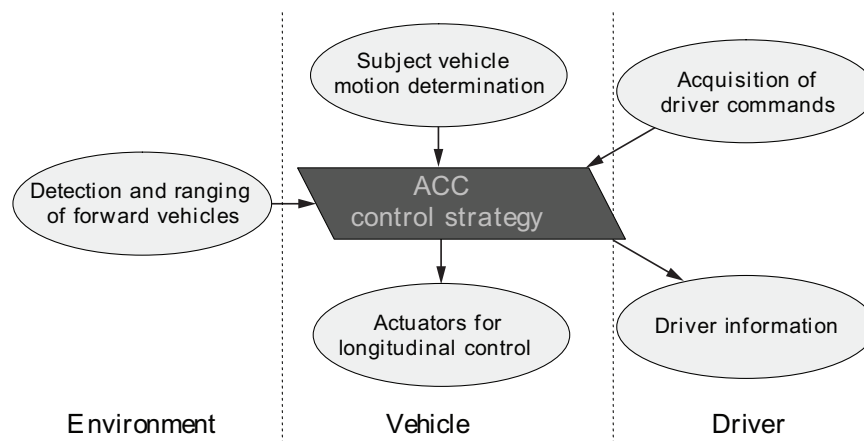
ISO 15622 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

This second edition cancels and replaces the first edition (ISO 15622:2002) which has been technically revised.

This is a preview of "ISO 15622:2010". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

The main system function of Adaptive Cruise Control is to control vehicle speed adaptively to a forward vehicle by using information about: (1) ranging to forward vehicles, (2) the motion of the subject (ACC equipped) vehicle and (3) driver commands (see Figure 1). Based upon the information acquired, the controller (identified as "ACC control strategy" in Figure 1) sends commands to actuators for carrying out its longitudinal control strategy and it also sends status information to the driver.



**Figure 1 — Functional ACC elements**

The goal of ACC is a partial automation of the longitudinal vehicle control and the reduction of the workload of the driver with the aim of supporting and relieving the driver in a convenient manner.

This International Standard can be used as a system level standard by other standards, which extend the ACC to a more detailed standard, e.g. for specific detection and ranging sensor concepts or higher level of functionality. Therefore, issues like specific requirements for the detection and ranging sensor function and performance or communication links for co-operative solutions will not be considered here.