

First edition  
2011-12-15

---

---

---

**Intelligent transport systems —  
Automatic vehicle and equipment  
identification — Electronic Registration  
Identification (ERI) for vehicles —**

**Part 5:  
Secure communications using  
symmetrical techniques**

*Systèmes de transport intelligents — Identification automatique des véhicules et des équipements — Identification d'enregistrement électronique (ERI) pour les véhicules —*

*Partie 5: Communications sécurisées utilisant des techniques symétriques*

---

---

---

Reference number  
ISO 24534-5:2011(E)



© ISO 2011



## COPYRIGHT PROTECTED DOCUMENT

© ISO 2011

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

## Contents

	Page
<b>Foreword .....</b>	iv
<b>Introduction.....</b>	v
<b>1 Scope.....</b>	1
<b>2 Normative references.....</b>	2
<b>3 Terms and definitions .....</b>	2
<b>4 Symbols and abbreviations.....</b>	8
<b>5 System communications concept.....</b>	9
<b>5.1 General .....</b>	9
<b>5.2 Overview.....</b>	9
<b>5.3 Security services .....</b>	13
<b>5.4 Communication architecture description .....</b>	14
<b>5.5 Interfaces.....</b>	16
<b>6 Interface requirements.....</b>	17
<b>6.1 Overview.....</b>	17
<b>6.2 Abstract transaction definitions .....</b>	17
<b>6.3 The onboard interface to the ERT.....</b>	27
<b>6.4 The short-range air interface.....</b>	27
<b>6.5 Remote access interface .....</b>	29
<b>Annex A (normative) ASN.1 module definitions .....</b>	31
<b>Annex B (informative) Operational scenarios.....</b>	34
<b>Annex C (normative) PICS pro forma .....</b>	37
<b>Bibliography.....</b>	39