

INTERNATIONAL
STANDARD

ISO/IEC
15416

First edition
2000-08-15

**Information technology — Automatic
identification and data capture
techniques — Bar code print quality test
specification — Linear symbols**

*Technologies de l'information — Techniques d'identification automatique et
de capture des données — Spécifications pour essai de qualité
d'impression des codes à barres — Symboles linéaires*



Reference number
ISO/IEC 15416:2000(E)



© ISO/IEC 2000

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.

© ISO/IEC 2000

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.ch
Web www.iso.ch

Printed in Switzerland

Contents

	Page
Foreword	vi
Introduction	vii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	3
4.1 Abbreviations	3
4.2 Symbols	3
5 Measurement methodology	4
5.1 General requirements	4
5.2 Reference reflectivity measurements	5
5.2.1 Measurement wavelength(s)	5
5.2.2 Measuring aperture	5
5.2.3 Optical geometry	6
5.2.4 Inspection band	7
5.2.5 Number of scans	7
5.3 Scan reflectance profile	7
5.4 Scan reflectance profile assessment parameters	8
5.4.1 Element determination	9
5.4.2 Edge determination	9
5.4.3 Decode	10
5.4.4 Symbol contrast (SC)	10
5.4.5 Minimum reflectance (R_{min})	10
5.4.6 Edge contrast (EC)	10
5.4.7 Modulation (MOD)	10
5.4.8 Defects	10
5.4.9 Decodability	10
5.4.10 Quiet zone check	11
6 Symbol grading	12
6.1 Scan reflectance profile grading	12
6.1.1 Decode	12
6.1.2 Reflectance parameter grading	12
6.1.3 Decodability	13
6.2 Expression of symbol grade	13
7 Substrate characteristics	13
Annex A (normative) Decodability	14
A.1 Two-width symbologies	14
A.2 Edge to similar edge decodable symbologies ((n, k) symbologies)	14
Annex B (normative) Example of symbol quality grading	16
B.1 Individual scan reflectance profile grading	16
B.2 Overall symbol grade	17
Annex C (informative) Symbol grading flowchart	18
Annex D (informative) Substrate characteristics	19
D.1 Substrate opacity	19
D.2 Gloss	19
D.3 Over-laminate	19