ISO/IEC 24778:2008-02 (E)

Information technology - Automatic identification and data capture techniques - Aztec Code bar code symbology specification

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Terms, definitions, symbols and functions 1
3.1 Terms and definitions 1
3.2 Symbols and functions 2

4 Symbology characteristics 3
4.1 Basic characteristics 3
4.2 Summary of additional features 4

5 Symbol description 4
5.1 Symbol structure 5
5.2 Symbol character structure and sequence 6
5.3 Symbol size and capacity 7

6 General encodation procedures 8

7 Symbol structure 9
7.1 Fixed pattern structures 9
7.2 Mode Message encoding and structure 10
7.3 Data message encoding and structure 11

8 Structured Append 14

9 Reader initialization symbols 14

10 Extended Channel Interpretation 15
10.1 Encoding ECIs in Aztec Code 15
10.2 Code sets and ECIs 15
10.3 ECIs and Structured Append 15
10.4 Post-decode protocol 15
11 User considerations 16
11.1 User selection of encoded message 16
11.2 User selection of minimum error correction level 16
11.3 User selection of Structured Append 16
11.4 User selection of optional symbol formats 16
12 Dimensions 16
13 User guidelines 17
13.1 Human readable interpretation 17
13.2 Autodiscrimination capability 17
13.3 User-defined application parameters 17
14 Reference decode algorithm 17
14.1 Finding candidate symbols 18
14.2 Processing the bullseye image 18
14.3 Decoding the Core Symbol 18

14.4 Decoding the data message 19
14.5 Translating the datawords 20
15 Symbol quality 20
15.1 Symbol quality parameters 20
15.2 Symbol print quality grading 21
15.3 Process control measurements 22
16 Transmitted data 22
16.1 Basic interpretation 22
16.2 Protocol for FNC1 22
16.3 Protocol for ECIs 22
16.4 Symbology identifier 23
16.5 Transmitted data example 23

Annex A (normative) Aztec Runes 24

Annex B (normative) Error detection and correction 26

Annex C (normative) Topological bullseye search algorithm 29

Annex D (normative) Linear crystal growing algorithm 33

Annex E (normative) Fixed Pattern Damage grading 34

Annex F (normative) Symbology identifiers 36

Annex G (informative) Aztec Code symbol encoding example 37

Annex H (informative) Achieving minimum symbol size 41

Annex I (informative) Useful process control techniques 43

Bibliography 45