

Table of Contents

Generic Requirements Notice Of Disclaimer	iii
Preface	xi
1. Introduction	1-1
1.1 Purpose and Scope	1-1
1.2 Organization	1-1
1.3 Reasons for Reissue	1-1
1.4 Requirements Terminology	1-2
1.5 Requirement Labeling Conventions	1-3
1.5.1 Numbering of Requirement and Related Objects	1-3
1.5.2 Requirement, Conditional Requirement, and Objective Identification	1-3
2. General Information	2-1
2.1 Description	2-1
2.2 Label and Packaging Changes	2-1
2.3 Manufacturer's Responsibility	2-1
2.4 Production Samples	2-2
2.5 Documentation	2-2
3. Description of Label Types	3-1
3.1 Label Types - Code 39 and UCC/EAN-128 (Linear Bar Code Symbols)	3-1
3.2 Label Types - Two-Dimensional [2D] Symbology	3-1
3.2.1 MicroPDF417 Labels	3-2
3.2.2 MicroPDF417 Label Types	3-3
3.3 Transitional Symbology	3-3
3.3.1 TLC39	3-3
3.3.2 TLC39 Label Type	3-4
3.4 Human Readable Only Label	3-4
3.4.1 Human Readable Only Label Type	3-5
3.5 Label Use	3-5
3.6 Shelf Life	3-5
4. Requirements	4-1
4.1 General	4-1
4.2 Adhesive	4-3
4.3 Adhesion Strength and Abrasion	4-3
4.3.1 Adhesion Strength	4-3
4.3.2 Abrasion	4-4
4.4 General Layout and Location	4-4
4.4.1 Layout	4-4
4.4.2 Location	4-4
4.4.3 Titles	4-5
4.5 Dimensions	4-5
4.6 Printed Bar Code	4-5
4.6.1 Syntax	4-5
4.6.2 Symbol Requirements	4-6
4.6.3 Cell Size and X Dimension	4-7
4.6.4 Symbol Height	4-8
4.6.5 Two-Dimensional Symbol Size	4-8
4.6.6 Quiet Zone	4-8

- 4.6.7 Print Quality 4-9
- 4.7 Printed Alphanumeric Characters (Human-Readable Information) 4-10
 - 4.7.1 Labels with Code 39 Linear Bar Code Symbols (Type F, G, J, and K) 4-10
 - 4.7.2 Labels with Two-Dimensional MicroPDF417 Symbols 4-11
- 4.8 Reflectivity and Contrast 4-11
- 4.9 Scannability 4-11
- 4.10 Laser-Etching and Other Direct Marking Technologies 4-12
- 4.11 Shelf Life 4-12
- 4.12 Method of Test for Label Adhesive Characteristics and Mark Durability 4-12
- 5. Packing 5-1
 - 5.1 Types F, G, J, and K Labels 5-1
 - 5.2 Types M, Z, or T Labels 5-1
 - 5.3 Packaging 5-2
 - 5.4 Marking 5-2
 - 5.5 Marking Data 5-3
 - 5.6 Lettering Size 5-3
- 6. Description, Requirements, and Packaging of Code 11 Label Types 6-1
 - 6.1 Label Types 6-1
 - 6.2 Requirements 6-2
 - 6.2.1 General 6-2
 - 6.2.2 Adhesive 6-3
 - 6.2.3 Adhesion Strength and Abrasion 6-4
 - 6.2.4 General Layout and Location 6-4
 - 6.2.5 Dimensions 6-5
 - 6.2.6 Printed Bar Code 6-5
 - 6.2.7 Printed Alphanumeric Characters (Human-Readable Information) 6-7
 - 6.2.8 Reflectivity and Contrast 6-8
 - 6.2.9 Scannability 6-8
 - 6.2.10 Laser-Etching and Other Direct Marking Technologies 6-8
 - 6.2.11 Shelf Life 6-8
 - 6.2.12 Method of Test for Label Adhesive Characteristics and Mark Durability 6-9
 - 6.3 Packing 6-9
 - 6.3.1 Types A, B, and C Labels 6-9
 - 6.3.2 Packaging 6-10
 - 6.3.3 Marking 6-10
 - 6.3.4 Marking Data 6-11
- 7. Figures 7-1
- Appendix A: Code 39 Character Structure A-1
- Appendix B: Code 11 Bar Code Structure and Widths B-1
- Appendix C: Code 11 Check Digit Algorithm C-1
- Appendix D: Standards Organizations D-1
- Appendix E: Guidelines for the Use of TLC39 E-1
 - E.1 Introduction E-1
 - E.2 Data Format E-1
 - E.3 Encoding a TLC39 Symbol E-2
 - E.4 Decoding a TLC39 Symbol E-5
 - E.5 Transmitted Data E-6
 - E.5.1 ECI Only E-6
 - E.5.2 ANS MH10.8.3 (ISO/IEC 15434) 2D Syntax E-6



Appendix F: References F-1
 F.1 References F-1

List of Figures

Figure 7-1	Type F and G Bar Code Label (Code 39 Symbology)	7-1
Figure 7-2	Full Size Type J and Die Cut Type K Bar Code Label (Code 39 Symbology)	7-2
Figure 7-3	Type F, G, J, and K Bar Code Label Page Optional Layout	7-3
Figure 7-4	Type A and B Bar Code Label (Code 11 Symbology)	7-4
Figure 7-5	Type M Label - 3 Human-Readable Data Elements	7-5
Figure 7-6	Type M Label - 2 Human-Readable Data Elements (CLEI Code and EAN/UCC-14)	7-6
Figure 7-7	Type M Label - 2 Data Elements in Symbol (CLEI Code and Unique Serial Identification) - 2 columns by 20 rows	7-7
Figure 7-8	Type M Label - 2 Data Elements in Symbol (CLEI Code and Unique Serial Identification) - 1 Human-Readable Data Element (CLEI Code) - 4 columns by 12 rows	7-8
Figure 7-9	Type Z Label - TLC39 Symbol	7-9
Figure 7-10	Type T Label - Human Readable CLEI Code Only	7-9
Figure E-1	Type Z Label - TLC39Symbol	E-1
Figure E-2	Height Extension Calculation for Link Flag Character	E-3