

# Appendix L: LVS<sup>®</sup> 95XX Data Matrix Calibrated Conformance Standard Test Card

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**GS1 Solution Partner**



***Disclaimer***

The information and specifications described in this manual are subject to change without notice.

### IMPORTANT NOTE – PLEASE READ

Before using the Data Matrix Calibrated Conformance Standard Test Card (CCSTC), read the document accompanying the test card entitled “READ ME FIRST.” This document provides important information on the CCSTC, including information about Symbol 5 (Contrast Uniformity). Contrast Uniformity is an optional parameter and does not affect the overall grade of the symbol. The Overall Symbol Grade for Symbol 5, as well as the Contrast Uniformity value, have been provided to enhance the value of the card. Read the “READ ME FIRST” document to learn more about this information as well as other important Data Matrix CCSTC information.

## Using the Data Matrix CCSTC

The Data Matrix CCSTC tests the results of the LVS-95XX against the CCSTC. It is important to note that the CCSTC is not a calibration card; it is a test card. Complete instructions on using the CCSTC accompany the test card.

The LVS-95XX must first be calibrated using the calibration card packaged with the system. The CCSTC is then used to read the symbol on the CCSTC and compare the results to the value reported by the LVS-95XX against the values stated on the CCSTC. Using the example below, the first symbol is read and compared against the values reported by the LVS-95XX.

**ISO/IEC Data Matrix & GS1 DataMatrix  
CALIBRATED CONFORMANCE STANDARD TEST CARD**

Symbol 1

Serial Number: 1211  
Date Processed: 14-Dec-2009  
Wavelength: 660 nm  
Synthetic Aperture: 0.8 x-Dim

Symbol	SC	Rmax	Rmin	ANU	GNU	Contrast Uniformity	UEC	FPD
Symbol 1: 4.0 (A)	79.2 %	82.6 %	3.4 %	0.1 %	3.3 %	31.6 %	0.43	2.0
Symbol 2: 1.0 (D)	11.0 %							
Symbol 3: 1.0 (D)	69.0 %							
Symbol 4: 1.0 (D)	32.3 %							
Symbol 5: 4.0 (A)								
Symbol 6: 2.0 (C)								
Symbol 7: 2.0 (C)								

Values for Symbol 1 reported by the LVS-95XX.

If the results do not match the CCSTC, recalibrate the LVS-95XX and check the results of the calibration on the calibration card measurements. Contact Omron Microscan technical support if the results do not match.

If the measurements of the calibration card are in the acceptable range, try the CCSTC again. If the values match, you are finished. Contact Omron Microscan technical support if the values do not match.

## Purchasing a Data Matrix CCSTC

Contact your Omron Microscan sales representative or distributor to purchase a Data Matrix CCSTC.

Purchased cards are certified for up to two years from the “In-Service Date” and no more than four years from the “Date Processed,” both of which are shown on the CCSTC (see below).

**ISO/IEC Data Matrix & GS1 DataMatrix**  
CALIBRATED CONFORMANCE STANDARD TEST CARD

1. SC, ANU, GNU - 4 (A)  
X=0.500 mm (0.0197 in)

2. ANU - 1 (D)  
X=0.500 mm (0.0197 in)

3. GNU - 1 (D)  
X=0.500 mm (0.0197 in)

4. SC - 1 (D)  
X=0.500 mm (0.0197 in)

5. Contrast Uniformity  
X=0.360 mm (0.0142 in)

6. UEC - 2 (C)  
X=0.360 mm (0.0142 in)

7. FPD - 2 (C)  
X=0.360 mm (0.0142 in)

**Serial Number: 1211**

**Date Processed: 14-Dec-2009**

Wavelength: 660 nm  
Synthetic Aperture: 0.8 x-Dim

**Symbol 1: 4.0 (A)**  
SC - 79.2 %  
Rmax - 82.6 %  
Rmin - 3.4 %  
ANU - 0.1 %  
GNU - 3.3 %

**Symbol 2: 1.0 (D)**  
ANU - 11.0 %

**Symbol 3: 1.0 (D)**  
GNU - 69.0 %

**Symbol 4: 1.0 (D)**  
SC - 32.3 %  
Rmax - 35.5 %  
Rmin - 3.2 %

**Symbol 5: 4.0 (A)**  
Contrast Uniformity - 31.6 %

**Symbol 6: 2.0 (C)**  
UEC - 0.43

**Symbol 7: 2.0 (C)**  
FPD - 2.0

2D JUDGE™ CERTIFIED

PCN: 134812013523

PIN: CCSTC/CMG01 Rev. A  
GTIN: 00514141013490

EXP. DATE

IN-SERVICE DATE

THIS STANDARD IS CERTIFIED FOR UP TO 2 YEARS FROM THE IN-SERVICE DATE  
BUT NO MORE THAN 4 YEARS FROM THE DATE PROCESSED AS SHOWN ON THE  
VALUATED CONFORMANCE STANDARD DOCUMENTATION.