



TEST PROCEDURE TO ISO/IEC 15415 based Data Matrix Bar Code Verifiers Using Applied Image Data Matrix Conformance Card to Test Compliance to Tolerances per ISO/IEC 15426-2

REV D

This procedure utilizes seven test symbols on the Applied Image Conformance Calibration Standard Enhanced Test Card for ISO/IEC Datamatrix and GS1 Datamatrix card (Part No. AI-CCS-DM-E which is Cognex P/N DMV-DMCC or AI-CCS-DM-G which is Cognex P/N DMV-DMCCG). For each symbol, fill in Columns 3, 4 and 5 based on the target values marked on the card. The seven test symbols on the Applied Image Standard Test Card test different quality parameters to show the verifier conforms to ISO/IEC 15426-2. Calibrate your verifier, then follow the procedure outlined below.

For each verification, attach a copy of the printed report to this test procedure.

Record the Serial Number for the verifier: _____

Record the Software and/or Firmware Version used: _____
(this can be found by selecting Help -> About in the TruCheck software or in DataMan Setup Tool)

Record the Serial Number for the Applied Image Standard Test Card: _____

Record the Cal Date for the Applied Image Standard Test Card: _____

For all tests, the Grading Standard and Report Options setting should be set to ISO 15415 and all other standard selections should be unchecked. In Webscan TruCheck software, check the box for Data Matrix and set the Aperture to Auto 80% and the application standard to Pass Grade with N/A in the drop-down box; in DataMan Setup Tool select Custom for Application Standard and Auto 50%/80% for Aperture



TEST PROCEDURE TO ISO/IEC 15415
based Data Matrix Bar Code Verifiers
Using Applied Image Data Matrix Conformance Card
to Test Compliance to Tolerances per ISO/IEC 15426-2

REV D

Column 1: Symbol Number	Column 2: Parameter Name	Column 3: Target Value as Marked on Card	Column 4; Target Values Rounded to nearest whole number	Column 5: Calculated Limits based on Tolerances in ISO/IEC 15426-2	Column 6: Measured Value	Column 7: Within Limits? ☒ YES ☒ NO
Verify symbol 1 on the card and enter the measured values for each parameter into Column 6. Confirm that each parameter value listed below falls within the limits calculated in column 5. If so, check YES in Column 7. (*Note for High Density versions of verifiers with a field of view that is too small to use Symbol #1, you may use Symbol #5 instead of Symbol #1 for this set of tests but you should not use Symbol #5 on standard resolution verifiers.)						
1	Symbol Contrast (SC)			+8 =		
				- 8 =		
1	R-max			+5 =		
				- 5 =		
1	R-min			+3 =		
				- 3 = (or 0)		
1	Axial Non-Uniformity (ANU)			+2 =		
				- 2 = (or 0)		
1	Grid Non-Uniformity (GNU)			+6 =		
				- 6 = (or 0)		



TEST PROCEDURE TO ISO/IEC 15415
based Data Matrix Bar Code Verifiers
Using Applied Image Data Matrix Conformance Card
to Test Compliance to Tolerances per ISO/IEC 15426-2

REV D

Column 1: Symbol Number	Column 2: Parameter Name	Column 3: Target Value as Marked on Card	Column 4; Target Values Rounded to nearest whole number	Column 5: Calculated Limits based on Tolerances in ISO/IEC 15426-2	Column 6: Measured Value	Column 7: Within Limits? ☒ YES ☒ NO
Verify symbol 2 on the card and enter the measured values for the ANU parameter into Column 6. Confirm that the value falls within the limits calculated in column 5. If so, enter YES in Column 7.						
2	Axial Non-Uniformity (ANU)			+2 =		
				- 2 =		
Verify symbol 3 on the card and enter the measured values for the GNU parameter into Column 6. Confirm that the value falls within the limits calculated in column 5. If so, enter YES in Column 7.						
3	Grid Non-Uniformity (GNU)			+6 =		
				- 6 =		
Verify symbol 4 on the card and enter the measured values for the SC parameter into Column 6. Confirm that the value falls within the limits calculated in column 5. If so, enter YES in Column 7.						
4	Symbol Contrast (SC)			+8 =		
				- 8 =		
4	R-max			+5 =		
				- 5 =		
4	R-min			+3 =		
				- 3 = (or 0)		



TEST PROCEDURE TO ISO/IEC 15415
based Data Matrix Bar Code Verifiers
Using Applied Image Data Matrix Conformance Card
to Test Compliance to Tolerances per ISO/IEC 15426-2

REV D

Column 1: Symbol Number	Column 2: Parameter Name	Column 3: Target Value as Marked on Card	Column 4; Target Values Rounded to nearest whole number	Column 5: Calculated Limits based on Tolerances in ISO/IEC 15426-2	Column 6: Measured Value	Column 7: Within Limits? ☒ YES ☒ NO
Verify symbol 6 on the card and enter the measured values for the CU parameter into Column 6. This value can be found in the General Characteristics Section of the Printed Report. Confirm that the value falls within the limits calculated in column 5. If so, enter YES in Column 7.						
6	Contrast Uniformity (CU)			+8 =		
				- 8 =		
Verify symbol 7 on the card and enter the measured values for the UEC parameter into Column 6. Confirm that the value equals the value in column 5. If so, enter YES in Column 7.						
7	Unused Error Correction (UEC)	41.7%	42%	42%		
Verify symbol 8 on the card and enter the measured values for the FPD parameter into Column 6. Confirm that the value equals the value in column 5. If so, enter YES in Column 7.						
8	Fixed Pattern Damage (FPD)	2.0 (C)	C	C		

Date

Name

Signature