



How to Read the Quadrus® Verifier's Certificate of Calibration

The Quadrus Verifier is a device that requires a rigorous calibration process to function reliably in an industrial environment. The Certificate of Calibration provides detailed evidence of the testing and calibration process by listing all instrument accuracy tests that have been performed on the Verifier, along with the results of those tests. All test results are provided in a table that also includes standard tolerances for each parameter.

This guide explains the details of the Certificate, including test environment information and instrument accuracy test parameters. The guide is presented in three major sections, concerning the information at the top of the Certificate, information in the middle, and information at the bottom.



Model Information and Testing Conditions

The physical environment in which the Quadrus Verifier is tested and calibrated is extremely important, because even slight variations in factors such as the angle of LED illumination in the Verifier's lighting chamber, the air temperature, or the amount of ambient light near the Verifier, can affect testing and calibration results. The tables directly below the model information show all relevant environmental conditions at the time of testing and calibration.

Model: Identifies the name of the product. Part Number: Identifies the Microscan part number that corresponds with the specific attributes of the Verifier. Date Calibrated: Specifies the date on which all tests listed in the Instrument Accuracy Table (see

reverse) were performed.

Quadrus Verifier Model: Part Number: FIS-xxxx-xxxx Date Calibrated: 25-Jan-06

Serial Number: Identifies the unique product number for tracking and maintenance purposes.

Condition: States the product's condition at the time of shipping.

Next Cal. Date: Specifies the due date for Verifier calibration (the Verifier must be calibrated once a year to maintain conformance to ISO/IEC 15426-2 requirements.)

Serial Number: 0000000 Condition: New Next Cal. Date: 25-Jan-07

Test Symbols & Light Configuration Reference Test Symbols 11-000125 Symbology Tested Data Matrix ECC 200 Illumination 660nM 45° Angle of Illumination Symbology Tested: **Reference Test** Identifies that the Verifier Symbols: Shows has been tested using Data Matrix symbols

Angle of Illumination: States that the LEDs in the Verifier's lighting chamber were angled at 45 degrees at the time of testing.

with the Reed-Solomon

Error Correction type

ECC 200.

the Microscan part number for the symbols used for testing.

Illumination: Shows the wavelength of light emitted by the LEDs in the Verifier's lighting chamber.

72 ±5 Degrees F Relative Humidity 45% ±10 Ambient Light Conditions 500-900 Lux, 60Hz, Fluorescent Overhead Lighting Temperature: States the fahrenheit

temperature of the testing environment at the time of calibration.

Test Environment

Power Supply

Temperature

Ambient Light Conditions: Explains the characteristics of the lighting in the testing environment at the time that testing and calibration were performed.

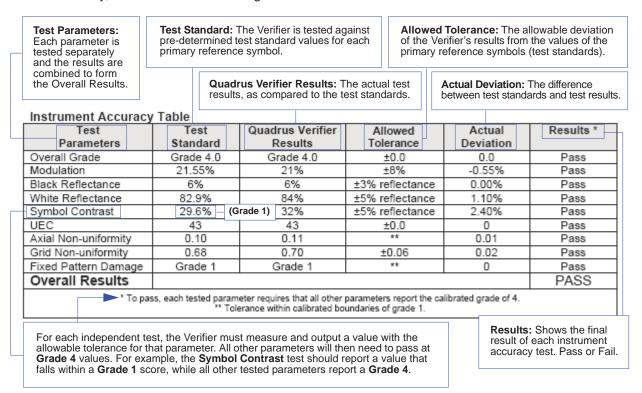
Relative Humidity: Expresses the relative humidity of the testing environment at the time of calibration.

97-100004-15

Power Supply: Shows the Microscan part number for the Verifier's power supply, used at the time of testing.

Instrument Accuracy Results

The Instrument Accuracy Table is located at the center of the Certificate. It is important for the user to understand that the Verifier must pass a separate test *for each test parameter*. In other words, there is a separate test for Modulation, Symbol Contrast, Unused Error Correction, Axial Non-Uniformity, Grid Non-Uniformity, and Fixed Pattern Damage. The individual test results are reflected in the Overall Results.



Signature and Test Accuracy Ratio Information

Near the bottom of the Certificate is the signature and printed name of the technician who performed the testing and calibration process. Directly beneath the signature line is a brief explanation of the specific standards to which the Verifier is calibrated.

