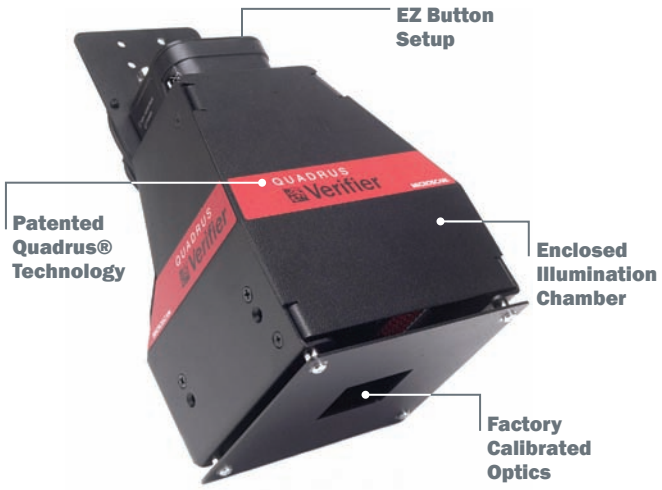
QUADRUS® VERIFIER



ISO/IEC 15426-2 CERTIFIED

Factory Floor Ready Data Matrix Verifier

The Quadrus Verifier is a fully integrated Data Matrix Verifier ready for factory floor use. Using quality criteria in established standards, the Quadrus Verifier provides precise analysis, measurement and reports of symbol quality.

The compact, lightweight Quadrus Verifier is designed specifically for use in a factory environment, and provides easy integration into manufacturing processes. The self-contained, factory-calibrated system offers flexible mounting and allows the Quadrus Verifier to be adapted to any application quickly and easily.

Quadrus Verifier: At a Glance

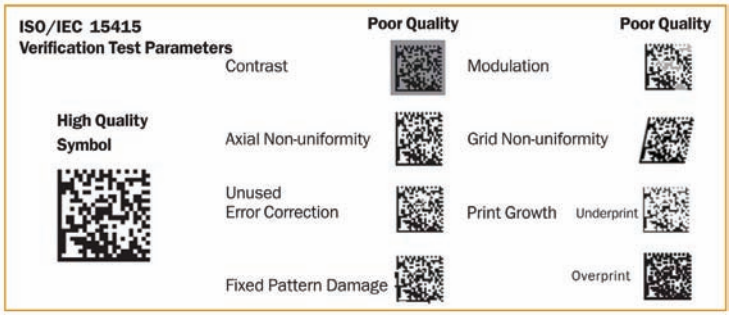
- *Standards: ISO/IEC 15415, AS9132, AIM DPM*
- *Patented Quadrus Technology*
- *Optional Ethernet Connectivity*

ESP®: Easy Setup Program software provides a single verification screen for all Quadrus Verifier features.

EZ Trax™: Image capture and storage software provides tracking of symbol images.

EZ Button: This performs reader setup and configuration with no computer required.

For more information on this product, visit www.quadrus-ez.com.



Fully Calibrated System
The Quadrus Verifier provides a ready-to-use system. Simply center a symbol in the field of view, trigger, and receive a symbol verification report. There is no need to focus the optics or set the light angles, which are calibrated and set at the factory.

Verification Test Parameters
Symbol quality verification test parameters have been established by organizations and industries to ensure reliability and consistency of symbols. These parameters specify uniform quality and technical requirements, as well as methods for measuring and grading symbol characteristics.

Illumination Chamber
The fully enclosed illumination chamber is specifically engineered to block out ambient light and provide the controlled environment required for accurate, repeatable verification.

Verification Reports
ESP software generates comprehensive symbol verification reports. The report shows the graded results for all individual parameters, as well as the image, decoded data, and time stamp. Reports can be saved in these digital formats: .pdf, .html, .cvs, and .rtf.

Application Examples
- Automotive
- Aerospace
- Other direct part mark applications

MICROSCAN®

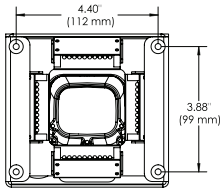
QUADRUS® VERIFIER

Specifications and Options

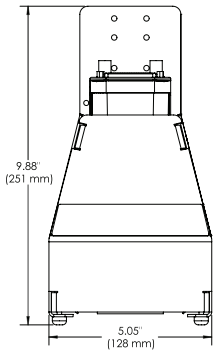
MECHANICAL

Height: 9.88" (251 mm)
Width: 5.05" (128 mm)
Depth: 4.74" (120 mm)

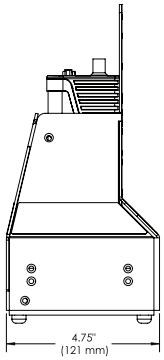
Front



Top



Side



ENVIRONMENTAL

Operating Temperature: 0° to 43°C (32° to 109°F). If mounted on nonmetal surface, maximum operating temperature is 40°C (104°F).
Storage Temperature: -50° to 75° C (-58 to 167°F)
Humidity: up to 90% (non-condensing)

EMISSIONS/IMMUNITY

ITE Disturbances: EN55022: 1998 (radiated and conducted). Class A
General Immunity: EN55024:1998 (residential)
Heavy Industrial Immunity: EN61000-6-2:1999
Lead Radiation CCS: EN60825-1

LIGHT SOURCE

Type: High output LEDs
External (45°, 30°): 660 nM

LIGHT COLLECTION

CCD Array: 656 x 496 pixels

FOV/ELEMENT SIZE CHART

Symbol*	Min. Element Size	FOV
	≥.0075 (0.19 mm)	.49 X .37" (12.5 X 9.4 mm)
	≥.010 (0.25 mm)	.66 X .5" (16.8 X 12.7 mm)
	≥.0125 (0.32 mm)	.82 X .62" (20.8 X 15.7 mm)
	≥.015 (0.38 mm)	.98 X .72" (24.9 X 18.8 mm)
	≥.020 (0.30 mm)	1.31 X .99" (33.3 X 25.2 mm)

*Symbol samples are 26 X 26 size at element size, 88 numeric/64 alphanumeric characters

CONNECTORS/PIN ASSIGNMENTS

Host Connector: 25-pin D-subminiature plug

Pin No.	Host RS232	Host & Aux RS232	Ethernet	In/ Out
1	Chassis ground[a]			
2		TxD		Out
3		RxD		In
4	RTS	TxD		Out
5	CTS	RxD		In
6	Output 1 (+)			Out
7	Signal Ground[b]			
8	Output 2 (+)			Out
9	Trigger (–)			In
10	Trigger (+)			In
11	Default configuration[c]			In
12	Input 1 (+)			In
13			RxD (+)	In
14			RxD (–)	In
15	Light Control (+)			Out
16			TxD (–)	Out
17	Power Ground[d]			
18	Power +10 to 28 VDC			In
19			TXD +	Out
20	Output 1 (–)			Out
21	Output 2 (–)			Out
22	Light Control (–)			Out
23	Input 1 (–)			In
24	New master (–)			In
25	New master (+)			In

[a]Chassis ground: Used to connect chassis body to earth ground only. Not to be used as power or signal return.
[b]Signal ground: Used for communication and signal line grounds only. Not to be used as power or chassis return.
[c] The default is activated by connecting pin 11 to ground pin 7.
[d] Power ground: Used for power return only.
Caution: If using your own power supply, verify correct connection of power and ground lines. Incorrect connections or use of "Chassis ground," "Power ground," and "Signal ground" lines could cause equipment or software failure.

SYMBOLS VERIFIED

Data Matrix (ECC 0-200)

STANDARDS:

Data Matrix Verification:
AIM DPM, AS9132, ISO/IEC 15415 (2D)
Verifier Conformance: ISO/IEC 15426-2

VIDEO OUTPUT

Signal System: EIA (RS-170)
Number of Scanning Lines: 525 lines/ 2:1 interlaced
Output: Analog 1 Vp-p/75 ohm

INDICATORS

LEDS: Read Performance, Power, Read Status, and Network Status
Beeper

COMMUNICATION PROTOCOLS

Interface: RS-232, Ethernet

ELECTRICAL

Power Requirements: Input, 10 to 28 VDC, 200 mV p-p max ripple, 333 mA at 24 VDC
Trigger, New Master, Input 1: (Optoisolated) 5 to 28 VDC rated, (12mA at 24 VDC).
Outputs 1/2: (Optoisolated) 1 to 28 VDC rated, (I_{CE} < 100mA at 24 VDC, current limited by user).
Output 3: Light control, (Optoisolated) 1 to 28 VDC rated, (I_{CE} < 100mA at 24 VDC, current limited by user).

SAFETY CERTIFICATIONS

Designed for: FCC, CE

ISO CERTIFICATION

Issued by RWTüV, USA Inc.
Cert. No. Cert No. 06–1080

ISO 9001:2000
Certified QMS

Read Range and other performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25°C environment. For application-specific Read Range results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. Warranty–One year limited warranty on parts and labor. Extended warranty available.

MICROSCAN®

Microscan Systems, Inc.
Tel 425 226 5700/ 800 251 7711
Fax 425 226 8250
Microscan Europe
Tel 31 172 423360/ Fax 31 172 423366
Microscan Asia Pacific R.O.
Tel 65 6846 1214 / Fax 65 6846 4641
www.microscan.com
Tech Support: helpdesk@microscan.com
Product Information: info@microscan.com