Diamond Technologies
Getting data where it needs to be.

Product Overview

DSE0450 Ultra Compact 2D Embedded Barcode Scan module

The DSE0450 is a decoded ultra-compact high performance 2D scan module with RS232 or UART interface.
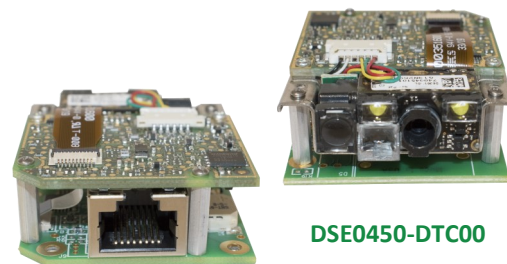
The reader features an exceptional high-speed sensor which enables image capture at a full 60 frames per second, delivering outstanding motion tolerance. The integrated white illumination is pleasant to the user's eyes and provides greater reading capabilities inside or outside of an OEM machine. The scan engine features an outstanding depth-of-field, a large field-of-view, high motion tolerance, snappy reading, and excellent performance on decoding poorly printed bar codes and bar codes displayed on mobile devices and computer screens.   The DSE0450 incorporates a cross hair aimer and visual good read green spot greatly enhancing the user experience and ease of use.   The DSE0450 also includes an integrated beeper for customer feedback.

DSE0450

DSE0450-DTC00

Features

- Highly reliable Decoding engine
- Ultra Compact size and multiple configuration options
- Highly visible center cross hair and 4 dot aiming system
- Steady integrated white illumination
- Snappy reading performance with high motion tolerance
- Excellent reading of 1D or 2D codes on print or displayed on mobile device or computer screens
- Green Spot good-read feedback
- Standard RJ50 RS232 or UART communications
- Optional Integrated close range trigger sensor
- Optional Bluetooth or WiFi interface

DSE0450-DTC0E

Applications

The DSE0450 is perfectly suited for OEM applications and specifically designed for embedded barcode requirements in:

- Medical devices
- Lab Automation systems
- Kiosks
- Vending machines

- Bedside point of care devices
- Lottery Machines
- Self Service Systems
- Loyalty reward programs

DECODING CAPABILITY

1D / LINEAR CODES	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.
2D CODES	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code
POSTAL CODES	Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Korea Post; Planet Code; Postnet; Royal Mail Code (RM4SCC)
STACKED CODES	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites

ELECTRICAL

CURRENT	Operating (Typical): <150mA Standby/Idle (Typical): 12mA
INPUT VOLTAGE	4.5 - 5.5 VDC +/-5% at 23 °C

ENVIRONMENTAL

AMBIENT LIGHT	0 - 100,000 lux
HUMIDITY	5 - 95% (NON –CONDENSING)
SHOCK	2500 G at 23 °C at 0.85 m sec.
TEMPERATURE	Operating: -10 to 50 °C / 14 to 122 °F
	Storage/Transport: -40 to 70 °C / -40 to 158 °F

INTERFACES

INTERFACES	DSE0450: UART 8-pin zif cable
	DSE0450-DTXXX: RS-232/RJ connector

PHYSICAL CHARACTERISTICS

DIMENSIONS	13.65 H x 40.1 W x 47.86 D mm /0.54 H x 1.58 W x 1.88 D in (Measured as one scan module)
WEIGHT	20.0 g / 0.7 oz

READING PERFORMANCE

IMAGER SENSOR	WVGA: 752 x 480 pixels
LIGHT SOURCE	Aiming: 650 nm VLD Illumination: Internal White LEDs
PRINT CONTRAST RATIO (MIN)	25%
FIELD OF VIEW	40° H x 26° V
READING ANGLE	Pitch: +/- 60°; Roll (Tilt): +/-180°;Skew (Yaw): +/- 60°
READING INDICATORS	Green Spot good read confirmation (optional), Audible Beeper
RESOLUTION (MAXIMUM)	1D Linear: 3 mils; DataMatrix: 7.5 mils; PDF417: 5 mils

READING RANGES

TYPICAL DEPTH OF FIELD	Minimum distance determined by symbol length and scan angle. Printing resolution, contrast, and ambient light dependent. 1D / 2D CODES
	3 mils Code 39: up to 10.5 cm / up to 4.1 in
	5 mils Code 39: 6.5 to 21.0 cm / 2.6 to 8.3 in
	13 mils EAN-13: 5.5 to 39.0 cm / 2.2 to 15.4 in
	20 mils Code 39: up to 50.0 cm / up to 19.7 in
	15 mils DataMatrix: 4.0 to 25.0 cm / 1.6 to 9.8 in

SAFETY & REGULATORY

ENVIRONMENTAL COMPLIANCE	Complies to China RoHS; Complies to EU RoHS
LASER CLASSIFICATION	Caution Laser Radiation - Do not stare into beam IEC 60825 Class 2

UTILITIES

DATALOGIC ALADDIN™	Datalogic Aladdin configuration SW
	Command set for programmatic configuration
OPOS / JAVAPOS	JavaPOS Utilities are available
	OPOS Utilities are available
REMOTE HOST DOWNLOAD	Lowers service costs and improves operations

WARRANTY

WARRANTY	18-Month Factory Warranty

DSE0450-DTC00

DSE0450-DTCSE