Tipcode TP5X Series 2D Area Imager

High-performance embedded 2D area imager with a high-speed imaging decode engine, reading 1D and 2D barcodes with ease.

Many enterprises have faced a difficult choice: a high-performance laser engine suited to 1D barcode scanning, or a versatile 2D imager with weaker performance. This engine eliminates that trade-off, delivering a comprehensive feature set that redefines imaging technology.

This product combines outstanding 1D and 2D barcode performance with still-image and video capture, enabling enterprises to deploy entirely new applications. Its decoder board carries a powerful microprocessor that decodes 1D and 2D barcodes in just a few milliseconds, with excellent motion tolerance. The result is exceptional scanning speed that improves productivity across retail, healthcare, transportation, logistics, public safety and many other industries.



Product Features

- Precision red-light aimer
- World-class 2D scanning platform
- High-speed, omnidirectional 1D/2D imaging
- Easy integration - multiple configurations
- Ultra-low power consumption
- Wide-angle image sensor
- Omnidirectional 1D/2D reading
- Reads PC / phone screen codes
- Built-in RS232 and USB interfaces
- Compact size - fits any application

Ordering Models

TP51	300K pixels, rolling shutter
TP53	300K pixels, global shutter
TP55	600K pixels, dual-chip global shutter

Physical Characteristics

Weight	
Body weight (USB)	Approx. 2.61 oz (74 g)
Housing material	PC
Standard cable length	5 ft (1500 mm)
Interface	USB, RS232
Dimensions	20.6 mm L x 14.5 mm W x 11.9 mm H

Electrical Characteristics

Operating input voltage	Imaging engine:	3.3 VDC ±5% (23 °C)	USB
	Decoder board:	3.3-5.5 VDC (23 °C)	+5 V ±5%
Current consumption:	Imaging engine:	Max. operating 100 mA	Standby 100 µA
		Average (interlaced mode)	Standby / Peak
		150 mA	120 µA / 350 mA

Performance Parameters

Focal point:	SR: 17.8 cm from the lens					
	SF: 11.4 cm from the lens					
Working range (standard) * Data characterised at 23 °C and 0 lux ambient light						
SR*	8.3 mil 1D (0.2 mm)	10 mil PDF417 (0.25 mm)	13 mil UPC (0.33 mm)	15 mil Data Matrix (0.38 mm)	15 mil QR (0.38 mm)	35 mil MaxiCode (0.89 mm)
Nearest	8.9 cm	7.9 cm	5.3 cm	5.8 cm	7.9 cm	5.1 cm
Farthest	19.3 cm	22.9 cm	33.5 cm	25.9 cm	22.4 cm	33 cm
SF*	6.6 mil PDF417 (0.17 mm)	7.5 mil 1D (0.19 mm)	8.3 mil Data Matrix (0.21 mm)	8.3 mil QR (0.21 mm)	10 mil 1D (0.25 mm)	13 mil UPC (0.33 mm)
Nearest	7.1 cm	6.4 cm	8.6 cm	8.6 cm	5.6 cm	5.1 cm
Farthest	15.2 cm	16.5 cm	14.5 cm	13.7 cm	19.3 cm	22.6 cm
Image sensor:	640 x 480 / 960 x 640 CMOS sensor					
Motion tolerance:	20.2 cm/s					
Rotation sensitivity:	360°					
Viewing angle:	±40°					
Ambient light:	0-100,000 lux (full sunlight)					
Aiming:	LEDs: 526 nm ±30 nm | Laser: 650 nm ±10 nm					

Note: 1 mil = 0.0254 mm = 0.00254 cm

Environmental Characteristics

Operating temperature	-30 °C to 50 °C (-22 °F to 122 °F)
Storage temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0% to 95%, non-condensing (50 °C)

tipcode 顶码
专业扫码,优选顶码!

Reliability

Service life	
Button	1,000,000 presses
LED	30,000 hours
MTBF (calculated)	80,000 hours
Temperature test	
High temperature	60 °C (140 °F)
Low temperature	-20 °C (-4 °F)
Cycle time	30 minutes for high temp., 30 minutes for low temp.
Cycles	24 cycles
Drop / shock	18 shocks of 2,500 G

Supported Barcode Symbologies

2D:	PDF417, Micro PDF417, MaxiCode, QR Code, Aztec Mesa, Code 49, UCC Composite
1D:	Code 39, Code 128, Codabar, UPC, EAN, Interleaved 2 of 5, RSS, Code 93, Code Block
Postal:	Postnet (US), Planet Code, BPO 4-State, Canadian Post, Japanese Post, KIX (NL) Post
OCR:	OCR-A, OCR-B