

2D Barcode Scan Engine

CSE-6100



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2D Barcode Miniature Engine (CSE-6100)

CSE-6100 is new small 2D barcode engine for OEM systems & hardwares. This miniature engine enables customers to fast and reliably integrate 2D barcode decoding solutions into target systems & and hardwares. This engine can also to be provided in software to customers with the same Features and benefits of handheld scanner products.



Features / Benefits

- ◆ **World-wide smallest Miniature style.** [20mm(W)*12.5mm(H)*17.5(D)]
- ◆ **All-in-One Model.** (Light LED + Image Sensor Module + Decoding Module)
- ◆ **Wide Viewing Angle.** (Wide $\pm 53^\circ$)
- ◆ **Red / Green / Blue or White LED Lighting Architecture** for various target material.
- ◆ **Smart Laser Aiming.**
- ◆ **Real-time Image Uploading.** (within JPEG Engine)
- ◆ Quack and easy integration into target system and hardware.
- ◆ Flexible OEM customization.
- ◆ Lightweight optical module for reading symbols in most demanding environments.
- ◆ Fast decoding of 1D/2D symbols.
- ◆ Omni-directional reading.
- ◆ Full support to 2 byte characters with Chinese QR.
- ◆ Easy firmware upgrade.
- ◆ Low power consumption for PDA application or Wireless solutions.
- ◆ Competitive price.
- ◆ SDK(CSE-6100SDK) for test and evaluation.
- ◆ Technical Support for PDA application or other target machine.

Compare with HHP Engine

HHP 5x80 [38.35(W)*19.43(H)*28.23(D) mm]

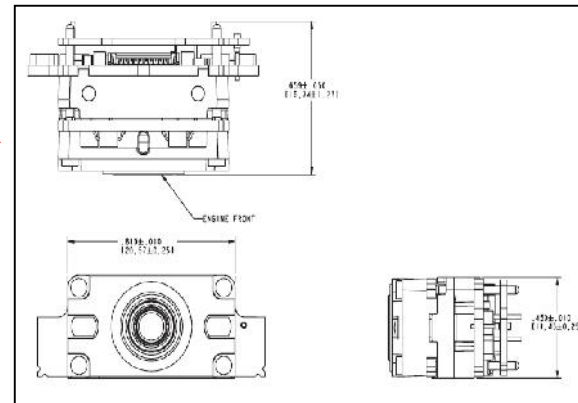
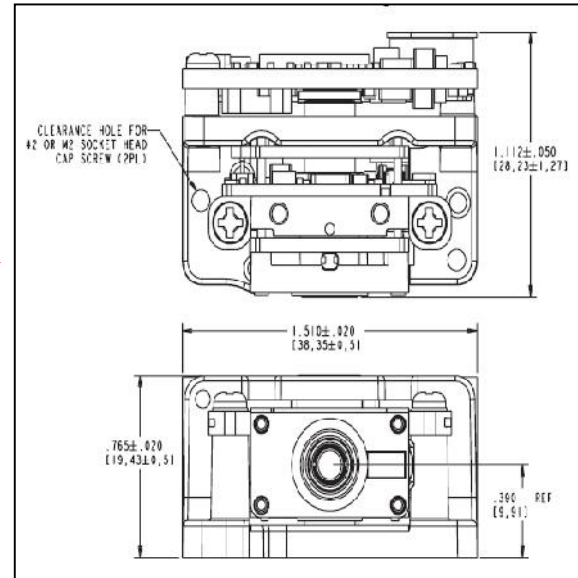


Decoder



Our Engine with Decoder
[20(W)*12.5(H)*17.5(D) mm]

HHP Imager + Decoder
[38.35(W)*19.43(H)*28.23(D) mm]



HHP Imager
[20.57(W)*11.43(H)*16.74(D) mm]

Specifications

Performance Characteristics

Image Sensor	CMOS Sensor, Max. 752*480, 8-bit grayscale
Target Distance	5~32.5cm : Depends on code size.
Viewing Angle	Wide $\pm 53^\circ$
Aiming Pattern	Laser Aiming (Cross Aiming)
Ambient Lighting	Total darkness to full sunlight
Directions	360 ° omni-directional

Symbologies

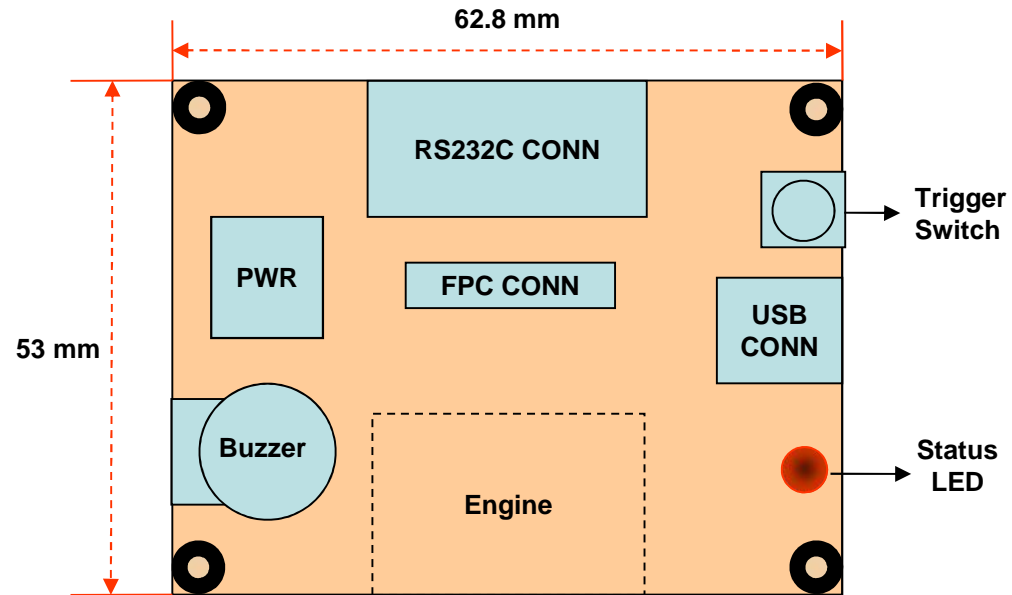
1 Dimensional	Code11, Code32, Code39, Code93, Code128, UPC/JAN/EAN, Codabar, Interleaved 2 of 5 etc...
2 Dimensional	PDF-417, Data Matrix, QR Code (including Chinese QR),
OCR	Application-specific OEM only

Environments & Regulatory

Operating Temperature	-10°C to +50°C (-14°F to 122°F)
Operating Storage	-20°C to +60°C (-4°F to 140°F)
Shock	Multiple 4ft/1.2M drop to concrete
Humidity	0 to 95%

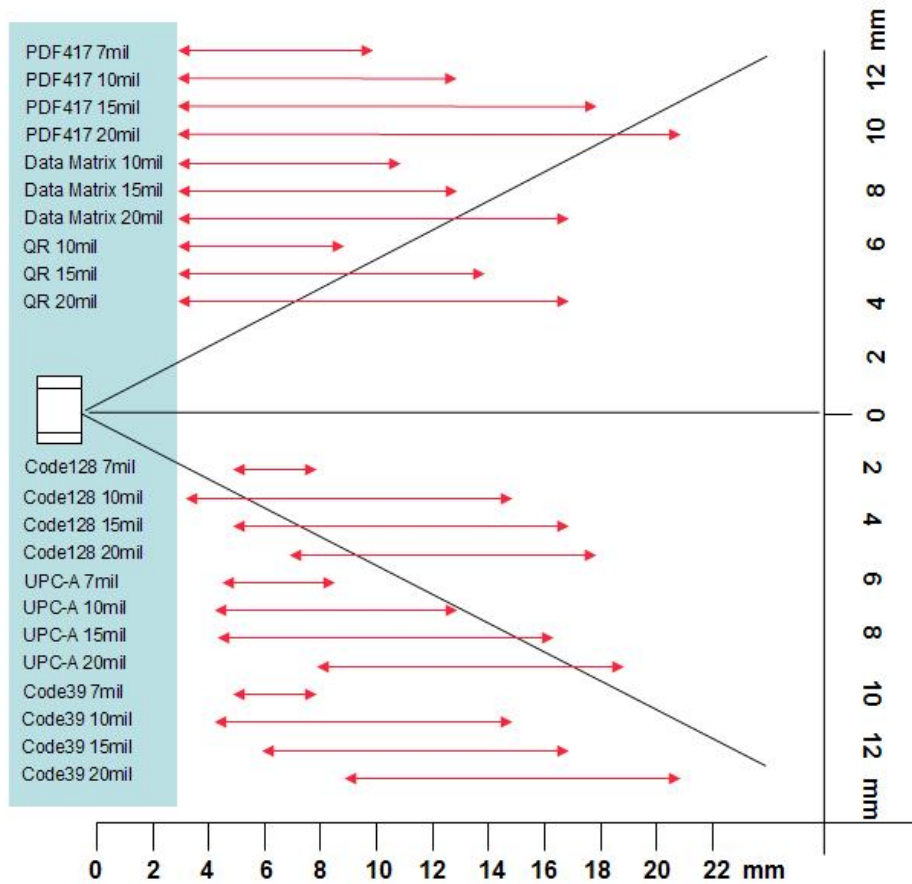
CSE-6100 SDK

- ❖ CSE-6100SDK/RS232C : RS232C interface
- ❖ CSE-6100SDK/USB : Serial to USB bridge interface
- ❖ CSE-6100SDK/HID : HID keyboard interface

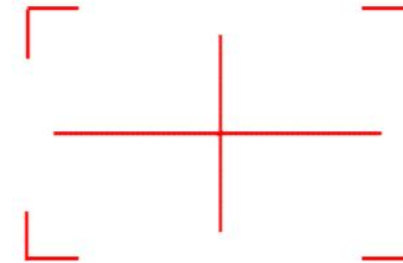


DOF (Depth Of Field)

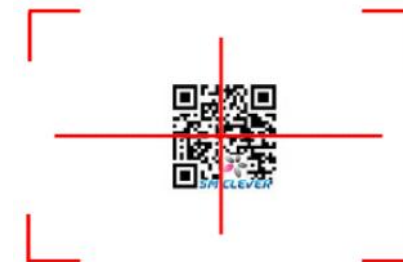
CSE-6100 engines with a wide angle(53°) and DOF is as follows:



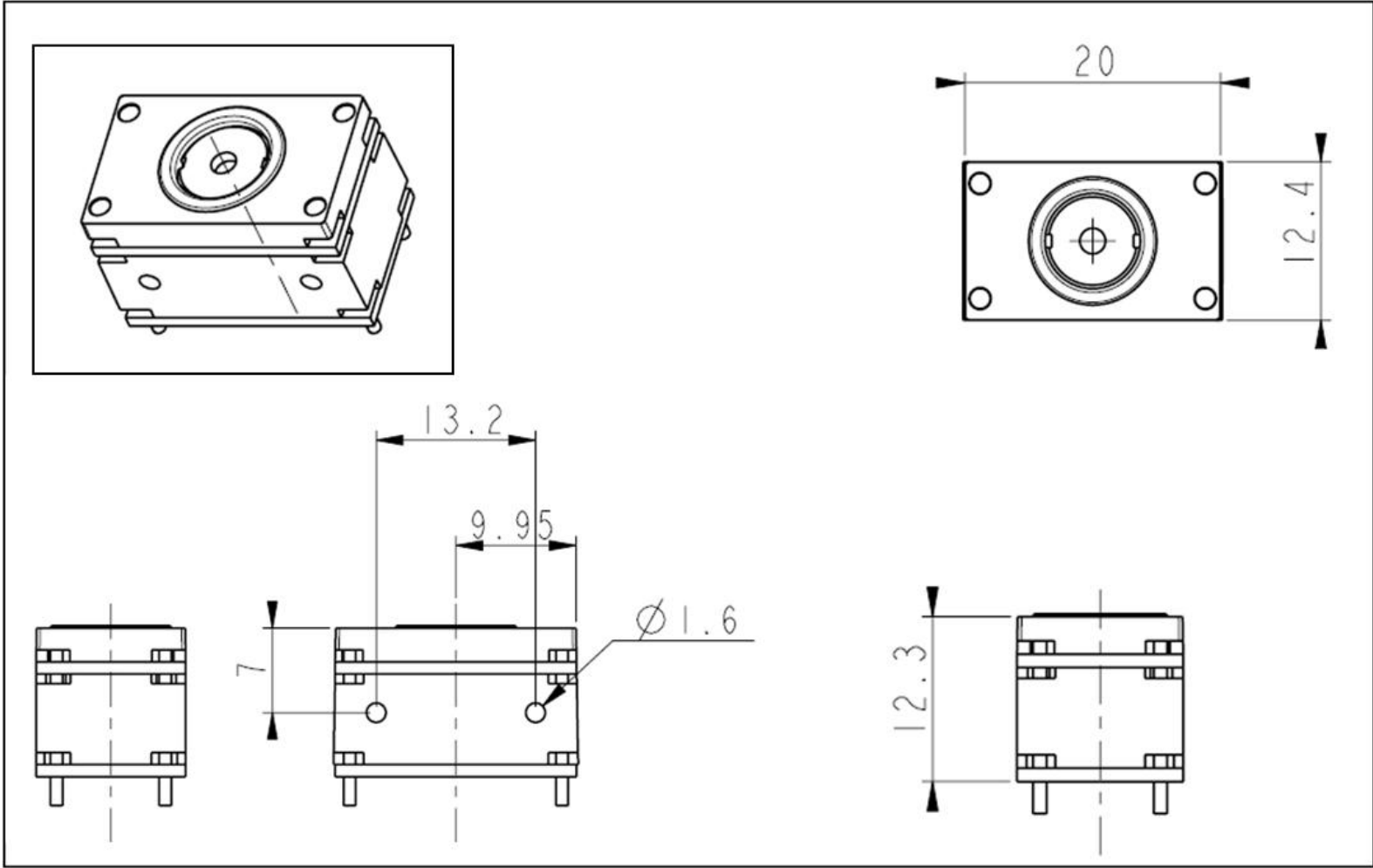
CSE-6100 Laser Aiming



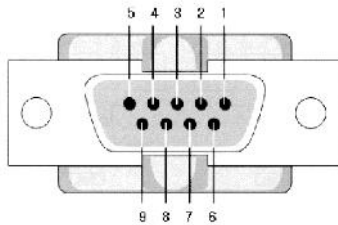
Scan Example



Engine Drawing



RS232C Interface (DSUB 9pin, Male)



Pin	Name	Description
2	RXD	Receive data
3	TXD	Transmit data
5	GND	Ground
7	RTS	Request to Send
8	CTS	Clear to Send
9	SG	Signal Ground

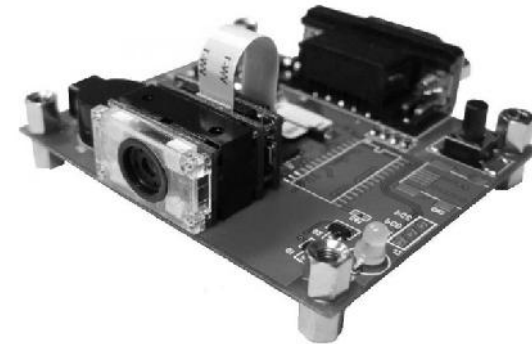
RS232C Connection Diagram (RTS/CTS Control)

Pin	Name
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

Host (DB9 Female)

Pin	Name
1	NC
2	TXD
3	RXD
4	NC
5	GND
6	NC
7	CTS
8	RTS
9	NC

Scanner (DB9 Male)



FPC Connector Signal Descriptions

Pin	Signal Name	Description	Remark
1	GND	Signal Ground	
2	GND	Signal Ground	
3	EXT-TRIGGER	External Trigger Input, Active Low	Pull-up 4.7KOhm, TTL Input
4	CLED1	Green LED enable signal	Good / Ready Signal, TTL Output
5	CLED0	Red LED enable signal	NG / Ready Signal, TTL Output
6	BUZZEROUT	BUZZER Output signal	TTL Output
7	nRTS0	RS232C Request To Send control signal	TTL Output
8	nCTS0	RS232C Clear To Send control signal	TTL Input
9	HTXD0	RS232C Transmit Signal	TTL Output
10	HRXD0	RS232C Receive Signal	TTL Input
11	VCC	VCC, +3.3V	±5%
12	VCC	VCC, +3.3V	±5%

CSWedge (Software Keyboard Wedge)

CSWedge is a software keyboard wedge converter Which converts data from either RS-232C or USB port Into keyboard input and transfers them to application Program.



- **CSWedge is displayed on system tray of PC.**
- **CSWedge gets active and is displayed on the most upper part of window, once data is input, even though it is not seen on window by other application programs or it is minimized on window.**
- **All application programs used on PC are displayed on List Box. User can select the application program on which user wants decoding data to be displayed, on List Box by double clicking on it.**



Setup Program (CSCenter)

