

SPECIFICATION

Customer : _____

Attention : _____

Your Model No. : _____

Birch's Model No. : _____

Date : _____

Sample Serial No. : _____

RECEIPT STATUS

RECEIVED

Date

Signature

Title



Web : www.birch.com.tw

Email : birch@email.birch.com.tw

BIRCH TECHNOLOGY INC.

10F, No. 17, PaoChing St.,

Taipei, Taiwan, R.O.C.

Tel : 886-2-27475626 Fax : 886-2-27475628

A. General

This magnetic stripe reader module is well designed and constructed with high quality components. It conforms to ISO 7810-7813 standards and is designed for use in access control, retail and time attendance applications, etc. The TTL output allows the reader to be universally accepted by most decoders. The built-in decoder is an advanced and versatile decoding facility which works with variety of computer interfaces.

B. Models

M [] R - [] [] []

Product

- C : TTL Model(Without Decoder)
- S : Decoder Built-in Model

Bench Type

- 9 : 90 mm Black
- 0 : 100 mm Black
- A : 90 mm Beige
- B : 100 mm Beige
- 16 : 160 mm Black

Tracks

- 01 : 1st Track 02 : 2nd Track 03 : 3rd Track
- 12 : 1&2 Tracks 23 : 2&3 Tracks
- 123 : 1&2&3 Tracks
- 04 : JISII

Interface

- TTL : TTL
- R : RS232
- D : Keyboard(DIN)
- M : Keyboard(Mini-DIN)
- RR : RS232 / 0V - 5V

C. General Characteristics

Read/Write	Read
Direction	Bi-direction
Speed	100 - 1000 mm/sec
Lift Cycle	Approx. 300,000 passes (1,000,000 passes is optional)

D. Tracks Information

Track	1	2	3
Standard	IATA	ABA	THRIFT/MINTS
Recording Method	F2F(FM)	F2F(FM)	F2F(FM)
Recording Density	210 BPI	75 BPI	210 BPI
Capacity	79 Characters 7 Bits/Characters	40 Characters 5 Bits/Characters	107 Characters 5 Bits/Characters

E. Electrical Characteristics

	TTL Type	RS232	Keyboard	RS232 TTL
Supply Voltage	DC +5V \pm 5%	DC +5V \pm 5%	DC +5V \pm 5%	DC +5V \pm 5%
Power Consumption(Typ.)	3 mA/Track	25 mA	20 mA	20 mA
Output Voltage(Typ.)	+5V	\pm 9V	+5V	+5V
Output Voltage(Min.)	4.5V	\pm 5V	4.5V	4.5V
Output Low Voltage	0.4V	-----	0.4V	0.4V

F. Physical Characteristics

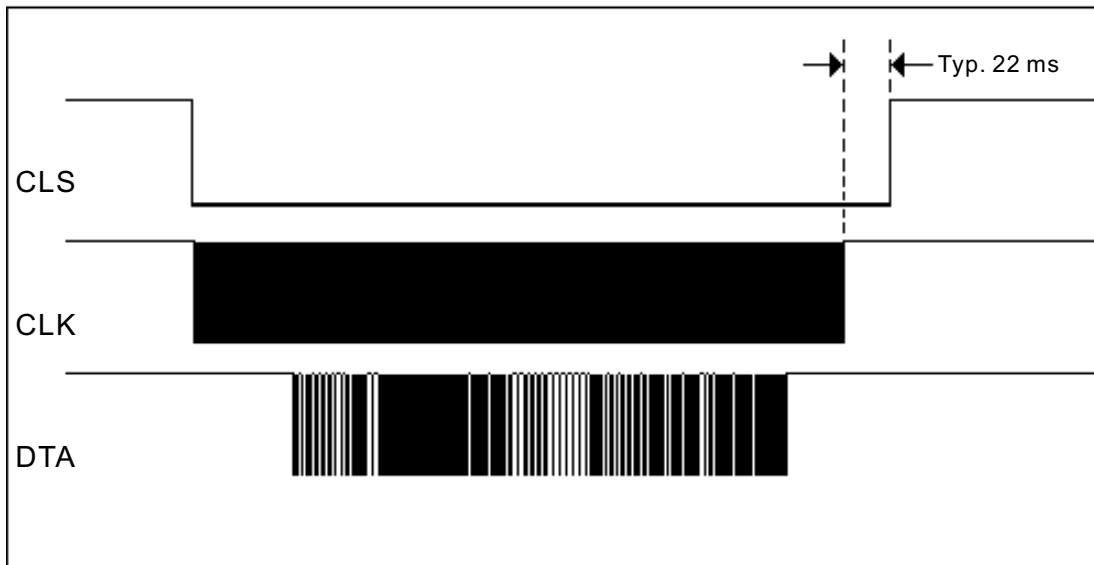
	100mm Type	90mm Type
Weight	36g/1.27oz	33g/1.16oz
Body Material	PC & ABS	PC & ABS
Cover Weight	18g/0.64oz	16g/0.56oz
Cable Weight	-----	-----
Cable Length	-----	-----
Decoder Board Weight	-----	-----

G. Environment

For all models	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Relative Humidity	20% to 85% (Non-condensing)

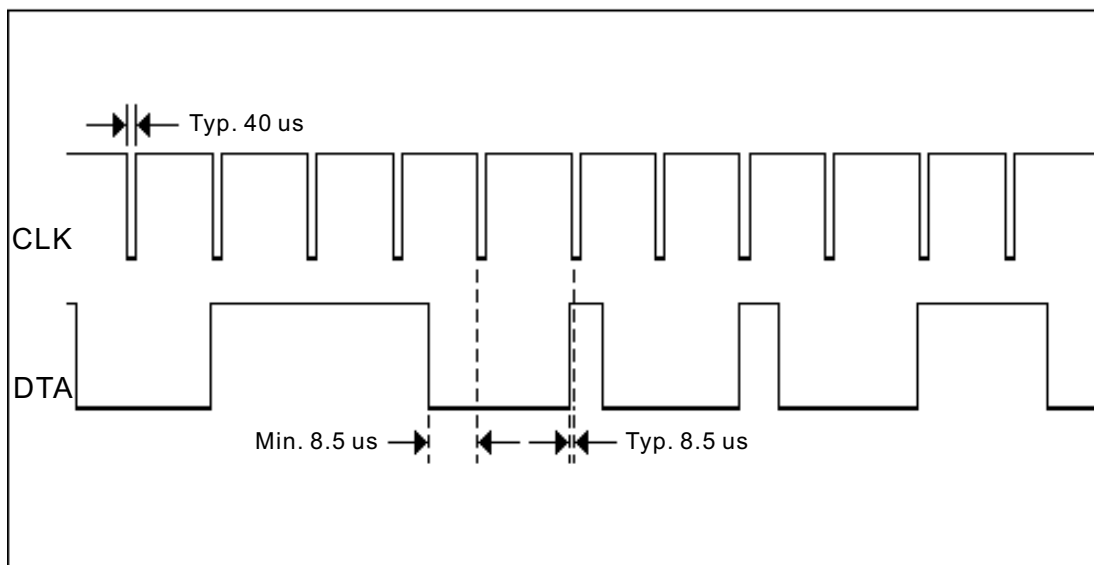
H. Timing Chart

1. Relationship between CLS, CLK and DTA



Note: Margin bits from the card edge are maximum 6 bits.

2. Detail relationship between CLK and DTA



I. Pin Assignment

1. TTL Board Output

Function	Wafer(On PCB)	Housing	Color
Vcc (+5V)	1	1	Red
T1 DTA	2	2	Brown
T1 CLK	3	3	Orange
T2 DTA	4	4	Yellow
T2 CLK	5	5	Green
T3 DTA	6	6	Blue
T3 CLK	7	7	Gray
CLS	8	8	White
GND	9	9	Black

2. Decoder Board

TTL Input (Square pad is first pin)

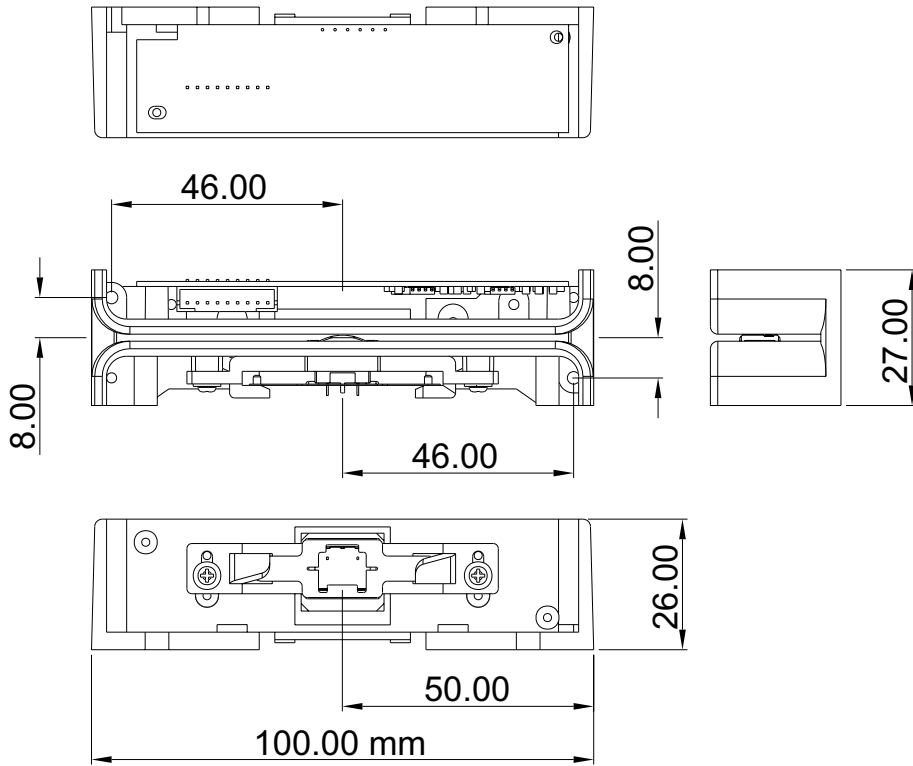
Pin No.	Function	Pin No.	Function
1	Vcc (+5V)	6	T3 DTA
2	T1 DTA	7	T3 CLK
3	T1 CLK	8	CLS
4	T2 DTA	9	GND
5	T2 CLK		

Interface (Square pad is first pin)

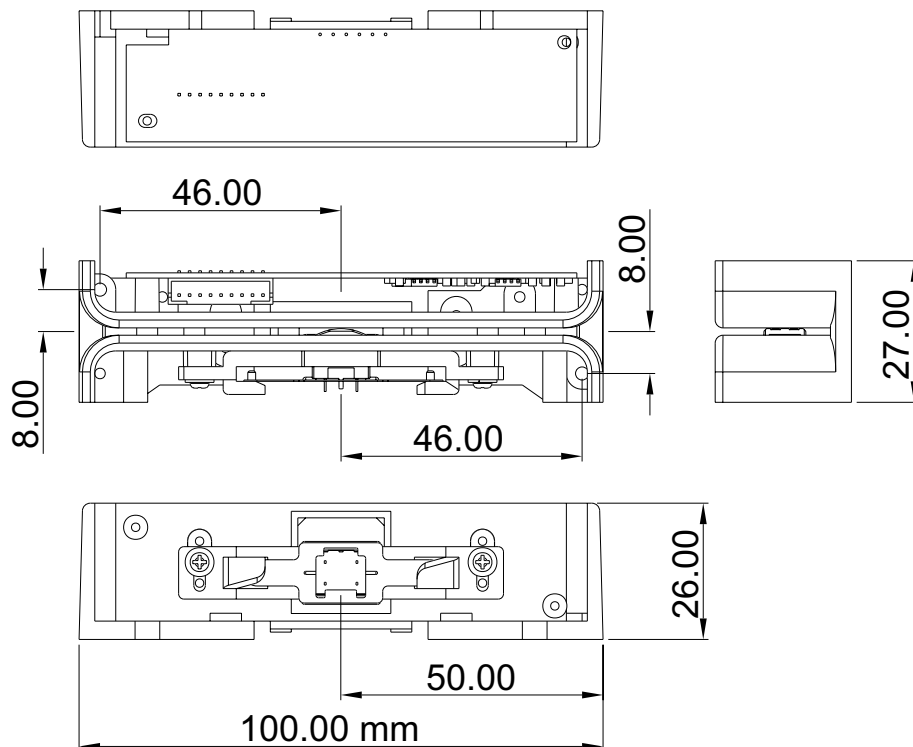
Pin No.	Function	Pin No.	Function
1	Vcc (+5V)	6	KB_DATA
2	KB_CLOCK	7	HOST_DATA
3	HOST_CLOCK	8	GND
4	RXD	9	RTS
5	TXD	10	CTS

J. Dimension

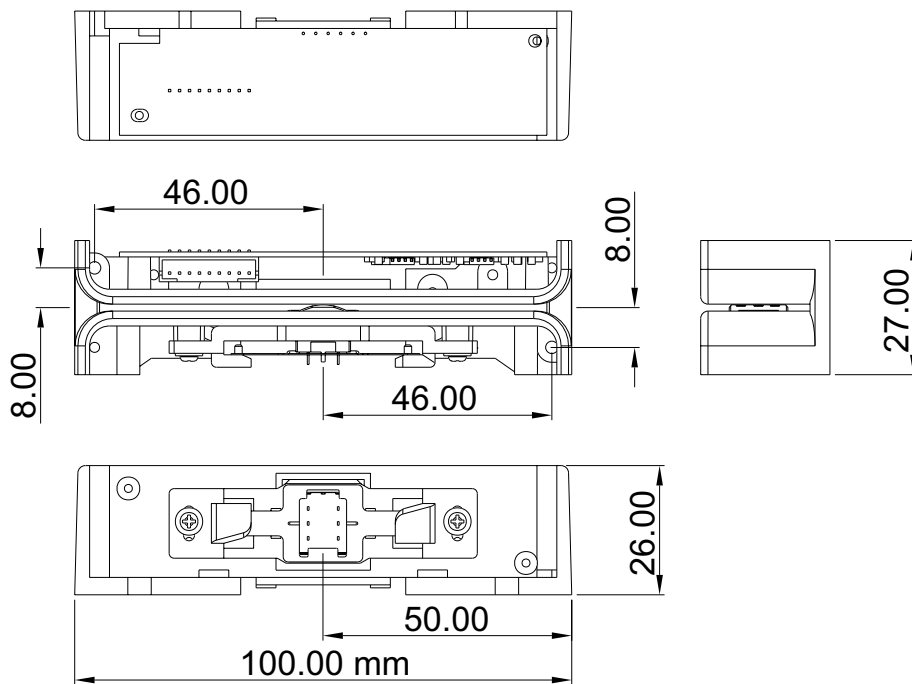
1. TTL Interface/100 mm Bench/Single Track



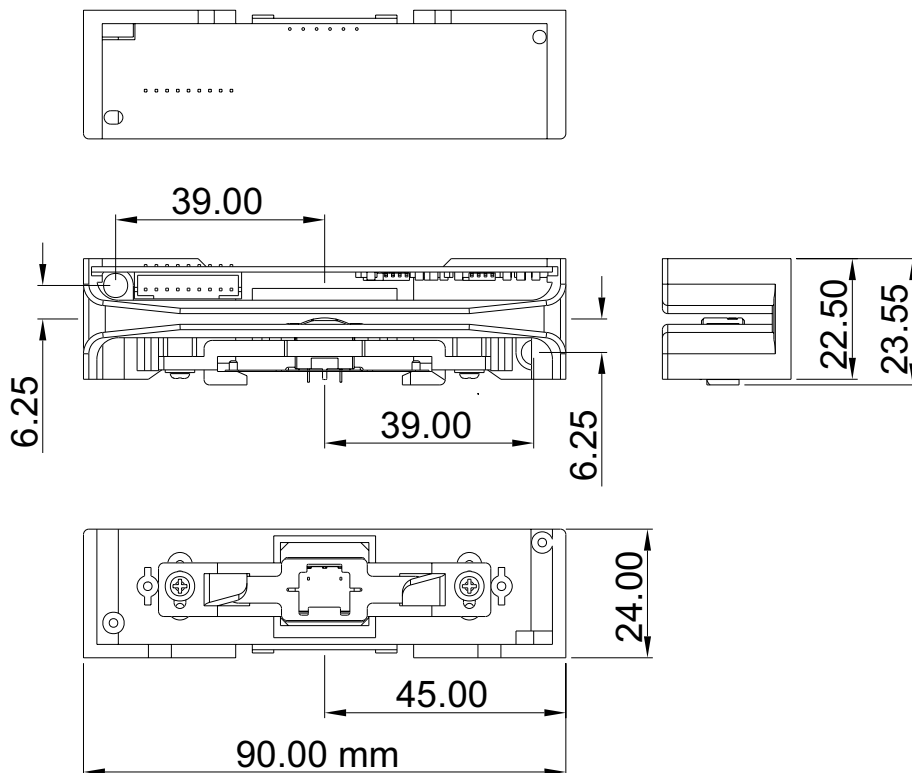
2. TTL Interface/100 mm Bench/Dual Track



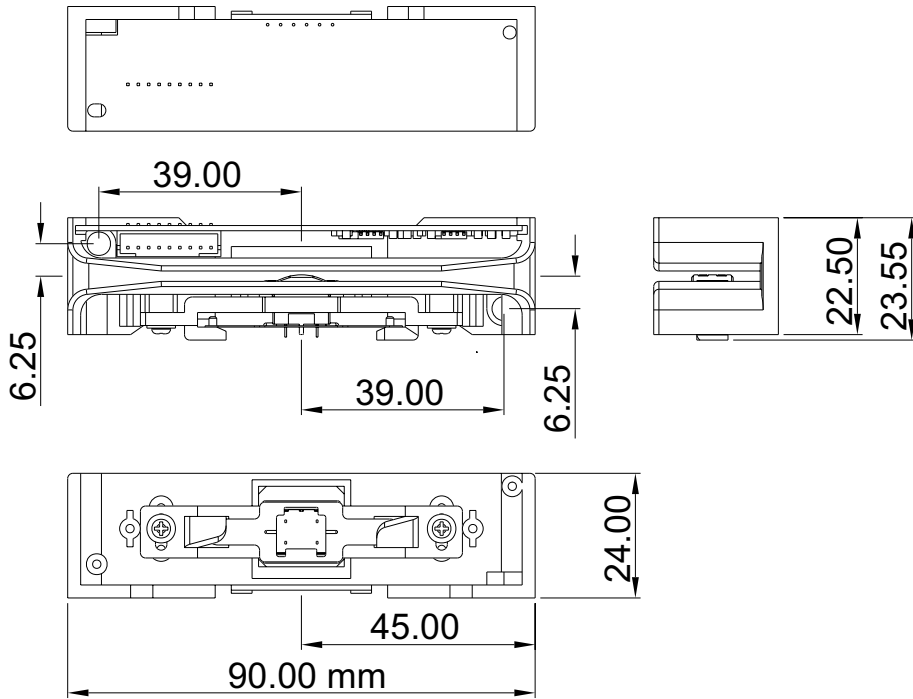
3. TTL Interface/100 mm Bench/Triple Track



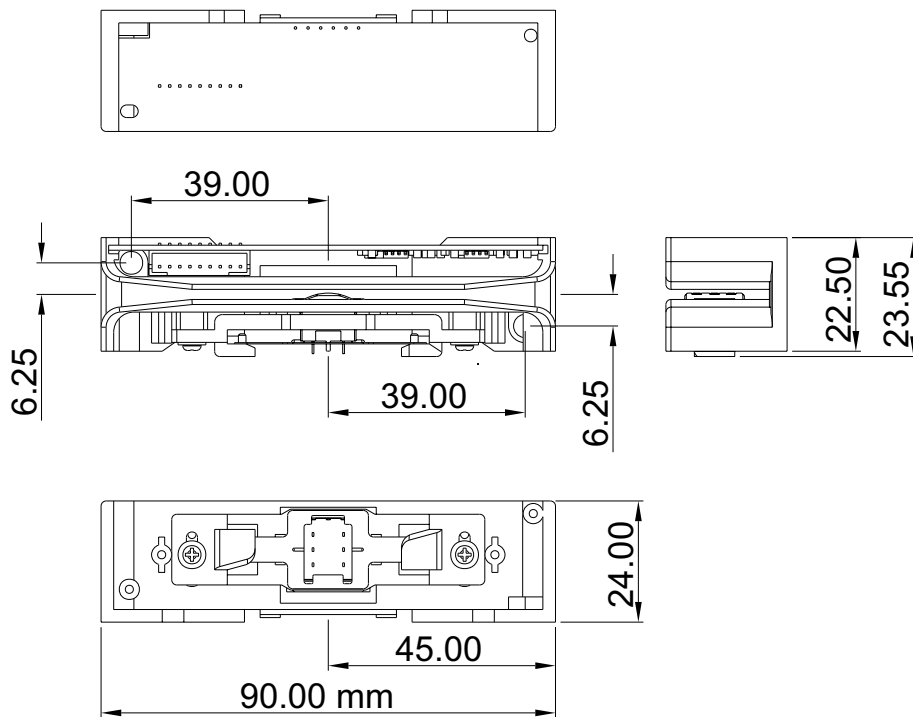
4. TTL Interface/90 mm Bench/Single Track



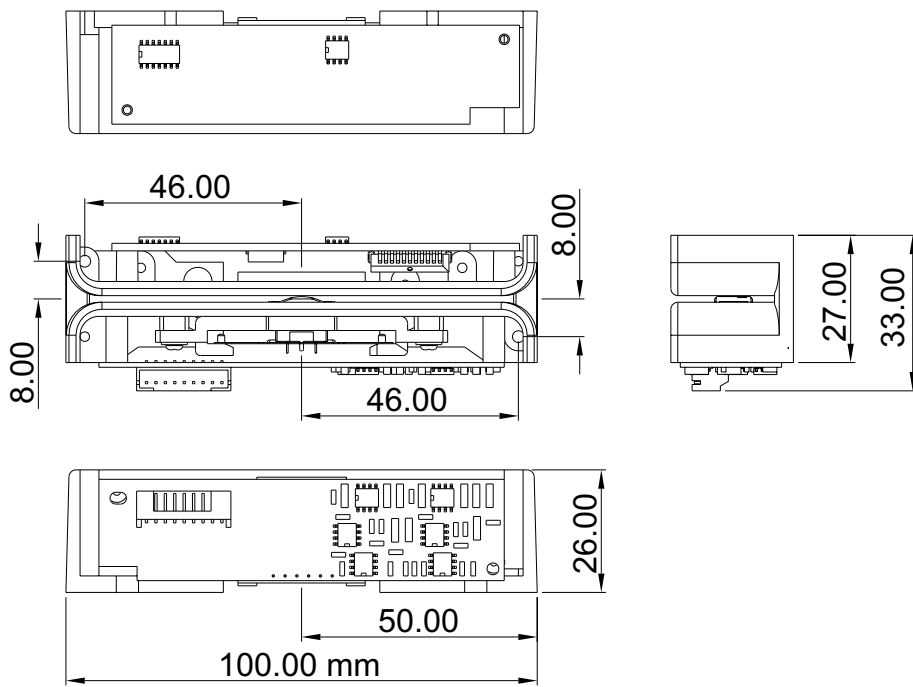
5. TTL Interface/90 mm Bench/Dual Track



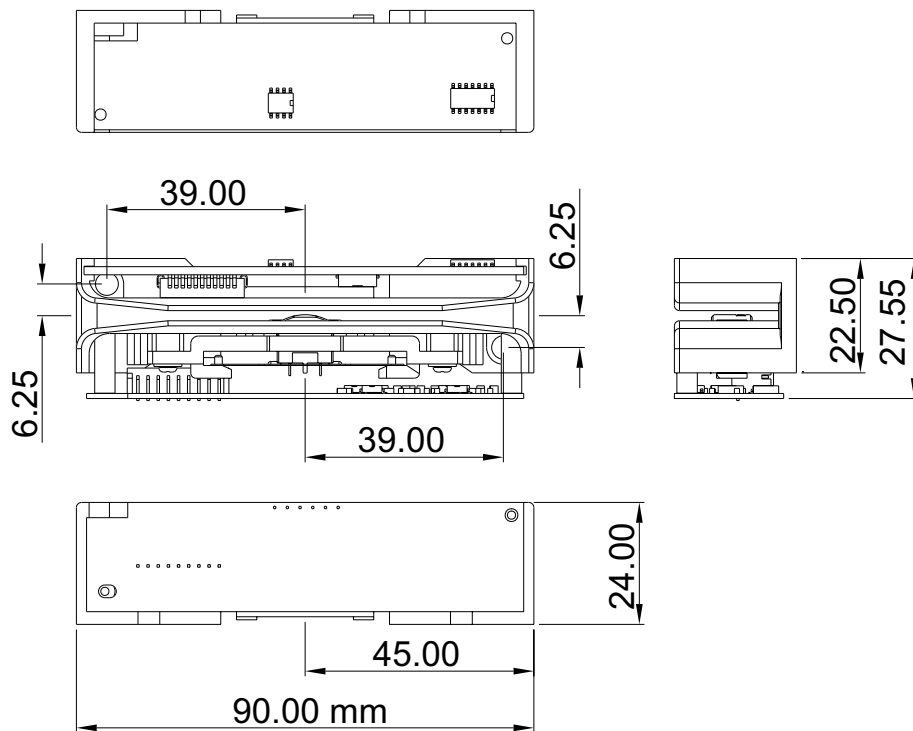
6. TTL Interface/90 mm Bench/Triple Track



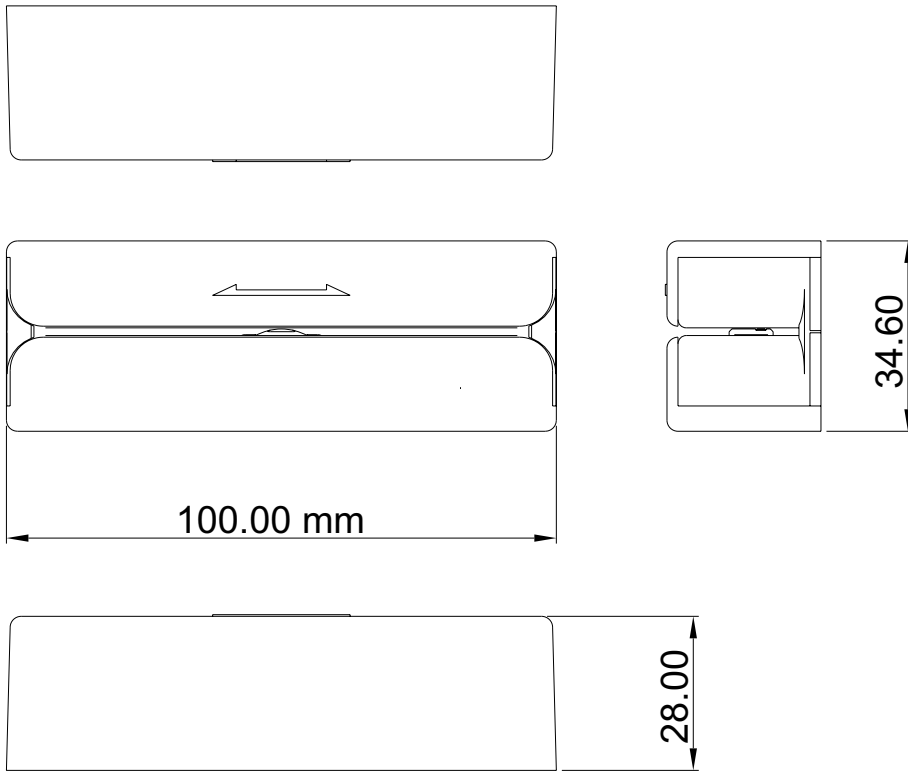
7. With Decoder/100 mm Bench



8. With Decoder/90 mm Bench



9. With Cover/100 mm Bench



10. With Cover/90 mm Bench

