

MAGNETIC STIPE CARD READER

Triple magnetic head and decoder assembly

code 14422 (ISO 1&2&3)



FEAUTURE

- TTL Interface. Clock and data output.
- Low power consumption.
- Operational power 5.0V DC (workable in 3.3V).
- Design for reading low coercivity and high coercivity.
- 300 Oe ~ 4000 Oe.magnetic cards.
- Read Credit cards, Bank cards, and ID cards.
- Small Compact Size
- Triple Track model (ISO Track 1&2 or Track2&3 or Track1&2&3)



Warranty:

For defects occur due to improper material or workmanship within 1 year after delivery of the unit, the defective parts shall be replaced or return to repaired free of charge. Any alter or erase of date code or modify of the unit, this warranty will be expired immediately.

Introduction

This specification describes 14422 Magnetic Stripe Card Reader, which is magnetic head and decoder assembly, reading magnetically encoded data on a magnetic stripe card conforming to ISO 7811.

SPECIFICATION

Card Standard : ISO 7811

Function:

Card feed: Bi-directional card movement

Reading: Forward / Backward

Card feed control: manual swipe type

Card Operation speed: 10cm ~ 140cm/s (4 ips ~ 55 ips)

Basic Performance

| TEST CARD/SPEED | |
|-----------------|-------------------|
| Cards | Speed (inch/sec.) |
| Normal | 4 – 55 ips |
| Jitter | 5 – 50 ips |
| Low Amplitude | 5 – 50 ips |

Test card thickness is 0.25mm ~ 1.20mm

Reliable to read Jitter card of magnetic stripes encoded with bit cell length variations within +/-15% as defined in ISO 7811

Reliable to read Low Amplitude card of magnetic stripes encoded at 60% or more of the amplitude as defined in ISO 7811

Output signal level: TTL, RCP & CLS at Negative logic.

Output signal timing: RCP width approx. .60uS

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Magnetic Head

Structure: Triple gap head

Number of Tracks: Single(Track 1 or 2 or 3), Dual(Track12 or Track23), Triple(Track1&2&3)

Reading Performance

| Card Standard | IATA | ABA | THRIFT |
|--------------------|-------------------------------|-------------------------------|--------------------------------|
| Tracks | Track 1 | Track 2 | Track 3 |
| Encoding Method | F2F (FM) | F2F (FM) | F2F (FM) |
| Encoding Density | 210 BPI | 75 BPI | 210 BPI |
| Character Capacity | 79 Characters (7-bit code) | 40 Characters (5-bit code) | 107 Characters (5-bit code) |

IATA: International Air Transportation Association Standard

ABA: American Banker Association Standard

THRIFT: Thrift Industry Standard.

Environment Requirements

Operation Temperature: -10 ~ 55°C

Storage Temperature: -30 ~ 70°C

Operating Humidity: 10 ~ 85% RH

Storage Humidity: 10 ~ 90% RH

General Specification

Dimension: 47.8X11.8X13mm

Weight: Approx. 10g

Swiping slot: Available with 65 or 90 or 100mm or longer length swiping slot

Power required

| | Triple Track | |
|--------------------------|--------------|--------------|
| Voltage | 5VDC+/-10% | 3.3VDC+/-10% |
| Consumption | Max. 10mA | Max. 8mA |
| Optional: 3.3V DC +/-10% | | |

Service Life And Error Rate (Continuously tested in indoor Lab. Condition)

Life of head: Approx. 500,000 passes under normal ideal Lab. environment.

Error rate: Less than 0.5% under normal ideal Lab. environment.

Reliability: MTBF: electronics: 100,000 hours

OUTPUT CHARACTERISTICS

| PARAMETER | SYMBOL | CONDITIONS | MIN. | MAX. |
|--------------------------|--------|-----------------------|------------------|-----------------|
| H - Level Output Voltage | VOH | VDD=MIN. IOH= -1mA | VDD - 0.4 (V) | |
| L - Level Output Voltage | VOL | VDD=MIN. IOL=2mA | | VSS +0.4 (V) |

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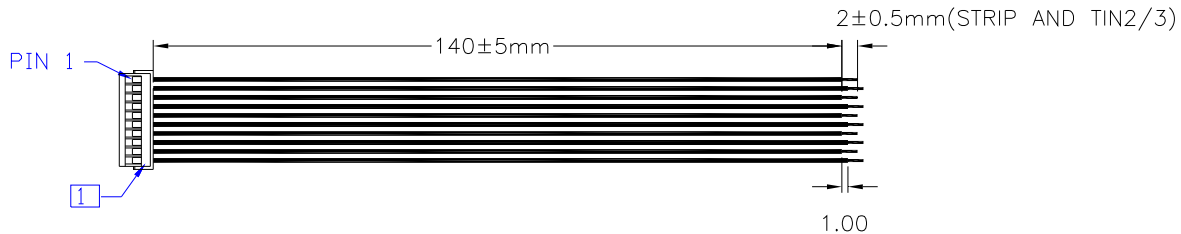
PIN ASSIGNMENT:

| PIN No. \ Model | Triple Track |
|-----------------|-----------------|
| | MH300-AK |
| 1 | GND |
| 2 | RCP2 |
| 3 | RDP2 |
| 4 | CLS2 |
| 5 | RCP1 |
| 6 | RDP1 |
| 7 | CLS1 |
| 8 | VCC |
| 9 | RCP3 |
| 10 | RDP3 |

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| 8 PIN(1X8) HOUSING | SIGNAL | WIRE COLOR |
|--------------------|--------------------------|------------|
| 1 ⊖ | GND | BLACK |
| 2 ⊖ | $\overline{\text{RCP2}}$ | BROWN |
| 3 ⊖ | $\overline{\text{RDP2}}$ | RED |
| 4 ⊖ | $\overline{\text{CLS2}}$ | ORANGE |
| 5 ⊖ | $\overline{\text{RCP1}}$ | YELLOW |
| 6 ⊖ | $\overline{\text{RDP1}}$ | GREEN |
| 7 ⊖ | $\overline{\text{CLS1}}$ | BLUE |
| 8 ⊖ | +5V | PURPLE |
| 9 ⊖ | $\overline{\text{RCP3}}$ | GRAY |
| 10 ⊖ | $\overline{\text{RDP3}}$ | WHITE |

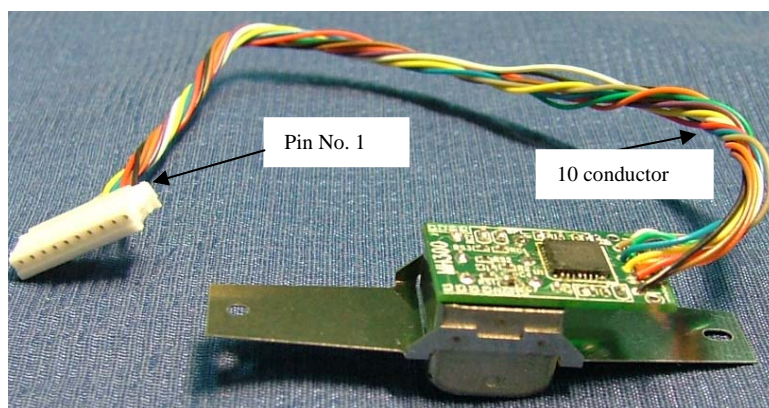
NOTES:

1. HOUSING 1:10 PINS(1*10), STYLE PER ZHR-10P
THE CRIMP TERMINAL: PER SZH-003T-P0.5
THE SAME PARTS OR EQUIVALENT
PULL TEST FORCE(1b): 1.0(b) 1MIN.
2. WIRE: UL1571, 32AWG, OD=0.60mm(REF)*8

MODEL CONFIGURATION

14422: Magnetic Head (Triple Track) + Decoder Assembly

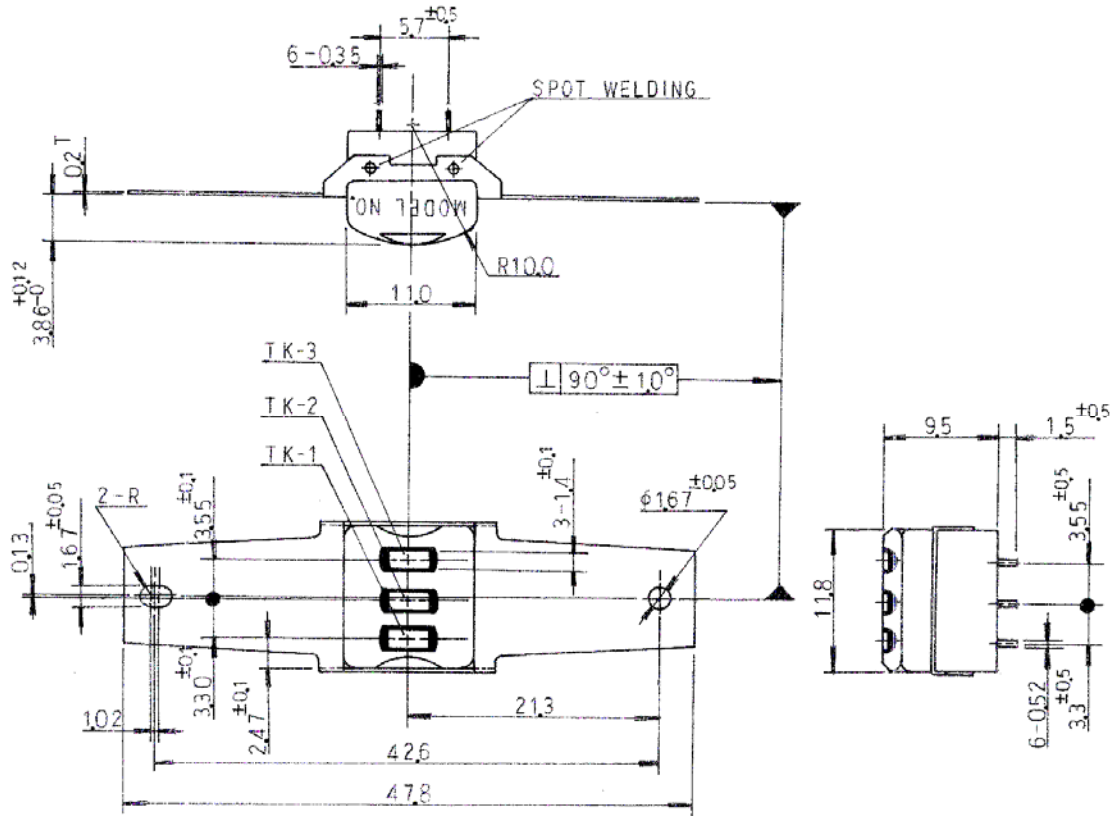
OUTLINE DIMENSION



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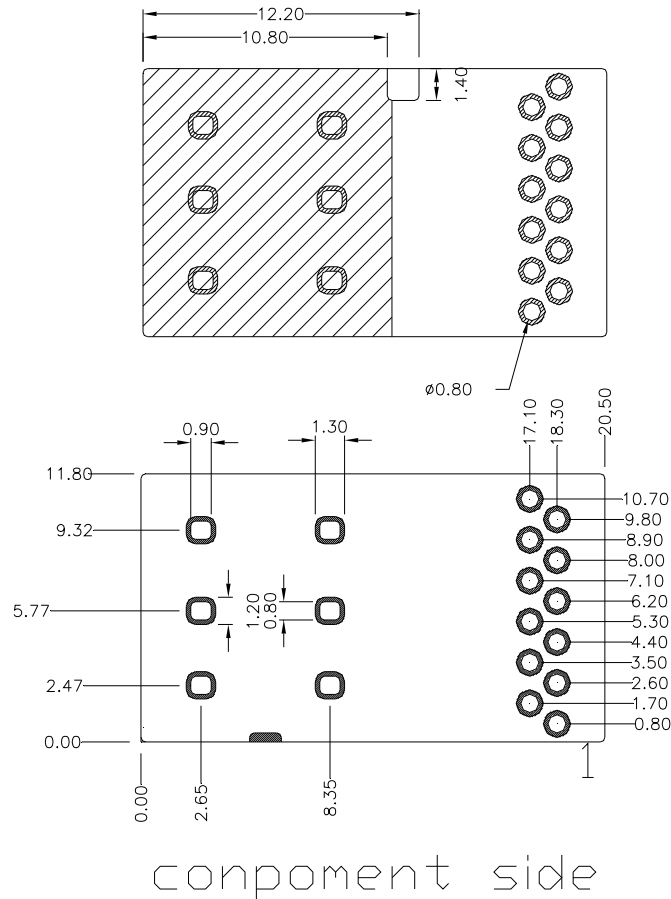
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- 1.MAT'L:FR-4 EPOXY GLASS 0.8±0.15mm THK. 1oz COPPER DOUBLE SIDE.
- 2.FINISH:63/37 HOT AIR LEVERING SOLDER 0.0076mm.
- 3.SOLDER MASK:MASK DOUBLE SIDE PC-401 GREEN OR EQUIVALENT.
- 4.SILK SCREEN:WHITE COLOR.
- 5.WITH MANUFACTURER UL NUMBER & DATE CODE.

THERE IS NO COMPONENT IN THE AREA

THERE IS THE PAD TO THE GRIND

ORDER AND CODES DETERMINATION

| code | n°tracks | tracks |
|-------|----------|--------|
| 14420 | 2 | 1-2 |
| 14421 | 2 | 2-3 |
| 14422 | 3 | 1-2-3 |