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# Magnetic Stripe Standard Test Card Packages

Q-Card's standard plastic test card packs are encoded with special magnetic characteristics or patterns to simulate specific standards or outer limit requirements. Our test card packs can be used to ensure compliance to worldwide ISO standards or your own internal or external requirements.

#### Test Card Uses:

- Verifying readers meet ISO specifications
- Testing magnetic card readers
- Testing POS terminals
- Testing ticket dispensing equipment
- Testing of ATM's
- Swipe-based and motorized card encoders
- Engineering development of card readers and writers
- Checking of read circuitry, heads, mounts, and card transport mechanisms
- Checking for catastrophic failure and gradual degradation of readers in the field

## **Test Pack 1**

### ISO Standard Limits Card Package for Signal Amplitude & Jitter Includes:

#### TC-P

The TC-P card is an encoded ISO Signal Amplitude Reference Card - The signal amplitude on this card is encoded at the left edge of the ISO window U<sub>A1</sub> for maximum signal amplitude.

#### **TC-A52**

ISO Minimum Signal Amplitude Card - This card is encoded with a signal amplitude of 52%, which represents the minimum amplitude for "used" cards that meets ISO specifications.

#### TC-JI

ISO Maximum Jitter Card - This card is encoded with 15% bit-to-bit jitter and 30% subinterval jitter, which represents the maximum jitter that meets ISO specifications.

#### TC-JT-A52

ISO Maximum Jitter with Minimum Signal Amplitude Card – This card is encoded with the minimum signal amplitude of 52% and a maximum of 15% bit-to-bit jitter and 30% subinterval jitter, combined to provide a "worse case" mixture of ISO encoding parameters in a single card.

#### TC-A136

ISO Maximum Signal Amplitude Card - This card is encoded with a signal amplitude of 136%. This card can test a reader's detection circuits for saturation of signal and clipping of high amplitude signals.

#### TC-JT-A136

ISO Maximum Jitter with Maximum Signal Amplitude Card - This card is encoded with the maximum signal amplitude of 136% and a maximum of 15% bit-to-bit jitter and 30% subinterval jitter, combined to provide a "worse case" mixture of ISO encoding parameters in a single card.

## Test Pack 2

## ISO Standard Limits Card Package for Start/Stop Sentinel Location, Parity/LRC Errors Includes:

#### TC-LSS

Long Start Sentinel Card - The start and stop sentinels on this card are encoded as listed in the following table. The data is encoded at U<sub>A1</sub> with minimum jitter.

	Start Sentinel	Stop Sentinel
Track 1	0.332 inches (8.44 mm)	0.252 inches (6.93 mm)
Track 2	0.313 inches (7.94 mm)	0.252 inches (6.93 mm)
Track 3	0.332 inches (8.44 mm)	0.252 inches (6.93 mm)

#### **TC-SSS**

Short Start Sentinel Card - The start and stop sentinels on this card are encoded as listed in the following table. The data is encoded at U<sub>A1</sub> with minimum jitter.

	Start Sentinel	Stop Sentinel
Track 1	0.254 inches (6.44 mm)	0.252 inches (6.93 mm)
Track 2	0.273 inches (6.94 mm)	0.252 inches (6.93 mm)
Track 3	0.254 inches (6.44 mm)	0.252 inches (6.93 mm)

#### TC-PE

Parity Error Card - This card is encoded with one character in each of the tracks that has an even number of "1" bits to produce one parity error per track. The data is encoded at  $U_{A1}$  with minimum jitter.

#### TC-LRC

LRC Error Card - This card is encoded such that the total count of "1" bits in each track is odd, and therefore, yields an LRC error in each track. The data is encoded at U<sub>A1</sub> with minimum jitter.

## Test Pack 3

## Extreme Limits Card Package -Beyond ISO Standards Includes:

#### TC-A155

155% Amplitude Card - This card is encoded with a signal amplitude of 155%.

#### TC-A40

40% Amplitude Card - This card is encoded with a signal amplitude of 40%.

#### TC-A30

30% Amplitude Card - This card is encoded with a signal amplitude of 30%.

#### TC-A20

20% Amplitude Card - This card is encoded with a signal amplitude of 20%.

#### **TC-A10**

10% Amplitude Card - This card is encoded with a signal amplitude of 10%.

#### TC-JMAX

Maximum Jitter Card - This card is encoded with 23% bit-to-bit jitter and 40% subinterval jitter.



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