

# Mag3x MagStripe Analyzer



## Lowest Cost to Own

- No machine tear-downs - ever
- User-replaceable heads
- No card jamming - ever
- Easy-to-use reporting
- Easy-to-learn software
- Expert mode for laboratory use

## Features at a Glance

- The most accurate and versatile line of magstripe testers in the world
- The only tester that can be maintained at top performance levels by the end user - no expensive maintenance plans
- Database ready, with support for database applications
- Plug and play USB connection to any Windows PC
- Simple graphical displays show pass or fail for each card
- Save detailed data on each card for future analysis
- Extremely fast 1 million samples per second acquisition rate with 16-bit resolution
- Speed platen and Basic mode for production use
- Test all sizes and thicknesses of magnetic media, even intact gift cards, raw magnetic tape, cut cards, bank books and all forms of tickets

## Options and Support

- Read-Only Model for testing pre-encoded cards and tickets
- Read-Write Model for testing both preencoded and unencoded cards and tickets, as well as raw tape and magnetic materials
- Easy Gage R&R Certification with support for the R&R process
- Hang Tag Testing - Test Intact, Unbroken Hangtag Sheets
- Micrometer Adjustment for Reading Non-ISO Track Locations
- Custom Platens to Allow Testing of Non-Standard Cards

# Mag3x Magstripe Analyzer

## The Mag3x Advantage

Simply the most accurate solution available. The advanced technology used in the Mag3x insures the lowest possible measurement variation available on the market today for testing magnetic stripes. The powerful and flexible features of the Mag3x include gain steerable instrumentation amplifiers, band-edge adjustable ISO filters, high linearity write circuitry, and many more advanced capabilities.

Use the Mag3x with any Windows computer. The Mag3x has a robust and accurate transport developed to improve upon the limitations of ordinary transports that move the card with belts and rollers. Massively rigid construction is used to improve accuracy and repeatability; the transport alone weighs 15 kg (33 lbs). Belts and rollers are not used to push or pull the magnetic card. The card does not scrape against plastic or metal guides during its motion; this friction can be a strong source of jitter or other errors. On the Mag3x, a high-accuracy aerospace-quality motor drives a horizontally operating card platen on a precision low-friction ball bearing slide. The read and write magnetic heads remain stationary. The Mag3x uses separate read and write heads. These are single track heads as required by ISO. The three heads can be instantly and accurately positioned for tracks 1, 2, 3, 4, or for a central stripe (other tracks can also be accommodated).

The heads are provided with spherical pivots and other advanced features to allow accurate tracking across warped cards or stripes with poor profile. The transport can accommodate paper or plastic cards of various thicknesses without affecting head pressure, alignment, card speed, etc. The Mag3x's control software can be used for testing non ISO standard magnetic stripes. Both encoding and reading parameters are adjustable.

- QuickChange Heads - user-replaceable and adjustable magnetic heads with no machine tear-down.
- Simply the most accurate solution available. The advanced technology used in the Mag3x insures the lowest possible measurement variation available on the market today for testing magnetic stripes.
- Cards cannot jam in the open-design Mag3x; never lose time retrieving jammed cards from inside closed machines.

## Accurate and Reliable

- Laboratory and QC Grade Measurements
- Superior design uses a low-friction slide, not belts or rollers, to move card
- Analyzes 300 to 4000 Oersted magstripes
- Checks tracks 1, 2, 3, 4, (ATB) and central track (others optional)
- Analyzes per ISO/IEC 7811-2; 7811-6 and 10373 specifications or can be customized to your own specifications
- Hico and Loco; ID1 (CR80), TFC, up to ATB

- Uses 3 separate ISO-qualified read & write heads
- Accuracy calibrated with ISO, 300 Oersted or high coercivity reference card from Q-Card
- Superior head mounts give excellent head/stripe contact

## Specifications

### Standard equipment provided:

- Laboratory-grade testing system with SpeedPlaten, QuickChange magnetic heads, Windows compatible operating software, USB cable, and user manual; touch screen available

### Stripe testing features:

- Window Comparison Plot
- ISO 7811-2 table 1 "loco" stripe tests
- ISO 7811-6 table 1 "hico" stripe tests
- ISO tests in forward or reverse card direction
- AAMVADL / ID2000

### Encoding, amplitude analysis, etc.:

- perform ISO amplitude test of encoded card (vs UR) with peak, average and standard deviation measurements, absolute amplitude plot and waveform
- perform ISO tables 2, 3, 5, 6 jitter & bit length measurements
- display of track data, ABA (BCD), IATA (ASCII) or ISO-8484 (bank savings books) at various densities, forward or reverse direction
- graph absolute bit length, bit-to-bit and subinterval jitter
- show density, total bits and average jitter for entire track
- show number of leading and trailing zeros
- display parity and LRC errors
- report/graph bit density variations along stripe
- write current is easily selectable over wide range
- write binary 1's or 0's up to 19.6 frpmm (500 frpi)
- use AC or DC erase at various write currents
- encode ABA or IATA data on any track
- reload data at later time for additional analysis
- display raw data for detailed analysis, such as with proprietary or nonstandard formats

### Output capabilities:

- view results on available color touch screen display
- print all test results in black and white or color
- save results to disk in word processor or spreadsheet format
- save/reload amplitude/waveform to/from disk
- save/reload jitter and density data to/from disk

### Other features:

- operator authority password control
- capable of creating tests for custom card specs



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