

# Magnetic Stripe Analyser

## Mag-Tester Revo

Tests, analyses and delivers certification standard measurement accuracy for the widest range of magnetic media

The Mag-Tester Revo is the most accurate magnetic stripe analyser available today for testing media of all types, shapes, sizes and thicknesses including cards, tickets, ATBs and bank-books. Certification standard measurement accuracy is achieved through a linear optical encoder, automated operations and powerful data analysis tools, making the Mag-Tester Revo the first choice of Certification Laboratories worldwide, as well as manufacturing QC.

### SUPPORTED SPECIFICATIONS

ISO/IEC 7811-2:2014  
ISO/IEC 7811-6:2014  
ISO/IEC 7811-8:2014  
ISO /IEC 10373-2  
ISO /IEC WD8484:2014  
JIS 6501 Type I and II  
JIS 6502  
Mastercard CQM  
IATA 722e

Custom test limits can be set by the user.

Other standards available as variants



### Solution Highlights

- High precision testing of unencoded and encoded HiCo, LoCo and 650 Oersted mag-stripes to ISO and other standards.
- Suitable for all types and sizes of magnetic stripe media (tape or on laminate), including cards, powered cards, tickets, ATB, Edmundson tickets, bank passbooks and other documents.
- Achieves certification standard levels of test measurement accuracy with the use of a Linear Optical Encoder.
- Perfect for any magnetic stripe manufacturing, bureaux or QC environment.

### Typical Applications

- **Production Quality Control** – Card manufacture and personalisation bureaux, verifying the integrity of unencoded and encoded mag-stripes, original tape manufacture, reader/encoder manufacture, verifying equipment performance and quality.
- **Expert Diagnostics** – Analysing the performance characteristics of the recorded (or encoded) magnetic signal and data, and the magnetic stripe media.
- **Test Laboratories** – Certification standard tests and analysis.
- **Development** – Producing special cards, tickets, encoders, readers and other items.



## Features and Benefits

All of the features of Mag-Tester Revo are designed to deliver the highest levels of test-result accuracy and convenience to any magnetic stripe manufacturing, bureau or QC environment.

### Precision Reciprocating Flat Test Table

This acts as the carrier for analysing the widest range of magnetic stripe test piece shapes, sizes and thicknesses.

### Linear Optical Encoder

Integral to the Mag-Tester Revo is a linear optical encoder, which directly monitors the movement of the card under test to a resolution of 0.5micron (0.00002") to provide unmatched levels of test measurement accuracy.

### Fully Automated Operations

Unlike other flat test table analysers with error-prone manual settings, the Mag-Tester Revo is fully automated for head selection, loading and track positioning.

### Multi-level User Interface

The Mag-Tester Revo is designed to be easy to use by the non-technical operator with colour-coded Go/Stop, Pass/Fail displays; at the same time it provides detailed technical information for engineering staff. Comprehensive magnetic stripe analysis displays and diagnostic facilities for Encoded and Unencoded cards are available, as well as script-based modules which allow many of the tests and reports to be customised.

### Durable Test Heads

Sensitive test heads are loaded onto test cards only when actually reading or writing – reducing wear rates on the read and write heads by 50% and 25% respectively compared with manual systems.

### Protective Covers

Critical components, such as the sensitive test heads, have protective covers to allow the Mag-Tester Revo to be used in all environments and by all personnel. If necessary, experts and developers can remove the covers to use the analyser in an "open-architecture" mode.

### Test Card Clamping System

This ensures quick and accurate card loading and removal without any risk of damaging or marking the test card / ticket.

### Batch Testing & Data Analysis

Media can be batch tested; batch test data can be exported to external database programmes (MS Access, Excel) for further analysis (Gage R & R, Six Sigma), if required. Data analysis includes statistics, histograms and performance trends right through to the automatic generation of test certificates.

### Convenient USB Interface

A USB connection enables the Mag-Tester Revo to be installed on any laptop or PC running Windows XP, Windows 7, 8 and 10 (32-bit and 64-bit), (32-bit and 64-bit), in the most demanding production environments as well as laboratories and bureaux.

### THE BARNES ADVANTAGE

Barnes is the chosen test tool of Banks & Issuers, Card Manufacturers, Personalisation Bureaux and Test Laboratories worldwide.

Here are some reasons why:

#### BUSINESS AGILITY

Barnes test tools are easy to use by both technical and non-technical users, and speed up card development and payment scheme certification.

#### COST ELIMINATION

The high business costs and wasted resources of producing and issuing invalid cards are eliminated.

#### RISK REDUCTION

The reputational risk of issuing invalid cards and tickets to end customers is reduced.

#### FUTURE PROOFED

Barnes works in partnership with all major payment schemes. As scheme rules evolve, Barnes rapidly make updated test script packs available to customers via the Barnes website.

#### SERVICE EXCELLENCE

Our clients have every confidence that whatever their test requirement, the Barnes team is always on-hand to deliver expert advice and fast support.

## Encoded Stripe Analysis

- ✓ ISO 7811-2, ISO 7811-6 / ISO 7811-8 Tables 2-7 tests
- ✓ Automatically test any or all 3 ISO tracks
- ✓ Variable Test Track location
- ✓ Character Count, Data, Parity, LRC
- ✓ Leading/trailing zeros, start/end sentinel locations
- ✓ Signal amplitudes, signal waveform
- ✓ Bit density, Bit spacing
- ✓ Bit/Bit spacing variation (Jitter)
- ✓ Reverse & Repeat read tests (encoded cards)
- ✓ Test to Mastercard CQM requirements

## Unencoded Stripe Analysis

- ✓ ISO 7811-2, ISO 7811-6 / ISO 7811 Table 1 tests
- ✓ Magnetic saturation curve – multiple curves
- ✓ Erasure
- ✓ Extra pulse
- ✓ Resolution
- ✓ Demagnetisation (HiCo)
- ✓ Waveform (HiCo – forward and reverse)
- ✓ Programmable Waveform test method
- ✓ Can test to other standards