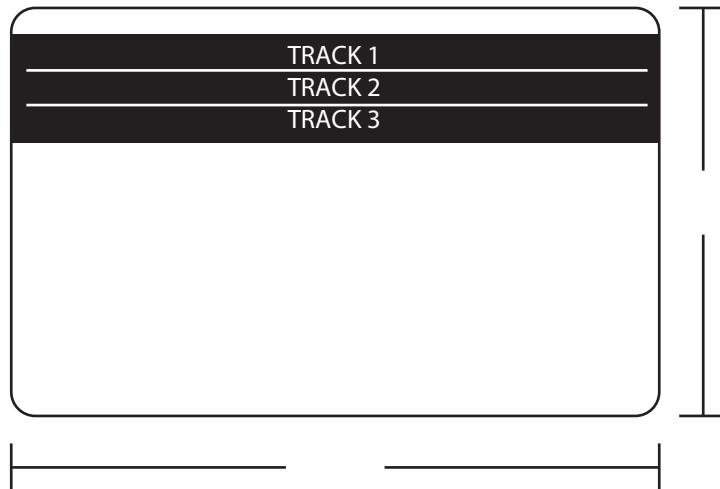




MAGNETIC STRIPE CARD STANDARDS

Dimensions - Financial Transaction Cards



- ISO
- 7810 Physical characteristics of credit card size document
 - 7811-1 Embossing
 - 7811-2 Magnetic stripe - low coercivity
 - 7811-3 Location of embossed characters
 - 7811-4 Location of tracks 1 & 2
 - 7811-5 Location of track 3
 - 7811-6 Magnetic stripe - high coercivity
 - 7813 Financial transaction cards

For copies of specifications contact:
American National Standards Institute
11 W. 42nd Street, New York, NY 10036
212-642-4900

Magnetic Stripe Encoding - Financial Transaction Cards

0.223"	Track		Recording Density (bits per inch)	Character Configuration (including parity bit)	Information Content (including control characters)
0.110"	1	IATA	210	7 bits per character	79 alphanumeric characters
0.110"	2	ABA	75	5 bits per character	40 numeric characters
0.110"	3	THRIFT	210	5 bits per character	107 numeric characters

Card Data Format - Track 1

76 ALPHANUMERIC DATA CHARACTERS

SS	FC	PAN	FS	NAME	FS	ADDITIONAL DATA	DISCRETIONARY DATA	ES	LRC
		Primary Account No. (19 digits Max.)		Name (26 alphanumeric characters Max.)		No. of characters Expiration date (YYMM) 4 Service Code 3	No. of characters *PVKI 1 *PVV or Offset 4 *CVV or *CVC 3 Some or all of the above fields may be found with the discretionary data		
SS	FC								
FS									
ES									

Start Sentinel % Format Code

Field Separator ^ Longitudinal Redundancy Check character

End Sentinel ?

*(PVKI) PIN Verification Key Indicator
*(PVV) PIN Verification Value
*(CVV) Card Verification Value
*(CVC) Card Validation Code

Card Data Format - Track 2

37 NUMERIC DATA CHARACTERS

SS	PAN	FS	ADDITIONAL DATA	DISCRETIONARY DATA	ES	LRC
	Primary Account No. (19 digits Max)		No. of characters Expiration date (YYMM) 4 Service Code 3	No. of characters *PVKI 1 *PVV or Offset 4 *CVV or *CVC 3 Some or all of the above fields may be found with the discretionary data		

SS Start Sentinel Hex B ;

LRC Longitudinal Redundancy Check character

FS Field Separator Hex D =

ES End Sentinel Hex F ?

*White boxes identify control characters

Card Data Format - Track 3 (ISO 4909)

104 NUMERIC DATA CHARACTERS

SS	FC	PAN	FS	USE AND SECURITY DATA	ADDITIONAL DATA	ES	LRC
		Primary Account No. (19 digits Max)		No. of characters Country Code (optional) 3 Currency Code 3 Currency Exponent 1 Amount Authorized per Cycle 4 Amount Remaining this Cycle 4 Cycle Begin (Validity Date) 4 Cycle Length 2 Retry Count 1 PIN Control Parameters (optional) 6 Interchange Controls 1 PAN Service Restriction 2 SAN-1 Service Restriction 2 SAN-2 Service Restriction 2 Expiration Date (optional) 4 Card Sequence Number 1 Card Security Number (optional) 9	No. of characters First subsidiary Account No. (optional) Secondary Subsidiary Account No. (optional) Relay Marker 1 Cryptographic Check Digits (optional) 6 Discretionary Data *A Field Separator (FS) must be used if an optional field is not used		

SS Start Sentinel Hex B ;

FC Format Code (2 digits)

FS Field Separator Hex D =

LRC Longitudinal Redundancy Check character

ES End Sentinel Hex F ?

*White boxes identify control characters

The track formats used in this document are based on ISO Standards, however, other formats may be used. Contact your card issuer for your exact requirements