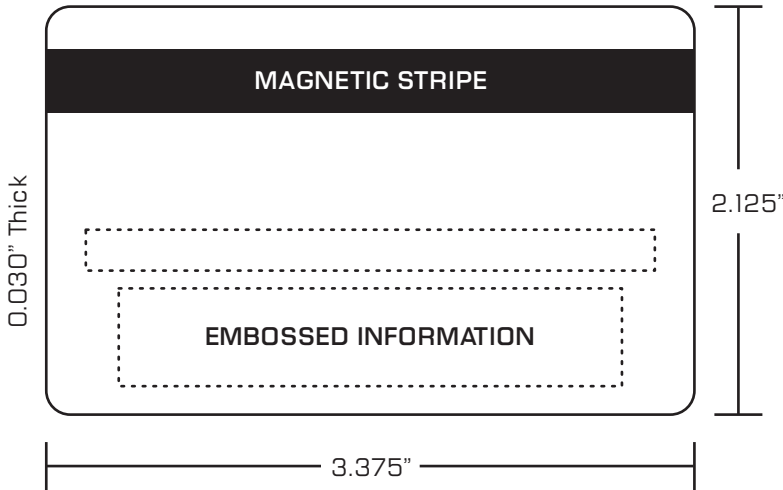


## Dimensions - Financial Transaction Cards



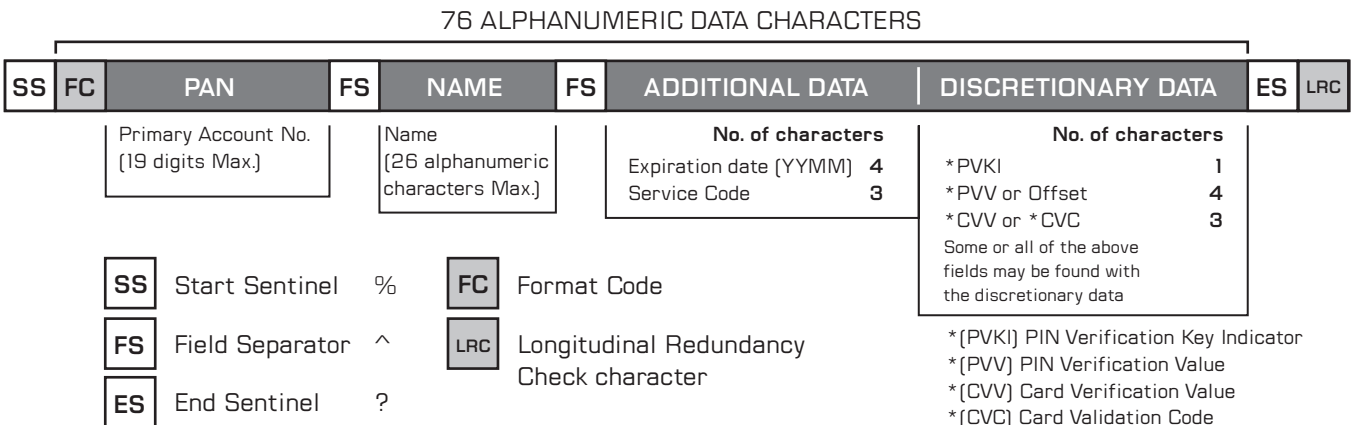
ISO	Description
7810	Physical characteristics of credit card size document
7811-1	Embossing
7811-2	Magnetic stripe - low coercivity
7811-3	Location of embossed characters
7811-4	Location of tracks 1 & 2
7811-5	Location of track 3
7811-6	Magnetic stripe - high coercivity
7813	Financial transaction cards

**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



## Card Data Format - Track 2

37 NUMERIC DATA CHARACTERS

SS	PAN	FS	ADDITIONAL DATA	DISCRETIONARY DATA	ES	LRC														
	Primary Account No. (19 digits Max.)		<table border="1"> <thead> <tr> <th colspan="2">No. of characters</th> </tr> </thead> <tbody> <tr> <td>Expiration date (YYMM)</td> <td>4</td> </tr> <tr> <td>Service Code</td> <td>3</td> </tr> </tbody> </table>	No. of characters		Expiration date (YYMM)	4	Service Code	3	<table border="1"> <thead> <tr> <th colspan="2">No. of characters</th> </tr> </thead> <tbody> <tr> <td>*PVKI</td> <td>1</td> </tr> <tr> <td>*PVV or Offset</td> <td>4</td> </tr> <tr> <td>*CVV or *CVC</td> <td>3</td> </tr> </tbody> </table> <p>Some or all of the above fields may be found with the discretionary data</p>	No. of characters		*PVKI	1	*PVV or Offset	4	*CVV or *CVC	3		
No. of characters																				
Expiration date (YYMM)	4																			
Service Code	3																			
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*PVKI	1																			
*PVV or Offset	4																			
*CVV or *CVC	3																			

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.)		<table border="1"> <thead> <tr> <th colspan="2">No. of characters</th> </tr> </thead> <tbody> <tr> <td>Country Code (optional)</td> <td>3</td> </tr> <tr> <td>Currency Code</td> <td>3</td> </tr> <tr> <td>Currency Exponent</td> <td>1</td> </tr> <tr> <td>Amount Authorized per Cycle</td> <td>4</td> </tr> <tr> <td>Amount Remaining this Cycle</td> <td>4</td> </tr> <tr> <td>Cycle Begin (Validity Date)</td> <td>4</td> </tr> <tr> <td>Cycle Length</td> <td>2</td> </tr> <tr> <td>Retry Count</td> <td>1</td> </tr> <tr> <td>PIN Control Parameters (optional)</td> <td>6</td> </tr> <tr> <td>Interchange Controls</td> <td>1</td> </tr> <tr> <td>PAN Service Restriction</td> <td>2</td> </tr> <tr> <td>SAN-1 Service Restriction</td> <td>2</td> </tr> <tr> <td>SAN-2 Service Restriction</td> <td>2</td> </tr> <tr> <td>Expiration Date (optional)</td> <td>4</td> </tr> <tr> <td>Card Sequence Number</td> <td>1</td> </tr> <tr> <td>Card Security Number (optional)</td> <td>9</td> </tr> </tbody> </table>	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	<table border="1"> <thead> <tr> <th colspan="2">No. of characters</th> </tr> </thead> <tbody> <tr> <td>First subsidiary Account No. (optional)</td> <td></td> </tr> <tr> <td>Secondary Subsidiary Account No. (optional)</td> <td></td> </tr> <tr> <td>Relay Marker</td> <td>1</td> </tr> <tr> <td>Cryptographic Check Digits (optional)</td> <td>6</td> </tr> <tr> <td>Discretionary Data</td> <td></td> </tr> </tbody> </table> <p>*A Field Separator (FS) must be used if an optional field is not used</p>	No. of characters		First subsidiary Account No. (optional)		Secondary Subsidiary Account No. (optional)		Relay Marker	1	Cryptographic Check Digits (optional)	6	Discretionary Data			
No. of characters																																																					
Country Code (optional)	3																																																				
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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

### MagTek

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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

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