

ANSI/ISO ALPHA Data Format (Track 1)

The ANSI/ISO ALPHA format is 7 bit, 6 data bits + 1 parity bit (odd). The data is read least significant bit first.

The character set contains 64 characters, 43 alphanumeric, 3 framing/field characters and 18 control/special characters.

Data bits							Character	Value (Hex)	Function
b1	b2	b3	b4	b5	b6	b7			
0	0	0	0	0	0	1	space	00	Special
1	0	0	0	0	0	0	!	01	Special
0	1	0	0	0	0	0	"	02	Special
1	1	0	0	0	0	1	#	03	Special
0	0	1	0	0	0	0	\$	04	Special
1	0	1	0	0	0	1	%	05	Start Sentinel
0	1	1	0	0	0	1	&	06	Special
1	1	1	0	0	0	0	'	07	Special
0	0	0	1	0	0	0	(08	Special
1	0	0	1	0	0	1)	09	Special
0	1	0	1	0	0	1	*	0A	Special
1	1	0	1	0	0	0	+	0B	Special
0	0	1	1	0	0	1	,	0C	Special
1	0	1	1	0	0	0	-	0D	Special
0	1	1	1	0	0	0	.	0E	Special
1	0	0	1	0	0	1	/	0F	Special
0	0	0	0	1	0	0	0	10	Data
1	0	0	0	1	0	1	1	11	Data
0	1	0	0	1	0	1	2	12	Data
1	1	0	0	1	0	0	3	13	Data
0	0	1	0	1	0	1	4	14	Data
1	0	1	0	1	0	0	5	15	Data
0	1	1	0	1	0	0	6	16	Data
1	1	1	0	1	0	1	7	17	Data
0	0	0	1	1	0	1	8	18	Data
1	0	0	1	1	0	0	9	19	Data
0	1	0	1	1	0	0	:	1A	Special
1	1	0	1	1	0	1	;	1B	Special
0	0	1	1	1	0	0	<	1C	Special
1	0	1	1	1	0	1	=	1D	Special
0	1	1	1	1	0	1	>	1E	Special
1	1	1	1	1	0	0	?	1F	End sentinel
0	0	0	0	0	1	0	@	20	Special
1	0	0	0	0	1	1	A	21	Data
0	1	0	0	0	1	1	B	22	Data

1	1	0	0	0	1	0	C	23	Data
0	0	1	0	0	1	1	D	24	Data
1	0	1	0	0	1	0	E	25	Data
0	1	1	0	0	1	0	F	26	Data
1	1	1	0	0	1	1	G	27	Data
0	0	0	1	0	1	1	H	28	Data
1	0	0	1	0	1	0	I	29	Data
0	1	0	1	0	1	0	J	2A	Data
1	1	0	1	0	1	1	K	2B	Data
0	0	1	1	0	1	0	L	2C	Data
1	0	1	1	0	1	1	M	2D	Data
0	1	1	1	0	1	1	N	2E	Data
1	1	1	1	0	1	0	O	2F	Data
0	0	0	0	1	1	1	P	30	Data
1	0	0	0	1	1	0	Q	31	Data
0	1	0	0	1	1	0	R	32	Data
1	1	0	0	1	1	1	S	33	Data
0	0	1	0	1	1	0	T	34	Data
1	0	1	0	1	1	1	U	35	Data
0	1	1	0	1	1	1	V	36	Data
1	1	1	0	1	1	0	W	37	Data
0	0	0	1	1	1	0	X	38	Data
1	0	0	1	1	1	1	Y	39	Data
0	1	0	1	1	1	1	Z	3A	Data
1	1	0	1	1	1	0	[3B	Special
0	0	1	1	1	1	1	\	3C	Special
1	0	1	1	1	1	0]	3D	Special
0	1	1	1	1	1	0	^	3E	Field Separator
1	1	1	1	1	1	1	_	3F	Special

ANSI/ISO BCD Data Format (Tracks 2 and 3)

The ANSI/ISO BCD format is 5 bit, 4 data bits + 1 parity bit (odd). The data is read least significant bit first.

The character set contains 16 characters, 10 alphanumeric, 3 framing/field characters and 3 control/special characters.

Data bits	Character	Value	Function
1 1 1 0 0	7	07	Data

1	1	1	0	0	7	07	Data
0	0	0	1	0	8	08	Data
1	0	0	1	1	9	09	Data
0	1	0	1	1	:	0A	Control
1	1	0	1	0	;	0B	Start Sentinel
0	0	1	1	1	<	0C	Control
1	0	1	1	0	=	0D	Field Separator
0	1	1	1	0	>	0E	Control
1	0	0	1	1	?	0F	End Sentinel

Track 1

Character Limit Allowed Characters 79 alphanumeric ASCII codes 32-95 Field Separator is ^

Track 2 Character Limit 40 numeric ASCII codes 48-63 Field Separator is =

Track 3 Character Limit 107 numeric ASCII codes 48-63 Field Separator is ^