
Exabyte Bar Code Label Specification

**for 8mm
Cartridges**

This specification applies
only to Exabyte® 8mm
libraries equipped with a
bar code scanner.

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Revision History

Revisions of this manual include the following:

Revision	Date	Description
000	July 1994	Beta release
001	October 1994	Initial release
002	December 1994	Removed information that was redundant with the ANSI MH10.8M specification.
003	August 1996	Revised label dimensions (.300 minimum quiet zone was .350; .250 + .020—.005 was .250 ± .005). Revised label materials.
004	June 2001	Added maximum 0.01-inch thickness to base material callout.

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About this Specification

This document provides specifications for creating bar code labels used on cartridges in Exabyte 8mm libraries. The specifications are defined to both standardize labels and allow users the option of purchasing or printing their own labels.

This specification contains the following information about the bar code labels:

- Label materials
- Label dimensions
- Bar code characters
- Quality
- Optional features

Materials for the Label

Use the materials listed below to construct the labels.

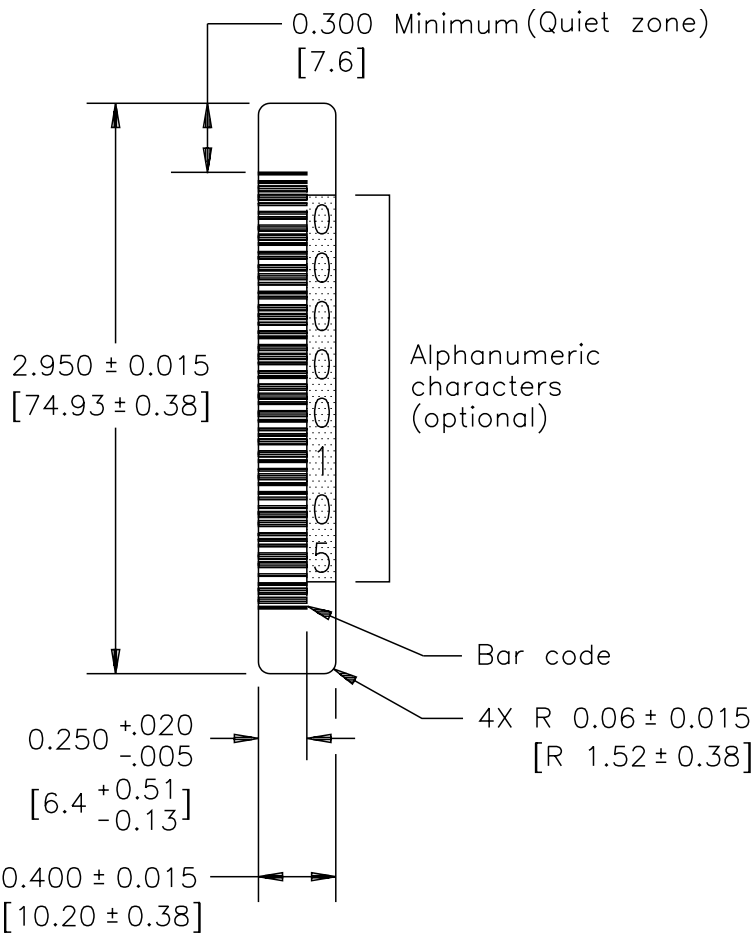
Base material:	Laser printable paper or white polyester film; maximum 0.01-inch (0.025-mm) thick.
Laminate:	A 0.001-inch (0.025-mm) thick, matte-finish polypropylene or polyester film, which is secured with the same adhesive as on the back.
Adhesive:^a (on the back)	High tack. Acrylic based. Pressure sensitive. Double sided.
Release liner:	50-lb to 90-lb release liner stock.

^a After 24 hours on an actual data cartridge, the adhesive should exhibit a minimum peel strength of 48 oz. per inch (536 gm/cm) of width using a peel rate of 10 inches/minute (25.4 cm/minute).

Label Dimensions

The following figure shows the bar code label dimensions.

Note: Dimensions are given in inches with millimeters in parentheses.



Bar Code Characters

Print the bar code in accordance with the latest revision of the ANSI MH10.8M specification (Code 3-of-9). The bar code can have between 7 and 11 characters, as shown in the following table.

Top	1 start character 4 to 8 alphanumeric characters, which you select from the following table. 1 checksum character
Bottom	1 stop character

Checksum Character

The checksum character is computed as the character corresponding to the modulus 43 sum of all the values in the eight-character section of the bar code. Character values are derived from the following table.

Label character	Value	Label character	Value	Label character	Value
0	0	F	15	U	30
1	1	G	16	V	31
2	2	H	17	W	32
3	3	I	18	X	33
4	4	J	19	Y	34
5	5	K	20	Z	35
6	6	L	21	-	36
7	7	M	22	.	37
8	8	N	23	space	38
9	9	O	24	\$	39
A	10	P	25	/	40
B	11	Q	26	+	41
C	12	R	27	%	42
D	13	S	28		
E	14	T	29		

Bar Code Element Widths

The table below lists the widths of the bar code elements.

Element	Width	
	inches	millimeters
Narrow element	0.015±0.002	0.38±0.05
Wide element	0.030±0.002	0.076±0.05
Intercharacter gap	0.030±0.002	0.076±0.05

Quality

Use the specifications listed in this section for bar code label quality.

Reflectance and Contrast

The reflectance and contrast measurements should be determined using a light source of nominal 700 nm wavelength with a smooth spectral response curve of no more than 120 nm bandwidth for a 50% power level.

Incidental irradiation should be at 45° from normal to the surface and reflected flux collected within a 15° angle centered on the normal.

The minimum allowable reflectance of the spaces is 50%.
The minimum ratio of space (light) reflectance to bar (dark) reflectance is 5 to 1.

Label Degradation after Exposure to Light

The ratio of space (light) reflectance to bar (dark) reflectance should not fall below 4 to 1 after 30 days' exposure to a fluorescent source at 100 foot-candles.

Optional Features

If desired, you can include alphanumeric characters and background colors on the bar code labels. Alphanumeric characters and background colors are optional; you do not need to include them for proper library operation.

Alphanumeric Characters

If you want to use alphanumeric characters on the labels, the characters should be centrally located in the area indicated in the figure on [page 5](#). Label characters must also have a sequence that is identical to the adjacent bar code.

Background Color

If you want to use colored labels, generate the colors with permanent inks. The following table lists background color assignments associated with each alphanumeric character.

Character	Background color
1	Yellow
2	Light Green
3	Light Blue
4	Gray
5	Dark Orange
6	Pink
7	Dark Green
8	Light Orange
9	Purple
0	Red
alphabetic characters and symbols	White

Contacting Exabyte

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To return equipment for service	
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