GETTING LOST IN YOUR LABEL DESIGN? LET US HELP YOU FIND THE WAY.

COMPUTYPE COMPASS

BARCODE DENSITY: Density is the number of data characters that can be encoding in a lineal unit of measure. Barcode density if often expressed in characters per inch. High density = smaller narrow bar/ratio, low density = larger narrow bar/ratio.

High Density
x dim: .0062"

x dim: .0086"

x dim: .011"

x dim: .013"

x dim: .017"
Low Density

BARCODE X DIMENSIONS (narrow bars)

# Pixels	200 PPI	300 PPI	600 PPI
1	.005"	.0033"	.0017"
2	.010"	.0067"	.0033"
3	.015"	.0100"	.0050"
4	.020"	.0133"	.0067"
5	.025"	.0167"	.0083"
6	.030"	.0200"	.0100"
7	.035"	.0233"	.0117"
8	.040"	.0267"	.0133"
9	.045"	.0300"	.0150"
10	.050"	.0333"	.0167"

# Pixels	812 PPI	800 PPI
5	.00616"	.00625"
6	.00739"	.00750"
7	.00862"	.00875
8	.00985"	.01000"
9	.01108"	.01125"
10	.01232"	.01250"
11	.01355"	.01375
12	.01478"	.01500"
13	.01601"	.01625"
14	.01724"	.0175"

PPI = pixels per inch, same as DPI or dots per inch

200, 300 and 600 PPI = Thermal Transfer / 300 PPI = Ink Jet / 812 PPI = Digitek / 800 PPI =Memjet

CODE 3 OF 9 (CODE 39)

Character set: Uppercase Alphanumeric
Seven special characters: . - space / + $ %
one start/stop character: *
Full ASCII available in Code39 full ascii, uses special encoding.

Symbol Length = I(1+C) + (C+2)(6X+3NX) + 20X
I = Intercharacter gap (usually same as X)
C = number of characters
X = X dimension (narrow bar)
N = Wide to narrow ratio

INTERLEAVED 2 OF 5 (I2OF5)

Character set: Even pairs of numbers only

Best if printed with bearer bars (as shown) to prevent mis-reads or short-reads.

Symbol Length = (P(4N+6)+6+N)X + 20X
P = number of character pairs
X = X dimension (narrow bar)
N = Wide to narrow ratio

RATIONALIZED CODABAR

Character set: Numeric digit
6 special characters: - $: / . +
4 start/stop characters: A B C D

Symbol Length = (2N+5)C + (N-1)(W+2) + I(C-1) + 20X
I = Intercharacter gap (usually same as X)
C = number of normal characters
W = number of wide characters (: / . +)
X = X dimension (narrow bar)
N = Wide to narrow ratio

CODE 128

Subset B

Subset C

Character set:
Subset A: Full uppercase alphanumeric keyboard plus control and special characters
Subset B: Full upper and lower case alphanumeric keyboard plus special characters
Subset C: Numeric pairs plus switch and function characters.

Symbol Length = ((5.5D + 11C + 35)X) + 20X
D = number of subset C numbers
C = number of subset A/B characters + function or switch chars.
X = X dimension (narrow bar)

QUICK RESPONCE CODE (QR CODE)

Encoding 140+ Characters

Encoding 6 Characters

Character set: Full and extended ASCII characters as well as several other character types including KANJI (korean, chinese, japanese).

Symbol L & H=(V*4+17)*X + 8X
L= barcode length
H = barcode height
V = barcode version (determines # of characters in combination with EC level)
X = narrow element or narrow bar

DATAMATRIX

Encoding 140+ Characters

Encoding 6 Characters

Character set: All ASCII characters
All ISO characters
All EBCDIC characters

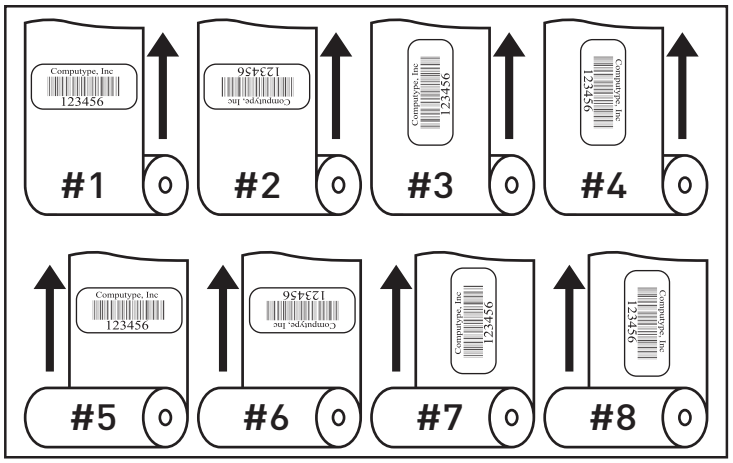
Symbol L & H=G*X + 2X
L= barcode length
H = barcode height
G = grid size
X = narrow element or narrow bar

YOU CAN COUNT ON IT™

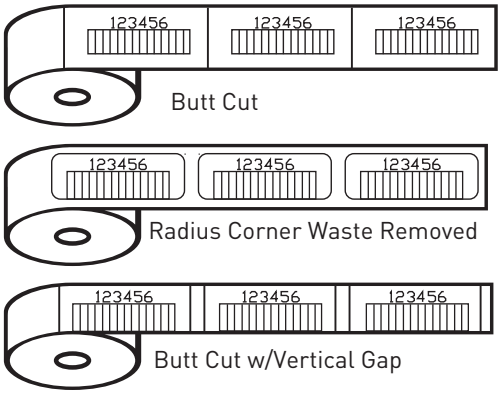
Computype™

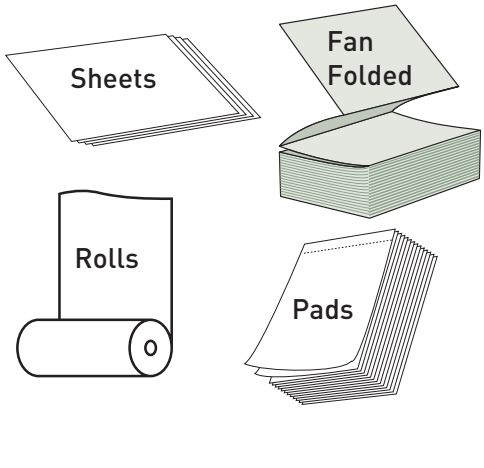
Definitions:

Character set: Range of data characters that can be encoded into a given symbology.
Density: How many characters can be encoded in a lineal inch (cpi).
Element: Any bar or space.
"X" dimension: Width of narrow element,also know as narrow bar.
Ratio: Relationship between wide element widths and narrow element widths (e.g. 3:1).
Mil: One thousandth of an inch (0.0075"= seven-and-a-half mils).
Check character: Character included within a string of data whose value is derived from a mathematical check to ensure the accuracy of the data.
Quiet zone: The clear area immediately preceding the first bar and following the last bar of a bar code symbol; minimum width dictated by specification for that symbology or scanning device.
Step-ladder: The bars in the code look like the rungs of a ladder leaning up against a house.
Picket fence: The bars in the code look like the vertical pickets in a fence.
WEL: Wide edge leading, wide dimension of label leads.
NEL: Narrow edge leading, narrow dimension of label leads.
Resolution: Pixels or elements per inch, dots per inch (DPI, 300, 600).



Specifying Label Form





Picket Fence

Step Ladder

Determining Label Size

- Symbol Length =
  - Message Length +
  - Total Quiet Zone =
    - 10 x Narrow Bar +
    - Label Die cut Tolerance*

*(all elements on label must remain a minimum distance from all label edges)

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