# **Label Printer**

# Bitmap Printing Command Description Document V1.1

**DothanTech** 

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# **Document Modification Records**

SN	Version	Descriptions	Modifier	Date
1	V0.1	Document Creation	Yang Lingmei	2017-02-06
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3	V1.1	Added 1F 2B image data printing command	Liu Weihong	2019-02-27

The two digits numbers used in this document are all hexadecimal data, such as 00 for decimal 0, FF for decimal 255, and so on.

#### 1. 1B 40 Intialisting print parameters

Initialize printing parameters to default values and start printing a label as the first command.

#### 2. 1F 27 01 n 88 Setting the print width

Set the width of the printed label to (dots + 7) / 8. Since the printer prints at a resolution of 8 dots per millimeter, the value is actually the width of the printed label in millimeters. Both the DT60 and DP23 series printers have an effective maximum print width of 48 mm.

#### 3. 1B 4A n Go N empty lines

Go N  $(0\sim255)$  empty lines

#### 4. 1F 2A nL nH ... Print a line of N dots

Print a line of N dots, ... for the data to be printed, Its byte number is (n+7)/ 8. nL nH is the number of points represented in two bytes, with the low byte front and the high byte behind.

The print data is arranged in order from left to right, with one bit representing a print point, bit 1 indicates a point that needs to be printed, 0 indicates a point not to be printed, and the point to the left being at the higher bit of a byte.

If the specified number of points exceeds the label width, the excess print content will be ignored; if the specified number of points is less than the label width, the missing data is 0 by default, which means the content does not need to be printed.

### 5. 1F 2B m n ... Print a line with leading blanks

Print a line with leading blanks, m is the number of bytes with leading zeros (0  $\sim$  191), n is the number of bytes of print data (0  $\sim$  191), and ... is the data to be printed, whose number of bytes is specified by n.

The print data is arranged in order from left to right, with one bit representing a print point, bit 1 indicates a point that needs to be printed, 0 indicates a point not to be printed, and the point to the left being at the higher bit of a byte.

If the specified number of leading zeros (m x 8) plus the number of print data points (n x 8) exceeds the label width, the exceeding print content will be ignored; if the specified number of points is less than the label width, the missing data is 0 by default, which means the content does not need to be printed.

This print command is a data compression type of the 1F 2A print command. For the case that there are more leading blanks (leading zeros, i.e., no need to print the contents) in one line of print data, which can effectively compress the print data volume.

#### 6. 1F 2E n Duplicate rows

Print a duplicate line with the same content as the previous line. n is the number of duplicate lines - 1, such as the number of duplicate lines is 2, then the value of N is 1; the number of duplicate lines is 192, then the value of N is 191, and so on.

Note: The value of N should be less than 192, if the number of duplicate lines is greater than 192, then you need to split into multiple print duplicate line commands. For example, if the actual number of duplicate lines is 256, then it needs to be split into the following two print duplicate line commands: 1F 2E BF 1F 2E 3F

#### 7. 0C Locate to next paper boundary

Locate to the boundary of the next label to end the printing of a label,