JICAI Q1 (Q2) COMMAND SPECIFICATION

MANUAL REVISION EN 1.0

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Control Commands Details

Command Notation

[Name]	The name of the command.
[Format]	The codesequence. ASCII Indicates the ASCII equivalents.
	Hex indicates the hexadecimal equivalents.
	Decimal indicates the decimal equivalents.
	[] k indicates the contents of the [] should be repeated k times.
[Range]	Gives the allowable ranges for the arguments.
[Description]	Describes the function of the command.

Explanation of Terms

LSB Least SignificantBit

Control Commands Details

ΗТ

Name	Horizonta	l tab
Format	ASCII	HT
	Hex	09
	Decimal	9
Description	Moves the	print position to the next horizoutal tab position.

Details Reference to ESCD

LF

Name	Print and lin	ne feed.			
Format	ASCII	LF			
Hex 0A					
	Decimal	10			
Description	on In standard mode, prints the data in the print buffer and feeds one lin				
based on the current line spacing.					
	If the buffer is empty, the printer willonly feed one line.				

CR

Name	Print and carriage return.					
Format	ASCII	CR				
	Hex	0D				
	Decimal	13				
Description print data in buffer without feedline.						

DLE EOT n

Name	Transmission real-time status.					
Format	ASCII DLE EOT n					
	Hex 10 04 n					
	Decimal 16 4 n					
Range	$1 \leq n \leq 4$					
Description	Transmits the status specified by n in real-time as follows	s:				
	n Function					
	1 Transmit printer status.					

4 Transmitpaper roll sensor status.

This printer transmits the following status in real time.

n = 1: Printer status:

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Fixed
1	On	02	2	Fixed
2	Off	00	0	Fixed
0	Off	00	0	On-Line
3	On	08	8	Off-Line
4	On	10	16	Fixed
5	Off	00	0	Fixed
6	Off	00	0	Fixed
7	Off	00	0	Fixed

n = 4: Continuous paper sensor status:

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Fixed
1	On	02	2	Fixed
2	Off	00	0	Fixed
3	Off	00	0	Fixed
4	On	10	16	Fixed
5	On	60	96	Paper roll near-endsensor : paper near end.
6	Off	00	0	Paper roll near-end sensor : paper adequate
7	Off	00	0	Fixed

Notes If print data includes a character string with this command, the printerperforms this command.

DLE DC4 m n1 n2

[Name]	Generate p	ulse.							
[Format]	ASCII Hex Decimal	DLE 10 16	DC4 14 20	m m m	n1 n1 n1	n2 n2 n2			
[Range] [Description]	$0 \le n1 \le 2$ To form a c and "n2".	255, 0 ≤ ertain i	n2 ≤ nterval	255 pulse	e to co	ontrolc	ash drawer accor	dingto	"n1"

ESC SP n

[Name]	bacing.				
[Format]	ASCII	ESC	SP	n	
	Hex	1B	20	n	
	Decimal	27	32	n	
[Range]	$0 \leqslant n \leqslant 25$	5			
[Description]	g for the right side of the character to				
	lmotion unit].				
The maximum of the right-side spacing is: -31.875mm.					
[Default]	n = 0				

ESC ! n

[Name]	Select print mode(s).					
[Format]	ASCI	I ES	C !	Ν		
	Hex	1 E	8 21	n		
	Decin	nal 27	33	n		
[Range]	$0 \leq n$	≤ 255				
[Description]	Select	ts print m	ode(s)	using n as f	follows:	
	Bit	Off/On	Hex	Decimal	Function	
	0	Off	00	0	Character fontA (12X24) selected.	
		On	01	1	Character font B(9X17)selected.	
	1,2	Off	00	0	Reserved.	
	3	Off	00	0	Emphasized mode notselected.	
	3	On	08	8	Emphasized mode selected.	
	4	Off	00	0	Double-height mode not selected.	
	-	On	10	16	Double-height mode selected.	
	Б	Off	00	0	Double-width mode notselected.	
	5	On	20	32	Double-width mode selected.	
	6	Off	00	0	Reserved.	
	7	Off	00	0	Underline mode not selected.	
		On	80	128	Underline mode selected.	

Emphsized mode is effective for alphanameric and kanji All print modes except emphasized is effective only for alphanameric.

[Default] n = 0

ESC * m nL nH d1...dk

[Name]		Select bit image mode.											
[Format]		ASCII ESC		*	m	nL	nH d1dk						
		Hex	1B	2A	m	nL	nH d1dk						
		Decimal	27	42	m	nL	nHd1dk						
[Range]		m = 0, 1, 32, 33											
	$1 \le (nL + nH \ge 256) \le 1023 \ (0 \le nL \le 255, 0 \le nH \le 3), 0 \le d \le 255$												
[Description]	n] Specifies the bitimage in mmode for the number of dots specified												
		by nL and nH.											
	m	Mode	Numb dots ir vertica directi	er of n al ion	Vertical Dot density	Horizontal dot density	Number of bytes (k)						
	0	8-dot single-d	ensity	8		60	90	nL + nH x 256					
	1	8-dot double-o	density	8		60	180	nL + nH x 256					
	32	24-dot single-	density	24	4	180	90	(nL + nH x 256) x 3					
	33	24-dot double-	density	24	4	180	180	(nL + nH x 256) x 3					

ESC - n

[Name]	Set the char	acter	under	line mode.						
[Format]	ASCII	ESC	-	n						
	Hex	1B	2D	n						
	Decimal	27	45	n						
[Range]	$0 \leq n \leq 2, 48 \leq n \leq 50$									
[Description]	Turn on/off underline mode according to "n":									
	n		Fu	nction						
	0,48	ד	Turns offunderline mode.							
	1,49	Т	Turns on underline mode, set width at 1-dot							
	2,50	Т	urns	on underline mode, set width at 2-dot						

ESC 2

[Name]	Select default line spacing.					
[Format]	ASCII	ESC	2			
	Hex	1B	32			
	Decimal	27	50			

[Description] Sets the current line spacing to approximately 4.23mm {1/6inch}.

ESC 3 n

[Name]	Set line spacing.										
[Format]	ASCII	ESC	3	n							
	Hex	1B	33	n							
	Decimal	27	51	n							
[Range]	$0 \leq n \leq 255$										
[Description]	Set the linespacing to n/144 inch										
	The maximum line spacing is 1016 mm (40 inch), line spacing										
	larger than 1016mm will be still handled as 1016mm. The default										
	line spacing is approx 4.23 mm(1 / 6 inch).										

ESC 9 m n1 n2

[Name]	Cash drawer control pulse.										
[Format]	ASCII	ESC	9	m	n1	n2					
	Hex	1B	39	m	n1	n2					
	Decimal	27	57	m	n1	n2					
[Range]	M = 0	$\mathbf{M} = 0$									
	$0 \le n1 \le 255, 0 \le n2 \le 255$										
[Description]	To forma certa	To forma certain interval pulse to control cash drawer according to									
	"nl" and "n	2".									

ESC @

[Name]	Initialize p	orinter		
[Format]	ASCII	ESC	a	
	Hex	1B	40	
	Decimal	27	64	
[Description]	Clear the b	oufferda	ata an	d return to default settings

ESC A n

[Name]	Set charact	Set character line spacing.									
[Format]	ASCII	ESC	А	n							
	Hex	1B	41	n							
	Decimal	27	65	n							
[Range] [Description]	0 ≤ n ≤ 25 Set the char Maximum I line spacing	5 racter line ine spacin g is still 10	spacing ng is 101)16 mm.	at n/144 6 mm(40	↓ inch.) inch), i	ifthe set	tting larg	gerthan 10)16 mm,		
[Default]	The default	linespace	ing is ab	out4.23	mm (1/	6 inch).					

ESC D n1...nK NULL

[Name]	Set horizon	Set horizontal tab positions.							
[Format]	ASCII Hex Decimal	ESC 1B 27	D 44 68	n1nK n1nK n1nK	NULL 00 0				
[Range]	$0 \leq n \ 1, \dots n$	K≤ 255							
[Description]	Set horizon "n" speci margin or th k specifies t	 0 < n 1,nx 255 Set horizontal tabpositions "n" specifies the number of digits from the setting position to the left margin or the beginning of the line. k specifies the number of bytes set for the horizontal tab position 							
[Default]	$0 \le K \le 32$ n=8,16,24,3	2,402	32,240,2	48.					

ESC E n

[Name]	Turn empl	nasizedı	node o	n / off.						
[Format]	ASCII	ESC	Е	n						
	Hex	1B	45	n						
	Decimal	27	69	n						
[Range]	$1\leqslant n\leqslant 2$	$1 \leq n \leq 255$								
	Turns emphasized mode on or off.									
	- When the LSB of n is 0, emphasized mode is turned off.									
[Description]	- When the	eLSB of	fnis 1,	emphasized mode is turned on.						
	n = 0									

ESC G n

[Name]	Turn double	e-strike	mode	on/off.
[Format]	ASCII	ESC	G	n
	Hex	1B	47	n
	Decimal	27	71	n
[Range] [Description]	$0 \le n \le 253$ Turns doub - When the I	5 le-strik LSB of	emod nis 0,	le on oroff. double-strike mode is turned off.
[Default]	- When the I n = 0	LSB of	nis 1,	double-strike mode is turned on.

ESC J n

[Name]	Print and feed the paper n-point line.								
[Format]	ASCII	ESC	J	n					
	Hex	1B	4A	n					
	Decimal	27	74	n					
[Range]	$0 \le n \le 25$	5							
[Description]	Print buffer data and to move forward paper n-point line								
	After the implementation of this command, the current print								
	position placed on the line starting position.								
	This command does not affect the ESC2 and ESC3 to set line								
	spacing.								
	The maximum spacing feed is 1016mm {40inch} if the line feed								
	exceeds 1016mm, the printer will still feed paper at 1016mm.								

ESC a n

[Name]	Select justification.									
[Format]	ASCII	ESC	а	n						
	Hex	1B	61	n						
	Decimal	27	97	n						
[Range]	[Range] $0 \le n \le 2, \ 48 \le n \le 50$									
[Description]	In standard mode, aligns all the data in one line to the position specified by n as follows :									
	n	Justi	ficatio	on						
	0,48	Left	justif	ication	-					
	1,49	Cen	tering							
	2,50	Rigl	Right justification		-					
[Default]	n = 0									

ESC d n

Print and take the paper n-point line.					
Print buffer data and move forward paper n-point line.					
This command sets the print starting point to the line start.					
This command does not affect the line spacing set by ESC2 and ESC3.					

ESC i

[Name]	Partial cut.		
[Format]	ASCII	ESC	Ι
	Hex	1B	69
	Decimal	27	105
[Description] to start the partial cut op			operation.

ESC m

[Name]	Partial Cut		
[Format]	ASCII	ESC	m
	Hex	1B	6D
	Decimal	27	109
[Description]	cription] to start the partial cut operation.		

ESC p m n1 n2

[Name]	Cash drawer controlling pulse.						
[Format]	ASCII	ESC	р	m	n1	n2	
	Hex	1B	70	m	n 1	n2	
	Decimal	27	112	m	n 1	n2	
[Range]	m = 0						
	$0 \le n1 \le 25$	$5, 0 \leq n$	2 ≤ 255				
[Description]	To forma cer	tain inte	ervalpuls	e to con	trolcash	drawer according to	
	"n1" and "n2".						

ESC Faa aa n1 n2

[Name]	Cash drawer control pulse.						
[Format]	ASCII	ESC	F	aa	aa	n1	n2
	Hex	1B	46	aa	aa	n1	n2
	Decimal	27	70	170	170	n1	n2
[Range]	0 ≤ n1 ≤ 25	$5, 0 \leq n^2$	2 ≤ 255				
[Description]	To form a certain interval pulse to control cash drawer according to "n1" and "n2" .			drawer according to			

ESC t n

[Name]	Select character set code page.					
[Format]	ASCII	ESC	t	n		
	Hex	1B	74	n		
	Decimal	27	116	n		
[Range]	$0 \le n \le 255$	5				
[Description]	Selects character set code page according to "n".					

[Default]

n=0

n	Code page
0	Pc437
1	Katakana
2	PC850
3	PC860
4	PC863
5	PC865
6	WPC1253
7	Iran
8	WPC1256
9	PC737
10	WPC1250
16	WPC1252
17	PC866
18	Pc852
19	PC858
255	free page for user defining

ESC V

Name	Transmiss	Transmission real-time status.					
Format	ASCII	ESC	V				
	Hex	1B	76				
	Decimal	27	118				
Range	$1 \leq n \leq 4$						
Description	Transmits	theseled	ted ethernet portprinter status				
Details	The printe	er transm	its the current status. Each status is represented	l by 4			
Notes bytes data.							
	The status echo communication port is 4000, otherwise the print data						
	communication port is 9100.						

First byte:

Bit	Binary	Hex	Decimal	Function
0	0	00	0	Not used, Fixed to Off.
1	0	00	0	Not used, Fixed to Off.
2	1	04	4	Not used, Fixed to On.
2	0	00	0	ldle.
5	1	08	8	Busy.
4	1	10	16	Not used, Fixed to On.
_	0	00	0	Cover is closed.
5	1	20	32	Cover is open.
6	0	00	0	Not used, Fixed to Off.
7	0	00	0	Not used, Fixed to Off.

Second byte:

Bit	Binary	Hex	Decimal	Function
0	0	00	0	Not used, Fixed to Off.
1	0	00	0	Not used, Fixed to Off.
2	0	00	0	Not used, Fixed to Off.
3	0	00	0	Not used, Fixed to Off.
4	0	00	0	Not used, Fixed to Off.
5	0	00	0	Printing is being Continue
	1	20	32	Printing is being stopped.
6	0	00	0	Printer head temperature is too normal
7	1	40	64	Printer head temperature is too high
	0	00	0	Not used, Fixed to Off.

Third byte:

Bit	Binary	Hex	Decimal	Function
0	0	00	0	Not used, Fixed to Off.
1	0	00	0	Not used, Fixed to Off.
	00	00	0	Paper sensor,Paperpresent.
2,3	11	0C	12	Paper end detected by paper sensor
4	0	00	0	Not used, Fixed to Off.
5	0	00	0	Not used, Fixed to Off.
6	0	00	0	Not used, Fixed to Off.
7	0	00	0	Not used, Fixed to Off.

Fourth byte:

Bit	Binary	Hex	Decimal	Function
0	0	00	0	Not used, Fixed to Off.
1	0	00	0	Not used, Fixed to Off.
2	0	00	0	Not used, Fixed to Off.
3	0	00	0	Not used, Fixed to Off.
4	0	00	0	Not used, Fixed to Off.
5	0	00	0	Not used, Fixed to Off.
6	0	00	0	Not used, Fixed to Off.
7	0	00	0	Not used, Fixed to Off.

FS W n

[Name]	Turn quadruple-size mode on/off for kanji characters.							
[Format]	ASCII	FS	W	n				
	Hex	1 C	57	n				
	Decimal	28	87	n				
[Range]	$0 \leq n \leq 255$							
[Description]	When the LSB of turned off.	uadruple-size mode for kanji characters is						
	When the LSB of turned on.	"n"	is 1,q	uadruple-size mode for kanji characters is				

[Default] n=0

FS ! n

[Name]	Set kanji character print mode.									
[Format]	ASCII		FS !	N						
	Hex		1C 2	1 n						
	Decim	al 2	28 33	3 n						
[Range]	$0 \leq n$	≤ 255								
[Description]	Set the	printmo	de for ka	njicharact	ers, using "n" as follows:					
	BIT	Off/On	Hex	Decimal	Description					
	0				Default character size					
	1		-	-	Undefined					
	2	OFF	00	0	double higher mode					
	3	OFF	00	0	double wide mode					
	4		-	-	Undefined					
	5		-	-	Undefined					
	6	ON	80	128	Set under line mode					
	7	OFF	00	0	Cancel underline mode					

If "n" exceeds the defined range, the command will be ignored. n = 0

[Default]

It is effective only in double-byte mode, which is selected by DIP

FS - n

[Name]	Set underlin	ne moo	le for k	anji characters.
[Format]	ASCII	FS	- 1	1
	Hex	1C	2D 1	n
[Range] [Description]	Decimal 0 ≤ n ≤ 2, Turn on/off Characters)	28 48 ≤ under accore	45 r n ≤ 50 line m ding to	ode for kanji characters(non-Chinese "n":
	n		Fu	nction
	0,48	Tur	n off ur	nderline mode
	1,49	Turi	n on Ui	nderline mode, set the widthat 1-dot
	2,50	Turi	n on Ui	nderline mode, set the width at 2-dots

[Default] n = 0

FS pnm

To print the pre-loaded bit image. "n" selects the bit image;						

М	Mode	Vertical Dot Density (DPI)	Horizontal Dot Density (DPI)
0, 48	Normal	203	203
1, 49	Double-width	203	203/2
2, 50	Double-height	203/2	203
3, 51	Quadruple	203/2	203/2

[Dpi:dots per 25.4mm{1"}].

"n" defines the bit image position.

xL, xH define the dot quantity of $(xL + xH X256) \times 8$ in horizontal direction;

yL, yH define the dot quantity of (yL + yH X256) x 8 in vertical direction.

this command affects bit image in "n" position only. In "n" position,

the previous bit image data will be deleted.

FS q n xL xH yL yH d1...dk

[Name]	Define NV bitimage.								
[Format]	ASCII	FS	q	n	[xL xHyL yHd1dk]				
	Hex	1C	71	n	[xL xH yL yH d1dk]				
	Decimal	28	113	n	[xLxH yLyH d1dk]				
[Range]	$1 \leq n \leq 4$								
	$0 \leq xL \leq 72$								
	xH = 0	KH = 0							
	$0 \leq yL \leq 255$								
	yH = 0								
	0 ≤ d ≤ 255								
	$k = (xL + xH x^2)$	256) >	k (yL+	yН	x256)x8				
[Description]									

[Description]

GS ! n

[Name]	Set the characterprint mode								
[Format]	ASCII	GS	!	Ν					
	Hex	1D	21	n					
	Decimal	29	33	n					
[Range]	$0 \leq n \leq 255$								
[Description]	Selects the character height using bits 0 to 2 and selects the								
	character width using bits 4 to 7 as follows.								

Bit	Off/On	Hex	Decimal	[Description]								
0												
1	Times o	Times of the higher mode see Table 2										
2			giler mou	0,000 10010 2								
3												
4	- .	C (1)		T 1 1 4								
5	limes c	of the v	width mod	e, see lable 1								
6												
7												

Table 1 Times of the wide mode

Table 2 Times of the higher mode

I	Hex	Decimal	Pattern	Hex	Decimal	Pattern
	00	0	1 X (Standard)	00	0	1 X (Standard)
	10	16	2 X (Double-width)	01	1	2 X (Double-height)
	20	32	3 X	02	2	3 X
	30	48	4 X	03	3	4 X
	40	64	5 X	04	4	5 X
	50	80	6 X	05	5	6 X
	60	96	7 X	06	6	7 X
	70	112	8 X	07	7	8 X

Default n=0

This command is all characters(calphanumeric and kanji) effective except for HRI characters.

GS E n1 n2 n3 n4 n5 n6 m

[Name]	Modify the MAC address.									
[Format]	ASCII	GS	Е	n1	n2	n3	n4	n5	n6	m
	Hex	1D	45	n1	n2	n3	n4	n5	n6	m
	Decimal	29	69	n 1	n2	n3	n4	n5	n6	m
[Description] [Default]	$0 \le n1, n1$ m = n1 + n1 is the n6 is the m is the c	2,n3, n2 + highe lowe check	n4,n n3 + est bi st bi ssum	5,n6 n4 + it of1 t ofN	≤ 25 • n5 + MAC ⁄IAC	55 n6 add addr	ress. ess.			

GS F n

[Name]	Shift between Simplified Chinese and Traditional Chiness.							
[Format]	ASCII	GS	F	n				
	Hex	1D	46	n				
	Decimal	29	70	n				
[Range]	n = 85, 17	70						
[Description]	When n =	85, sel	ect tra	ditional chinese.				
	When n =	170, se	elect si	mplified chinese.				
[Default]	n = 170							

GS D n1 n2 n3 n4 m

[Name]	Modify the IP address .									
[Format]	ASCII	GS	D	n 1	n2	n3	n4	m		
	Hex	1D	44	n1	n2	n3	n4	m		
[Range]	$\begin{aligned} \text{Decimal} \\ m = n1 + n2 \end{aligned}$	Decimal 29 68 n1 n2 n3 n4 m m = n1 + n2 + n3 + n4								
	n1-n4: parameter configurationrules of type A, type B and type C supported.									
[Description]	n1 is the hi	ghest	bit	ofIP	add	lress				
	n4 is the lowest bit of IP address.									
	m is the che	cksu	m.							
[Default]	n = 0									

(1)GS V m

<u>(2)GSVmn</u>

Name]	Sele	ct cutting mo	deand c	ut paper	r.	
Format]	(1)	ASCII	GS	V m	l	
		Hex	1D	56 m	ı	
		Decimal	29	86 r	n	
	(2)	ASCII	GS	V	m	n
		Hex	1D	56	m	n
		Decimal	29	86	m	n

[Range] (1)m=0,1,48,49 (2)m=65,66; 0<n<255 [Description] Cuts paper in the specified mode:

r	n	Function
(1)	0,48	full cut
(1)	1,49	Partial cut
(2)	65	Feed paper (cut posit fixed distance +[n \times (motion unit)]), then full-cut
(2)	66	Feed paper (cutposit fixed distance+[n \times (motion unit]), then partial cut

The two commands validate only on the setting of line start.

When n=0, printer feed paper with cut point fixed distance and cut paper; When n!=0, printer feed paper with (cut point fixed distance + [nx (motion unit)]) and cut paper;

The default motion unit is: 25.4/ymm {1/y inch}(y=360).

GS W nL nH

[Name]	Set printin	1g area	width.						
[Format]	ASCII	GS	W	nL	nH				
	Hex	1D	57	nL	nH				
	Decimal	29	87	nL	nH				
[Range]	$0 \leq nL \leq$	255,0	≤ nH ≤	\$ 255					
[Default]	(nL + nH)	x 256)=	576(n)	L = 40	, nH =	1)			
[Description]	Sets the p	rinting	area w	idth s	pecifie	dby nL	and nH.		
	The print	ing are	awidth	is [(1	nL+ nF	I x 256)	x (horizon	talmotion	unit)].



GS h n

[Name]	Selects ba	r code h	eight.		
[Format]	ASCII	GS	h	n	
	Hex	1D	68	n	
	Decimal	29	104	n	
[Range]	$1 \leqslant n \leqslant 2$	55			
[Description]	Set the ba	rcodeh	eight ac	cording to "n" .	
[Default]	n = 162				

(1) GS k m d1...dk NUL (2) GS k m n d1...dn

[Name]	Print bar code.
[Format]	(1) ASCII GS k m d1dk nul
	Hex 1D 6B m d1dk 00
	Decimal 29 107 m d1dk 0
	(2) ASCII GS k m n d1dn
	Hex 1D 6B m n d1dn
[Range]	Decimal 29 107 m n d1dn (1) $0 \le m \le 6$ (k and ddepend on the bar code system used).
	(2) $65 \le m \le 73$ (n and d depend on the bar code system used).
[Description]	Selet the barcode type according to "m".

(1)

m	Bar Code System	Range of k	Range of d
2	JAN13 (EAN13)	$12 \leqslant k \leqslant 13$	48 ≤ d ≤ 57
3	JAN 8 (EAN8)	$7 \leqslant k \leqslant 8$	48 < d < 57
4	000500	1 / 1/	$48 \le d \le 57, 65 \le d \le 90,$
4	CODE39	l ≈ K	32,36, 37, 43, 45, 46, 47

(2)

m	Bar Code System	Range of k	Range of d
67	JAN13 (EAN13)	12 ≤ k ≤ 13	48 ≤ d ≤ 57
68	JAN 8 (EAN8)	7 ≤ k ≤ 8	48 ≤ d ≤ 57
69	CODE39	1 < k < 255	$48 \le d \le 57, 65 \le d \le 90,$
00	OODLOO	1 < K < 200	32,36,37,43,45,46,47
73	CODE128	2 ≤ k ≤ 255	0 ≼ d ≼ 127

[Notes]: Users mostly consider about the quiet area of the barcode (the left and right margin).

GS r n

[Name]	Transmit	status			
[Format]	ASCII	GS	r	n	
	Hex	1D	72	n	
	Decimal	29	114	n	
[Range]	n=1,2,49,	50			
[Description]	Transmits	then	ormal	status	s specified by n as follows:

Ν	Function
1,49	Transmits paper sensor status

Paper sensor status:

Bit	Off/On	Hex	Decimal	Function
0,1	Off	00	0	paper adequate
2,3	Off	00	0	paper adequate
	On	0C	12	paper roll end sensor:paper not present
4	Off	00	0	Fixed
5	Off	00	0	Reserved
6	Off	00	0	Reserved
7	Off	00	0	Fixed

This command cannot be executed since the printer becomes offline. when the paper roll end sensor detects the paper not present. Therefore, the status of bit 2(1) and bit 3(1) is not transmitted.

GS v 0 m xL xH yL yH d1...dk

[Name]	Print ra	ster bit image			
[Format]	ASCII	GS	v 0	m xL xH	yL yH d1dk
	Hex	1D 7	6 30	m xL xH	yL yH d1dk
(D) 1	Decima	1 29 11	8 48	m xL xH	yL yH d1dk
[Range]	$0 \leq m \leq m$	$\leq 3, 48 \leq m \leq 5$	$1, 0 \leq xL \leq$	$\leq 255, 0 \leq 2$	$xH \leq 255,$
	0	$\leqslant yL \leqslant 255, 0 \leqslant$	\le yH \le 8, 0	$\leqslant d \leqslant 255$	
	k	=(xL+xH x 256) x	x (yL+yH x	256), $k \neq 0$)
[Description]	Prints a	raster bit image i	nm mode.		
	- m spe	cifies the bit imag	gemode:		
	m	Mode	Vertical d	otdensity	Horizontal dot density
	0,48	Normal	203	DPI	203 DPI
	1,49	Double-width	203	DPI	203/2 DPI
	2,50	Double-height	101	DPI	203 DPI

xL, xH specifies (xL + xH x 256) byte(s) in the horizontal direction for the bit image.

203/2 DPI

101 DPI

yL, yH specifies $(yL + yH \times 256) dot(s)$ in the vertical direction for the bit image.

In standard mode, this command is valid if there is no data in buffer

Any printing mode does not affects bit image data .

"d" defines bit image data .when "d" is set "1" one dot will be printed; when "d" is ser "0", no dot will be printed.

when a isser o , no dot whilde pin

Eg:When the xL + xH x 256 = 64:

3,51 Quadruple



GS w n

[Name]	Set bar code width.				
[Format]	ASCII	GS	W	n	
	Hex	1D	77	n	
	Decimal	29	119	n	
[Range]	$2 \leqslant n \leqslant 6$				
[Description]	set barcod	e wid	thacco	rding to	
	n	W	idth(m	m)	
	2		0.25		
	3		0.375		
	4		0.5		
	5	5 0.625			
	6		0.75		

[Default]

n = 3

GS B n

[Name]	Set the characterblack and white inverted print mode.				
[Format]	ASCII	GS	В	n	
	Hex	1D	42	n	
	Decimal	29	66	n	
[Range]	$0 \le n \le 255$				
[Description]	Turns on/off the black/white inverted printing mode.				
	if the LSB bitof "n" is "0", turn off the inverted printing mode.				
	if the LSB bit of "n" is "1", turn on the inverted printing mode.				
[Default]	n = 0				