Catalogue

一. OVERVIEW

1. 1 Barcode Default Parameter

Symbology	Read	Check	Check Tansmission	Start/End Characters Transmission	Min/Max Length	Type ID
EAN13[n]	√	√	√	X	(13) [2]	A
EAN8[n]	√	√	√	X	(8) [2]	B
UPC_A[n]	√	√	√	X	(12) [2]	C
UPC_E[n]	√	√	√	X	(8) [2]	D
CODABAR(NW-7)[n]	√	-	√	-	4~70	E
CODE39[n]	√	-	√	-	3~50	F
CODE93[n]	√	√	√	X	1~80	G
INTERLEAVED_2OF5[n]	√	-	√	X	4~80	H
STANDARD_2OF5	-	-	√	X	4~80	I
MATRIX_2OF5	-	X	X	X	6~80	J
CODE128[n]	√	√	-	X	1~80	K
EAN_UCC_128[n]	√	√	-	X	1~80	L
CODE11	-	√	-	X	4~80	M
CHINESE_POST	-	X	X	X	6~80	N

Note : 1. "√" means default enable , "-" means default disable, "x" means parameter of this barcode type does not exist
2. Fixed length.
3. The type of barcode noted with "n" means support negative barcode decode .

二. Command Instructions

2.1 Barcode Command Instuctions

A . Command barcode is printed via Code 128 CODE B barcode
B . Note with (*) means factory default paramter .
(a) “/%SET”: Enter setting mode; it will automatic log out setting mode if not scan next Command barcode in 30s.
(b) Modify Parameters command ; it can scan one or several command barcodes ;
(c) “/%END” : Save & Exit .

三. Command Data Format

3. 1 SET & END

Command :

Enter Setting Mode	/%SET	
Save & Exit	/%END	

3. 2 DEFAULT PARAMETER

Command :

	Opcode	/%**SET**	
Restore Factory Default	0x28	/DF	
Restore User Default	0x29	/DC	
Write User Default[1]	0x2A	/WC	
		/%END	
Note : Setting “ Write User Default ” Will Automatically Set With “ /%END ” .			

3. 3 READ _ REVISION

Command :

	/%**SET**	
Read Software Version	/RV	
	/%**END**	

四. Modify Parameters Command

4. 1 Data Output Mode

Command :

	/%**SET**	
***TTL/RS232**	**/A0000**	
***USB HID Keyboard**	**/A0001**	
	/%**END**	

4. 2 Buzzer & LED Control

Command :

	/%**SET**	
Disable Boot Buzzer	/B0000	
***Enable Boot Buzzer**	**/B0001**	
Enable Good Buzzer	/B0100	
***Disable Good Read Buzzer**	**/B0101**	
Buzzer Volume : Low	/B0200	
***Buzzer Volume : Medium**	**/B0201**	
Buzzer Volume : High	/B0202	
Enable Good Read Buzzer	/B0300	
***Disable Good Read Buzzer**	**/B0301**	
	/%**END**	

The buzzer volume only works on when buzzer is booting or scanning successfully ;

4. 3 Serial Port Setting

Command :

	/%**SET**	
2400 baud	/C0000	
4800 baud	/C0001	
***9600 baud**	**/C0002**	
19200 baud	/C0003	
38400 baud	/C0004	
57600 baud	/C0005	
115200 baud	/C0006	
7 data bits	/C0100	
***8 data bits**	**/C0101**	
***1 stop bit**	**/C0200**	
2 stop bit	/C0201	
***No parity**	**/C0300**	
Odd parity	/C0301	
Even parity	/C0302	
	/%**END**	

4. 4 Trigger Mode & Read Mode

Command :

	/%**SET**	
***Single Read**	**/F0000**	
Continuous Read	/F0001	
Disable Repeat Read	/F0100	
***Enable Repeat Read**	**/F0101**	
Multiple Read	/F0102	
	/%**END**	

Note :

Trigger mode :

Single read : When a bar code has been decoded, the reader will be turned off. The reader must be triggered again to read another label. It can be triggered via button,com port or auto sense.

Continuous read : The reader will produce as much data as it can decode regardless whether it is the same or not. This mode is mainly used for demonstration and diagnosis.

Read mode :

Disable repeat read : Disable continue to read the same bar code.

Enable repeat read : Enable continue to read the same bar code ;

Multiple read : The same label can only be decoded again after the label has not been detected for a number of scans. This mode can only be programmed in Continuous read trigger mode ;

4. 5 Timeout For Repeat Read The Same Barcode

Format :

	/%**SET**	
***0ms**	**/F0200**	
100ms	/F02**01**	
200ms	/F02**02**	
500ms	/F02**05**	
900ms	/F02**09**	
1000ms	/F02**10**	
1500ms	/F02**15**	
2000ms	/F02**20**	
9900ms	/F02**99**	
	/%**END**	

Note :
The last two digits of command are decimal number . Minimum is 00 and maximum is 99, multiple of 100 ms.

4. 6 Timeout For Trigger scan (Trigger Pin)

Command :

	/%**SET**	
***0ms**	**/F0300**	
100ms	/F03**01**	
200ms	/F03**02**	
500ms	/F03**05**	
900ms	/F03**09**	
1000ms	/F03**10**	
1500ms	/F03**15**	
2000ms	/F03**20**	
4000ms	/F034**0**	
6000ms	**/F0360**	
9900ms	/F03**99**	
	/%**END**	

Note :

1. The last two digits of command are decimal number. Minimum is 00 and maximum is 99, multiple of 100ms.
2. When trigger scan waiting time is 0ms with low level signal, it will continuously scan unless decode or high level signal. It will not time out under this condition .
3. When trigger scan waiting time is not 0ms, it will start to scan with low level signal. It will automatically time out and stop scanning if not decode in the required wait time.

4. 7 Timeout For Trigger scan Com Port Command/Auto Trigger

Command :

	/%**SET**	
100ms	/F04**01**	
200ms	/F04**02**	
500ms	/F04**05**	
900ms	/F04**09**	
1000ms	/F04**10**	
1500ms	/F04**15**	
2000ms	/F04**20**	
***4000ms**	**/F0440**	
6000ms	/F0460	
9900ms	/F04**99**	
	/%**END**	

Note :

1. The last two digits of command are decimal number. Minimum is 00 and maximum is 99, multiple of 100ms .
2. Scanner will enable scan if receive com port trigger scan command or auto trigger; it will stop scanning automatically if decode or time out; It will modify timeout to 6000ms automatically if set at 0ms.

4. 8 Auto Trigger

Command format :

	/%**SET**	
Disable	/H0000	
***Enable**	**/H0001**	
	/%**END**	

4. 9 Barcode Setting

Command :

1 Byte	1 Byte	4 byte
0x2F	Barcode ID	Command data

4. 9 . 1 EAN13 & UPC-A

Command :

	/%SET	
Disable Read	/IA000	
***Enable Read**	**/IA001**	
Disable Read	/IC000	
***Enable Read**	**/IC001**	
	/%END	

For the EAN13 and UPC-A, as long as you set one, the other will take effect at the same time .

4. 9 . 2 EAN8

Command :

	/%**SET**	
Disable Read	/IB000	
***Enable Read**	**/IB001**	
	/%**END**	

4. 9 . 3 UPC-E

Command :

	/%**SET**	
Disable	/ID000	
***Enable**	**/ID001**	
Enable UPC-E convert to UPC-A	**/ID100**	
***Disable UPC-E convert to UPC-A**	**/ID101**	
	/%**END**	

4. 9 . 4 CODABAR (NW-7)

Command :

	/%**SET**	
Disable Read	**/IE000**	
*Enable Read	/IE001	
***Not Transmit ST/SP**	**/IE100**	
Transmit ST/SP:ABCD	/IE101	
Transmit ST/SP:abcd	/IE102	
Transmit ST/SP:TN*E	/IE103	
***Min barcode length**	**/IE804**	
***Max barcode length**	**/IE970**	
	/%**END**	

Note :
1. Min/Max barcode length includes barcode start character / end character (ABCD / abcd TN*E) .

Codabar Min / Max Barcode Length

	/%**SET**	
Min barcode length(5)	/IE805	
Min barcode length(6)	/IE806	
Min barcode length(7)	/IE807	
Min barcode length(8)	/IE808	
Min barcode length(10)	/IE810	
Min barcode length(12)	/IE812	
Min barcode length(14)	/IE814	
Min barcode length(16)	/IE816	
Max barcode length(10)	/IE910	
Max barcode length(12)	/IE912	
Max barcode length(14)	/IE914	
Max barcode length(16)	/IE916	
Max barcode length(18)	/IE918	
Max barcode length(20)	/IE920	
Max barcode length(22)	/IE922	
Max barcode length(24)	/IE924	

	/%**END**	

4. 9 . 5 CODE 39

Command :

	/%**SET**	
Disable Read	/IF000	
***Enable Read**	/IF001	
***Not Transmit ST/SP**	**/IF100**	
Transmit ST/SP: *	/IF101	
***Not Check CD**	**/IF200**	
Check CD	**/IF201**	
Not Transmit CD	**/IF300**	
***Transmit CD**	**/IF301**	
***Disable Full ASCII code39**	**/IF400**	
Enable Full ASCII code39	**/IF401**	
***Min barcode length**	**/IF803**	
***Max barcode length**	**/IF950**	
	/%**END**	

Code 39 Min/Max Barcode Length

	/%**SET**	
Min barcode length(5)	/IF805	
Min barcode length(6)	/IF806	
Min barcode length(7)	/IF807	
Min barcode length(8)	/IF808	
Min barcode length(10)	/IF810	
Min barcode length(12)	/IF812	
Min barcode length(14)	/IF814	
Min barcode length(16)	/IF816	
Max barcode length(10)	/IF910	
Max barcode length(12)	/IF912	
Max barcode length(14)	/IF914	
Max barcode length(16)	/IF916	
Max barcode length(18)	/IF918	
Max barcode length(20)	/IF920	
Max barcode length(22)	/IF922	
Max barcode length(24)	/IF924	

	/%**END**	

4. 9 . 6 CODE 93

Command :

	/%**SET**	
Disable Read	**/IG000**	
*Enable Read	/IG001	
***Not Transmit CD**	**/IG100**	
Transmit CD	/IG101	
***Min barcode length**	**/IG801**	
***Max barcode length**	**/IG980**	
	/%**END**	

Code 93 Min/Max Barcode Length

	/%**SET**	
Min barcode length(2)	/IG802	
Min barcode length(4)	/IG804	
Min barcode length(6)	/IG806	
Min barcode length(8)	/IG808	
Min barcode length(10)	/IG810	
Min barcode length(12)	/IG812	
Min barcode length(14)	/IG814	
Min barcode length(16)	/IG816	
Max barcode length(10)	/IG910	
Max barcode length(12)	/IG912	
Max barcode length(14)	/IG914	
Max barcode length(16)	/IG916	
Max barcode length(18)	/IG918	
Max barcode length(20)	/IG920	
Max barcode length(22)	/IG922	
Max barcode length(24)	/IG924	

	/%END	

4. 9 . 7 INTERLEAVED 2 OF 5

Command :

	/%SET	
Disable Read	**/IH000**	
*Enable Read	/IH001	
***Min barcode length**	**/IH84**	
***Max barcode length**	**/IH970**	
	/%END	

Interleaved 2 of 5 Min/Max Barcode Length

	/%**SET**	
Min barcode length(5)	/IH805	
Min barcode length(6)	/IH806	
Min barcode length(7)	/IH807	
Min barcode length(8)	/IH808	
Min barcode length(10)	/IH810	
Min barcode length(12)	/IH812	
Min barcode length(14)	/IH814	
Min barcode length(16)	/IH816	
Max barcode length(10)	/IH910	
Max barcode length(12)	/IH912	
Max barcode length(14)	/IH914	
Max barcode length(16)	/IH916	
Max barcode length(18)	/IH918	
Max barcode length(20)	/IH920	
Max barcode length(22)	/IH922	
Max barcode length(24)	/IH924	

	/%END	

4. 9 . 8 STANDARD 2 OF 5 (Industrial 2 of 5)

Command :

	/%SET	
***Disable Read**	**/II000**	
Enable Read	/II001	
***Min barcode length**	**/II804**	
***Max barcode length**	**/II970**	
	/%END	

Standard 2 of 5 (Industrial 2 of 5) Min/Max Barcode Length

	/%**SET**	
Min barcode length(5)	/II805	
Min barcode length(6)	/II806	
Min barcode length(7)	/II807	
Min barcode length(8)	/II808	
Min barcode length(10)	/II810	
Min barcode length(12)	/II812	
Min barcode length(14)	/II814	
Min barcode length(16)	/II816	
Max barcode length(10)	/II910	
Max barcode length(12)	/II912	
Max barcode length(14)	/II914	
Max barcode length(16)	/II916	
Max barcode length(18)	/II918	
Max barcode length(20)	/II920	
Max barcode length(22)	/II922	
Max barcode length(24)	/II924	

	/%**END**	

4. 9 . 9 MATRIX 2 OF 5

Command :

	/%**SET**	
***Disable Read**	**/IJ000**	
Enable Read	/IJ001	
***Min barcode length**	**/IJ806**	
***Max barcode length**	**/IJ970**	
Min barcode length(8)	/IJ808	
Min barcode length(10)	/IJ810	
Min barcode length(12)	/IJ812	
Min barcode length(14)	/IJ814	
Max barcode length(10)	/IJ910	
Max barcode length(12)	/IJ912	
Max barcode length(14)	/IJ914	
Max barcode length(16)	/IJ916	
Max barcode length(18)	/IJ918	

	/%**END**	

4. 9 . 10 CODE 128 & EAN/UCC 128

Command :

	/%**SET**	
Disable Read	/IK000	
***Enable Read code 128**	/IK001	
Disable Read EAN/UCC 128	/IL000	
***Enable Read EAN/UCC 128**	**/IL001**	
***Not Transmit CD**	**/IK100**	
Transmit CD	/IK101	
***Min barcode length**	**/IK801**	
***Max barcode length**	**/IK980**	
	/%**END**	

Code 128 EAN/UCC128 Min/Max Barcode Length

	/%**SET**	
Min barcode length(4)	/IK802	
Min barcode length(6)	/IK804	
Min barcode length(7)	/IK806	
Min barcode length(8)	/IK808	
Min barcode length(10)	/IK810	
Min barcode length(12)	/IK812	
Min barcode length(14)	/IK814	
Min barcode length(16)	/IK816	
Max barcode length(10)	/IK910	
Max barcode length(12)	/IK912	
Max barcode length(14)	/IK914	
Max barcode length(16)	/IK916	
Max barcode length(18)	/IK918	
Max barcode length(20)	/IK920	
Max barcode length(22)	/IK922	

Max barcode length(24)	/IK924	
	/%**END**	

4. 9 . 11 CODE 11

Command :

	/%**SET**	
***Disable Read**	**/IM000**	
Enable Read	/IM001	
Not Check CD	/IM100	
***Check CD(one byte)**	**/IM101**	
Check CD(two byte)	/IM102	
Not Transmit CD	/IM200	
***Transmit CD**	**/IM201**	
***Min barcode length**	**/IM804**	
***Max barcode length**	**/IM970**	
	/%**END**	

Code11 Min/Max Barcode Length

	/%**SET**	
Min barcode length(5)	/IM805	
Min barcode length(6)	/IM806	
Min barcode length(7)	/IM807	
Min barcode length(8)	/IM808	
Min barcode length(10)	/IM810	
Min barcode length(12)	/IM812	
Min barcode length(14)	/IM814	
Min barcode length(16)	/IM816	
Max barcode length(10)	/IM910	
Max barcode length(12)	/IM912	
Max barcode length(14)	/IM914	
Max barcode length(16)	/IM916	
Max barcode length(18)	/IM918	
Max barcode length(20)	/IM920	
Max barcode length(22)	/IM922	

Max barcode length(24)	/IM924	
	/%**END**	

4. 9 . 12 CHINESE POST

Command :

	/%**SET**	
***Disable Read**	/IN000	
Enable Read	/IN001	
***Min barcode length**	**/IN806**	
***Max barcode length**	**/IN970**	
Min barcode length(8)	/IN808	
Min barcode length(10)	/IN810	
Min barcode length(12)	/IN812	
Min barcode length(14)	/IN814	
Max barcode length(10)	/IN910	
Max barcode length(12)	/IN912	
Max barcode length(14)	/IN914	
Max barcode length(16)	/IN916	

Max barcode length(18)	/IN918	
	/%**END**	

4. 9 . 13 Set Positive / Negative Barcodes

Command :

	/%**SET**	
Only Enable Positive barcodes	**/I1100**	
Only Enable Negative bar codes	**/I1101**	
Positive and negative barcodes	/I1102	
	/%**END**	
	/%**SET**	
Only Enable Positive barcodes	**/I1100**	
Only Enable Negative bar codes	**/I1101**	
Positive and negative barcodes	/I1102	
	/%**END**	

4. 9 . 14 All Bar Codes Setting

Command :

	/%**SET**	
Disable All barcodes	/I1000	
Enable All barcodes	/I1001	
***No Case Conversion**	**/I1200**	
Convert To Upper Case	/I1201	
Convert To Lower Case	/I1202	
	/%**END**	

4. 10 Set Prefix

Command :

	/%**SET**	
***Disable Prefix**	**/J1000**	
Space	/J1001	
AIM+Barcode	/J1002	
ID+Barcode	/J1003	
	/%**END**	

4. 11 Set Suffix

Command :

	/%**SET**	
***Disable Suffix**	**/J2000**	
0x0D As Suffix	/J2001	
0x0A As Suffix	/J2002	
0x0D 0x0A As Suffix	/J2003	
Tab(0x09) As Suffix	/J2004	
	/%**END**	

4.12 start character Mode Setting

Instructions：

	/%**SET**	
***No Start Character**	**/J1000**	
Blank	/J1001	
ID + Barcode	/J1003	
ID + Custom Start Character + Barcode	/J1006	
Custom Start Character + ID + Barcode	/J1007	
Custom Start Character + Barcode	/J1008	
	/%**END**	
Remarks： Adding Custom Character ： 1、Setting Start Character Mode； 2、Enter Custom Start Character Mode； 3、Setting Custom Start Character (See 4.18).		

Example：

Setting “#Ab9” as start character for barcode “1234567”;Then the barcode turns out to be “#Ab91234567”

1、 First setting the Start Character Mode to “Custom Start Character + Barcode”

2、 Enter custom start character mode , then scan “#”、“A”、“b”、“9”(barcode) one by one.

4.13 Ending Character Mode Setting

Intructions：

	/%**SET**	
***No Ending Character**	**/J2000**	
0x0D is Ending Character	/J2001	
0x0A Ending	/J2002	
0x0D 0x0A Ending	/J2003	
Tab（0x09）	/J2004	
Tab（0x09） 0x0D	/J2005	
Barcode + Custom Ending Character	/J2006	
Barcode + Custom Ending Character + 0x0D	/J2007	
Barcode + Custom Ending Character + 0x0A	/J2008	
Barcode + Custom Ending Character + 0x0D 0x0A	/J2009	
Barcde + Custom Ending Character + Tab（0x09）	/J200A	
	/%**END**	
Remarks： Adding Custom Character ： 1、Setting Ending Character Mode； 2、Enter Custom Ending Character Mode； 3、Setting Custom Ending Character (See 4.18)		

Example：

Setting “#Ab9” as Ending character for barcode “1234567”;Then the barcode turns out to be “1234567%B”

1、 First setting the Ending Character Mode to “ Barcode + Custom Start Character ”

2、 Enter custom ending character mode , then scan “%”、“B”(barcode) one by one.

4.14 Custom Start Character / Ending Character

Instructions：

	/%**SET**	
Enter Custom Start Character Mode	/JA100	
Enter Custom Ending Character Mode	/JA200	
Control Character	**Hex**	
^@（NULL）	/00	
^A（SOH）	/01	
^B（STX）	/02	
^C（ETX）	/03	
^D（EOT）	/04	
^E（ENQ）	/05	
^F（ACK）	/06	
^G（BEL）	/07	
^H（BS）	/08	
^I（HTab）	/09	
^J（LF）	/0A	
^K（VTab）	/0B	
^L（FF）	/0C	

^M（CR）	/0D	
^N（SO）	/0E	
^O（SI）	/0F	
^P（DLE）	/10	
^Q（DC1）	/11	
^R（DC2）	/12	
^S（DC3）	/13	
^T（DC4）	/14	
^U（NAK）	/15	
^V（SYN）	/16	
^W（ETB）	/17	
^X（CAN）	/18	
^Y（EM）	/19	
^Z（SUB）	/1A	
^[（ESC）	/1B	
^\（FS）	/1C	
^]（GS）	/1D	
^^（RS）	/1E	
^_（US）	/1F	
SPC	/20	

Character	Hex	
!	/21	
"	/22	
#	/23	
$	/24	
%	/25	
&	/26	
'	/27	
(	/28	
)	/29	
*	/2A	
+	/2B	
,	/2C	
-	/2D	
.	/2E	
/	/2F	
0	/30	
1	/31	
2	/32	
3	/33	

4	/34	
5	/35	
6	/36	
7	/37	
8	/38	
9	/39	
:	/3A	
;	/3B	
<	/3C	
=	/3D	
>	/3E	
?	/3F	
@	/40	
A	/41	
B	/42	
C	/43	
D	/44	
E	/45	
F	/46	
G	/47	

H	/48	
I	/49	
J	/4A	
K	/4B	
L	/4C	
M	/4D	
N	/4E	
O	/4F	
P	/50	
Q	/51	
R	/52	
S	/53	
T	/54	
U	/55	
V	/56	
W	/57	
X	/58	
Y	/59	
Z	/5A	
[	/5B	

\	/5C	
]	/5D	
^	/5E	
_	/5F	
`	/60	
a	/61	
b	/62	
c	/63	
d	/64	
e	/65	
f	/66	
g	/67	
h	/68	
i	/69	
j	/6A	
k	/6B	
l	/6C	
m	/6D	
n	/6E	
o	/6F	

p	/70	
q	/71	
r	/72	
s	/73	
t	/74	
u	/75	
v	/76	
w	/77	
x	/78	
y	/79	
z	/7A	
{	/7B	
|	/7C	
}	/7D	
~	/7E	
DEL	/7F	
Function Key	**Hex**	
F1	/80	
F2	/81	

F3	/82	
F4	/83	
F5	/84	
F6	/85	
F7	/86	
F8	/87	
F9	/88	
F10	/89	
F11	/8A	
F12	/8B	
Backspace	/8C	
Tab	/8D	
Return（ENTER）	/8E	
Enter（Numeric Keypad）	/8F	
Esc	/90	
Arrow Down	/91	
Arrow up	/92	
Arrow right	/93	
Arrow left	/94	
Insert	/95	

Home	/96	
End	/97	
Page up	/98	
Page down	/99	
Left Shift	/9A	
Left Ctrl	/9B	
Left Alt	/9C	
Left GUI	/9D	
Right Shift	/9E	
Right Ctrl	/9F	
Right Alt	/A0	
Right GUI	/A1	
Caps Lock	/A2	
	/%END	

Remarks：

Custom Start Character / Ending Character：

1、Scan“/%SET”，Prepare to set Custom Start Character / Ending Character；

2、Chose “Enter Custom Start Character Mode” or “Enter Custom Ending Character Mode”according to requirement ;

3、Scan the start character or Ending character that need to be set；

4、Scan“/%END”，。Exit and save setting ;

五. Attachments

Attachments 1 Barcode Test Card

Attachments 2 ASCII Code Chart

Decimal	Octal	Hexadecimal	Character	Description
0	0	00	NUL	
1	1	01	SOH	start of header
2	2	02	STX	start of text
3	3	03	ETX	end of text
4	4	04	EOT	end of transmission
5	5	05	ENQ	enquiry
6	6	06	ACK	acknowledge
7	7	07	BEL	bell
8	10	08	BS	backspace
9	11	09	HT	horizontal tab
10	12	0A	LF	line feed
11	13	0B	VT	vertical tab
12	14	0C	FF	form feed
13	15	0D	CR	carriage return
14	16	0E	SO	shift out
15	17	0F	SI	shift in
16	20	10	DLE	data link escape
17	21	11	DC1	no assignment, but usually XON
18	22	12	DC2	
19	23	13	DC3	no assignment, but usually XOFF
20	24	14	DC4	
21	25	15	NAK	negative acknowledge
22	26	16	SYN	synchronous idle
23	27	17	ETB	end of transmission block
24	30	18	CAN	cancel
25	31	19	EM	end of medium
26	32	1A	SUB	substitute

27	33	1B	ESC	escape
28	34	1C	FS	file seperator
29	35	1D	GS	group seperator
30	36	1E	RS	record seperator
31	37	1F	US	unit seperator
32	40	20	SPC	space
33	41	21	!	
34	42	22	"	
35	43	23	#	
36	44	24	$	
37	45	25	%	
38	46	26	&	
39	47	27	'	
40	50	28	(	
41	51	29	)	
42	52	2A	*	
43	53	2B	+	
44	54	2C	,	
45	55	2D	-	
46	56	2E	.	
47	57	2F	/	
48	60	30	0	
49	61	31	1	
50	62	32	2	
51	63	33	3	
52	64	34	4	
53	65	35	5	
54	66	36	6	
55	67	37	7	
56	70	38	8	
57	71	39	9	
58	72	3A	:	

59	73	3B	;	
60	74	3C	<	
61	75	3D	=	
62	76	3E	>	
63	77	3F	?	
64	100	40	@	
65	101	41	A	
66	102	42	B	
67	103	43	C	
68	104	44	D	
69	105	45	E	
70	106	46	F	
71	107	47	G	
72	110	48	H	
73	111	49	I	
74	112	4A	J	
75	113	4B	K	
76	114	4C	L	
77	115	4D	M	
78	116	4E	N	
79	117	4F	O	
80	120	50	P	
81	121	51	Q	
82	122	52	R	
83	123	53	S	
84	124	54	T	
85	125	55	U	
86	126	56	V	
87	127	57	W	
88	130	58	X	
89	131	59	Y	
90	132	5A	Z	

91	133	5B	[	
92	134	5C	\	
93	135	5D	]	
94	136	5E	^	
95	137	5F	_	
96	140	60	`	
97	141	61	a	
98	142	62	b	
99	143	63	c	
100	144	64	d	
101	145	65	e	
102	146	66	f	
103	147	67	g	
104	150	68	h	
105	151	69	i	
106	152	6A	j	
107	153	6B	k	
108	154	6C	l	
109	155	6D	m	
110	156	6E	n	
111	157	6F	o	
112	160	70	p	
113	161	71	q	
114	162	72	r	
115	163	73	s	
116	164	74	t	
117	165	75	u	
118	166	76	v	
119	167	77	w	
120	170	78	x	
121	171	79	y	
122	172	7A	z	

123	173	7B	{	
124	174	7C	|	
125	175	7D	}	
126	176	7E	~	
127	177	7F	DEL	delete

Attachment 3 Revised Version

Revised Time	Version	Comment
2012.5.3	V1.1	Sim3wn
2012.8.1	V2.1	Sim3wn
2013.2.27	V2.2	Sim3wn
2013.3.26	V2.3	Sim3wn