MT82Ag, MT682
Serial Commands Manual

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Introduction

This document describes the serial commands in ASCII equivalents for host parameter programming through USB VCP, HID POS and UART interface. All commands can be sent via PC COM port using serial communication software.

Product Requirements

The following product, when programmed with the specified firmware, support serial commands operation via given interface:

Model	Firmware Version	Interface
MT82Ag	V2.18.25.4 or up	UART
MT682		USB VCP
MT6820		HID POS

Communication Interface

UART

Protocol

Baud rate = 9600
Data Bits = 8
Parity = None
Stop Bit = 1
Handshaking = None
ACK/NAK = OFF

Maximum data length

In UART interface, the maximum data length of communication is 2070 bytes.

GPIO

Interface	Function	Pin
UART1	RX	GPIOC_9
	TX	GPIOC_8

Data Format

LEN is always 2 bytes, big-endian format, indicating the length of CMD/DATA, excluding BCC and ETX. BCC is the XOR value from FID to DATA.

Host's command:

STX	FID	LEN		CMD	BCC	ETX
0x5A	0x00	0x00	0xxx	xxxxxxxxxxxx	(1Byte)	0xA5

Scan engine's response:

STX	FID	LEN		DATA	BCC	ETX
0x5A	0x01	0xxx	0xxx	xxxxxxxxxxxx	(1Byte)	0xA5

Scan engine's automatic feedback:

STX	FID	LEN		DATA	BCC	ETX
0x5A	0x02	0xxx	0xxx	xxxxxxxxxxxx	(1Byte)	0xA5

USB

USB VCP

When configured to USB VCP interface, the scan engine can communicate with the host via USB Virtual COM, which requires VCP driver to be installed.

Host's command:

CMD
xxxxxxxxxxxx

Scan engine's response:

DATA
xxxxxxxxxxxx

HID POS

When configured to USB HID POS interface, the scan engine can communicate with the host via USB HID, which requires no driver.

Vid: 0x26f1

pid: 0x8803

Host's command:

Byte	Content
0	Message ID (0x04)
1	Data length
2-61	Data (CMD)
62	0x00, 1 byte reserved
63	0x00 (no data behind) 0x01 (more data behind)

Scan engine's response:

Byte	Content
0	Message ID (0x02)
1	Data length
2-57	Data (DATA)

58-62	0x00, 5 bytes reserved
63	0x00 (no data behind) 0x01 (more data behind)

Status Response

Scan engine may respond with the following status (in Hex)

Status	Definition
9000	Success
6A89	Failure, error or abnormal event

Command (CMD)

General Configuration

Function	Command
Check version	T_OUT_CVER
Enable configuration barcode	S_CMD_0001
Disable configuration barcode	S_CMD_0000
Output configuration barcode data	S_CMD_0011
Not output configuration barcode data	S_CMD_0010
Reset to factory default	S_CMD_FFFF
Save current configuration as custom default	S_CMD_00F1
Reset to custom default	S_CMD_00F0

Communication Interface

UART

Function	Command
Interface = UART	S_CMD_01H3
Baud rate = 1200	S_CMD_H3BR1200
Baud rate = 2400	S_CMD_H3BR2400
Baud rate = 4800	S_CMD_H3BR4800
Baud rate = 9600*	S_CMD_H3BR9600
Baud rate = 14400	S_CMD_H3BR14400
Baud rate = 19200	S_CMD_H3BR19200
Baud rate = 38400	S_CMD_H3BR38400
Baud rate = 57600	S_CMD_H3BR57600
Baud rate = 115200	S_CMD_H3BR115200
Parity = None*	S_CMD_H3P0
Parity = Odd	S_CMD_H3P1
Parity = Even	S_CMD_H3P2

USB HID

Function	Command
Interface = USB HID*	S_CMD_01H0
Intercharacter Delay = None	S_CMD_H0IT00
Intercharacter Delay = 2ms*	S_CMD_H0IT02
Intercharacter Delay = 5ms	S_CMD_H0IT05
Intercharacter Delay = 10ms	S_CMD_H0IT10
Intercharacter Delay = #ms (# = 0~75)	S_CMD_H0IT# (# = 0~75)
Polling rate = 1ms*	S_CMD_H0PR01
Polling rate = 2ms	S_CMD_H0PR02
Polling rate = 3ms	S_CMD_H0PR03
Polling rate = 4ms	S_CMD_H0PR04
Polling rate = 5ms	S_CMD_H0PR05
Polling rate = 6ms	S_CMD_H0PR06
Polling rate = 7ms	S_CMD_H0PR07
Polling rate = 8ms	S_CMD_H0PR08
Polling rate = 9ms	S_CMD_H0PR09
Polling rate = 10ms	S_CMD_H0PR10

USB VCP

Function	Command
Interface = USB VCP	S_CMD_01H2

HID POS

Function	Command
Interface = HID POS	S_CMD_01H1

Reading Mode

Batch Mode

Function	Command
Reading mode = Batch mode	S_CMD_MB00

In batch mode, the scan engine starts scanning barcode when trigger pin = low. If trigger stays low, the scanning continues, with each barcode scanned once. To restart a new batch reading, the host must reset trigger level first and then pull trigger low again.

Trigger Mode

Function	Command
Reading mode = Trigger mode*	S_CMD_MT00
LED timeout = 3000ms*	S_CMD_MTRS3000
LED timeout = 5000ms	S_CMD_MTRS5000
LED timeout = #ms (# = 1000~3600000)	S_CMD_MTRS# (# = 1000~3600000)
Trigger condition = Level*	S_CMD_MT10
Trigger condition = Pulse	S_CMD_MT11
Disable identical read interval*	S_CMD_MT30
Enable identical read interval	S_CMD_MT31
Disable identical read interval reset*	S_CMD_MT40
Enable identical read interval reset	S_CMD_MT41
Identical read interval = 0ms	S_CMD_MTRI0000
Identical read interval = 1000ms	S_CMD_MTRI1000
Identical read interval = 1500ms*	S_CMD_MTRI1500
Identical read interval = 3000ms	S_CMD_MTRI3000
Identical read interval = 5000ms	S_CMD_MTRI5000
Identical read interval = #ms (# = 0~65535)	S_CMD_MTRI# (# = 0~65535)

When trigger condition = level, the trigger pin must always stay low during a scanning operation. When trigger condition = pulse, the scan engine starts

scanning whenever a low level pulse at trigger pin is detected, and will continue scanning until a barcode is scanned or a pre-set timeout is reached.

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.

Serial Trigger Mode

Function	Command
Reading mode = Serial Trigger mode	S_CMD_020D
Start scanning	SR030301
Stop scanning	SR030300
Serial Trigger Timeout = 0 sec	S_CMD_MCRS000
Serial Trigger Timeout = 3 sec	S_CMD_MCRS3000
Serial Trigger Timeout = 5 sec	S_CMD_MCRS5000
Serial Trigger Timeout = 10 sec	S_CMD_MCRS10000
Image stabilization timeout = # sec	S_CMD_MCRS##000

In Serial Trigger Mode, the scan engine can only be triggered by sending SR030301 (Start scanning)

Auto-sensing Mode

Function	Command
Reading mode = Auto-sensing mode	S_CMD_020F
LED timeout = 3000ms*	S_CMD_MSRS3000
LED timeout = 5000ms	S_CMD_MSRS5000

LED timeout = #ms (# = 1000~3600000)	S_CMD_MSRS# (# = 1000~3600000)
Image stabilization timeout = 60ms*	S_CMD_MSRP60
Image stabilization timeout = 500ms	S_CMD_MSRP500
Image stabilization timeout = 1000ms	S_CMD_MSRP1000
Image stabilization timeout = #ms (# = 0~1600)	S_CMD_MSRP# (# = 0~1600)
Disable identical read interval*	S_CMD_MS30
Enable identical read interval	S_CMD_MS31
Disable identical read interval reset*	S_CMD_MS40
Enable identical read interval reset	S_CMD_MS41
Identical read interval = 0ms	S_CMD_MSRI0000
Identical read interval = 1000ms	S_CMD_MSRI1000
Identical read interval = 1500ms*	S_CMD_MSRI1500
Identical read interval = 3000ms	S_CMD_MSRI3000
Identical read interval = 5000ms	S_CMD_MSRI5000
Identical read interval = #ms (# = 0~65535)	S_CMD_MSRI# (# = 0~65535)
Auto-sensing sensitivity = Medium	S_CMD_MS51
Auto-sensing sensitivity = Low	S_CMD_MS52
Auto-sensing sensitivity = High*	S_CMD_MS53
Auto-sensing sensitivity = Ultra high	S_CMD_MS54
Auto-sensing threshold = # (# = 0~50)	S_CMD_MS50# (# = 0~50)

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.

Continuous Mode

Function	Command
Reading mode = Continuous mode	S_CMD_020E
LED timeout = 3000ms*	S_CMD_MARS3000
LED timeout = 5000ms	S_CMD_MARS5000
LED timeout = #ms (# = 1000~3600000)	S_CMD_MARS# (# = 1000~3600000)
Scan interval = 0ms	S_CMD_MARR000
Scan interval = 500ms	S_CMD_MARR500
Scan interval = 1000ms*	S_CMD_MARR1000
Scan interval = 2000ms	S_CMD_MARR2000
Scan interval = 5000ms	S_CMD_MARR5000
Scan interval = #ms	S_CMD_MARR
Disable identical read interval*	S_CMD_MA30
Enable identical read interval	S_CMD_MA31
Disable identical read interval reset*	S_CMD_MA40
Enable identical read interval reset	S_CMD_MA41
Identical read interval = 0ms	S_CMD_MARI0000
Identical read interval = 1000ms	S_CMD_MARI1000
Identical read interval = 1500ms*	S_CMD_MARI1500
Identical read interval = 3000ms	S_CMD_MARI3000
Identical read interval = 5000ms	S_CMD_MARI5000
Identical read interval = #ms (# = 0~65535)	S_CMD_MARI# (# = 0~65535)

When identical read interval = 0ms, a barcode can be scanned only once. When identical read interval > 0ms, a barcode (or an identical one) can be re-scanned after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is disabled, a barcode (or an identical one) can be re-scanned only after the defined amount of interval expires.

When identical read interval is enabled and identical read interval reset is

enabled, a barcode (or an identical one) can be re-scanned only if it has not been scanned before the defined amount of interval expires.

Illumination and Aimer

Illumination

Function	Command
Normal*	S_CMD_03L2
Always off	S_CMD_03L0
Always on	S_CMD_03L1

Aimer

Function	Command
Normal*	S_CMD_03A2
Always off	S_CMD_03A0
Always on	S_CMD_03A1

Indicator

Function	Command
Mute	S_CMD_04F0
Unmute*	S_CMD_04F1
Power up beep on*	S_CMD_0401
Power up beep off	S_CMD_0400
Good read beep on*	S_CMD_0403
Good read beep off	S_CMD_0402
Indicator beep type 1	S_CMD_04T1
Indicator beep type 2	S_CMD_04T2
Indicator beep type 3*	S_CMD_04T3
Beep volume high*	S_CMD_04V0
Beep volume medium	S_CMD_04V1
Beep volume low	S_CMD_04V2

Configuration barcode beep on*	S_CMD_0405
Configuration barcode beep off	S_CMD_0404
Good read LED on*	S_CMD_0407
Good read LED off	S_CMD_0406
Good read LED duration = 100ms	S_CMD_04LR100
Good read LED duration = 200ms*	S_CMD_04LR200
Good read LED duration = 500ms	S_CMD_04LR500
Good read LED duration = #ms (# = 0~3600000)	S_CMD_04LR# (# = 0~3600000)
NGR (Not Good Read) message on	S_CMD_0409
NGR message off*	S_CMD_0408
Edit NGR message (length = 0~7 data; data = 00~FF)	S_CMD_04NR (length = 0~7 data; data = 00~FF)

To edit NGR message, follow below steps:

1. Send S_CMD_04NR
2. Send commands corresponding to the hex equivalents of desired data as NGR message; for example, if 'ABC' is desired data, send:
   S_CMD_D004
   S_CMD_D001
   S_CMD_D004
   S_CMD_D002
   S_CMD_D004
   S_CMD_D003
   (see **Appendix 1 - Edit Data**)
3. Send S_CMD_DFFF to save configuration
   (see **Appendix 1 - Edit Data**)

Data Format

Function	Command
Enable full data format*	S_CMD_05F1
Disable full data format	S_CMD_05F0
CodeID+Preamble	S_CMD_05C1
Preamble+CodeID*	S_CMD_05C0

Enable Preamble	S_CMD_0501
Disable Preamble*	S_CMD_0500
Edit Preamble (length = 0~16 data; data = 00~FF)	S_CMD_051R (length = 0~16 data; data = 00~FF)
Enable Code ID	S_CMD_0505
Disable Code ID*	S_CMD_0504
Reset all Code ID to default	S_CMD_IDFF
Edit Code128 Code ID (length = 0~1 data; data = 00~FF)	S_CMD_ID00 (length = 0~1 data; data = 00~FF)
Edit EAN-8 Code ID	S_CMD_ID01
Edit EAN-13 Code ID	S_CMD_ID02
Edit UPC-E0 Code ID	S_CMD_ID03
Edit UPC-E1 Code ID	S_CMD_ID04
Edit UPC-A Code ID	S_CMD_ID05
Edit Interleaved 2/5 Code ID	S_CMD_ID06
Edit Matrix 2/5 Code ID	S_CMD_ID07
Edit Industrial 2/5 Code ID	S_CMD_ID08
Edit IATA 2/5 Code ID	S_CMD_ID09
Edit Code39 Code ID	S_CMD_ID0A
Edit Code93 Code ID	S_CMD_ID0B
Edit Codabar Code ID	S_CMD_ID0C
Edit PDF417 Code ID	S_CMD_ID0D
Edit QR Code Code ID	S_CMD_ID0E
Edit Data Matrix Code ID	S_CMD_ID0F
Edit Code11 Code ID	S_CMD_ID10
Edit MSI Plessey Code ID	S_CMD_ID11
Edit Micro QR Code ID	S_CMD_ID12
Edit Code32 Code ID	S_CMD_ID13
Edit ISBN Code ID	S_CMD_ID14
Edit ISSN Code ID	S_CMD_ID15
Edit MicroPDF417 Code ID	S_CMD_ID19
Edit GS1 DataBar Code ID	S_CMD_ID21
Edit GS1 DataBar Limited Code ID	S_CMD_ID22
Edit GS1 DataBar Expanded Code ID	S_CMD_ID23
Edit Plessey Code ID	S_CMD_ID24
Enable Postamble	S_CMD_0507

Disable Postamble*	S_CMD_0506
Edit Postamble (length = 0~16 data; data = 00~FF)	S_CMD_057R (length = 0~16 data; data = 00~FF)
Enable Terminator*	S_CMD_0509
Disable Terminator	S_CMD_0508
Terminator = 0x0D*	S_CMD_059D
Terminator = 0x0D 0x0A	S_CMD_059A
Edit Terminator (length = 7 data; data = 00~FF)	S_CMD_059R (length = 7 data; data = 00~FF)
Send DATA* (DATA = [Start][Center][End])	S_CMD_05D0
Send Start only	S_CMD_05D1
Send End only	S_CMD_05D2
Send Center only	S_CMD_05D3
START length = # (# = 00~FF; 00 = 0, FF = 255)	S_CMD_05SL# (# = 00~FF; 00 = 0, FF = 255)
END length = # (# = 00~FF; 00 = 0, FF = 255)	S_CMD_05EL# (# = 00~FF; 00 = 0, FF = 255)
Encoding format = GBK*	S_CMD_05OG
Encoding format = UNICODE	S_CMD_05ON
Encoding format = UTF8	S_CMD_05O8
Encoding format = raw	S_CMD_05OO
Enable ECI mode*	C_CMD_ECI1
Disable ECI mode	C_CMD_ECI0

Full data format can be either one of following:
[Code ID] + [Preamble] + [DATA] + [Postamble] + [Terminator]
[Preamble] + [Code ID] + [DATA] + [Postamble] + [Terminator]

By default Code ID, Preamble and Postamble are disabled; terminator is 0x0D (Carriage Return). If full data format is disabled, only DATA will be displayed. DATA can be further divided into [Start] + [Center] + [End] if the length of Start/End is defined.

To edit Terminator, follow below steps:

1. Send S_CMD_059R

2. Send commands corresponding to the hex equivalents of desired data as Terminator; for example, if 'A' is desired data, send:
   S_CMD_D004
   S_CMD_D001
   (see **Appendix 1 - Edit Data**)
3. Send S_CMD_DFFF to save configuration
   (see **Appendix 1 - Edit Data**)

Above steps are also applicable to Edit Preamble/Postamble/Code ID.

Symbologies

General Settings

Function	Command
Enable all symbologies	C_CMD_R111
Disable all symbologies	C_CMD_R000
Enable all 1D symbologies	C_CMD_R011
Disable all 1D symbologies	C_CMD_R010
Enable all 2D symbologies	C_CMD_R101
Disable all 2D symbologies	C_CMD_R100

Inverse Barcode

Function	Command
Enable all inverse barcodes	C_CMD_INV1
Disable all inverse barcodes*	C_CMD_INV0
Enable all 1D inverse barcodes	C_CMD_OIM1
Disable all 1D inverse barcodes*	C_CMD_OIM0
Enable inverse PDF417	C_CMD_PIM1
Disable inverse PDF417*	C_CMD_PIM0
Enable inverse Data Matrix	C_CMD_DIM1
Disable inverse Data Matrix *	C_CMD_DIM0
Enable inverse QR Code	C_CMD_QIM1
Disable inverse QR Code*	C_CMD_QIM0

Code128

Function	Command
Reset Code128 to default	C_CMD_28FF
Enable Code128*	C_CMD_2801
Disable Code128	C_CMD_2800
Min length = 00*	C_CMD_280A00
Min length = 04	C_CMD_280A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_280A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_280B20
Max length = 255*	C_CMD_280BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_280B# (# = 00~FF; 00 = 0, FF = 255)

EAN-8

Function	Command
Reset EAN-8 to default	C_CMD_08FF
Enable EAN-8*	C_CMD_0801
Disable EAN-8	C_CMD_0800
Send check digit*	C_CMD_0803
Not send check digit	C_CMD_0802
Enable 2-digit supplement	C_CMD_0821
Disable 2-digit supplement*	C_CMD_0820
Enable 5-digit supplement	C_CMD_0851
Disable 5-digit supplement*	C_CMD_0850

EAN-13

Function	Command
Reset EAN-13 to default	C_CMD_13FF
Enable EAN-13*	C_CMD_1301
Disable EAN-13	C_CMD_1300
Send check digit*	C_CMD_1303

Not send check digit	C_CMD_1302
Enable 2-digit supplement	C_CMD_1321
Disable 2-digit supplement*	C_CMD_1320
Enable 5-digit supplement	C_CMD_1351
Disable 5-digit supplement*	C_CMD_1350
Disable EAN13 to ISBN*	C_CMD_BN00
Enable EAN13 to ISBN	C_CMD_BN01
Disable EAN13 to ISSN*	C_CMD_SN00
Enable EAN13 to ISSN	C_CMD_SN01

UPC-E0

Function	Command
Reset UPC-E0 to default	C_CMD_E0FF
Enable UPC-E0*	C_CMD_E001
Disable UPC-E0	C_CMD_E000
Send check digit*	C_CMD_E003
Not send check digit	C_CMD_E002
Send system number*	C_CMD_E005
Not send system number	C_CMD_E004

UPC-E1

Function	Command
Reset UPC-E1 to default	C_CMD_E1FF
Enable UPC-E1*	C_CMD_E101
Disable UPC-E1	C_CMD_E100
Enable 2-digit supplement	C_CMD_E121
Disable 2-digit supplement*	C_CMD_E120
Enable 5-digit supplement	C_CMD_E151
Disable 5-digit supplement*	C_CMD_E150
Send check digit*	C_CMD_E103
Not send check digit	C_CMD_E102
Send system number*	C_CMD_E105
Not send system number	C_CMD_E104

UPCA

Function	Command
Reset UPC-A to default	C_CMD_CAFF
Enable UPC-A*	C_CMD_CA01
Disable UPC-A	C_CMD_CA00
Disable UPC-A to EAN-13*	C_CMD_CAE0
Enable UPC-A to EAN-13	C_CMD_CAE1
Enable 2-digit supplement	C_CMD_CA21
Disable 2-digit supplement*	C_CMD_CA20
Enable 5-digit supplement	C_CMD_CA51
Disable 5-digit supplement*	C_CMD_CA50
Send check digit*	C_CMD_CA03
Not send check digit	C_CMD_CA02
Send system number*	C_CMD_CA05
Not send system number	C_CMD_CA04

Interleaved 2/5

Function	Command
Reset Interleaved 2/5 to default	C_CMD_ITFF
Enable Interleaved 2/5*	C_CMD_IT01
Disable Interleaved 2/5	C_CMD_IT00
Min length = 00*	C_CMD_IT0A00
Min length = 04	C_CMD_IT0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IT0A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_IT0B20
Max length = 255*	C_CMD_IT0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IT0B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_IT02
Enable verification, not send check digit	C_CMD_IT04
Enable verification, send check digit	C_CMD_IT03

Matrix 2/5

Function	Command
Reset Matrix 2/5 to default	C_CMD_MAFF
Enable Matrix 2/5	C_CMD_MA01
Disable Matrix 2/5*	C_CMD_MA00
Min length = 00*	C_CMD_MA0A00
Min length = 04	C_CMD_MA0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_MA0A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_MA0B20
Max length = 255*	C_CMD_MA0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_MA0B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_MA02
Enable verification, not send check digit	C_CMD_MA04
Enable verification, send check digit	C_CMD_MA03

Industrial 2/5

Function	Command
Reset Industrial 2/5 to default	C_CMD_INFF
Enable Industrial 2/5	C_CMD_IN01
Disable Industrial 2/5*	C_CMD_IN00
Min length = 00*	C_CMD_IN0A00
Min length = 04	C_CMD_IN0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IN0A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_IN0B20
Max length = 255*	C_CMD_IN0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IN0B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_IN02
Enable verification, not send check digit	C_CMD_IN04
Enable verification, send check digit	C_CMD_IN03

IATA 2/5

Function	Command
Reset IATA 2/5 to default	C_CMD_IAFF
Enable IATA 2/5	C_CMD_IA01
Disable IATA 2/5*	C_CMD_IA00
Min length = 00*	C_CMD_IA0A00
Min length = 04	C_CMD_IA0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IA0A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_IA0B20
Max length = 255*	C_CMD_IA0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_IA0B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_IA02
Enable verification, not send check digit	C_CMD_IA04
Enable verification, send check digit	C_CMD_IA03

Code39

Function	Command
Reset Code39 to default	C_CMD_39FF
Enable Code39*	C_CMD_3901
Disable Code39	C_CMD_3900
Send Start & Stop	C_CMD_3907
Not send Start & Stop*	C_CMD_3906
Min length = 00*	C_CMD_390A00
Min length = 04	C_CMD_390A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_390A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_390B20
Max length = 255*	C_CMD_390BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_390B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_3902
Enable verification, not send check digit	C_CMD_3904

Enable verification, send check digit	C_CMD_3903
Disable Code32*	C_CMD_39M0
Enable Code32	C_CMD_39M1
Disable Full ASCII Code39*	C_CMD_39M2
Enable Full ASCII Code39	C_CMD_39M3

Code93

Function	Command
Reset Code93 to default	C_CMD_93FF
Enable Code93*	C_CMD_9301
Disable Code93	C_CMD_9300
Min length = 00*	C_CMD_930A00
Min length = 04	C_CMD_930A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_930A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_930B20
Max length = 255*	C_CMD_930BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_930B# (# = 00~FF; 00 = 0, FF = 255)

Codabar

Function	Command
Reset Codabar to default	C_CMD_BAFF
Enable Codabar*	C_CMD_BA01
Disable Codabar	C_CMD_BA00
Min length = 00*	C_CMD_BA0A00
Min length = 04	C_CMD_BA0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_BA0A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_BA0B20
Max length = 255*	C_CMD_BA0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_BA0B# (# = 00~FF; 00 = 0, FF = 255)
Disable verification*	C_CMD_BA02

Mod10 verification, not send check digit	C_CMD_BA04
Mod10 verification, send check digit	C_CMD_BA03
Mod16 verification, not send check digit	C_CMD_BA06
Mod16 verification, send check digit	C_CMD_BA05
Not send Start & Stop	C_CMD_BAS0
Start & Stop = ABCD/ABCD*	C_CMD_BAS2
Start & Stop = ABCD/TN*E	C_CMD_BAS3
Start & Stop = abcd/abcd	C_CMD_BAS4
Start & Stop = abcd/tn*e	C_CMD_BAS5

Code11

Function	Command
Reset Code11 to default	C_CMD_11FF
Enable Code11	C_CMD_1101
Disable Code11*	C_CMD_1100
Min length = 00*	C_CMD_110A00
Min length = 04	C_CMD_110A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_110A# (# = 00~FF; 00 = 0, FF = 255)
Max length = 32	C_CMD_110B20
Max length = 255*	C_CMD_110BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_110B# (# = 00~FF; 00 = 0, FF = 255)

MSI Plessey

Function	Command
Reset MSI to default	C_CMD_MSFF
Enable MSI Plessey	C_CMD_MS01
Disable MSI Plessey*	C_CMD_MS00
Min length = 00*	C_CMD_MS0A00
Min length = 04	C_CMD_MS0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_MS0A# (# = 00~FF; 00 = 0, FF = 255)

Max length = 32	C_CMD_MS0B20
Max length = 255*	C_CMD_MS0BFF
Max length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_MS0B# (# = 00~FF; 00 = 0, FF = 255)

GS1 DataBar

Function	Command
Enable GS1 DataBar*	C_CMD_GS41
Disable GS1 DataBar	C_CMD_GS40

GS1 DataBar Limited

Function	Command
Enable GS1 DataBar Limited*	C_CMD_GSL1
Disable GS1 DataBar Limited	C_CMD_GSL0

GS1 DataBar Expanded

Function	Command
Enable GS1 DataBar Expanded*	C_CMD_GSE1
Disable GS1 DataBar Expanded	C_CMD_GSE0

Plessey

Function	Command
Reset Plessey to default	C_CMD_PEFF
Enable Plessey	C_CMD_PE01
Disable Plessey*	C_CMD_PE00
Min length = 00*	C_CMD_PE0A00
Min length = 04	C_CMD_PE0A04
Min length = # (# = 00~FF; 00 = 0, FF = 255)	C_CMD_PE0A
Max length = 32	C_CMD_PE0B20
Max length = 255*	C_CMD_PE0BFF
Max length = #	C_CMD_PE0B

(# = 00~FF; 00 = 0, FF = 255)	
Send check digit	C_CMD_PEP1
Not send check digit	C_CMD_PEP0

PDF417

Function	Command
Enable PDF417*	C_CMD_PDF1
Disable PDF417	C_CMD_PDF0

MicroPDF417

Function	Command
Enable MicroPDF417	C_CMD_MIP1
Disable MicroPDF417*	C_CMD_MIP0

Micro QR Code

Function	Command
Enable Micro QR Code	C_CMD_MQ01
Disable Micro QR Code*	C_CMD_MQ00

QR Code

Function	Command
Enable QR Code*	C_CMD_QR01
Disable QR Code	C_CMD_QR00

Data Matrix

Function	Command
Enable Data Matrix*	C_CMD_DM01
Disable Data Matrix	C_CMD_DM00

Appendix

Appendix 1 - Edit Data

Function	Command
0	S_CMD_D000
1	S_CMD_D001
2	S_CMD_D002
3	S_CMD_D003
4	S_CMD_D004
5	S_CMD_D005
6	S_CMD_D006
7	S_CMD_D007
8	S_CMD_D008
9	S_CMD_D009
A	S_CMD_D00A
B	S_CMD_D00B
C	S_CMD_D00C
D	S_CMD_D00D
E	S_CMD_D00E
F	S_CMD_D00F
Save configuration	S_CMD_DFFF
Abort 1 data	S_CMD_DF01
Abort all data	S_CMD_DF0F
Abort configuration	S_CMD_DF00

Appendix 2 - Code ID

Symbology	Code ID
Code128	j
EAN-8	d
EAN-13	d
UPC-E0	c
UPC-E1	c
UPC-A	c
Interleaved 2/5	e
Matrix 2/5	v
Industrial 2/5	D
IATA 2/5	s
Code39	b
Codabar	a
Code93	i
PDF417	r
QR Code	Q
Data Matrix	u
Code 11	H
MSI Plessey	J
Micro QR Code	Q
Code32	b
ISBN	d
ISSN	d
Aztec	z
GS1 DataBar	R
GS1 DataBar Limited	R
GS1 DataBar Expanded	R
Plessey	p
MicroPDF417	s

Appendix 3 - ASCII Table

Hex	Dec	ASCII	
00	0	NUL	(Null char.)
01	1	SOH	(Start of Header)
02	2	STX	(Start of Text)
03	3	ETX	(End of Text)
04	4	EOT	(End of Transmission)
05	5	ENQ	(Enquiry)
06	6	ACK	(Acknowledgment)
07	7	BEL	(Bell)
08	8	BS	(Backspace)
09	9	HT	(Horizontal Tab)
0a	10	LF	(Line Feed)
0b	11	VT	(Vertical Tab)
0c	12	FF	(Form Feed)
0d	13	CR	(Carriage Return)
0e	14	SO	(Shift Out)
0f	15	SI	(Shift In)
10	16	DLE	(Data Link Escape)
11	17	DC1	(XON)(DeviceControl1)
12	18	DC2	(DeviceControl2)
13	19	DC3	(XOFF)(DeviceControl3)
14	20	DC4	(DeviceControl4)
15	21	NAK	(Negative Acknowledgment)
16	22	SYN	(Synchronous Idle)
17	23	ETB	(End of Trans. Block)
18	24	CAN	(Cancel)
19	25	EM	(End of Medium)
1a	26	SUB	(Substitute)
1b	27	ESC	(Escape)
1c	28	FS	(File Separator)
1d	29	GS	(Group Separator)
1e	30	RS	(Request to Send)
1f	31	US	(Unit Separator)
20	32	SP	(Space)

21	33	!	(Exclamation Mark)
22	34	"	(Double Quote)
23	35	#	(Number Sign)
24	36	$	(Dollar Sign)
25	37	%	(Percent)
26	38	&	(Ampersand)
27	39	`	(Single Quote)
28	40	(	(Right/Closing Parenthesis)
29	41	)	(Right/Closing Parenthesis)
2a	42	*	(Asterisk)
2b	43	+	(Plus)
2c	44	,	(Comma)
2d	45	-	(Minus/Dash)
2e	46	.	(Dot)
2f	47	/	(Forward Slash)
30	48	0	
31	49	1	
32	50	2	
33	51	3	
34	52	4	
35	53	5	
36	54	6	
37	55	7	
38	56	8	
39	57	9	
3a	58	:	(Colon)
3b	59	;	(Semi-colon)
3c	60	<	(Less Than)
3d	61	=	(Equal Sign)
3e	62	>	(Greater Than)
3f	63	?	(Question Mark)
40	64	@	(AT Symbol)
41	65	A	
42	66	B	
43	67	C	
44	68	D	

45	69	E
46	70	F
47	71	G
48	72	H
49	73	I
4a	74	J
4b	75	K
4c	76	L
4d	77	M
4e	78	N
4f	79	O
50	80	P
51	81	Q
52	82	R
53	83	S
54	84	T
55	85	U
56	86	V
57	87	W
58	88	X
59	89	Y
5a	90	Z
5b	91	[(Left/Opening Bracket)
5c	92	\ (Back Slash)
5d	93	] (Right/Closing Bracket)
5e	94	^ (Caret/Circumflex)
5f	95	_ (Underscore)
60	96	' (Grave Accent)
61	97	a
62	98	b
63	99	c
64	100	d
65	101	e
66	102	f
67	103	g
68	104	h

69	105	i
6a	106	j
6b	107	k
6c	108	l
6d	109	m
6e	110	n
6f	111	o
70	112	p
71	113	q
72	114	r
73	115	s
74	116	t
75	117	u
76	118	v
77	119	w
78	120	x
79	121	y
7a	122	z
7b	123	{ (Left/Opening Brace)
7c	124	| (Vertical Bar)
7d	125	} (Right/Closing Brace)
7e	126	~ (Tilde)
7f	127	DEL (Delete)

Version History

Rev	Date	Description	Issued
1.0	2020.10.07	Initial Release	Shaw
1.1	2021.01.28	Added Serial Trigger Mode	Shaw
1.2	2021.08.13	Added MT682	Shaw
1.3	2022.02.08	Added Aztec Code ID	Shaw
1.4	2022.06.15	Added Serial Trigger Timeout	Shaw
1.5	2022.10.23	Added Plessey, GS1 DataBar, MicroPDF417	Shaw

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