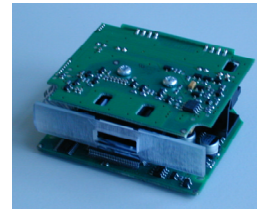
TC1100

CCD Scan Engine

Quick Reference Guide



The TC1100 is a linear CCD Scan Engine for OEM applications. It is available in two different versions:

Model	Description	Order Number
TC1100-0100	CCD scan engine for linear codes	939501000
TC1100-0200	CCD scan engine for linear and PDF417	939501010

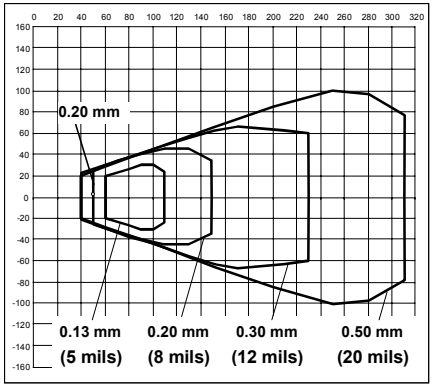
Technical Specifications

Power supply	5 Vdc ± 5%
Consumption	1.5 W
Interfaces	RS232, WEDGE, PEN Emulation
Max Scans/sec	270
Max resolution	0,076mm (3mils)
Readable codes:	EAN/UPC, Code 39, 2/5 family, Codabar, Code 128, EAN 128, ISBT 128, Code 93, pharmaceutical codes, Delta IBM, Code 16K, Code 49, (Telepen, MSI/Plessey, Pharmacode only TC1100-0100), (Codablock-A, Codablock-F Std, Codablock-F EAN, PDF417 only TC1100-0200)

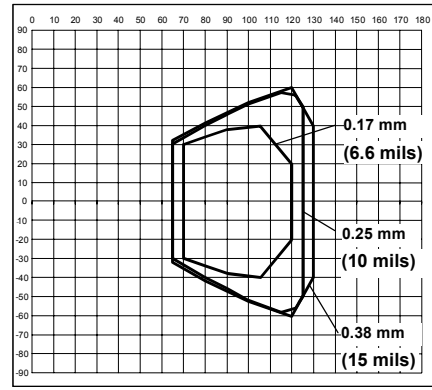
Default Configuration

Power Save	270 scans/sec, sleep disabled, standby disabled
Reading Parameters	On-Line
Code Selection Enabled codes (Only TC1100-0200)	• Interleaved 2 of 5: Check Digit transmitted, length: min 4, max 99 • Code EAN8, EAN13, UPCA, UPCB: without ADD ON, Check Digit transmitted, no conversions • Code 39: length: min 1, max 99 • Code 128: Check Digit not transmitted, length: min 1, max 99 • PDF417
Data Format	Code ID disabled, Header = <STX>, Terminator = <CR> <LF>, no Field Adjustment, Code length TX disabled, character replacement disabled, No Read Character = <CAN>
Decoding Parameters	Ink spread enabled, overflow control enabled, interdigit control enabled, Puzzle Solver™ disabled, decoding safety = 1 read
Enabled interface	RS232, 9600, N, 8, 1, no handshaking, ACK/NAK disabled, RX timeout 100 ms, FIFO enabled, inter-character delay disabled

Reading Diagrams



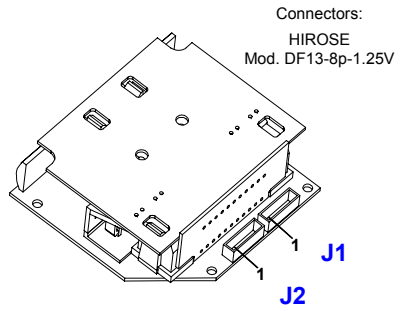
Reading Diagram TC1100-0100 (code 39)



Reading Diagram TC1100-0200 (PDF417)

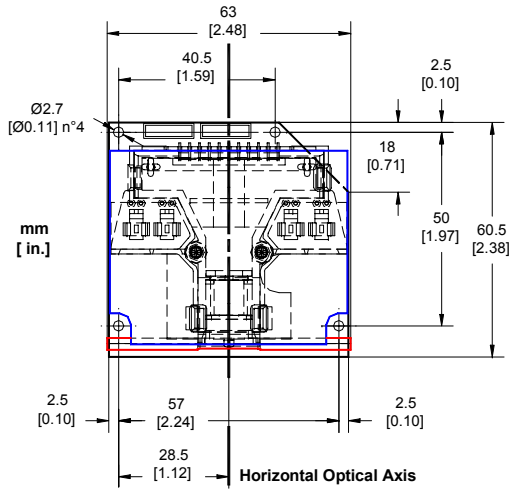
Electrical Connections

J1		
1	SGND	Serial Ground
2	OUT -	See Figure 1
3	OUT+	
4	EXT BEEPER	External beeper connection
5	CTS	Clear to send
6	RX	Reception
7	RTS	Request to send
8	TX	Transmission
J2		
1	VCC+	+5Vdc
2	GND	GND
3	CLKOUT	
4	DATAOUT	
5	DATAIN_WAND	
6	CLKIN	
7	EXT TRIG+	See Figure 2
8	EXT TRIG-	



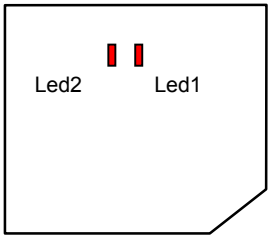
Physical Dimensions

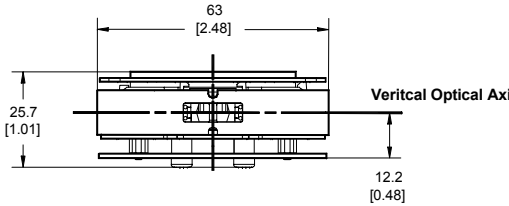
Width	63 mm	2.48 inches
Length	60.5 mm	2.38 inches
Height	27 mm	1.06 inches



Led Status

Led2 ON =	Power supply ON
Led2 OFF=	Power supply OFF
Led1 ON=	Good read (the led will remain ON until status changes)
Led1 OFF=	Miss read





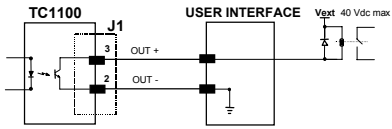
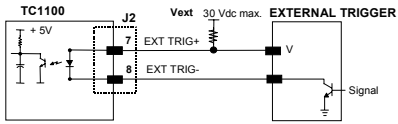


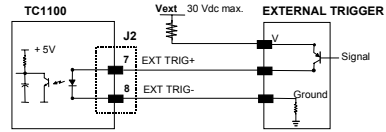
Figure 1 - Output Connection (Good Read). Example NPN

Return to RS232 Interface

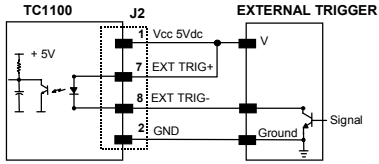
For WEDGE Users



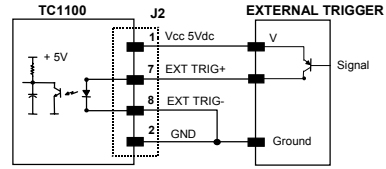
Input NPN command using external power



Input PNP command using external power



Input NPN command using TC1100 power



Input PNP command using TC1100 power

Figure 2 - Trigger Connections

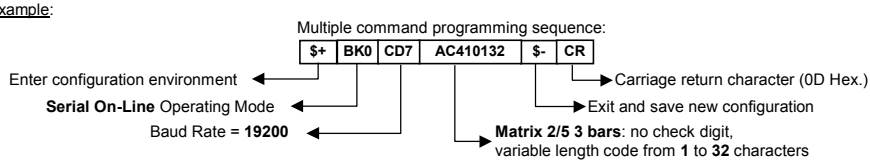
Basic Commands for TC1100

The TC1100 default configuration can be changed by receiving commands through the RS232 Interface. The command syntax is given below with an example.

Command syntax

$+ *Command(s)* $- <CR> the new setting will be definitive (stored in FLASH EPROM)

Example:



Commands:

OPERATING MODES				
On-line	**BK1**			
Serial On-Line	**BK0**			
Automatic	**BK3**			
Automatic / Lighting System Standby	**BK2**			
To enter in Test mode	**#+Dstat1<CR>** (does not require $+ or $-)			
To exit Test mode	**#+Dstat0<CR>** (does not require $+ or $-)			
GENERAL FEATURES				
RS232 interface selection	**CP0**			
RS232 Baud Rate	**CD0**	for 150 Baud up to **CD8** for 38400 Baud		
WEDGE AT	**CP500**			
WEDGE Notebook	**CP505**			
Keyboard Nationality	**FJ7** **FJ4** **FJ2** **FJ3**	Belgian English French German	**FJ1** **FJ6** **FJ5** **FJ0**	Italian Spanish Swedish USA
CCD Scan Rate	**BT0** **BT1** **BT2**	67 scans/sec 135 scans/sec 270 scans/sec		
Puzzle Solver	**AU1**	enable	**AU0**	disable
Ink Spread	**AX1**	enable	**AX0**	disable
Decoding safety	**ED0** **ED1**	1 read 2 reads	**ED2** **ED3**	3 reads 4 reads
To restore the default configuration	**$+$*<CR>** (does not require $-)			
To get configuration from the reader	**$+$& <CR>** (does not require $-)			

CODE SELECTION		
EAN/UPC disable	**AA0**	
EAN 8/EAN 13/UPC A/UPC E enable	**AA1**	without ADD ON
	AA5	with ADD ON
	AA8	with and without ADD ON
EAN 8/EAN 13 enable	**AA3**	without ADD ON
	AAK	with ADD ON 2 ONLY
	AAL	with ADD ON 5 ONLY
	AA6	with ADD ON 2 AND 5
UPC A/UPC E enable	**AA4**	without ADD ON
	AAM	with ADD ON 2 ONLY
	AAN	with ADD ON 5 ONLY
	AA7	with ADD ON 2 AND 5
EAN 8 enable	**AAG0**	check digit transmission disable
	AAG1	check digit transmission enable
EAN 13 enable	**AAH0**	check digit transmission disable
	AAH1	check digit transmission enable
UPC A enable	**AAI0**	check digit transmission disable
	AAI1	check digit transmission enable
UPC E enable	**AAJ0**	check digit transmission disable
	AAJ1	check digit transmission enable
Code 39 disable	**AB0**	
Code 39 Standard enable	**AB11*xxyy***	no check digit control
	AB12*xxyy*	check digit control and transmission
	AB13*xxyy*	check digit control without transmission
Code 39Full ASCII enable	**AB21*xxyy***	no check digit control
	AB22*xxyy*	check digit control and transmission
Code 2/5 family disable	**AC0**	
Interleaved 2/5 enable	**AC11*xxyy***	no check digit control
	AC12*xxyy*	check digit control and transmission
	AC13*xxyy*	check digit control without transmission
Normal 2/5 5 bars enable	**AC21*xxyy***	no check digit control
	AC22*xxyy*	check digit control and transmission
	AC23*xxyy*	check digit control without transmission
Industrial 2/5 (IATA) enable	**AC31*xxyy***	no check digit control
	AC32*xxyy*	check digit control and transmission
	AC33*xxyy*	check digit control without transmission
Matrix 2/5 3 bars enable	**AC41*xxyy***	no check digit control
	AC42*xxyy*	check digit control and transmission
	AC43*xxyy*	check digit control without transmission
Codabar family disable	**AD0**	
Codabar standard enable	**AD111*xxyy***	no start/stop character equality control - nor transmission
	AD112*xxyy*	no start/stop character equality control but transmission
	AD121*xxyy*	start/stop character equality control but no transmission
	AD122*xxyy*	start/stop character equality control and transmission
	AD212*xxyy*	ABC Codabar no start/stop character equality control but transmission
Code 128 family disable	**AI0**	
Code 128 enable	**AI11 *xxyy***	control without transmission of check digit
EAN 128 enable	**AI21 *xxyy***	control without transmission of check digit
Code Length	**AILxxyy**	
Code 93 family disable	**AK0**	
Code 93 enable	**AK1 *xxyy***	control without transmission of check digit
PDF417 disable	**AR0**	
PDF417 enable	**AR1**	
Pharmacode disable	**AQ0**	
Pharmacode enable	**AQ1xxyy**	forward code tx direction
	AQ2xxyy	reverse code tx direction
Overflow ratio	**AQAzz**	

xxyy = ASCII numbers that define:

xx = min. acceptable code length ***yy*** = max. acceptable code length ***zz*** = overflow ratio value

The minimum code length must always be less than or equal to the maximum.

For more detailed information on the TC1100 programmability and complete parameter list, please refer to the TC1100 Reference Manual.

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