XY2-100 technical datasheet

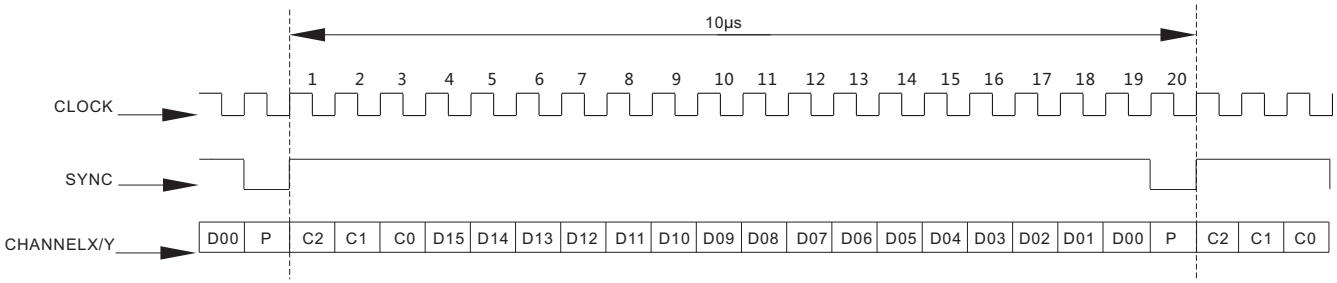
General description

The XY2-100 interface is used to send X and Y coordinates from the controller to the deflection system.It is a serial interface using 20-bit works,sent with a speed of 2 Mbit/s or 100 kwords/s.This document describes the IO-pin configuration,the signal description and the timing specifications.

Pin configuration (with Ray-motion DB25 connector)

Pin	Name	Signal description	In/Out
1/14	CLOCK-/CLOCK+	CLOCK :Continuously running clock	Input
2/15	SYNC-/SYNC+	SYNC :Synchronises data transfer	Input
3/16	CHAN1-/CHAN1+	CHANNELX :Data to X axis	Input
4/17	CHAN2-/CHAN2+	CHANNELY :Data to Y axis	Input
5/18			
6/19			
7/20			
8/21			
9/10/22	POWER+	+15V	Input
11/23/24	GND		Input
12/13/25	POWER-	-15V	Input

Signal description



DATA(CHANNELX,CHANNELY)

The data of each axis consist of 20-bit words.The first 3 bits are used as a control word(C2-C0).The next 16 bits are data information(D15-D0, offset binary) and the last bit is a parity bit(P, even parity).

SYNC

The transfer of data is synchronised using a synchronisation signal.The SYNC bit goes high when the first bit can be sent. It remains high for 19 bits and goes low when the parity can be sent.

CLOCK

The clock signal runs at a frequency of 2 MHz.When it goes high,the data bit changes.When it goes low,the data bit is sampled by the deflection system.

Timing specifications

Description	Name	Min	Typ	Max	Units
data-in setup time	tDS	50			ns
data-in hold time	tDH	100			ns

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