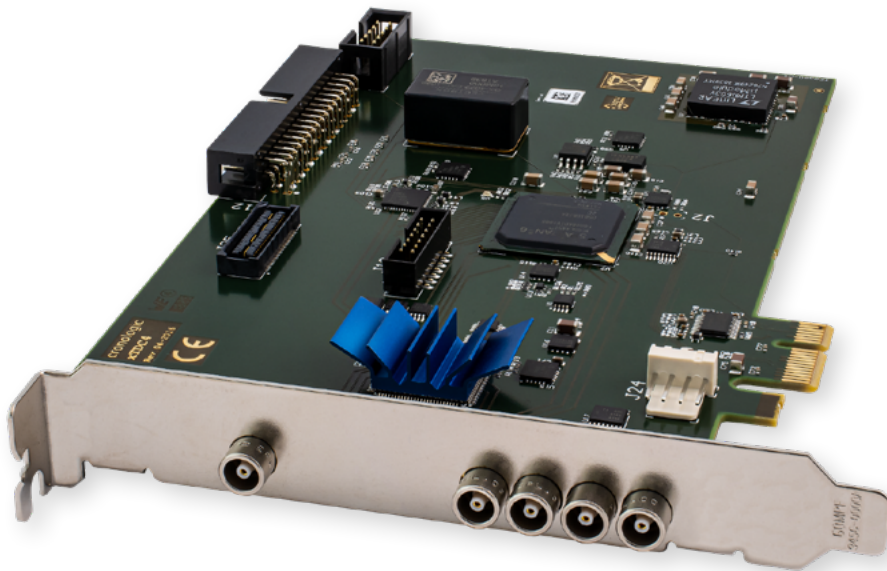


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TimeTagger4-2G
TimeTagger4-1G

Product Brief



TimeTagger4

Introduction

Cronologic presents an exciting series of low-cost, mid-resolution time-to-digital converters. The boards feature 500ps to 1ns single-shot resolution at a high readout bandwidth.

Time Taggers are ideally suitable in applications that do not require the highest single-shot timing resolution, but high data acquisition rates and the lowest multiple hit deadtime. These include certain types of mass spectroscopy (TOF-MS), time-correlated single photon counting (TCSPC), phase shift measurement, quantum cryptography and frequency counting applications.

TimeTaggers are high-bandwidth, low-cost common start time-to-digital converters (TDCs). The timestamps of leading or trailing edges of digital pulses are recorded from the **TimeTagger4-1G** with a single shot time resolution of **1000 ps**. The **TimeTagger4-2G**, on the other hand, records these with a single-shot time resolution of **500 ps**.

Technical Data

Optimized for	low cost
TDC channels	1 AC-coupled start channel 4 AC-coupled stop channels
Connectors	5x LEMO 00
Bin size	1 ns (TimeTagger4-1G) / 500 ps (TimeTagger4-2G)
Double pulse resolution	2 ns (TimeTagger4-1G) / 1 ns (TimeTagger4-2G)
Multihit	1000x per start event
Dead time between groups	none
Readout rate	48 MHits/s
Range	8 ms, 2.147 s extended
Common start/stop	yes / no
Max. start frequency	250 Mhz
L0 FIFO	1000 words/channel
L2 FIFO	1000 words
number of boards that can be synced	0
Readout interface	PCIe x1 @ 200MB/s
Time base	50 ppb on board

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