

CLASS

Configurable Lidar Acquisition System

What is a data acquisition?

Data acquisition systems perform a crucial task in all measurement devices; they allow sampling signals coming from real physical conditions and converting them into digital numeric values that can be stored, analyzed and manipulated by a PC or a standalone device.

CLASS features

CLASS is a sophisticated data acquisition system including a motherboard and up to three or five independent acquisition modules configurable for photo-counting regime. It is specially designed to give great performances minimizing the volume in a LIDAR system.

Each input performs all the high-speed operations (e.g. acquisition and summing), has its own electrical trigger input and a signal input.

The motherboard has an optical trigger and an output to chain multiple CLASS boards. This makes CLASS the ideal acquisition board even for complex multichannel LIDAR systems.

CLASS can communicate with the host computer via USB or via Ethernet, and can be used



CLASS modules

To satisfy different applications requirements, CLASS is available in two models:

- CLASS *standard* hosting up to five modules
- CLASS *mini* hosting up to three modules

Technical Specifications

CLASS STANDARD

CLASS MINI

	CLASS STANDARD	CLASS MINI
GENERAL SPECIFICATIONS		
MODULES	up to 5	up to 3
COMMUNICATIONS	USB, Ethernet	USB, Ethernet
TYPICAL POWER CONSUPTION	0.6A@24V	0.6A@24V
OPERATING AND STORAGE TEMPERATURE	-40°C to +70 °C	-40°C to +70 °C
SIZE	(150x120x21) cm	(90x120x21) cm
WEIGHT	300 g	200 g
MODULES SPECIFICATIONS		
INPUT CONNECTOR TYPE	SMA	SMA
INPUT IMPEDANCE	50 Ω	50 Ω
EDGE	Software selectable: rising or falling	Software selectable: rising or falling
MINIMUM PULSE WIDTH	2 ns	2 ns
INPUT VOLTAGE THRESHOLD	Software selectable in the range (-25, +25) mV or TTL (0-5)V	Software selectable in the range (-25, +25) mV or TTL (0-5)V
DWELL FIFO SIZE	Software selectable in the range (10, 2500) ns	Software selectable in the range (10, 2500) ns
MAXIMUM FIFO SIZE	16k samples	8k samples
MAXIMUM PRE-TRIGGER SIZE	16k samples	8k samples