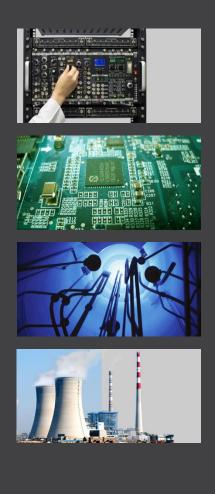


NSDB2019







NANO SECOND DELYA BOX MODEL NSDB2019







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NANO SECOND DELYA BOX MODEL NSDB2019

Features

- High stability
- 0.5ns resolution
- 0 to 63.5ns delay range
- Switch controlled time delays
- Low reflections and feed-through
- Control and time experiments quickly and easily
- Being robust and suitable for use in challenging conditions
- Splash resistant design
- Wide operational temperature range
- Ultra reliable industry standard design

LOW REFLECTIONS AND FEED-THROUGH



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Description

The CFD2017 from Control Farayand Pasargad (CFP) coax delay box provides switch-controlled delays from 0 to 63.5ns with 0.5ns resolution. Applications include the timing of photomultiplier coincidences, set-up of time-to-amplitude converters, adjustment of signal phase, or any application which requires an adjustable, high-bandwidth analog delay. The interchangeable inputs/outputs are on BNC connectors. Internally, the delay line segments consist of accurate lengths of RG58A/U coax cable with 50Ω characteristic impedance. DPDT switches are used to insert or remove delay segments. Careful component selection, mechanical design, and PCB layout ensure low reflections and low switch feed-through for high speed signals.

Specifications

Input(s)

Signal input

Accepts positive or negative slow/fast NIM logic or linear pulses, ± 700 volts maximum; Zin = 50Ω ; isolated front panel BNC connector

Output(s)

Signal output

Provides delayed pulse, amount of delay being equal to sum of DELAY IN switches; Zout = 50Ω ; isolated front panel BNC connector

Control(s)

Delay IN/OUT

Seven Front panel toggle switches to select delay of 0.5, 1, 2, 4, 8, 16 or 32ns; maybe added in any combination up to 63.5ns beyond minimum delay of 2.5ns

Indicator(s)

No indicator

Performance

Connectors

BNC

Characteristic Impedance

50Ω

Delay line cable

RG58A/U (Belden 8259)

Insertion delay

2.5ns

Delay range

0 to 63.5ns

Delay resolution

0.5ns

Delay accuracy

±100ps or ±1% for each delay section used

Delay error

< 100ps + 0.5 % of delay

Signal reflection

< 3%

Switch feed through

< 0.8pF

Maximum voltage

250 Vrms

Maximum current

2A

Application

- Spectrometry
- Radiation detection
- Scientific
- General laboratory usage
- use in neutron-gamma, ... separation at CFD method
- Device calibration
- Components testing







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NIM MODULES

Electrical and Mechanical Unit: NSDB2019 NSDB2019 Version type Electrical Power required No power required for operation **Physical** Dimensions 227mm x 37mm x 212mm (L x W x H) Weight 1.1kg 227 206 Mechanical 212 Unit: mm Environmental Storage temperature - 40°C to + 85°C

0°C to +50°C

< 80%

Software and user interface

Operating temperature
Relative humidity

The device doesn't have any software

Ordering info

NSDB2019 Standard package includes

Part #	Image	Description
NSDB2019 main		Nano second delay box desktop
ACCE2019001	marada Ma Marada Marada Marada Marada Ma Marada Ma Ma Marada Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma Ma	CD user guide (1 Pack)
ACCE2019002		Box with foam insert
ACCE2019003*	GUARANTEE	Guaranty (one year)

^{* =}we stand behind our products. We guarantee your satisfaction in the quality of our instruments by providing a complete one-year warranty covering any defect of workmanship, material, and/or design. If our products do not perform, we will provide complete repair and/or replacement. for guaranty conditions, please refer to manual device (NSDB2019 - Manual)

Optional accessories and services

Part #	Image	Description
ACCE2019004	INSTALLATION	Installation
ACCE2019005	TRAINING	Training
ACCE2019006**	CALIBRATION	Re-calibration (interval) services. 1year factory maintenance suggested, not required
ACCE2019011		BNC terminator 50Ω
ACCE2019012		RG58A/U, 50Ω cable with two BNC male plugs

^{** =} The proper maintenance & calibration of your instruments is critical to ensure proper performance & accuracy. for Re-calibration (interval) services, please call with CFP company (021- 4604538)





Innovator in Spectroscopy Equipment



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