

Discontinued

DT4800

**Micro Digital
Detector Emulator**



Features



- 1 channel
- Pulser/Emulator operating modes
- Real Energy spectrum emulation
- Time distribution emulation (Poisson)
- Noise emulation
- Continuous pre-amplifier emulation
- Nuclides database
- USB interface
- User Friendly Control SW with Graphical User Interface

Description

The CAEN **Mod.DT4800**, called **Micro Digital Detector Emulator**, is the most compact and cost effective model of the Detector Emulator family and it is particularly suited for single channel emulation and educational purposes. The unit features one analog output, one digital input, and one digital output. As a Pulser it can generate exponential decay signals with programmable Rise Time and Fall Time up to a rate of 1 Mcps. The rate can be fixed or it can follow a **Poissonian Distribution**. In "Emulation mode" the unit can reproduce signals from a real energy spectrum that can be uploaded in the form of **CSV** or **ANSI N42.42** files. A database of nuclides is provided to generate specific emission lines and Gaussian noise can be added. An user friendly control software is provided with the unit.

Technical Specifications

Energy Emulation features

- Single line (16384 selectable levels)
- Spectrum emulation (16384 bins with 14 bit resolution)
- ± 2.8 V (50 Ω); ± 5.6 V (hi-Z)
- 14 bit D/A converter

Time emulation features

- Costant rate emulation
- Poisson distribution
- Up to 1 MCPS, both in costant and statistical emulation
- Integrator circuit emulation without pile-up limitation
- 20 ns to 1 ms exponential decay time

Signal shape

- Arbitrarily programmable shapes
- Shape duration from 50 ns to 1 ms
- Separated rising and falling edge interpolation

Noise emulation

- White noise (Gaussian)
- Random Walk

Digital I/O

- 1-input and 1-output programmable
- Trigger out, analog saturation warning, machine overload sensing
- Trigger in

Software and interfaces

- Power Supply 5V
- USB 2.0 (Mini USB) interface
- DLL Library for automation (C++)
- Windows-based control software

Ordering Options

Code	Description
WDT4800XAAAA	DT4800 - Micro Digital Detector Emulator (Discontinued) RoHS

Related Products

SP5600EMU



Emulation Kit

DT4810



One-channel Micro Digital Detector Emulator

NDT6800



NIM/Desktop Digital Detector Emulator

DT5810



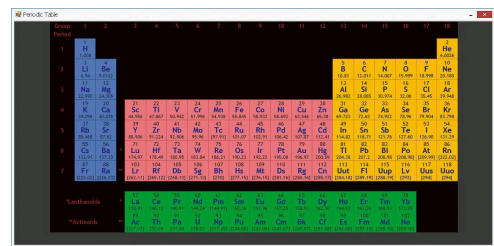
Fast Digital Detector Emulator

DT5800



Desktop Digital Detector Emulator

Gallery



Isotope selection and noise emulation interface

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