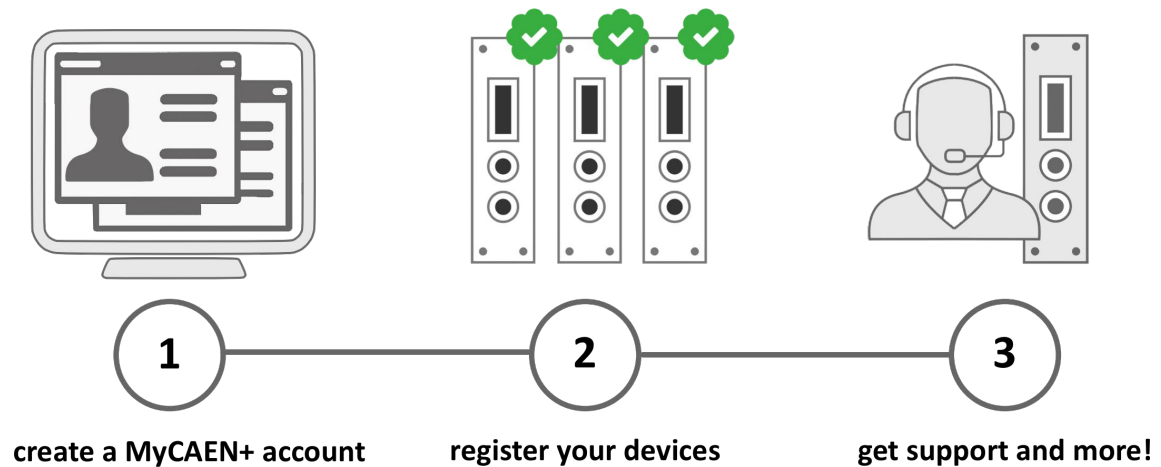




Register your device

Register your device to your **MyCAEN+** account and get access to our customer services, such as notification for new firmware or software upgrade, tracking service procedures or open a ticket for assistance. **MyCAEN+** accounts have a dedicated support service for their registered products. A set of basic information can be shared with the operator, speeding up the troubleshooting process and improving the efficiency of the support interactions.

MyCAEN+ dashboard is designed to offer you a direct access to all our after sales services. Registration is totally free, to create an account go to <https://www.caen.it/become-mycaenplus-user> and fill the registration form with your data.



<https://www.caen.it/become-mycaenplus-user/>

Purpose of this Guide

This document is the DT5423 User's Manual; it contains information about the installation, the configuration and the use of the board.

Change Document Record

Date	Revision	Changes
3 September 2012	0	PRELIMINARY RELEASE
17 July 2013	1	Digitizer cable description
13 July 2016	2	Earth and GND connections description
18 November 2022	3	Noise performance section
18 December 2022	4	External Connections

Reference Document

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No part of this manual may be reproduced in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of CAEN SpA.

CAEN will repair or replace any product within the guarantee period if the Guarantor declares that the product is defective due to workmanship or materials and has not been caused by mishandling, negligence on behalf of the User, accident or any abnormal conditions or operations.

CAEN declines all responsibility for damages or injuries caused by an improper use of the Modules due to negligence on behalf of the User. It is strongly recommended to read thoroughly the CAEN User's Manual before any kind of operation. CAEN reserves the right to change partially or entirely the contents of this Manual at any time and without giving any notice.

Disposal of the Product The product must never be dumped in the Municipal Waste. Please check your local regulations for disposal of electronics products.

MADE IN ITALY : We stress the fact that all the boards are made in Italy because in this globalized world, where getting the lowest possible price for products sometimes translates into poor pay and working conditions for the people who make them, at least you know that who made your board was reasonably paid and worked in a safe environment. (this obviously applies only to the boards marked "MADE IN ITALY", we cannot attest to the manufacturing process of "third party" boards).



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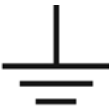


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Safety Notices

N.B. Read carefully the “Precautions for Handling, Storage and Installation” document provided with the product before starting any operation.

The following HAZARD SYMBOLS may be reported on the unit:

	Caution, refer to product manual
	Caution, risk of electrical shock
	Protective conductor terminal
	Earth (Ground) Terminal
	Alternating Current
	Three-Phase Alternating Current

The following symbol may be reported in the present manual:

	General warning statement
---	---------------------------

The symbol could be followed by the following terms:

- **DANGER:** indicates a hazardous situation which, if not avoided, will result in serious injury or death.
- **WARNING:** indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- **CAUTION:** indicates a situation or condition that, if not avoided, could cause physical injury or damage the product and / or its environment.

CAUTION: To avoid potential hazards



USE THE PRODUCT ONLY AS SPECIFIED.

ONLY QUALIFIED PERSONNEL SHOULD PERFORM SERVICE PROCEDURES

CAUTION: Avoid Electric Overload



TO AVOID ELECTRIC SHOCK OR FIRE HAZARD, DO NOT POWER A LOAD OUTSIDE OF ITS SPECIFIED RANGE

CAUTION: Avoid Electric Shock



TO AVOID INJURY OR LOSS OF LIFE, DO NOT CONNECT OR DISCONNECT CABLES WHILE THEY ARE CONNECTED TO A VOLTAGE SOURCE

CAUTION: Do Not Operate without Covers



TO AVOID ELECTRIC SHOCK OR FIRE HAZARD, DO NOT OPERATE THIS PRODUCT WITH COVERS OR PANELS REMOVED

CAUTION: Do Not Operate in Wet/Damp Conditions



TO AVOID ELECTRIC SHOCK, DO NOT OPERATE THIS PRODUCT IN WET OR DAMP CONDITIONS

CAUTION: Do Not Operate in an Explosive Atmosphere



TO AVOID INJURY OR FIRE HAZARD, DO NOT OPERATE THIS PRODUCT IN AN EXPLOSIVE ATMOSPHERE



THIS DEVICE SHOULD BE INSTALLED AND USED BY SKILLED TECHNICIAN ONLY OR UNDER HIS SUPERVISION



**DO NOT OPERATE WITH SUSPECTED FAILURES.
IF YOU SUSPECT THIS PRODUCT TO BE DAMAGED, PLEASE CONTACT THE TECHNICAL SUPPORT**

Overview



Fig. 1 – DT5423 Desktop Linear Power Supply

The DT5423 is a desktop power supply for A1422 preamplifiers and DT57XX Digitizers family. It provides four SubD 9pin female connectors to supply up to four A1422 preamplifiers. Each output is filtered. The +12V power supply for the digitizer is provided through a 6 pin Shielded Miniature Circular DIN Connector.

Two industrial terminals provide GND (black) and Mains Earth (yellow) references.

Code	Model	Description
WDT5423XAAAA	DT5423	Desktop Linear Power Supply for A1422 Preamplifier & DT57XX Digitizers

Tab. 1 – Available items

Mechanical Packaging

The Mod. DT5423 is housed in a “desktop module” (154x50x164 mm³). Weight is 1.65kg. The kit includes the cable (1.5 m long) to connect Digitizer Supply output with DT57xx Desktop Digitizers (2.1mm DC Power Jack).

External Connections

Name	Function			Type
PreAmp 1,2,3,4	±12V Out	+12V	400 mA, max sum of 4 output	4 SubD9 female connectors
		-12V	200 mA, max sum of 4 output	
Digitizer Supply	+12V out, 2.1 A max ; TE Connectivity type 5750071-1			Shielded Mini Circular DIN Connector 6MINI-DIN
Input	230V ~ 50Hz or 115V ~ 60Hz;			C14 Type Inlet (Fused)
Fuse	230V: T500mA; 110V: T1A			5 x 20mm
±12V	Signal ±12V output ON			Green leds
GND	±12V power supply return			Industrial Terminal for 4mm plug and wire connection up to 2mm Ø (black)
EARTH	Mains EARTH			Industrial Terminal for 4mm plug and wire connection up to 2mm Ø (yellow)

Tab. 2 – DT5423 external connections

Power requirements

The module is powered via the 230VAC ~ 50Hz or 115VAC ~ 60Hz mains.

Front and back panel

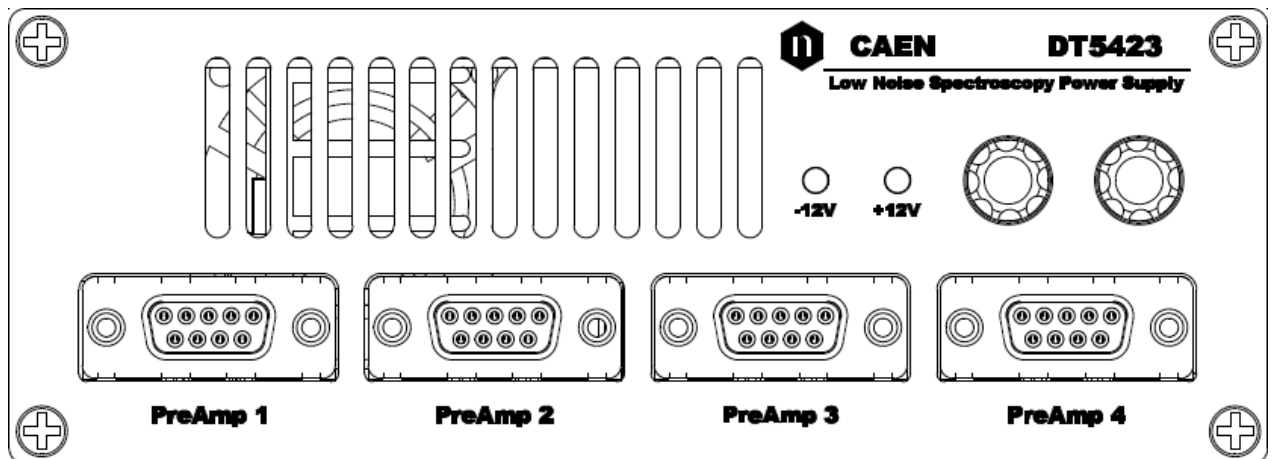


Fig. 2 – DT5423 front panel

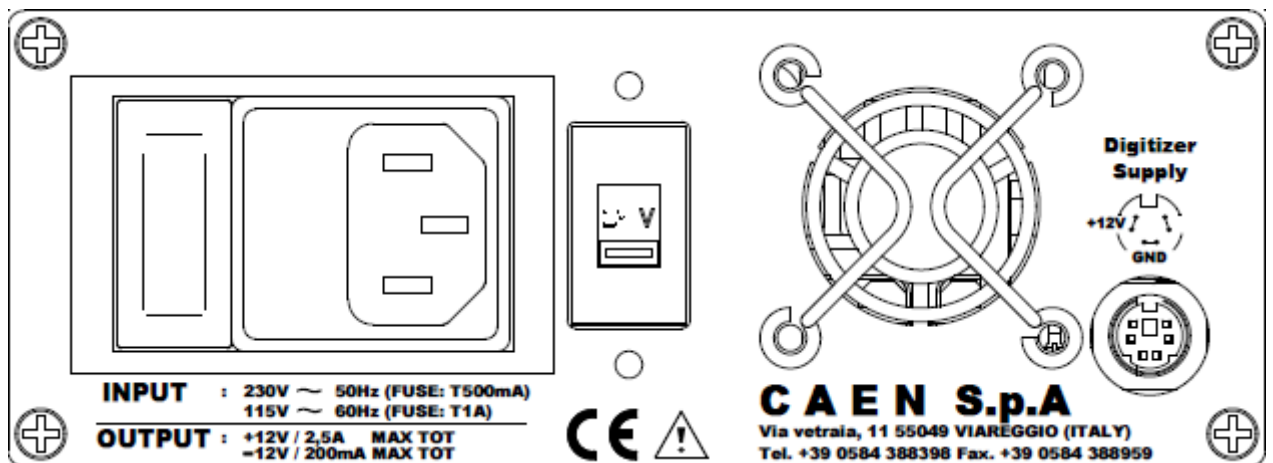


Fig. 3 – DT5423 back panel

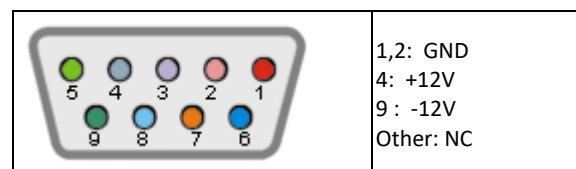


Fig. 4 – SubD9 connector pin out

Noise performance

±12V OUT on PreAmp 1÷4 connectors: ripple 5 mVpp

+12V OUT on Digitizer Supply connector: ripple 10 mVpp.

Measurement conditions:

20 MHz bandwidth limited oscilloscope, AC-coupled, capacitive load 10 nF on OUT in measurement, OUT at full load (400 mA total on + 12V OUT on PreAmp 1÷4 connectors; 200 mA total on - 12V OUT on Preamp 1÷4 connectors; 2.1 A on + 12V Digitizer Supply connector).

Instructions for Cleaning

The equipment may be cleaned with isopropyl alcohol or deionized water and air dried. Clean the exterior of the product only.

Do not apply cleaner directly to the items or allow liquids to enter or spill on the product.

Cleaning the Touchscreen

To clean the touchscreen (if present), wipe the screen with a towelette designed for cleaning monitors or with a clean cloth moistened with water.

Do not use sprays or aerosols directly on the screen; the liquid may seep into the housing and damage a component. Never use solvents or flammable liquids on the screen.

Cleaning the air vents

It is recommended to occasionally clean the air vents (if present) on all vented sides of the board. Lint, dust, and other foreign matter can block the vents and limit the airflow. Be sure to unplug the board before cleaning the air vents and follow the general cleaning safety precautions.

General cleaning safety precautions

CAEN recommends cleaning the device using the following precautions:

- 1) Never use solvents or flammable solutions to clean the board.
- 2) Never immerse any parts in water or cleaning solutions; apply any liquids to a clean cloth and then use the cloth on the component.
- 3) Always unplug the board when cleaning with liquids or damp cloths.
- 4) Always unplug the board before cleaning the air vents.
- 5) Wear safety glasses equipped with side shields when cleaning the board

Device decommissioning

After its intended service, it is recommended to perform the following actions:

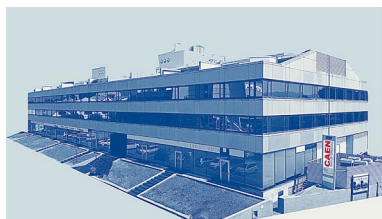
- Detach all the signal/input/output cable
- Wrap the device in its protective packaging
- Insert the device in its packaging (if present)



THE DEVICE SHALL BE STORED ONLY AT THE ENVIRONMENT CONDITIONS SPECIFIED IN THE MANUAL, OTHERWISE PERFORMANCES AND SAFETY WILL NOT BE GUARANTEED

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