DT4700

Clock Generator and FAN-OUT

10-06-2026
CAEN CODE: DT4700

https://www.caen.it/products/DT4700

Features

- 50 MHz, 62.5 MHz clock frequencies available and switch selectable
- Can be operated as a signal or a clock fan-out from another external source (maximum frequency 300 MHz)
- 10 differential LVDS outputs
- USB powered or by external power supply (5÷12 V)
- External Clk in LVDS, LVPECL
- Compatible with A317 clock distribution cable

Description

The CAEN **Mod. DT4700 clock generator** is a compact and easy to use desktop module that allows an easy synchronization of **CAEN VME, NIM and desktop digitizers**. It features 10 differential LVDS outputs, compatible with A317 clock distribution cable, each providing 50 or 62.5 MHz clock signal (switch selectable) required for the synchronization procedure. It also allows the possibility of working as a fan-out of a clock coming from another external source with a maximum frequency of 300 MHz.

The DT4700 can also be powered through the USB port on the rear panel or, using the included power split cable, from your digitizer supply. In addition the DT4700 can also be operated as a general purpose Fan-Out.

Technical Specifications

Packaging

- Desktop module; 160 W x 55 H x 170 L mm^3
- Weight 1.65 kg

Clock Output

10 LVDS output

Internal generator frequency

50 or 62.5 MHz clock signal (switch selectable)

External Clock Input

AC coupled (diff. LVDS, ECL, PECL, LVPECL, CML), Zdiff= 110 Ohm; single ended NIM/TTL available by A318 cable; Guaranteed Frequency Range= from 0 to 300MHz

Thermal stability

±50 ppm

Period jitter

2 ps RMS

Operating temperature

-40 ÷ +85°C

Storage temperature

-55 ÷ 125°C

Power Requirements

The DT4700 can be powered in two ways:
• by 5V@240mA via the Micro USB port
• by 5÷12V @240mA via the 12V 2.1mm power jack

External power supply

PSAC05R-L6M WWW.PHIHONG.COM;

- DC Output Voltage 5V;
- Load 0-1.0A;
- INPUT: AC Input Voltage Rating 100 to 240V AC;
- AC Input Voltage Range 90 to 264V Ac;
- AC Input Frequency 47 to 63Hz;
- Input Current 0.3A (RMS) max at 115V AC/max load; 0.15A (RMS) max at 230V AC/max load;
- Leakage Current 5uA max at 240V AC, 50Hz;
- Inrush Current <30A for 240V AC at max load (Cold start at ambient 25°C);
- Input Power Saving 0.075W;
- OUTPUT: Output Power 5W;
- Efficiency DOE Level VI and CoC V5 Tier2;
- Ripple 200mV max;

ENVIRONMENTAL:

- Temperature Operation 0 to +40°C;
- Non-operation -40 to +85°C;
- Humidity 90%RH Max;
- Emissions Complies with FCC Class B; Complies with EN55032 Class B; AS/NZS 3548;
- Immunity EN50082-1: EN 61000-4-2, Level 4;
- Air Discharge +/-15KV; Contact +/-8KV; EN 61000-4-5, Level 3,1KV;
- Dielectric Withstand (Hi-pot) Test;
- Primary to Secondary: 3000V AC 10mA, 1 minute;

FEATURES:

- Short-Circuit Protection: The output can be shorted permanently without damage whenever it operates within input voltage range and temperature range specified in this specification.
- Output current not exceeding 0.95A (RMS).
- Over-Voltage Protection No to exceed 7.2V DC.
- Over-Current Protection Not to exceed 1.2A (RMS).
- DC Output Connector 2.1 x 5.5 center positive standard (P model).
- Micro-B USB (L6M model)

Ordering Options

Code	Description	
WDT4700XAAAA	DT4700 - Clock Generator	RoHS

Accessories

A317

Cable assembly for Clock distribution 3-pin AMPMODU IV female terminations – 18 cm / 25cm

A318

Adapter for Clock signal FISCHER S101A004 male to 3-pin AMPMODU IV female – 10 cm

Related Products

DT5730 / DT5730S

8 Input Channel 14 bit 500 MS/s Digitizer

DT5720

4/2 Input Channel 12bit 250 MS/s Digitizer

V1751

4/8 Input Channel 10 bit 2/1 GS/s Digitizer

N6742

16+1 Channel 12bit 5 GS/s Switched Capacitor Digitizer

DT2751

16 Input Channel 14 bit 1 GS/s Digitizer with Programmable Input Gain

VX1724

8 Input Channel 14 bit 100 MS/s Digitizer

V1740D

64 Input Channel 12 bit 62.5 MS/s Digitizer supporting DPP-QDC firmware

DTL2751

4 Input Channel 14 bit 1 GS/s Digitizer

N6761

1 Channel 10 bit 4 GS/s Digitizer

N6740D

32 Channel 12bit 62.5 MS/s Digitizer

N6720

4 Channel 12 bit 250 MS/s Digitizer

DT5751

2/4 Input Channel 10 bit 2/1 GS/s Digitizer

V1743

16 Input Channel 12bit 3.2 GS/s Switched Capacitor Digitizer

V1730 / V1730S

16/8 Channel 14 bit 500 MS/s Digitizer

DTL2730

8 Input Channel 14 bit 500 MS/s Digitizer

DT5743

8 Input Channel 12bit 3.2 GS/s Switched Capacitor Digitizer

VX1725 / VX1725S

16/8 Input Channel 14-bit 250 MS/s Digitizer

DT5740D

32 Input Channel 12 bit 62.5MS/s Digitizer supporting DPP-QDC firmware

VX2751

16 Input Channel 14 bit 1 GS/s Digitizer with Programmable Input Gain

DT5740

32 Input Channel 12 bit 62.5MS/s Digitizer

DT5761

1 Input Channel 10 bit 4 GS/s Digitizer

DT5724

4/2 Input Channel 14 bit 100 MS/s Digitizer

VX1742

32+2 Channel 12bit 5 GS/s Switched Capacitor Digitizer

DT5742

16+1 Channel 12 bit 5 GS/s Switched Capacitor Digitizer

N6725 / N6725S

8 Channel 14-bit 250 MS/s Digitizer

V1720

8 Input Channel 12bit 250 MS/s Digitizer

VX1743

16 Input Channel 12bit 3.2 GS/s Switched Capacitor Digitizer

VX2730

32/16 Input Channel 14 bit 500 MS/s Digitizer with Programmable Analog Gain

V1725 / V1725S

16/8 Input Channel 14-bit 250 MS/s Digitizer

VX1751

4/8 Input Channel 10 bit 2/1 GS/s Digitizer

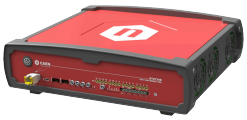
V1742

32+2 Channel 12bit 5 GS/s Switched Capacitor Digitizer

V2730B

16 Input Channel 14 bit 500 MS/s Digitizer with Programmable Analog Gain

DT2730



32/16 Input Channel 14 bit 500 MS/s Digitizer with Programmable Analog Gain

N6751

2/4 Channel 10 bit 2/1 GS/s Digitizer

VX1720

8 Input Channel 12bit 250 MS/s Digitizer

VX1761

2 Input Channel 10 bit 4GS/s Digitizer

V1724

8 Input Channel 14 bit 100 MS/s Digitizer

DT5725 / DT5725S

8 Input Channel 14-bit 250 MS/s Digitizer

V1761

2 Input Channel 10 bit 4GS/s Digitizer

VX1730 / VX1730S

16/8 Input Channel 14 bit 500 MS/s Digitizer

VX1740

64 Input Channel 12bit 62.5 MS/s Digitizer

N6724

2/4 Channel 14 bit 100 MS/s Digitizer

N6730 / N6730S

8 Channel 14-bit 500 MS/s Digitizer

N6740

32 Channel 12bit 62.5 MS/s Digitizer

N6743

8 Channel 12bit 3.2 GS/s Switched Capacitor Digitizer

VX1740D

64 Input Channel 12bit 62.5 MS/s Digitizer supporting DPP-QDC firmware

Gallery


CAEN
DT4700 Clock Generator
CLOCK OUT
0
1
2
3
4
5
6
7
8
9
PWR
EXT
CLK

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