PRELIMINARY

Rev. 1 - Oct, 12th 2022

A7526DB

A7526DB 2.6 kV/500 µA Digital Controlled Power Supply Module

CAEN
Tools for Discovery

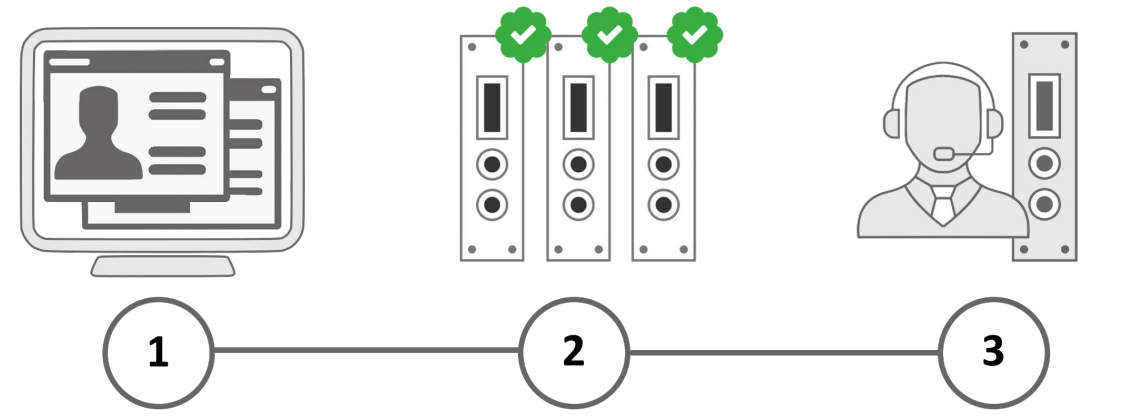
User Manual

UM

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 Manual

This document is the A7526DB user manual; it contains information about the installation, the configuration and the use of the unit.

Change Document Record

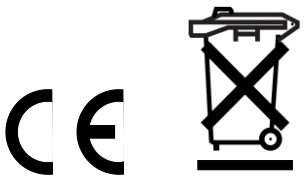
Date	Revision	Changes
4 December 2020	0	Initial release
12 October 2022	1	Technical Specifications, Operating Modes

Symbols, abbreviated terms and notation

N.A.

Reference Documents

N.A.



Index

1. Overview

The A7526DB Power Supply Module is a compact desktop solution to provide stable and noiseless power supply for several kinds of detectors.

The module houses a digital controlled high voltage channel that provides a 2.6 kV maximum voltage with 100 mV monitor resolution.

The maximum output current is 500 µA, with 10 nA monitor resolution. It is available with either positive or negative output voltage. HV output is delivered through SHV connector.

The following channel parameters can be programmed

- Output voltage: 0 ÷ 2.6 kV; step: 100 mV
- Current limit 0 ÷ 500 µA; step: 100 nA
- Voltage Ramp up/down: 1 ÷ 500 V/sec; step: 1 V/sec
- TRIP parameter

Power supply control can be performed remotely, via RS485, that allows to build a daisy chain network of A75xxDB modules (up to 16 units).

Safety features include Overcurrent detection: if the channel attempts to draw a current larger than Iset, the output voltage is automatically adjusted to keep the current below Iset limit. Under this condition, the channel behaves as a current generator.

2. Technical Specifications

Packaging	Custom Carrier
Outuput connector	SHV RADIALL R317580; Impedance: 50 Ohm; Frequency range: 0 – 2 GHz; VSWR: <1.20 + 0.3 F (GHz) – (plug and jack); Test voltage: 10kV DC – 1mn (unmated connectors); Ratings: 12kV DC – 1mn (mated pairs); Current rating: 10 A  WARNING! These connectors produce extremely hazardous high voltages at a potentially lethal current level; never connect or disconnect the HV OUT connector with the power ON/OFF switch ON; always switch power OFF and wait at least 30s before connecting or disconnecting HV cables.
COMM connector	15 Pin Male HD-Sub Connector VGA 5749768-1
Operating temperature	-35° C ÷ +75° C
Storage temperature	-55° C ÷ +85° C
Voltage Supply (Vin)	+12 V ± 10%
Output Voltage (Vout)	0 ÷ +2600 V
Output polarity	Positive or Negative
Maximum Output Current (Iout)	500µA @ 2600 V
VSet Resolution	100 mV
VMon Resolution	100 mV
Current Set Resolution	100 nA
Current Monitor Resolution	10 nA
Power requirement	~ 1.5W @ 2000 V (Rload ≈ 6 MΩ)
Output Ripple (Full Load)	Typical 5mVpp; Maximum 10mVpp
VMon vs. VOut Accuracy	typical: ± 0.03% ± 0.1 V max: ± 0.03% ± 0.3 V; with VSet > +25V
VOut vs. VSet Accuracy	typical: ± 0.03% ± 0.1 V max: ± 0.03% ± 0.3 V; with VSet > +25V
IMon vs. IOut Accuracy	2% ±5 µA ±50ppm/°C with output current from 10% to 100% f.s.
Vout / Temperature coefficient	< 50 ppm / °C (@ Vout > 500 V)
Vset vs. Vout Integral Non Linearity	<±0.03% (-35° C ÷ +75° C)
Electromagnetic compatibility	Weak emission of electromagnetic impulse and RF; one-piece metal shielding with several ground connections
Uniformity of a lot	< 0.5 %
Protection	Over current short circuit, sparks and humidity

COMM connector

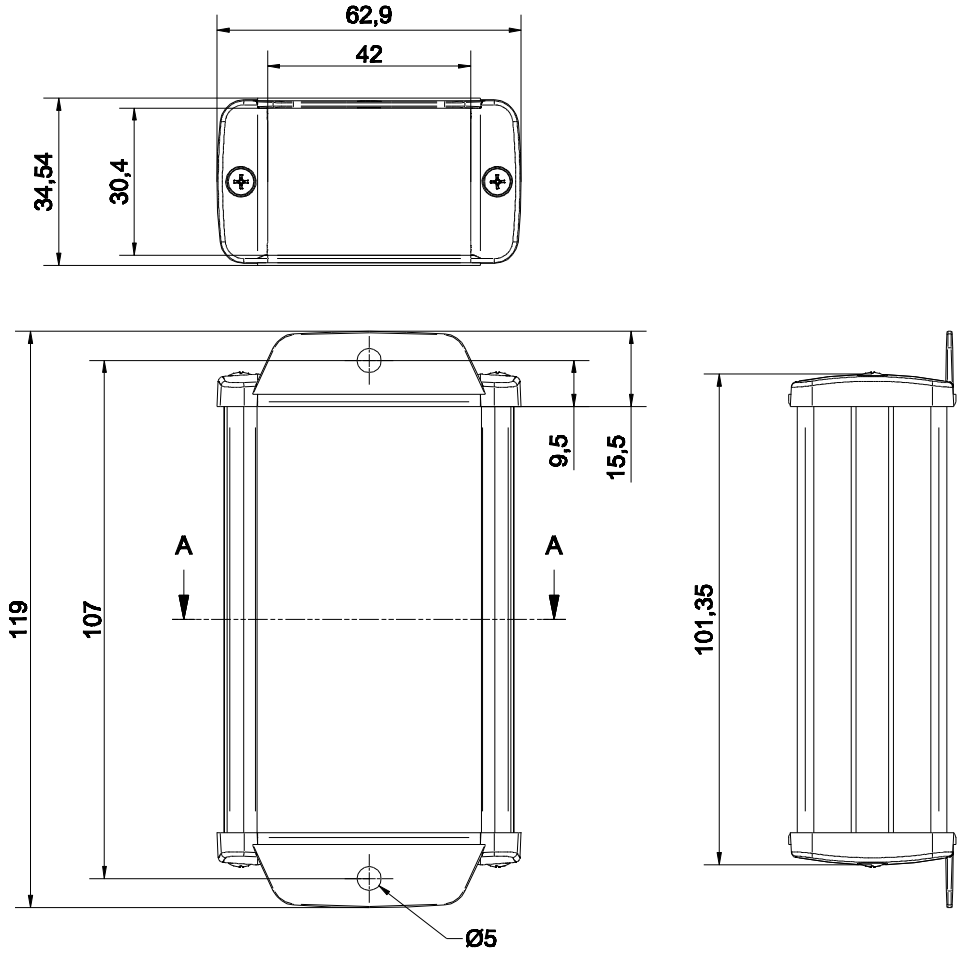
Type:	15 Pin Male HD-Sub Connector VGA 5749768-1	
Pin	Signal	
1	Enable	TTL (high = enabled; low = disabled)
2	+12V	Voltage supply
3	DATA H	Line A
4	+12V	Voltage supply
5	+12V	Voltage supply
6	+12V Enable	Voltage for Enable
7	DATA L	Line B
8	Term ext A	Data line A termination
9	+12V	Voltage supply
10	AGND	
11	AGND	
12	AGND	
13	Term ext B	Data line B termination
14	AGND	
15	NC	

The unit can be enabled either with a TTL on pin 1 (Enable), or short-circuiting pin 1 and 6. The 3 front panel jumpers must be bridged when daisy chained modules are connected by a cable longer than ~100cm. The termination between line A and B is redundant through contact 8 and 13 of COMM connector (only the last module in the chain must be terminated). N.B.: The +12V supply pins (2, 4, 5) on COMM are connected with the +12V input 2.1mm input connector; such pins must be used only if just one power supply source is used for daisy chained modules.

Packaging

The kit includes:

- A7526DB power supply unit
- External AC/DC power supply with separate power cord
- Configuration Jumpers



Power requirements

The module is powered by the external AC/DC stabilized power supply included in the delivered kit: **Switchbox FRA045-S12-4** (12 VDC, 3.75 A, 45 W); Universal Input C14 receptacle; INPUT Voltage range 100-240VAC 1.2A 50-60Hz. Inrush current 40A at 115VAC / 80A at 230VAC max. Dielectric withstand Input/output 3,000VDC. OUTPUT Output voltage +12V. Ripple and noise 2% p-p max. Load regulation ±5% max. No load stand by power <0.5W @ 230VAC. Efficiency >=85% for CEC requirement. Hold up time 10ms at nominal line. Protections OCP, OVP, over power & short circuit. GENERAL Std output connector Dc barrel jack. Std output cable/length UL1185, #18AWG / 5 ft. ENVIRONMENTAL Operating temperature 0°C to +40°C. Storage temperature –20°C to +85°C. STANDARDS Safety standards IEC/UL/EN60950-1, CE, CB. EMC EN55022 (CISPR 22) class B, FCC class B.

Note: Using a different power supply source, like linear type, it is recommended the source to provide +12V and, at least, 2.5A; the power jack is a 2.1mm type, a suitable cable is the RS 656-3816 type (or similar).

3. Operating Modes

Unit installation

The unit can be installed following these steps:

- Connect the HV Channel Output to the load
- Connect the Unit to the AC/DC power supply through the DC input connector;
- Connect the external AC/DC power supply to Mains (AC) via the separate power cord
- Connect the Unit to the PC via the USB adapter
    - Up to 16 daisy chained units can be connected to one USB port
- Download and install the USB driver for your OS

Now the Unit is ready for operation, upon installation of the control software tool

A7526 Controller

Launch the control software tool program; the following screen will open:

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00


Com Port = 1

Wait for System Setup...
```

Insert the assigned port, then Enter, you will access the board menu:

```
 #####    ######    ######     #####     #####
##   ##       ##    ##        ##   ##   ##
#######      ##    ######       ##     ######
##   ##     ##          ##     ##       ##   ##
##   ##    ##       ######    #######    #####

C.A.E.N.  A7526 2600V/500uA     SW Rel. 1.00

T E S T   M E N U

D : Display            Display / Modify Channel
I : Info               FwRel & SNum & Polarity
S : Settings           Set Board Address



Q : Quit Program
```

Board Menu: hit D to access the channel menu (page 1 and 2):

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00

Brd    Vmon      Imon      Status   Pw      Vset      Iset      Rup      Rdwn     Pdwn    Trip      Temp

Bd0  0000.0 V  +000.00 uA   NoCom    OFF   0000.0 V   000.0 uA   000 V/S   000 V/S   Kill   0000 S   +00.0 °C
Bd1  0000.0 V  +000.00 uA   NoCom    OFF   0000.0 V   000.0 uA   000 V/S   000 V/S   Kill   0000 S   +00.0 °C
Bd2  0000.0 V  +000.00 uA   NoCom    OFF   0000.0 V   000.0 uA   000 V/S   000 V/S   Kill   0000 S   +00.0 °C
Bd3  0000.0 V  +000.00 uA   NoCom    OFF   0000.0 V   000.0 uA   000 V/S   000 V/S   Kill   0000 S   +00.0 °C
Bd4  0999.0 V  +013.28 uA          ->ON    1000.0 V   500.0 uA   500 V/S   500 V/S   Ramp   INF  S   +19.0 °C









R : Clear Alarm  G : Group  S : Save  Log [ DIS ]  Del [ 060 ]  P : Page    Q : Quit
```

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00

Board  ZCADJ   ZCDTC        Imon       Status                                    Trip      Temp

Bd0     DIS     OFF       +000.00 uA  NoCom                                   0000 S   +00.0 °C
Bd1     DIS     OFF       +000.00 uA  NoCom                                   0000 S   +00.0 °C
Bd2     DIS     OFF       +000.00 uA  NoCom                                   0000 S   +00.0 °C
Bd3     DIS     OFF       +000.00 uA  NoCom                                   0000 S   +00.0 °C
Bd4   ->EN      OFF       +000.00 uA                                          INF  S   +19.0 °C









R : Clear Alarm  G : Group  S : Save  Log [ DIS ]  Del [ 060 ]  P : Page    Q : Quit
```

5 connected boards are shown (address 0 to 4); to change one settable parameter, use the arrows and enter the new value; use the space bar to change Pw and Pdwn. System commands: R = clear alarm; G = Group (settings are common to all channels); S = save set values; L enable /disable data log on file (monitor parameters); D = sampling time for log file (0 to 60s); P = move to next/back page Q = quit program.

Board Menu: hit I to access the info menu:

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00

Board   FRel      SNum    Pol

Bd0
Bd1
Bd2
Bd3
Bd4     1.00      65535    +









Q : Quit
```

Board Menu: hit S to access the settings menu:

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00

B O A R D   A D D R E S S   M E N U

Board Address : 04

'A' : New address [ 0 .. 15 ]  'S' : Save  'Q' : Exit
```

Hit A to set new address (0 to 15); S to save settings; Q to quit

If A is selected, the new address can be set:

```
C.A.E.N.  A7526 2600V/500uA     SW Rel. 2.00

B O A R D  A D D R E S S  M E N U


Board Address [ 0 .. 15 ] : 6
```

Once the new value is set, type Enter

Functional Parameters

Parameter:	Function:	Unit:
Vmon	High Voltage Monitored value	Volt
Imon	Current Monitored value	µA
Status	ON/OFF; Ramp UP/DOWN; OVC; TRIP	
Vset	High Voltage programmed value	Volt
Iset	Current Limit programmed value	µA
Ramp-Up	Maximum High Voltage increase rate	V/s
Ramp-Down	Maximum High Voltage decrease rate	V/s
Power Down	Power Down mode after channel TRIP	KILL or RAMP
Trip	Max time "overcurrent" allowed to last (≥1000 = infinite)	s
Temp	Monitored temperature	°C
ZC Detect	If ON, it stores the present IMon value (IMonZero) into memory for “zero current compensation” purposes (see description below); if OFF, the unit is ready to store IMon as IMonZero. After IMonZero is stored, the parameter returns to OFF	ON or OFF
ZC Adjust	If Enabled, the stored IMonZero value via ZCDetect option is subtracted from the measured, “non compensated” IMON value. The returned “compensated” IMON value will be then the difference between measured and stored values. If Disabled, the returned IMON value is not compensated	En / Dis

Communication Protocol

The following Protocol allows to communicate with up to 16 daisy chained modules. The Protocol is based on commands made of ASCII characters strings.

Request

$BD:<bdaddr_val>,CMD:<cmd_type>,PAR:<par_type>[,VAL:<par_val>]<CR><LF>

bdaddr_val = [0..15] -> board address on RS485 bus (NB : address is a factory setting)

cmd_type = {"MON", "SET", "INFO"}

"MON" -> monitor command
$BD:<bdaddr_val>,CMD:MON,PAR:<par_val><CR><LF>

"SET" -> set command
$BD:<bdaddr_val>,CMD:SET,PAR:<par_type>,VAL:<CR><LF>

"INFO" -> info command
$BD:<bdaddr_val>,CMD:INFO,PAR:<par_type><CR><LF>

Response

#CMD:OK,VAL:<par_val><CR><LF> -> response to a valid monitor command
#CMD:ERR<CR><LF> -> response to an invalid command
#PAR:ERR<CR><LF> -> response to a command with field 'par_type' invalid
#VAL:ERR<CR><LF> -> response to a set command with invalid 'par_val' field

Parameters

par_type = {"VSET", "ISET","VMON", "IMON","STATUS", "RUP", "RDWN", "TRIP", "PDWN", "PW", "TEMP", "SAVE", "BDNAME", "BDFREL", "BDSNUM", "BDCLR", " ZCDTC", " ZCADJ"}

Monitor Commands

//====================================
//---------
// VSET
//---------
$BD:<bdaddr_val>,CMD:MON,PAR:VSET<CR><LF>
#CMD:OK,VAL:<vset_val><CR><LF>
vset_val = "xxxx.x" [Volt]
//---
//---------
// ISET
//---------
$BD:<bdaddr_val>,CMD:MON,PAR:ISET<CR><LF>
#CMD:OK,VAL:<iset_val><CR><LF>
iset_val = "xxx.x" [uA]
//---
//---------
// VMON
//---------
$BD:<bdaddr_val>,CMD:MON,PAR:VMON<CR><LF>
#CMD:OK,VAL:<vmon_val><CR><LF>
vmon_val = "xxxx.x" [Volt]
//---
//---------
// IMON
//---------
$BD:<bdaddr_val>,CMD:MON,PAR:IMON<CR><LF>
#CMD:OK,VAL:<imon_val><CR><LF>
imon_val = "xxx.xx" [uA]
//---
//-------------
// STATUS
//-------------
$BD:<bdaddr_val>,CMD:MON,PAR:STATUS<CR><LF>
#CMD:OK,VAL:<status_val><CR><LF>
status_val = "xxxxx" []

Mask of the status bits
IS_ON 0x1 : ON
IS_UP 0x2 : RAMPING UP
IS_DOWN 0x4 : RAMPING DOWN
IS_OVC 0x8 : Over current
IS_TRIP 0x10 : TRIP
//---
//-------------
// RUP
//-------------
$BD:<bdaddr_val>,CMD:MON,PAR:RUP<CR><LF>
#CMD:OK,VAL:<rup_val><CR><LF>
rup_val = "xxx" [V/S]
rup_val_min = RAMPIN = 1 [V/S]

rup_val_max = RAMPMAX = 500 [V/S]
//----------
//----------
// RDWN
//----------
$BD:<bdaddr_val>,CMD:MON,PAR:RDWN<CR><LF>
#CMD:OK,VAL:<rdwn_val><CR><LF>
rdwn_val = "xxx" [V/S]
rdwn_val_min = RAMPIN = 1 [V/S]
rdwn_val_max = RAMPMAX = 500 [V/S]
//----------
//----------
// TRIP
//----------
$BD:<bdaddr_val>,CMD:MON,PAR:TRIP<CR><LF>
#CMD:OK,VAL:<trip_val><CR><LF>
trip_val = "xxxx" [S]
trip_val_min = TRIPMIN = 0 [S]
trip_val_max = TRIPMAX = 1000 [S]
//----------
//----------
// PDWN
//----------
$BD:<bdaddr_val>,CMD:MON,PAR:PDWN<CR><LF>
#CMD:OK,VAL:<pdwn_val><CR><LF>
pdwn_val = {"RAMP", "KILL"}
//----------
//----------
// PW
//----------
CHANNEL ON/OFF

$BD:<bdaddr_val>,CMD:MON,PAR:PW<CR><LF>
#CMD:OK,VAL:<pw_val><CR><LF>
pw_val = {"ON", "OFF"}
//----------
//----------
// TEMP
//----------
$BD:<bdaddr_val>,CMD:MON,PAR:TEMP<CR><LF>
#CMD:OK,VAL:<temp_val><CR><LF>
temp_val = "+/-xx.x" [°C]
//----------
//----------
// BDNAME
//----------
$BD:<bdaddr_val>,CMD:MON,PAR:BDNAME<CR><LF>
#CMD:OK,VAL:<boardname><CR><LF>
//----------
//----------
// BDFREL
//----------
Firmware Release

$BD:<bdaddr_val>,CMD:MON,PAR:BDFREL<CR><LF>
#CMD:OK,VAL:<fw_rel_val><CR><LF>
//----------
//----------
// BDSNUM
//----------
Module Serial Number

$BD:<bdaddr_val>,CMD:MON,PAR:BDSNUM <CR><LF>
#CMD:OK,VAL:<bdsnum_val><CR><LF>
//==========

//==================================

Set Commands

//==================================

//------------------
// VSET
//------------------
Set point of vset
$BD:<bdaddr_val>,CMD:SET,PAR:VSET,VAL:<vset_val><CR><LF>
vset_val [float]= xxxx.x [V]
vset_val_min = 0 V
vset_val_max = VMAX V
VMAX = 2600 V
#CMD:OK<CR><LF>

//------------------
// ISET
//------------------
Set point of iset
$BD:<bdaddr_val>,CMD:SET,PAR:ISET,VAL:<vset_val><CR><LF>
iset_val [float]= xxx.x [uA]
iset_val_min = 0 V
iset_val_max = IMAX uA
IMAX = 1000 uA
#CMD:OK<CR><LF>

//------------------
// PW
//------------------
Command to switch the channel on / off
$BD:<bdaddr_val>,CMD:SET,PAR:PW,VAL:<pw_val><CR><LF>
pw_val = {"ON", "OFF"}
#CMD:OK<CR><LF>

//------------------
// RUP
//------------------
Programming of ramp-up time
$BD:<bdaddr_val>,CMD:SET,PAR:RUP,VAL:<rup_val><CR><LF>
rup_val [unsigned int]= xxx [V/S]
rup_val_min = 1 V/S
rup_val_max = 500 V/S
#CMD:OK<CR><LF>

//------------------
// RDWN
//------------------
Programming of ramp-down time
$BD:<bdaddr_val>,CMD:SET,PAR:RDWN,VAL:<rdwn_val><CR><LF>
rdwn_val [unsigned int]= xxx [V/S]
rdwn_val_min = 1 V/S
rdwn_val_max = 500 V/S
#CMD:OK<CR><LF>

//------------------
// TRIP
//------------------
Trip time programming
$BD:<bdaddr_val>,CMD:SET,PAR:TRIP,VAL:<trip_val><CR><LF>
trip_val [float]= xxxx.x [S]
trip_val_min = 0S
trip_val_max = 1000S (trip infinite)
#CMD:OK<CR><LF>

//----------
// PDWN
//----------
Powerdown mode programming
$BD:<bdaddr_val>,CMD:SET,PAR:PDWN,VAL:<pdwn_val><CR><LF>
pdwn_val = {"RAMP", "KILL"}
#CMD:OK<CR><LF>

//----------
// SAVE
//----------
Saving set parameters
$BD:<bdaddr_val>,CMD:SET,PAR:SAVE<CR><LF>
#CMD:OK<CR><LF>

//----------
// BDCLEAR
//----------
Alarm Reset (clear bits of overcurrent and trip)
$BD:<bdaddr_val>,CMD:SET,PAR:BDCLR<CR><LF>
#CMD:OK<CR><LF>
//----------

//----------
// ZCDTC
//----------
If ON, it stores the present IMon value (IMonZero) into memory for “zero current compensation” purposes (see description below); if OFF, the unit is ready to store IMon as IMonZero. After IMonZero is stored, the parameter returns to OFF
$BD:<bdaddr_val>,CMD:SET,PAR: ZCDTC,VAL:<zcdtc_val><CR><LF>
zcdtc _val = {"ON", "OFF"}
#CMD:OK<CR><LF>
//----------

//----------
// ZCADJ
//----------
EN = The stored IMonZero value via ZCDetect option is subtracted from the measured, “non compensated” IMON value. The returned “compensated” IMON value will be then the difference between measured and stored values; DIS = The returned IMON value is not compensated
$BD:<bdaddr_val>,CMD:SET,PAR: ZCADJ,VAL:<zcadj_val><CR><LF>
zcadj _val = {"EN", "DIS"}
#CMD:OK<CR><LF>
//----------

//==========

Command sequence example

//==========
Command can be issued with a terminal emulator (for example Tera Term), configured with Baud Rate = 9600bps, 8 data bit, 1 stop bit , parity none

addr : address of 1st station on the bus
val : set point value of parameter to set

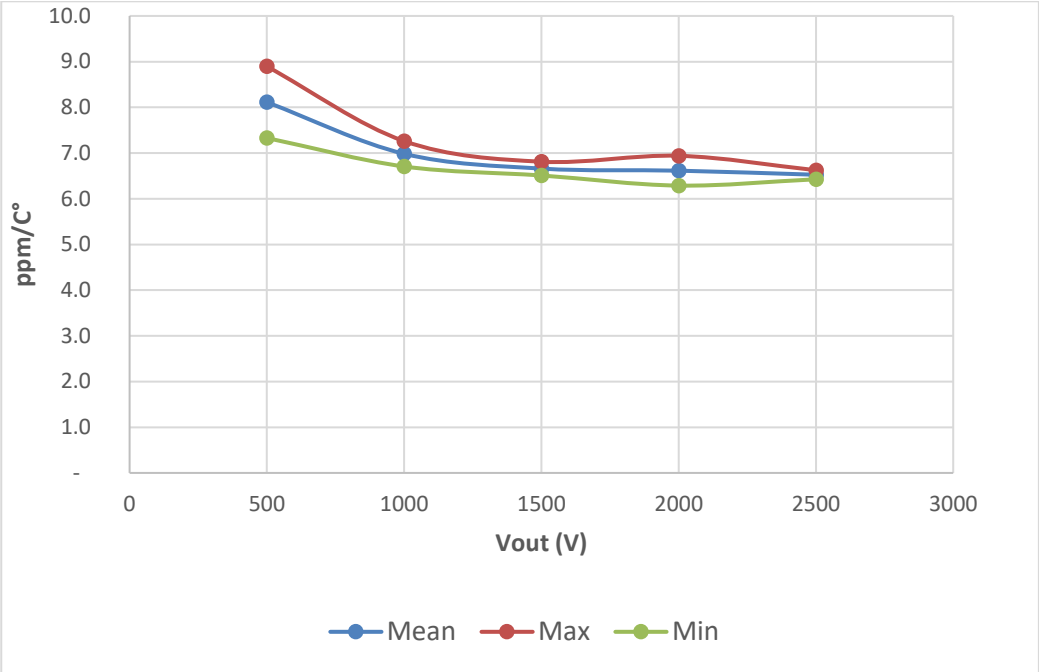
//----------
// Sequence of channel turning on/off
//----------
$BD:<addr>,CMD:SET,PAR:VSET,VAL:<val><CR><LF> // Set Vset
#CMD:OK<LF><CR> // Wait for ACK

$BD:<addr>,CMD:SET,PAR:ISET,VAL:IMAX<CR><LF // Set Iset

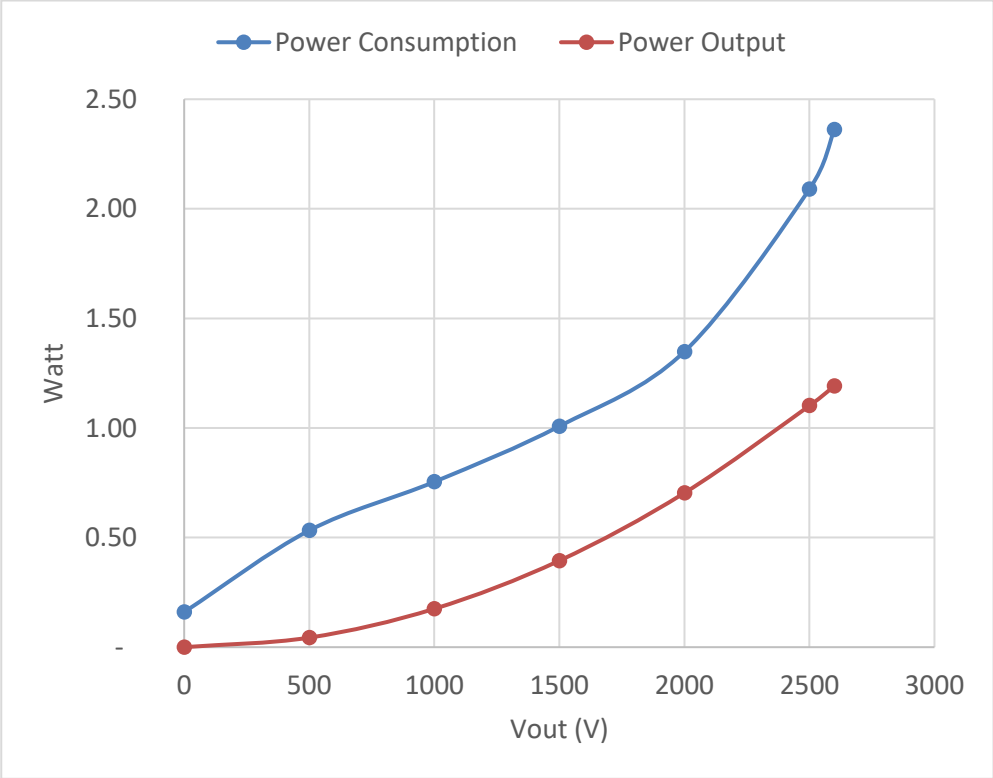
```
#CMD:OK<LF><CR>                                                    // Wait for ACK

$BD:<addr>,CMD:SET,PAR:,RUP:VAL:RAMPMAX<CR><LF>      // Set Rup
#CMD:OK<LF><CR>                                                    // Wait for ACK

$BD:<addr>,CMD:SET,PAR:RDWN,VAL:RAMPMAX<CR><LF>    // Set Rdwn
#CMD:OK<LF><CR>                                                    // Wait for ACK

$BD:<addr>,CMD:SET,PAR:PDWN,VAL:RAMP<CR><LF>        // Set PowerDown Mode
#CMD:OK<LF><CR>                                                    // Wait for ACK

$BD:<addr>,CMD:SET,PAR:TRIP,VAL:TRIPMAX<CR><LF>     // Set Trip
#CMD:OK<LF><CR>                                                    // Wait for ACK

$BD:<addr>,CMD:SET,PAR:PW,VAL:ON<CR><LF>                // Power ON
#CMD:OK<LF><CR>                                                    // Wait for ACK

LOOP :
  {
  $BD:<addr>,CMD:MON,PAR:VMON,<CR><LF>                  // Read Vmon
        #CMD:OK,VAL:<vmon><LF><CR>                          // Get Vmon

  $BD:<addr>,CMD:MON,PAR:IMON<CR><LF>                   // Read Imon
        #CMD:OK,VAL:<imon><LF><CR>                          // Get Imon

  $BD:<addr>,CMD:MON,PAR:STATUS,<CR><LF>                 // Read status
       #CMD:OK,VAL:<status><LF><CR>                       // Get status

  $BD:<addr>,CMD:MON,PAR:TEMP,<CR><LF>                  // Read Temp.
   #CMD:OK,VAL:<temp><LF><CR>                           // Get Temp.
  }

$BD:<addr>,CMD:SET,PAR:PW,VAL:Off<CR><LF>               // Power OFF
#CMD:OK<LF><CR>                                                    // Wait for ACK
```

4. Performance[1]

Temperature coefficient (-35 to 75 C°)

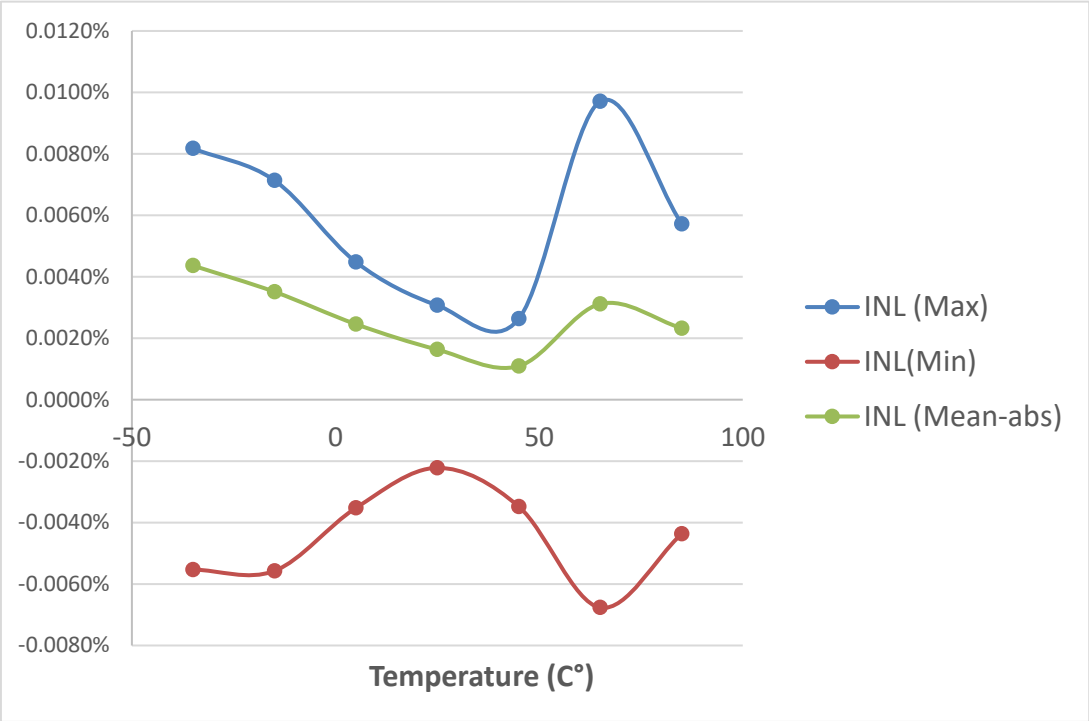


Power Consumption & Output Power

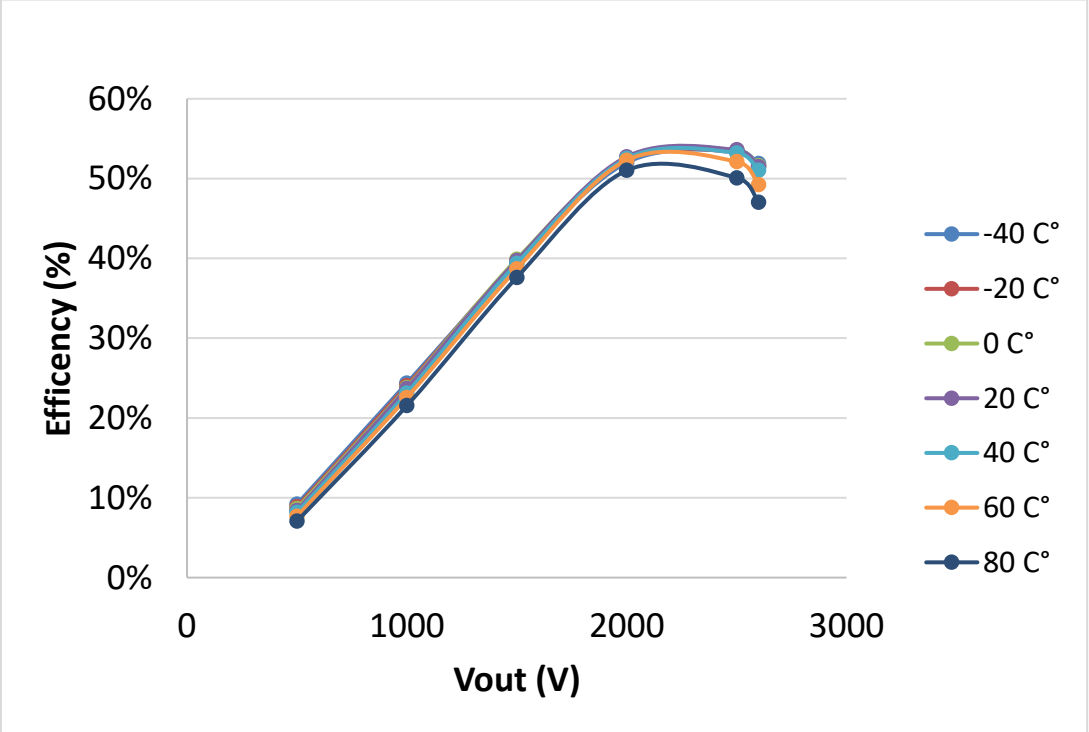


[1] Preliminary data

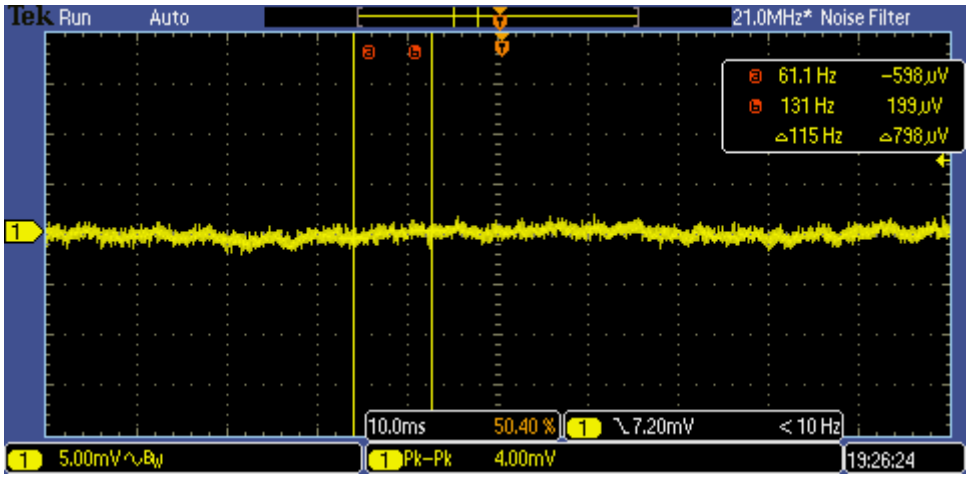
Integral Non Linearity (Vout vs Vset)



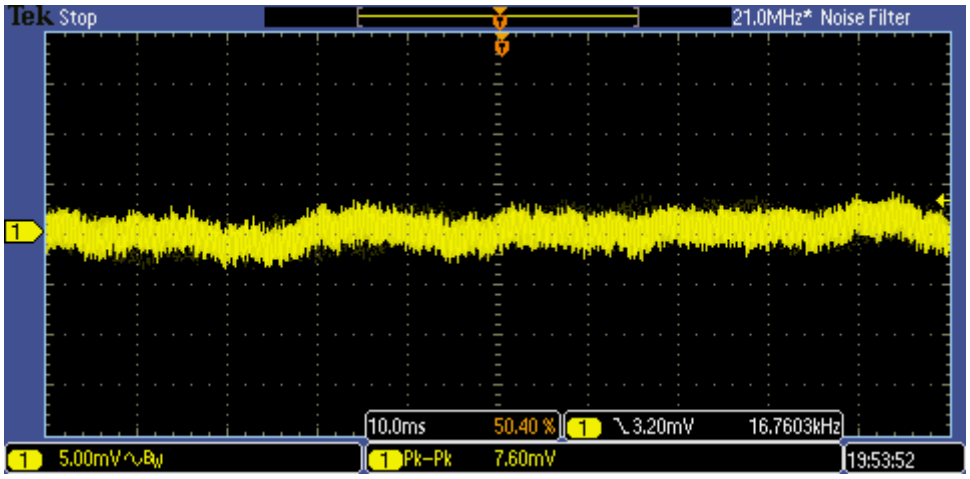
Efficiency (%) vs. Vout and Temp. (RLoad=5.7MOhm)



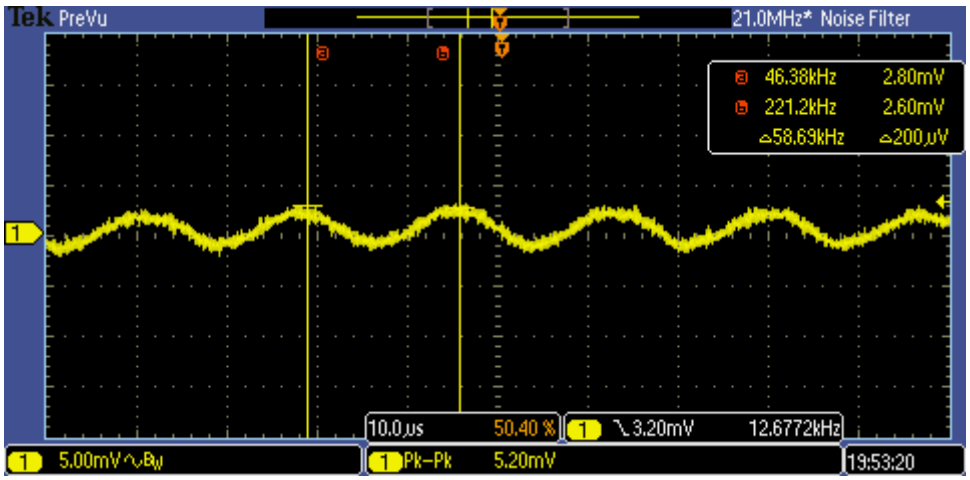
Noise @ 2kV and no load (low frequency)



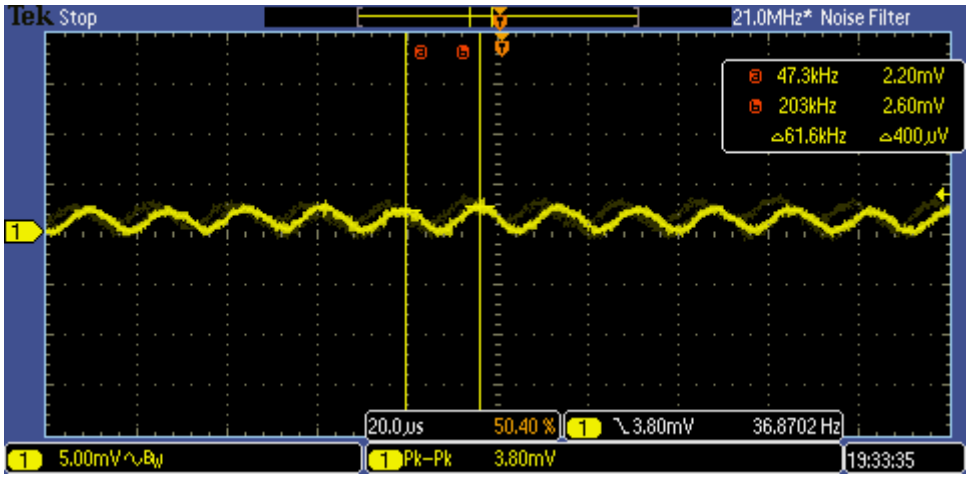
Noise @ 2.5kV and 450µA (low frequency)



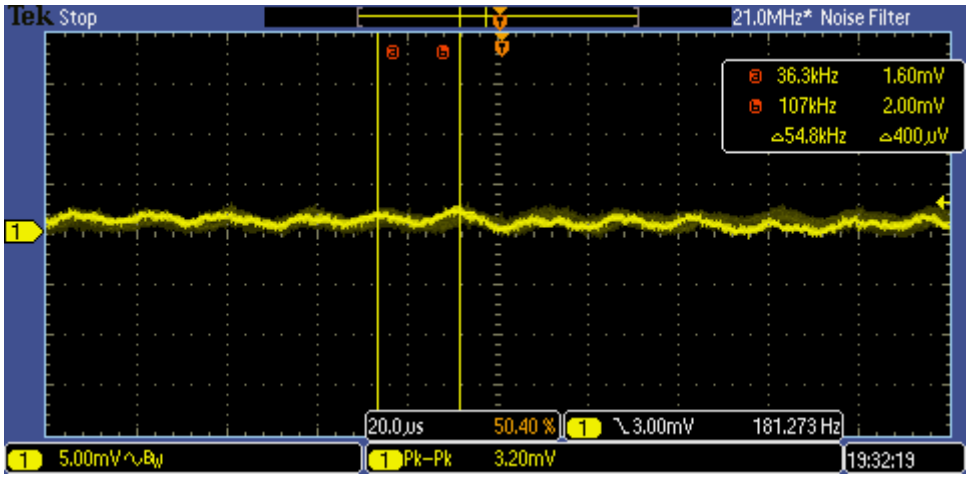
Noise @ 2.5kV and 450µA (high frequency)



Noise @ 2kV and 500µA (high frequency)



Noise @ 1.5kV and 300µA (high frequency)



CAEN GmbH
Brunnenweg 9
64331 Weiterstadt
Germany
Tel. +49 (0)212 254 4077
Mobile +49 (0)151 16 548 484
info@caen-de.com
www.caen-de.com

CAEN Technologies, Inc.
1 Edgewater Street - Suite 101
Staten Island, NY 10305
USA
Phone: +1 (718) 981-0401
Fax: +1 (718) 556-9185
info@caentechnologies.com
www.caentechnologies.com

CAEN S.p.A.
Via Vetraia 11
55049 - Viareggio
Italy
Phone +39 0584 388 398
Fax +39 0584 388 959
info@caen.it
www.caen.it

CAENspa INDIA Private Limited
B205, BLDG42, B Wing,
Azad Nagar Sangam CHS,
Mhada Layout, Azad Nagar, Andheri (W)
Mumbai, Mumbai City,
Maharashtra, India, 400053
info@caen-india.in
www.caen-india.in