

# HV-EPICS Test Station Status Report

**Date: July 10, 2019**

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1. **Modified HV CAEN – Expert Control CSS-BOY screen to test HV board model CAEN-7030TN.**

- 1.1. Added twelve channels to HV CAEN—Expert Control screen used for previous board tested (A7435SN).
- 1.2. Six Java scripts written to set the value of all 36 channels of one or more of the six variables (output voltage, current limit, maximum output voltage, ramp up, ramp down and trip time).
- 1.3. Performed test by setting all 36 channels at 10 V.

**TEST HV CAEN - Expert Controls**

Novice
Board Model: 7030TN
ALL ON/OFF

| Ch# | Description | Pw | VMon [V] | Imon [uA] | Status | Vset [V] | Iset [uA] | Vmax [V] | RUp [V/s] | RDown [V/s] | Trip [s] |
|-----|-------------|----|----------|-----------|--------|----------|-----------|----------|-----------|-------------|----------|
| 00  | CHANNEL00   | ON | 9.50     | -0.024    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 01  | CHANNEL01   | ON | 9.90     | 19.148    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 02  | CHANNEL02   | ON | 10.25    | -0.130    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 03  | CHANNEL03   | ON | 9.87     | -0.086    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 04  | CHANNEL04   | ON | 9.80     | -0.118    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 05  | CHANNEL05   | ON | 10.07    | -0.032    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 06  | CHANNEL06   | ON | 10.19    | -0.060    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 07  | CHANNEL07   | ON | 9.54     | -0.096    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 08  | CHANNEL08   | ON | 9.78     | -0.132    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 09  | CHANNEL09   | ON | 9.09     | -0.038    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 10  | CHANNEL10   | ON | 10.28    | -0.062    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 11  | CHANNEL11   | ON | 9.50     | -0.076    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 12  | CHANNEL12   | ON | 10.08    | -0.120    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 13  | CHANNEL13   | ON | 9.82     | -0.088    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 14  | CHANNEL14   | ON | 9.64     | -0.048    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 15  | CHANNEL15   | ON | 10.08    | -0.038    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 16  | CHANNEL16   | ON | 9.88     | -0.040    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 17  | CHANNEL17   | ON | 7.92     | -0.064    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 18  | CHANNEL18   | ON | 9.84     | -0.084    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 19  | CHANNEL19   | ON | 10.12    | -0.014    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 20  | CHANNEL20   | ON | 9.70     | -0.020    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 21  | CHANNEL21   | ON | 10.02    | 0.010     | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 22  | CHANNEL22   | ON | 9.91     | -0.052    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 23  | CHANNEL23   | ON | 9.60     | -0.076    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 24  | CHANNEL24   | ON | 9.81     | -0.112    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 25  | CHANNEL25   | ON | 9.59     | -0.028    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 26  | CHANNEL26   | ON | 8.54     | -0.058    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 27  | CHANNEL27   | ON | 9.61     | 0.000     | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 28  | CHANNEL28   | ON | 9.89     | 0.046     | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 29  | CHANNEL29   | ON | 9.55     | -0.088    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 30  | CHANNEL30   | ON | 9.58     | -0.064    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 31  | CHANNEL31   | ON | 10.27    | -0.098    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 32  | CHANNEL32   | ON | 9.75     | -0.056    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 33  | CHANNEL33   | ON | 9.28     | -0.038    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 34  | CHANNEL34   | ON | 9.55     | -0.114    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |
| 35  | CHANNEL35   | ON | 9.97     | -0.038    | ON     | 10.00    | 102.00    | 3000     | 50        | 50          | 10.0     |

**HV- CAEN MAIN**

Max Current: Hwd 1118 microAm

Max Voltage Hwd 3147 Volt

Board Temperature 27 Celsius

**I & V Plots**

Bd Status

- Power Fail
- Firmware Errors
- HV Max Cal
- Temp Cal
- Under Temp
- Over Temp

**All Channels**

| VSet [V] | I Set [uA] | VMax [V] | Rup [V/s] | RDown[V/s] | Trip [s] |
|----------|------------|----------|-----------|------------|----------|
| 10.0     | 102.0      | 3000.0   | 50.0      | 50.0       | 10.0     |

HV-CAEN –Expert Control CSS-BOY screen

2. **Added HV-CAEN—Expert Controls CSS-BOY screen to drop down menu in SY4527 MAINFRAME screen to allow navigation between screens.**