CAEN () Electronic Instrumentation

Channel Characteristic Table

Table 1 – Channel characteristics of the Mod. A7030 / AG7030 HV Board

Polarity	Positive / Negative depending on purchased version
Output Voltage	0 ÷ 3 kV
Max. Output Current	1mA
VSet Resolution	50 mV
VMon Resolution	10 mV
Current Set Resolution	20 nA
Current Monitor Resolution	2 nA
IMAX hardware	0÷1 mA
IMAX hardware resolution	1 μΑ
IMAX hardware accuracy	<± 1% of FSR
VMAX hardware	0 ÷ 3 kV common for all the board channels
VMAX hardware resolution	1 V
VMAX hardware accuracy	<± 1% of FSR
VMAX software	0 ÷ 3 kV settable for each channel
VMAX software resolution	1 V
Ramp Up / Ramp Down	1÷500 Volt/sec, 1 Volt/sec step
10 ÷ 1000 Hz	<15 mV typical; 20 mV max
> 1000 Hz	<5 mV typical; 10 mV max
VMon vs. VOut Accuracy ^{3,4}	typical: ± 0.3% ± 0.2 V max: ± 0.3% ± 1 V
VSet vs. VMon Accuracy ²	typical: ± 0.3% ± 0.2 V max: ± 0.3% ± 1 V
IMon vs. IOut Accuracy ²	typical: ± 1% ± 100 nA max: ± 1% ± 1 μ A
Maximum output power	1.5 W (per channel)
Consumption @ full power	48 channels (A7030): 160 W 36 channels (A7030T): 120 W 24 channels (A7030S, A7030L): 90 W 12 channels (A7030D): 50 W

² From 10 Hz to 20 MHz at full load; ripple may exceed such limits whenever OVC and UNV occur (see Output control and monitoring)

³ From 10% to 90% of Full Scale Range

⁴ During operation in Overcurrent or when VMAX Hardware is reached (and/or exceeded), VMON values have to be assumed as "indication"; possible monitor drifts are caused by the different regulation mode.