



Triton Product Specification
November 2007

Features	Triton 1-channel	Triton 2-channel	Triton 4-channel	Triton 8-channel
Part Number	Triton-1ch	Triton-2ch	Triton-4ch	Triton-8ch
Dimensions	10" x 7" x 1.5" (25cm x 18cm x 4cm)	10" x 7" x 1.5" (25cm x 18cm x 4cm)	10" x 7" x 1.5" (25cm x 18cm x 4cm)	10" x 7" x 1.5" (25cm x 18cm x 4cm)
Computer Interface	USB 2.0	USB 2.0	USB 2.0	USB 2.0
Digitizer	Integrated	Integrated	Integrated	Integrated
- Resolution	16-bit A/D (18-bit internal) 12-bit D/A	16-bit A/D (18-bit internal) 12-bit D/A	16-bit A/D (18-bit internal) 12-bit D/A	16-bit A/D (18-bit internal) 12-bit D/A
Voltage Clamping Channels	1	2	4	8
- Continuous Voltage Clamping	Yes	Yes	Yes	Yes
Feedback Resistor Settings ¹	10M, 100M, 1000M, 2000M	10M, 100M, 1000M, 2000M	10M, 100M, 1000M, 2000M	10M, 100M, 1000M, 2000M
Headstages	1 Integrated Headstage (Current-to-Voltage)	2 Integrated Headstages (Current-to-Voltage)	4 Integrated Headstages (Current-to-Voltage)	8 Integrated Headstages (Current-to-Voltage)
Capacitance Compensation	Yes	Yes	Yes	Yes
- Pipette, Chip, Cable Capacitance ¹	Up to 200pF	Up to 200pF	Up to 200pF	Up to 200pF
- Whole Cell Capacitance ¹	Up to 47pF each at 10us, 33us, 100us, 330us	Up to 47pF each at 10us, 33us, 100us, 330us	Up to 47pF each at 10us, 33us, 100us, 330us	Up to 47pF each at 10us, 33us, 100us, 330us
Series Resistance Compensation ¹	Up to 10M Up to 80% of Rs	Up to 10M Up to 80% of Rs	Up to 10M Up to 80% of Rs	Up to 10M Up to 80% of Rs
Analog Leak Compensation ²	Optional Feature on "L" model	Optional Feature on "L" model	Optional Feature on "L" model	Optional Feature on "L" model
Junction Potential Compensation	+/- 100mV	+/- 100mV (Independent per channel)	+/- 100mV (Independent per channel)	+/- 100mV (Independent per channel)
Offset Null	+/- 40mV	+/- 40mV (Independent per channel)	+/- 40mV (Independent per channel)	+/- 40mV (Independent per channel)
Sampling Rate (Aggregate)	Up to 200kHz	Up to 200kHz	Up to 200kHz	Up to 200kHz
Sampling Rate (Per Channel)	Up to 200kHz	Up to 80kHz	Up to 40kHz	Up to 20kHz
Current Clamping Channels	1	1 (Applied to any channel)	1 (Applied to any channel)	1 (Applied to any channel)
- Continuous Current Clamping	Yes	Yes	Yes	Yes
- True Voltage Follower	Yes	Yes	Yes	Yes
Voltage Command ¹	+/- 250mV	+/- 250mV	+/- 250mV	+/- 250mV
Zap Command ¹	+/- 1000mV	+/- 1000mV	+/- 1000mV	+/- 1000mV
Power Supply	External 45W Rating UL, CE	External 45W Rating UL, CE	External 45W Rating UL, CE	External 45W Rating UL, CE
Triton Power Requirements	4W	4W	5W	6W
Standard Software	ExtenCell Standard (Included)	ExtenCell Standard (Included)	ExtenCell Standard (Included)	ExtenCell Standard (Included)
3rd Party Software	SDK Available	SDK Available	SDK Available	SDK Available

Note: 1. Customizable feature for additional fee.
2. Optional feature on "L" models.

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