

## LA3000+ series

Model	LA3068E+	LA3136E+	LA3068B+	LA3136B+	
Power	12V Power adapter				
	Power Source				
	Static Power Consumption	18W	30W	18W	30W
	Max Power Consumption	45W	75W	45W	75W
Hardware Interface		USB 3.0			
Timing Analysis (Asynchronous, Max. Sample Rate)		2.4 GHz			
State Clock Rate (Synchronous, External Clock)		300 MHz			
Storage		Conventional Timing, Transitional Timing			
Channels (Data / Clock)		64 / 4	128 / 8	64/4	128/8
Total Sample Memory		32Gb			
Available channels vs. Memory per channel	Timing Analysis	Vailable channels (Conventional / Transitional Timing) - Memory per channel			
	2.4 / 2 GHz	(32 / 28) - 1Gb			
	1 GHz	(64 / 56) - 500Mb			
	500 / 250 / 200 MHz	(64 / 64) - 500Mb	(128 / 128) - 250Mb	(64 / 64) - 500Mb	(128 / 128) - 250Mb
Resolution		416 ps			
Channels		64	128	64	128
Pre / Post Trigger		Yes			
Pass Count		Yes (1 ~ 1000000 times)			
Event Types		Channel, Pattern, Single / Multi Level, Parallel Clause, Width, Time-out, External			
Bus Triggers I		I <sup>2</sup> C, SPI, UART (RS232), USB PD 3.0			
Bus Triggers II		---	BiSS-C, CAN 2.0B/CAN FD, DALI, eMMC5.0, eSPI, GMII (RGMII), HID over I <sup>2</sup> C, I <sup>2</sup> S, I3C, LIN2.2, MDIO, MII (RMII), Mini/Micro LED, MIPI RFFE, MIPI SPMI 2, Modbus, NAND Flash, PMBus, Profibus, Serial Flash, SMBus, SVI2, SVID <sup>3</sup> , UART (RS232), USB1.1		
Input (for Stack)		TTL 3.3V			
Output Port (for Stack)		TTL 3.3V			
Ref. Clock Input		10MHz, Vpp=3.3 to 5V			
Threshold	Range	-0.5V~4.5V			
	Resolution	0.1V			
	Accuracy	+/- 20mV			
Input Voltage	Maximum	+/- 15V			
	Sensitivity	~300mV			
Impedance		1M    5pF			
Temperature Operating / Storage		5°C~45°C (41°F~113°F)/-10°C~65°C (14°F~149°F)			
Channel to channel skew		< 500 ps			
I		I <sup>2</sup> C, SPI, UART (RS232), USB PD 3.0			
Protocol Analyzer/ Protocol Logger / Protocol Monitor		---	BiSS-C, CAN 2.0B/CAN FD, DALI, eSPI, HID over I <sup>2</sup> C, I <sup>2</sup> S, I3C, LIN2.2, MDIO, MIPI RFFE, Modbus, PMBus, Profibus, PWM,RS232, SMBus, SVID <sup>3</sup> , USB1.1		
II		---			
Zoom In / Out		Yes			
Languages		English / Traditional Chinese / Simplified Chinese			
Waveform Height		Adjustable			
Zoom / Report Window		Yes			
Quick Cursor-positioning		Yes			
Import Label(s)		Yes			
Quick Bus Decode Setup		Yes			
Trigger / Auxiliary cursors		1/25			
Software Features		1-Wire, 3-Wire, 7-Segment, A/D Mux Flash, AccMeter, ADC, APM, AVSBus, BiSS-C, BSD, BT1120, CAN 2.0B/FD, Close Caption, CODEC_SSI, DALI, DMX512, DP AUX <sup>1</sup> , EDID, eMMC 5.1/MMC, eSPI, FlexRay, HD Audio, HDLC, HDQ, HID over I <sup>2</sup> C, I <sup>2</sup> C, I <sup>2</sup> C EEPROM, I <sup>2</sup> S (PCM, TDM), I3C, I80, IDE, IrDA, ITU-R BT.656 (CCIR656), JTAG, JVC IR, LCD1602, LED_Ctrl, LIN 2.2, Line Decoding, Line Encoding, Lissajous, LPC, LPT, Math, M-Bus, MDDI, MDIO, MHL CBUS, Microwire, MII (RGMII), Mini/Micro LED, MIPI CSI, MIPI DSI LP, MIPI RFFE, MIPI SPMI 2.0, Modbus, NAND Flash, NEC IR, PECE, PMBus, Profibus, PS/2, PWM, QEI, QI, RC-5, RC-6, RGB Interface, S/PDIF, SD 3.0 (SDIO), Serial Flash, Serial IRQ, SGPIO, Smart Card, SMBus (SBS, SPD), SMI, Soundwire, SPI, SPI-NAND, SSI, ST7669, SVI2, SVID <sup>2</sup> , SWD, SWIM, SWP, UART (RS232), ULPI, UNI/O, USB 1.1, USB PD 3.0, Wiegand, ...			
Line Decoding		Biphase Mark, Differential-Manchester, Manchester (Thomas, IEEE802.3), Miller, Modified Miller, NRZI, ...			
Line Encoding		AMI (Standard, B8ZS, HDB3), Biphase Mark, CMI, Differential-Manchester, Manchester (Thomas, IEEE802.4), MLT-3, Miller, Modified Miller, NRZI, Pseudoternary, ...			
Dimension L x W x H (mm <sup>3</sup> )		270 x 175 x 55			
Weight Device / Accessories		800g / 1500g			
Lead Cable (LA-Pod / Flying lead cable)		2 / 8	4 / 16	2 / 8	4 / 16
Grippers		80	160	80	160

<sup>1</sup> Optional DP AUX adapter needed.

<sup>2</sup> Upon request ONLY by users who have signed CNDA with Intel, SVID decode supported by all LA3000+ models.

<sup>3</sup> Upon request ONLY by users who have signed CNDA with Intel, SVID trigger & PA supported by LA3068B+/LA3136B+ ONLY.

# Acute LA3000 Plus logic analyzer

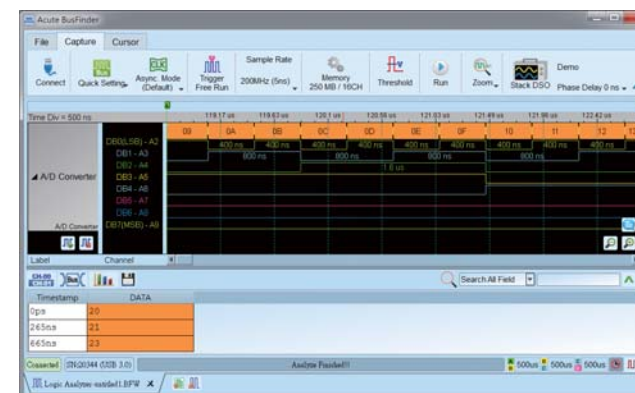


270 x 175 x 55 (mm<sup>3</sup>)

- PC-based
- 68 / 136 channels
- USB 3.0 interface, 12V power adaptor
- 2.4GHz Timing Analysis / 300MHz State Analysis
- 32Gb Memory
- Active Probe
- Logic, State and Protocol triggers
- Stackable with a DSO to form an MSO
- Bus Decode : CAN 2.0B/CAN FD, DP\_Aux<sup>1</sup>, eMMC 5.1, I<sup>2</sup>C, I3C, Profibus, SD 3.0, SPI, SVID<sup>2</sup>, SWD, UART (RS232), USB1.1, USB PD 3.0... (90+)
- Bus Trigger I : I<sup>2</sup>C, SPI, UART (RS232), USB PD 3.0
- Bus Trigger II : eMMC 5.0, eSPI, I<sup>2</sup>S, I3C, NAND Flash, SD 3.0, Serial Flash, SVID<sup>3</sup>, ...
- Protocol Analyzer I : I<sup>2</sup>C, SPI, UART (RS232), USB PD 3.0
- Protocol Analyzer II : BiSS-C, CAN 2.0B/CAN FD, DALI, eSPI, I<sup>2</sup>S, I3C, LIN 2.2, PWM, SVID<sup>3</sup>, ...

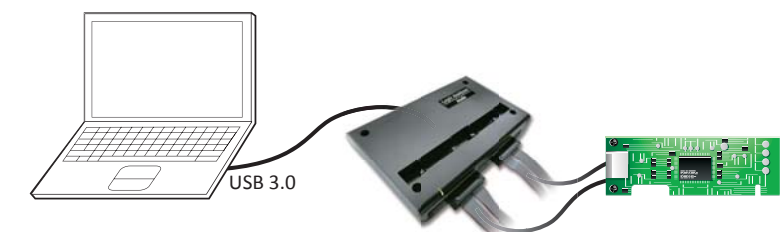
Model	Channel	Bus Trigger	Protocol Analyzer	Cascade for more channels
LA3068E+	68	I	I	-
LA3136E+	136	I	I	YES
LA3068B+	68	I, II	I, II	-
LA3136B+	136	I, II	I, II	YES

### Software Window



### System Requirements

- USB 3.0 port
- Win 7, Win 8, Win 10 (64 bit)
- PC RAM 16GB (recommended) or 8GB at least



# Acute

PC-based T&M Instruments

Acute Technology Inc.

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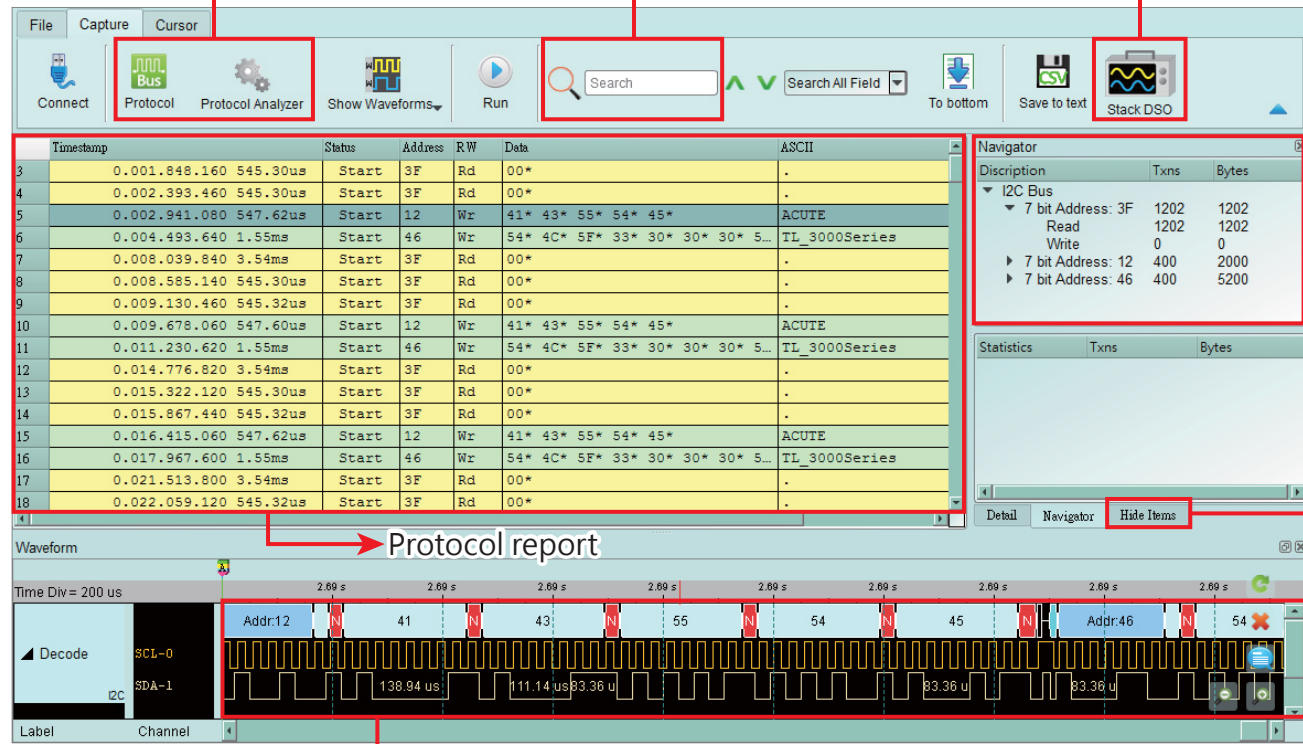
## Protocol Analyzer:

It is hardware decoding, may log protocol data very long time if without waveforms.  
Application timing: Preliminary protocol debug.

Support multiple protocols with different operating modes

Real-time data search

Stack with a DSO as an MSO in logic analyzer mode



Real-time data statistics

Hide items for easy view

Protocol report

Show waveforms with bus decodes



### Protocol Analyzer

Show real-time protocol data  
Application timing: massive protocol data with some idles in between



### Protocol Logger

Like data logger, save massive data into SSD hard drive  
Application timing: massive protocol data



### Protocol Monitor

Like dash cameras, record protocol data by the device's memory only  
Application timing: trigger event only happens in very long time

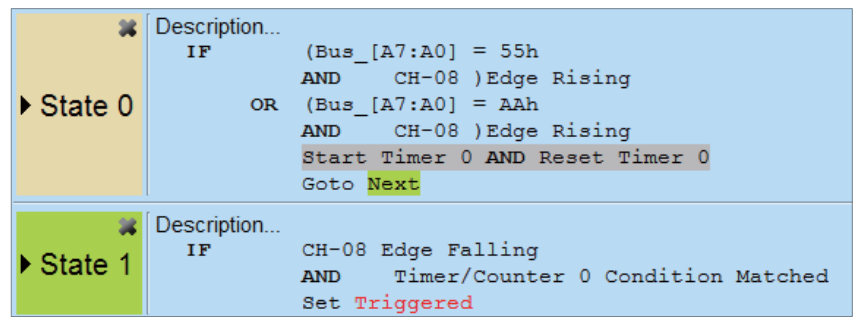
## Packing List :



## Logic Analyzer:

Capture digital waveforms and support bus decodes. Able to stack with a DSO to form as an MSO.

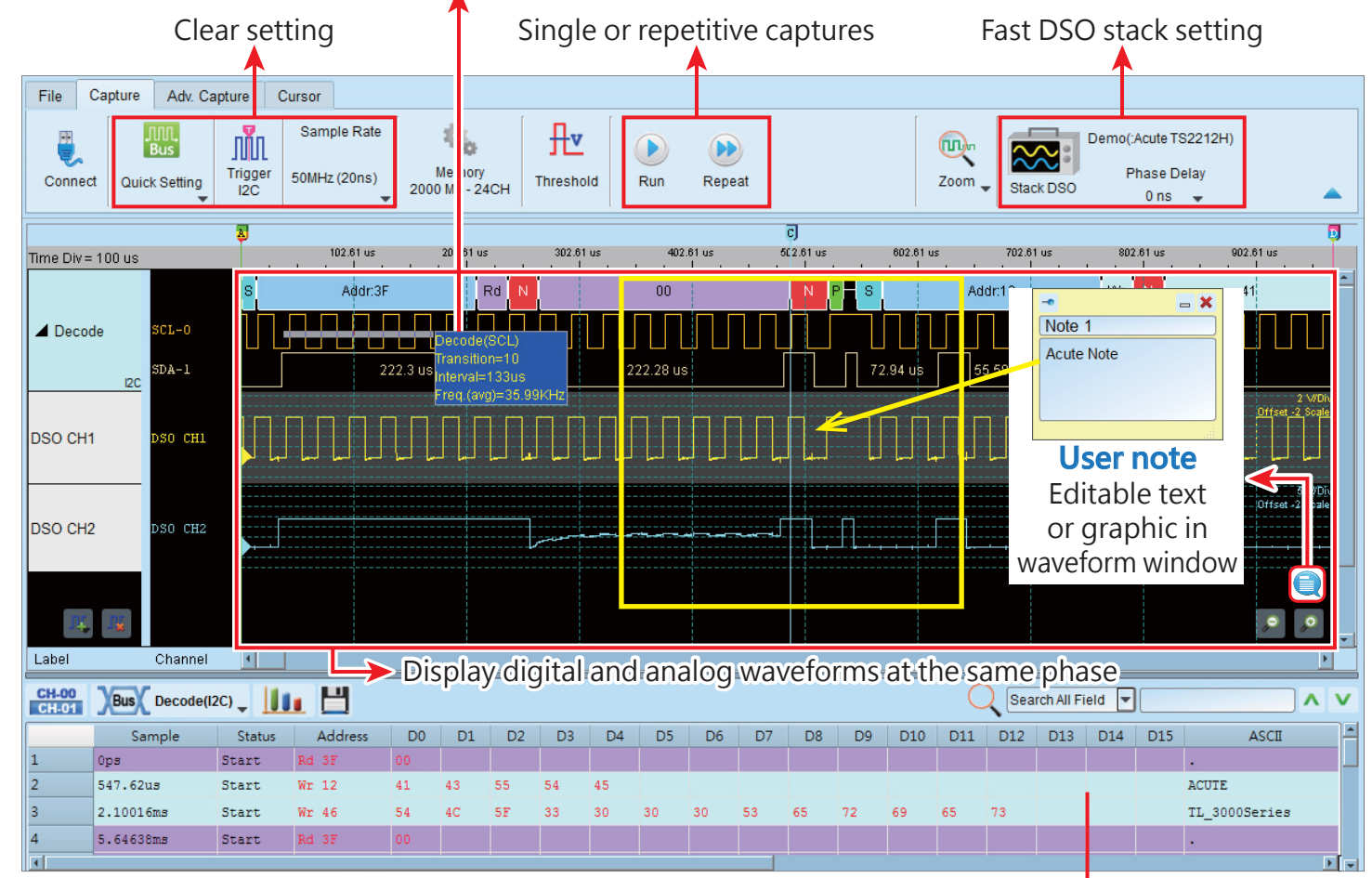
### Parallel Clause triggers (Logic) :



16-States parallel IF Clause settings for 128/64 channel value compare combined with AND/OR logic condition and 4 Timer/Counter conditions.

### Quick View

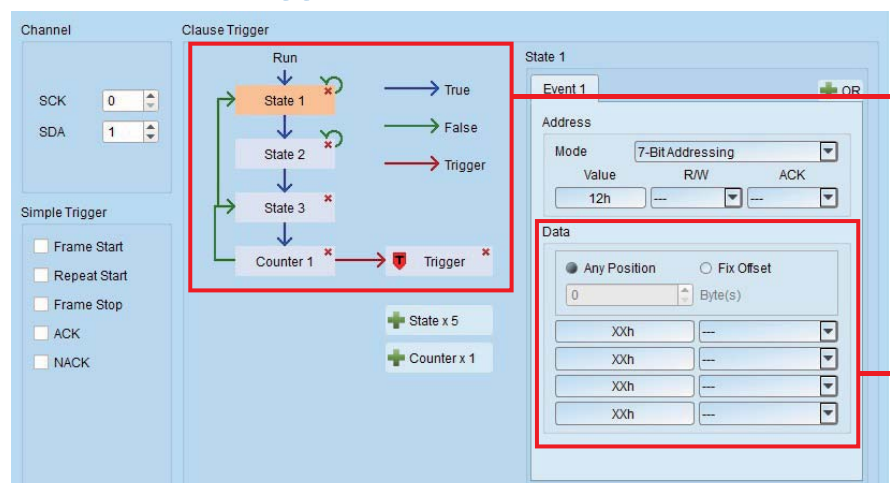
Right-click and drag on the clock waveform to see the frequency and the number of transitions



Display digital and analog waveforms at the same phase

Report window

### Flow chart bus triggers (Protocol) :



Power trigger for serial bus, 8-states flow chart setting with Counter/Timer

Detail parameters for each states