



The TravelLogic TL4000 series includes both Logic and Protocol Analyzer Mode for bus analysis and decoding; supporting various communication protocols, such as MIPI RFFE and MIPI SPMI.

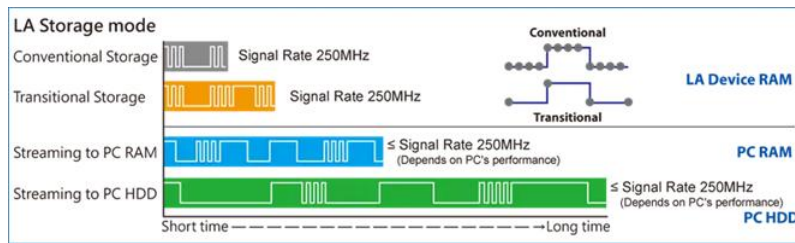
TL4134B supports:

- **MIPI RFFE (Radio Frequency Front-End Interface);** for data transmission and communication management between radio frequency chips and radio frequency front-end devices
- **MIPI SPMI (System Power Management Interface);** for communication between the main control chip and the Power Management Integrated Circuit (PMIC), effectively managing system power.

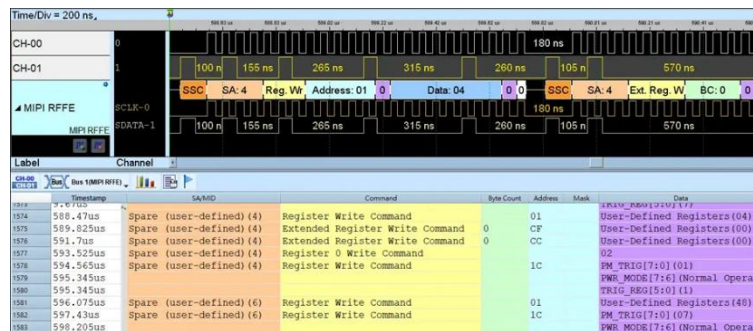
SOFTWARE:

▪ **Logic Analyzer Mode**

- ✓ Capture digital waveforms and support bus decodes. Able to stack with a DSO to form as an MSO
- ✓ Provides multiple storage modes, users could select to have long time recording or precision acquisition



✓ Logic Analyzer Mode Waveform Capture Example (MIPI RFFE):



▪ **Protocol Analyzer Mode**

- ✓ Recording and Monitoring:

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

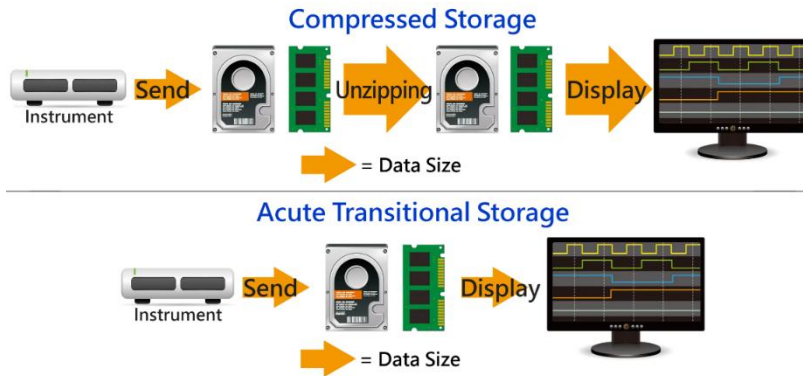
Protocol Analyzer	Protocol Logger	Protocol Monitor
Show real-time protocol data. Application timing: massive protocol data with some idles in between	Like data logger, save massive data into SSD hard drive. Application timing: massive protocol data	Like dash cameras, record protocol data by the device's memory only. Application timing: trigger event only happens in very long time.

✓ Protocol Analyzer Mode Example (MIPI I3C):

TimeStamp (h:m:s.ms.us.ns dsr)	S/R	Address(h:R)	CCC(h)	Data(h)	Stop	Error	Information
1							*** Capture Started
2	18:00:11.224.994.485 0	0 (R)	7E	Wz	ENDXFER (92)	OC*	
3	18:00:11.225.035.945 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message
4	18:00:11.225.259.060 222.9	S	7E	Wz	ENDXFER (12)	OC*	TEL
5	18:00:11.225.300.260 41.40	Sc	6	Wz	18*	F	I3C_SDR_Broadcast_Message
6	18:00:11.225.341.460 241.2	S	7E	Wz	ENDXFER (92)	OC*	
7	18:00:11.225.582.960 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message
8	18:00:11.225.805.060 223.0	S	7E	Wz	ENDXFER (12)	OC*	TEL
9	18:00:11.225.847.255 41.39	Sc	6	Wz	18*	F	I3C_SDR_Broadcast_Message
10	18:00:11.226.008.455 241.2	S	7E	Wz	ENDXFER (92)	OC*	
11	18:00:11.226.129.955 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message
12	18:00:11.226.352.055 223.0	S	7E	Wz	ENDXFER (12)	OC*	TEL
13	18:00:11.226.394.250 41.39	Sc	6	Wz	18*	F	I3C_SDR_Broadcast_Message
14	18:00:11.226.438.455 241.2	S	7E	Wz	ENDXFER (92)	OC*	
15	18:00:11.226.676.950 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message
16	18:00:11.226.899.050 223.0	S	7E	Wz	ENDXFER (12)	OC*	TEL
17	18:00:11.226.941.250 41.40	Sc	6	Wz	18*	F	I3C_SDR_Broadcast_Message
18	18:00:11.227.182.445 241.2	S	7E	Wz	ENDXFER (92)	OC*	
19	18:00:11.227.223.945 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message
20	18:00:11.227.446.845 223.0	S	7E	Wz	ENDXFER (12)	OC*	TEL
21	18:00:11.227.488.245 41.40	Sc	6	Wz	18*	F	I3C_SDR_Broadcast_Message
22	18:00:11.227.729.440 241.2	S	7E	Wz	ENDXFER (92)	OC*	
23	18:00:11.227.770.940 41.40	Sc	2	Wz	18*	F	I3C_SDR_Direct_Message

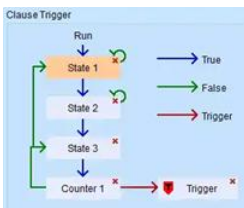
■ Long Time Record: Transitional Storage VS Compressed Storage

For signal capture and analysis, usually require to record the signal for a long time. If data is stored in a compressed manner, it may cause the software to lag or stop functioning due to insufficient PC memory when the data is decompressing after it is sent to the computer. For smooth software operation and long-term recording without any missing data, ACUTE's analyzer adopts the method of transitional storage rather than compression. After data returns to the PC software, it does not need to perform decompression and the decoded results can be displayed upon completion of the analysis.

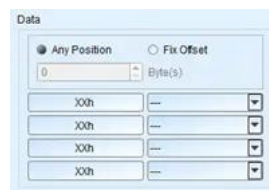


■ Other Features:

✓ Flow chart bus triggers



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



Detail parameters for each state

✓ Stack with ACUTE or other vendors' Digital Storage Oscilloscope (DSO) to form a Mixed Signal Oscilloscope (MSO)

