



JKI JLA320A LPDDR3/4 Protocol Analyzer

Features

- Number of Channels: 32
- Maximum Sampling Speed
 - SDR mode: 2.4 Gbps with 2.4 GHz Clock (Clock divide = 2)
 - DDR mode: 2.4 Gbps with 1.2 GHz Clock (Clock divide = 1)
- Data channel
 - Per-pin termination level (1 mV Resolution)
 - Per-pin threshold level (1 mV resolution)
 - Per-pin timing delay (5 ps resolution)
 - Source synchronous sampling
- Clock channel
 - Differential clock input
 - Clock divider & inverter circuit
 - Support clock frequency changing & clock suspend timing detection
- Data Acquisition
 - Acquisition memory depth: up to 64 GB
 - Streaming speed: max. 4.8 GB/s through PCIe Gen3 x8
 - Storage capacity: up to 16 TB SSD Raid server
- Target application
 - LPDDR3, LPDDR4 protocol analysis
 - DDR3, DDR4 protocol analysis

Overview

The JKI JLA320A protocol analyzer system combines reliable data capture with high bandwidth data streaming to storage server for the powerful post-analysis and validation tools to enable you to quickly and confidently validate and debug high speed digital designs operating at speeds up to 2.4 Gb/s.

Large Memory for Data Capturing

Unlimited amount of storage disk space up to 16 TB allows you to debug very complex problems where the cause and symptoms may be separated by several minutes or even above 1 hour.

Sampling Solution

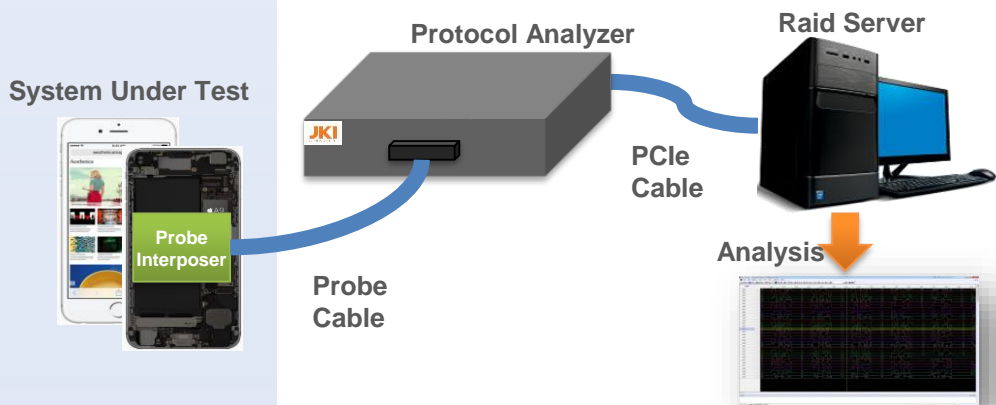
Combining state mode for data and timing mode for clock with various clock options (divider, inverter, scan) can be used to capture mobile memory timing accurately and effectively.

Probe Solution

Use Z0 probe to capture optimum DDR4 signals with adaptive termination and equalization

Interposer Solution

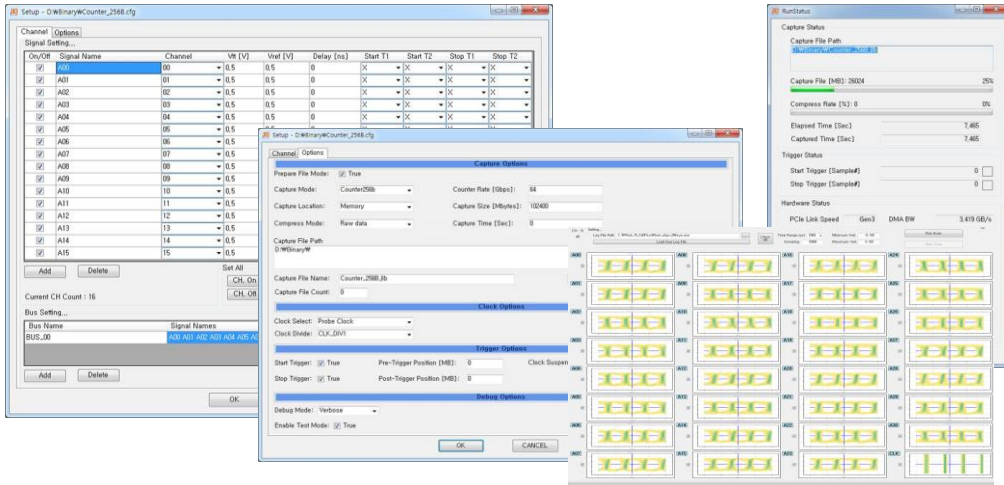
Our proprietary probe interposer solution allows lossless capture of LPDDR4 logic timing up to 2.4 Gb/s



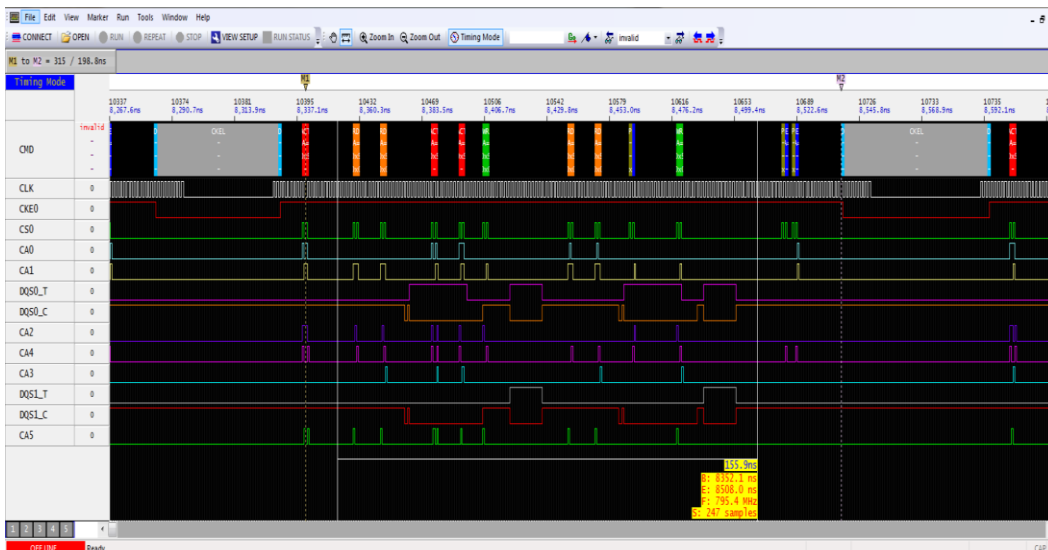
Software Feature

- Easy setup and configuration tool with Eye scanning.
- Navigate big waveform file through our fast TeraView GUI.
- Lossless data streaming through PCIe.
- Compress and decompress to reduce data size.
- Provide packet decoder API for user post-analysis tool development.

Easy setup and configuration tool with Eye scanning



Navigate big waveform file through fast TeraView GUI



Channel Specification

Clock channel (CLK)	1 differential pair
Data channel (DATA)	31 single ended
Input voltage range	-0.2 V to 1.2 V
Minimum voltage swing	100 mV
Termination voltage range	0 V to 1.2 V
Termination voltage resolution	1 mV
Threshold voltage range	0 V to 1.2 V
Threshold voltage resolution	1 mV
Offset delay range	-1.0 ns to 1.0 ns
Offset delay resolution	5 ps
Input impedance	50 Ohm

Acquisition Specification

Maximum data rate	2.4 Gb/s
Edge detection	single data rate (SDR) ,or double data rate (DDR)
Clock functions	Divider, Inverter, Clock frequency changing & clock suspend timing detection
On-board buffer memory size	16 / 32 / 64 GB
Streaming speed	PCIe Gen3 x8 (4.8 GB/s)
Data compression and de-compression	Hardware compression, Software de-compression

Trigger Specification

Maximum trigger rate	2.4 Gb/s
Trigger resources	8 consecutive patterns: H, L, X
Trigger actions	Start capture, Stop capture
Trigger position	User-defined pre-trigger, User-defined post-trigger

Environmental and physical

Operating temperature (nom)	0 to +40 deg C
Humidity (nom)	0 to 80% relative humidity
Dimensions (W x H x D)	195 mm x 60 mm x 300 mm
Weight	1.5 KG

JLA320A LPDDR3/4 Protocol Analyzer System Configuration - Recommended

Model	Qty	Description
JLA320A	1	JLA320A LPDDR3/4 Protocol Analyzer
- Option 032	1	32 GB memory option
P1032B	1	32-pin single-ended probe cable type 1
SW-LP4-BD	1	Software – LPDDR4 bus decoder
PCIe-HIB38	1	PCIe host adapter (Gen3 x8)
PCIe-0802	1	PCIe cable 2m (Gen3 x8)
RSS-8316S	1	Raid storage server (16 TB SSD)

Ordering Information

Model	Description
JLA320A	JLA320A LPDDR3/4 Protocol Analyzer
- Option 032	32 GB memory option
- Option 064	64 GB memory option
P1032B	32-pin single-ended probe cable type 1
P1033B	32-pin single-ended probe cable type 2 (split)
P100Z0	DDR3 DIMM interposer
P104Z0	DDR4 DIMM interposer
PCIe-HIB38	PCIe host adapter (Gen3 x8)
PCIe-0802	PCIe cable 2m (Gen3 x8)
SW-LP4-BD	Software – LPDDR4 bus decoder
SW-DD4-BD	Software – DDR4 bus decoder
CAL-1032A	Calibration Kits
RSS-8304S	Raid storage server (4 TB SSD)
RSS-8308S	Raid storage server (8 TB SSD)
RSS-8316S	Raid storage server (16 TB SSD)
W200R-01	1-year technical service program for hardware and software
W200R-03	3-years warranty & calibration service program (return to JKI)