

SYNCHRONIZATION

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Channel NPI

9ZXL 2nd Generation Very High Performance
Clock Buffers for PCIe[®] Gen4 and Beyond

January 2018 v2

9ZXL1951D Product Snapshot

PCIe® Gen4 and Gen5-Ready Zero-Delay/Fanout Buffer

Features

- 19 outputs in a 6 mm x 6 mm package
- 1 to 400 MHz fanout buffer mode
- <200 fs rms PCIe Gen4 ZDB mode
- <100 fs rms 12k-20M additive jitter @156.25 MHz as fanout buffer
- PCIe jitter cleaner mode
- LP-HCSL outputs
- Multiple SMBus addresses
- SMBus security feature – some family members
- -40C to +85C temperature range

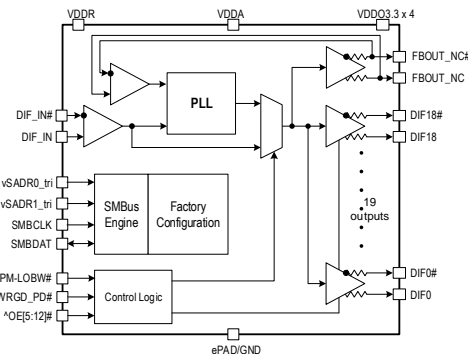
Benefits

- ~90% margin to PCIe Gen4 (Gen5-ready)
- Cascade 3 buffer levels maintaining >90% margin to PCIe Gen4
- Direct drive of 85Ω loads eliminates up to 122 mm² of resistors
- Up to 90% output power reduction
- Clean marginal Gen3/Gen4 clocks to Gen4 spec
- Easily use multiple devices in a system
- System security against malicious BIOS

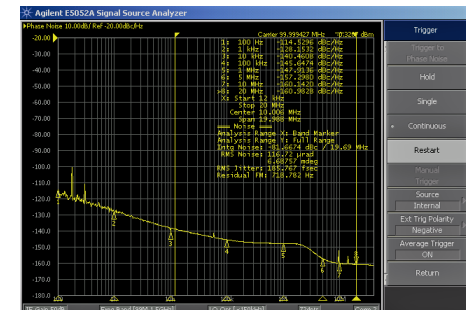
Applications

- High-Performance PCIe in:
 - Servers
 - Networking
 - Instrumentation
 - Storage
 - Data acquisition
 - Accelerator Cards

Very High-Performance Clock Buffer for PCIe Gen4 and Beyond



EVK9ZXL1951D

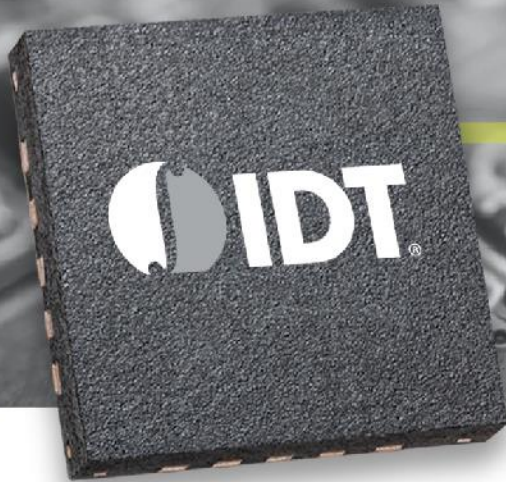


185 fs 12k-20M ZDB mode

9ZXL 2nd Generation Devices

Family Prefix	Number of outputs	Differential Output Impedance 3 = 33Ω 4 = 100Ω* 5 = 85Ω	Device Variant	Revision for 2nd Generation	Package / Temperature / Lead-Free Indicator Code	Package	Notes	Part Number
9ZXL	06	3	1	E	KILF	5mm x 5mm 40-QFN		9ZXL0631EKILF
9ZXL	06	3	2	E	KILF	5mm x 5mm 40-QFN	SMBus Write Protect	9ZXL0632EKILF
9ZXL	06	5	1	E	KILF	5mm x 5mm 40-QFN		9ZXL0651EKILF
9ZXL	06	5	2	E	KILF	5mm x 5mm 40-QFN	SMBus Write Protect	9ZXL0652EKILF
9ZXL	08	3	1	E	KILF	6mm x 6mm 48-QFN		9ZXL0831EKILF
9ZXL	08	3	2	E	KILF	6mm x 6mm 48-QFN	SMBus Write Protect	9ZXL0832EKILF
9ZXL	08	5	1	E	KILF	6mm x 6mm 48-QFN		9ZXL0851EKILF
9ZXL	08	5	2	E	KILF	6mm x 6mm 48-QFN	SMBus Write Protect	9ZXL0852EKILF
9ZXL	12	3	1	E	KILF	9mm x 9mm 64-QFN		9ZXL1231EKILF
9ZXL	12	3	2	E	KILF	9mm x 9mm 64-QFN	SMBus Write Protect	9ZXL1232EKILF
9ZXL	12	5	1	E	KILF	9mm x 9mm 64-QFN		9ZXL1251EKILF
9ZXL	12	5	2	E	KILF	9mm x 9mm 64-QFN	SMBus Write Protect	9ZXL1252EKILF
9ZXL	15	3	0	D	KILF	9mm x 9mm 64-QFN		9ZXL1530DKILF
9ZXL	15	5	0	D	KILF	9mm x 9mm 64-QFN		9ZXL1550DKILF
9ZXL	19	3	0	D	KILF	10mm x 10mm 72-QFN		9ZXL1930DKILF
9ZXL	19	5	0	D	KILF	10mm x 10mm 72-QFN		9ZXL1950DKILF
9ZXL	19	5	1	D	NHGI	6mm x 6mm 80-QFN		9ZXL1951DNHGI

*Note: 100ohm devices area available on demand.



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Thank You

Analog Mixed Signal Product
Leadership in Growth Markets