

PAM4 DSPs, TIAs and Drivers Enable Next-Gen Fiber-Optic Modules

DATA CENTER DSP PRODUCTS

100G Snowmass DSPs (16nm)	
MxL93515	100G DSP
MxL93516	100G DSP with EA-EML driver
400G/800G PAM4 Keystone DSPs (5nm)	
MxL93642	400G DSP with Integrated driver
MxL93643	400G DSP
MxL93682	800G DSP with Integrated driver
MxL93683	800G DSP

DSP FUNCTIONALITY INCLUDES:

- Line-side Tx digital pre-distortion (DPD)
- Transmit pre-emphasis (TX FIR)
- Continuous Time Linear Equalizer (CTLE)
- Receiver feed forward equalization (FFE)
- Decision feedback equalization (DFE)

BENEFITS OF NEW KEYSTONE DSPs:

- Support 106G/lane electrical and optical I/O
- Enable sub-8W 400G and sub-15W 800G optical modules
- Integrated driver with single-ended and differential options for both EML and SiPH optical interfaces
- 12mmx13mm package suitable for QSFP-DD800 and OSFP optical modules

TRANSIMPEDANCE AMPLIFIERS

28GBaud Topanga	
MxL9131	Single Linear TIA
MxL9134	Quad Linear TIA
MxL9138	Octal Linear TIA
28GBaud	
MxL9101	Quad Limiting TIA
56GBaud Topanga	
MxL9161	Single Linear TIA
MxL9164	Quad Linear TIA
MxL9168	Octal Linear TIA

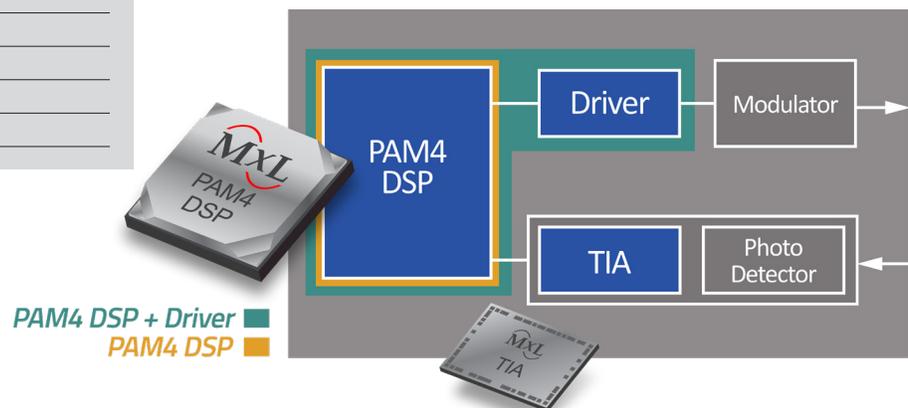


MaxLinear products accelerate network deployments for next-generation data centers, service providers and AI/ML applications

MaxLinear is a leading provider of High-Speed Interconnect ICs that enable next generation fiber-optic modules for data center, metro, and long-haul transport networks. We build highly integrated semiconductor SoCs that move big data around the world at ever increasing speeds.

MaxLinear provides a full range of PAM4 DSPs and TIAs for applications ranging from 100G to 800G, supporting 53G/lane and 106G/lane options on both the host and line side interfaces for data center connectivity.

Complete Module Solutions



Data Center Connectivity Products

PAM4 DSPs

Family	Module Capacity	Module Type	Electrical Interface	Optical Interface	Package Size	Applications
Snowmass	100G	QSFP28	4x25G NRZ	1x100G PAM4	7mm x 8.5mm	<ul style="list-style-type: none"> 100G-DR/FR/LR QSFP28 optical modules SFP-DD optical modules DSFP optical modules
	100G	SFP-DD, DSFP	2x50G PAM4	1x100G PAM4		
Keystone	400G	QSFP-DD, OSFP	8x50G	8x50G	12mm x 13mm	<ul style="list-style-type: none"> 400G: DR4/FR4/LR4 800G: PSM8, DR8, 2xFR4, 2xLR4 AEC QSFP-DD, OSFP QSFP112, QSFP-DD800
	400G	QSFP-DD, OSFP	8x50G	4x100G		
	400G	QSFP112	4x100G	4x100G		
	800G	QSFP-DD800, OSFP	8x100G	8x100G		

Transimpedance Amplifiers

TIAs

Products	Description
MxL9101	Quad-Channel 28Gbps Limiting TIA
MxL9131	28GBaud Single Linear TIA
MxL9134	28GBaud Quad Linear TIA
MxL9138	28GBaud Octal Linear TIA
MxL9161	56GBaud Single Linear TIA
MxL9164	56GBaud Quad Linear TIA
MxL9168	56GBaud Octal Linear TIA

**For additional product information,
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