



Ethernet

Featured Products

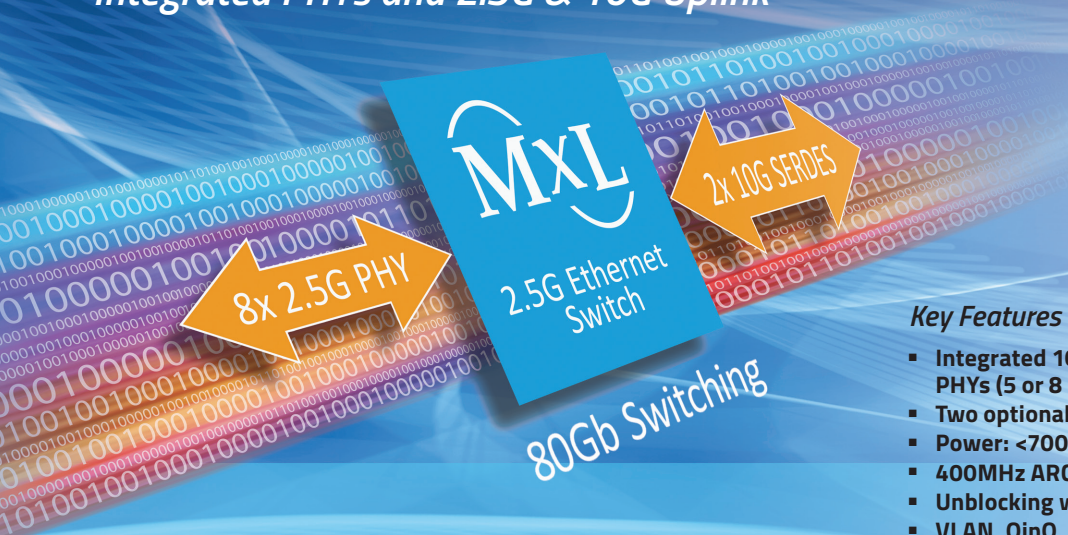
Ethernet Transceivers (PHYs)

Ethernet Switches

Featured Products

MxL86250, MxL86252, MxL86280, MxL86282

5- and 8-port 2.5G Ethernet Switches with Integrated PHYs and 2.5G & 10G Uplink



Key Features

- Integrated 10/100/1000/2.5GBASE-T PHYs (5 or 8 ports)
- Two optional 10G uplink ports (MxL862x2)
- Power: <700mW per PHY*
- 400MHz ARC CPU: Web smart
- Unblocking wire speed switching
- VLAN, QinQ, QoS, traffic shaping, ...
- BGA-277 12x12mm, 0.628mm pitch

Benefits

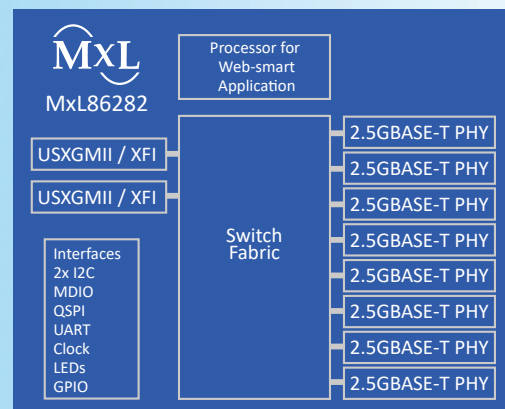
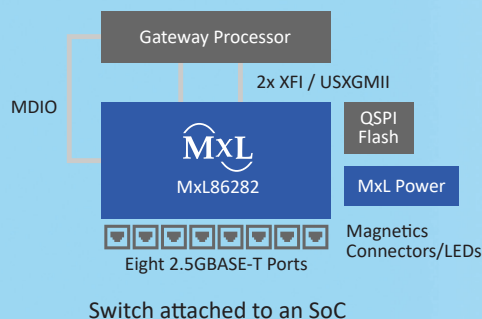
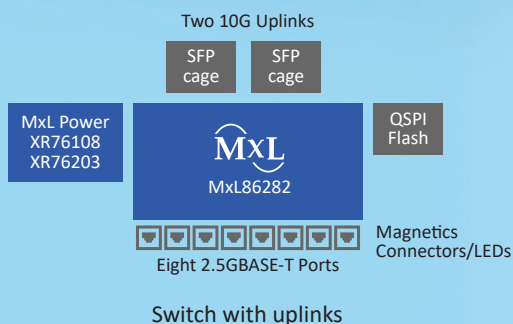
- Low power consumption through high integration
- Power saving modes for short cables, through Energy Efficient Ethernet (EEE) and no-link detection
- Integrated processor enables web-smart switch applications

Applications

- Standalone five or eight port 2.5G switches
- Eight port SMB switches with two 10G uplinks
- Five port SMB switches with 10G and 2.5G uplinks
- Unmanaged and web-smart switches
- External switches for gateway SoCs

Standards

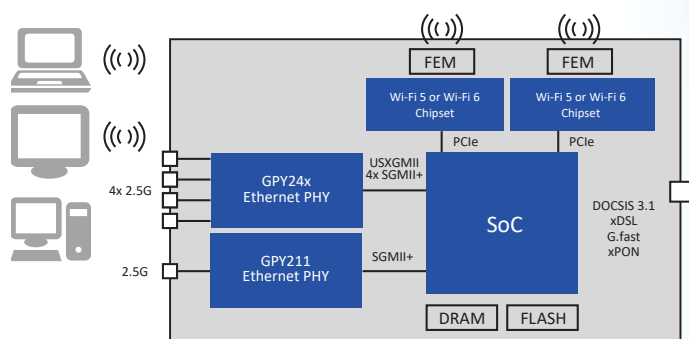
- IEEE Standard for Ethernet, IEEE802.3™-2022



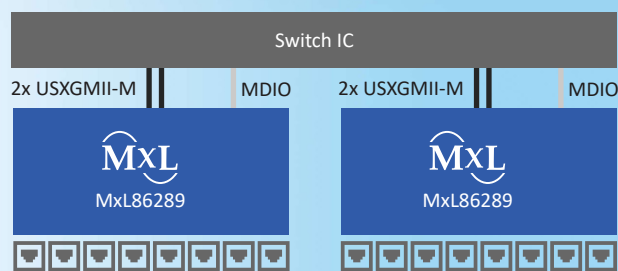
MxL86282 Block Diagram

Ethernet Transceivers (PHYs)

Product	Ethernet Ports	Ethernet Bandwidth (Mbps)	Interfaces	MACSEC	1588v2	SyncE	EEE	Thermal Sensor	Min Temp (°C)	Max Temp (°C)	Package (X x Y mm)
MxL86289C	8	10, 100, 1000, 2500	2 x USXGMII-M		•	•	•	•	0	70	BGA-256 (13x13)
MxL86289I	8	10, 100, 1000, 2500	2 x USXGMII-M	•	•	•	•	•	-40	85	BGA-256 (13x13)
GPY245	4	10, 100, 1000, 2500	SGMII+, USXGMII-M	•	•	•	•	•	-40	85	BGA-236 (12x12)
GPY241	4	10, 100, 1000, 2500	SGMII+, USXGMII-M		•		•	•	0	70	BGA-236 (12x12)
GPY215	1	10, 100, 1000, 2500	SGMII+	•	•	•	•	•	-40	85	QFN-56 (7x7)
GPY212	1	10, 100, 1000, 2500	SGMII+	•	•		•	•	0	70	QFN-56 (7x7)
GPY211	1	10, 100, 1000, 2500	SGMII+		•		•	•	0	70	QFN-56 (7x7)
MxL86211C	1	10, 100, 1000, 2500	SGMII+		•		•	•	0	70	QFN-40 (5x5)
GPY115	1	10, 100, 1000	SGMII	•	•	•	•	•	-40	85	QFN-56 (7x7)
MxL86110C	1	10, 100, 1000	RGMII			•	•		0	70	QFN-40 (5x5)
MxL86110I	1	10, 100, 1000	RGMII			•	•		-40	85	QFN-40 (5x5)
MxL86111C	1	10, 100, 1000	RGMII, RGMII/ 1000BASE-X/100BASE-FX			•	•		0	70	QFN-48 (6x6)
MxL86111I	1	10, 100, 1000	RGMII, RGMII/ 1000BASE-X/100BASE-FX			•	•		-40	85	QFN-48 (6x6)



5 ~ 16
2.5GbE LAN

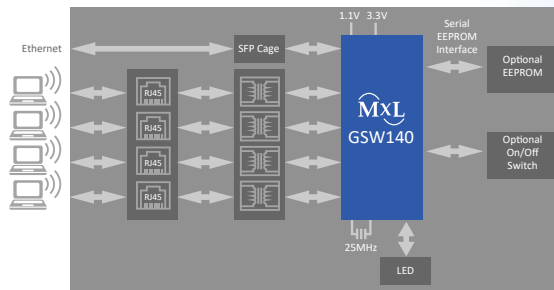


N x Eight 2.5GBASE-T Ports

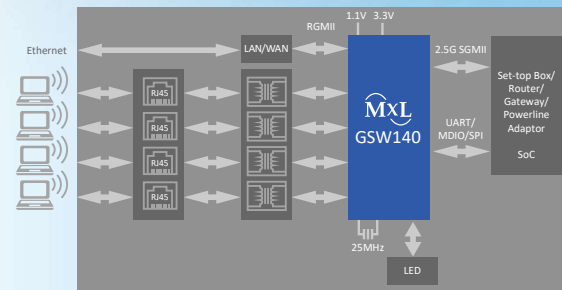
Enterprise Switch

Ethernet Switches

Product	Ethernet Ports	Ethernet Bandwidth (Mbps)	Interface/Uplink Ports	Interfaces	Supply Voltage (V)	Web-Smart Support	MACSEC	1588v2	SyncE	Min Temp (°C)	Max Temp (°C)	Package (X x Y mm)
MxL86280C	8	10, 100, 1000, 2500	0	XFI / USXGMII	3.3/1.8/1.2/0.8					0	70	BGA-277 (12x12)
MxL86282C	8	10, 100, 1000, 2500	2	XFI / USXGMII	3.3/1.8/1.2/0.8					0	70	BGA-277 (12x12)
MxL86282S	8	10, 100, 1000, 2500	2	XFI / USXGMII	3.3/1.8/1.2/0.8	•				0	70	BGA-277 (12x12)
MxL86282I	8	10, 100, 1000, 2500	2	XFI / USXGMII	3.3/1.8/1.2/0.8	•	•	•	•	-40	85	BGA-277 (12x12)
MxL86250C	5	10, 100, 1000, 2500	0	XFI / USXGMII / SGMII	3.3/1.8/1.2/0.8					0	70	BGA-277 (12x12)
MxL86252C	5	10, 100, 1000, 2500	2	XFI / USXGMII / SGMII	3.3/1.8/1.2/0.8					0	70	BGA-277 (12x12)
MxL86252S	5	10, 100, 1000, 2500	2	XFI / USXGMII / SGMII	3.3/1.8/1.2/0.8	•				0	70	BGA-277 (12x12)
MxL86252I	5	10, 100, 1000, 2500	2	XFI / USXGMII / SGMII	3.3/1.8/1.2/0.8	•	•	•	•	-40	85	BGA-277 (12x12)
GSW145	4	10, 100, 1000	2	RGMII, SGMII+	3.3/1.1					-40	85	MRQFN-105 (8x8)
GSW141	4	10, 100, 1000	2	RGMII, SGMII	3.3/1.1					0	70	MRQFN-105 (8x8)
GSW140	4	10, 100, 1000	2	RGMII, SGMII+	3.3/1.1					0	70	MRQFN-105 (8x8)
GSW125	2	10, 100, 1000	2	RGMII, SGMII+	3.3/1.1					-40	85	MRQFN-105 (8x8)
GSW120	2	10, 100, 1000	2	RGMII, SGMII+	3.3/1.1					0	70	MRQFN-105 (8x8)



Standalone Desktop Switch with Optional Brightness On/Off Switch



Home Gateway



Corporate Headquarters:
 5966 La Place Court
 Suite 100
 Carlsbad, CA 92008
 Tel.: +1 (760) 692-0711
 Fax: +1 (760) 444-8598
www.maxlinear.com

The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by MaxLinear, Inc. MaxLinear, Inc. assumes no responsibility or liability for any errors or inaccuracies that may appear in the informational content contained in this document.

Reproduction, in part or whole, without the prior written consent of MaxLinear, Inc. is prohibited. MaxLinear, the MaxLinear logo, any other MaxLinear trademarks (including but not limited to MxL, Full-Spectrum Capture, FSC, AirPHY, Puma, AnyWAN, VectorBoost, MXL WARE, and Panther) are all property of MaxLinear, Inc. or one or more of MaxLinear's subsidiaries in the U.S.A. and other countries. All rights reserved. All third-party marks and logos are trademarks™ or registered trademarks® of their respective holders/owners.

© 2024 MaxLinear, Inc. All rights reserved.