

## 100Gb/s QSFP28 Transceivers

### DESIGNED FOR USE IN 100GB/S DATA RATE LINKS. COMPLIANT WITH THE SFF-8636, IEEE802.3BM OR ITU-T G959.1

Amphenol's 100G QSFP28 optical modules include SR4, AOC, AOC break out, CWDM4, LR4, ER4 Lite, ER4 and ZR4 series, which adopt LC or MPO optical ports and are compatible with IEEE802.3bm, SFF-8636 and other standards; With low power consumption and small size, it is mainly used in 100G data center internal network, data center interconnection, metropolitan area network and other environments.

- Low power, Power dissipation
- Up to 27.95Gb/s data rate per lane
- Digital Diagnostics Monitoring Interface
- Electrically hot-pluggable
- Compliant with QSFP28 MSA and RoHS

### FEATURES & BENEFITS

- Hot-pluggable QSFP28 form factor
- Single 3.3V power supply
- Four-channel full duplex
- Up to 27.95Gb/s data rate per lane
- Low power dissipation
- Digital Diagnostics Monitoring Interface
- RoHS compliant
- Compliant with SFF-8636



### TARGET MARKETS



## TECHNICAL INFORMATION

### ELECTRICAL PERFORMANCE

- SFF-8679

### MECHANICAL PERFORMANCE

- SFF-8661

### SPECIFICATIONS

- IEEE 802.3ba
- IEEE 802.3bm
- ITU-T G959.1

### ENVIRONMENTAL

- Case operating temperature range 0°C to 70°C (or -40°C to 85°C)

### APPROVALS & CERTIFICATION

UL, TUV

### TARGET MARKETS/APPLICATIONS



Base Station  
Power  
Switches



High-end Computing System  
Server and Storage Systems

## PART NUMBERS

Description	Part Numbers
100G QSFP28 SR4 TRANSCEIVER WITH DDM (C-TEMP)	QXP85B4-02D
100G QSFP28 CWD4 2KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP27B4-02D-2
100G QSFP28 CWD4 10KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP27B4-10D-2
100G QSFP28 LR4 10KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP&HERMETIC)	QXP29B4-10D
100G QSFP28 LR4 DUAL RATE 10KM SINGLE-MODE TRANSCEIVER WITH DDM (E-TEMP&HERMETIC)	QXP29B4-10DE-2
100G QSFP28 LR4 10KM SINGLE-MODE TRANSCEIVER WITH DDM (I-TEMP&HERMETIC)	QXP29B4-10DA
100G QSFP28 LR4 10KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP&HALF-HERMETIC)	QXP29B4-10D-4
100G QSFP28 LR4 10KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP&NON-HERMETIC)	QXP29B4-10D-V4
100G QSFP28 LR4 DUAL RATE 10KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP&NON-HERMETIC)	QXP29B4-10D-V4-1
100G QSFP28 LR4 20KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP&NON-HERMETIC)	QXP29B4-20D-V4
100G QSFP28 ER4 LITE 30KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP29B4-30D
100G QSFP28 ER4 LITE DUAL RATE 30KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP29B4-30D-2
100G QSFP28 ER4 LITE DUAL RATE 30KM SINGLE-MODE TRANSCEIVER WITH DDM (I-TEMP)	QXP29B4-30DA
100G QSFP28 ER4 40KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP29B4-40D-V2
100G QSFP28 ER4 40KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP29B4-40D-3
100G QSFP28 ER4 40KM SINGLE-MODE TRANSCEIVER WITH DDM (I-TEMP)	QXP29B4-40DA-3
100G QSFP28 ZR4 80KM SINGLE-MODE TRANSCEIVER WITH DDM (C-TEMP)	QXP29B4-80D
100G QSFP28 ZR4 80KM SINGLE-MODE TRANSCEIVER WITH DDM (I-TEMP)	QXP29B4-80DA
100G QSFP28 ACTIVE OPTICAL CABLE	AQP85B4-XXX
100G QSFP28 TO 4X25G SFP28 ACTIVE OPTICAL CABLE	AQP-XPB4-XXX

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

## KEY PARAMETER SPECIFICATIONS

Product Name	Part Number	Package	Inter- face	Reach	Fiber type	Wavelength	Rate	Tx Output	Rx Input	Power Consump- tion	Temp
100G SR4	QXP85B4-02D QXP85B4-02D-2	QSFP28	MPO	70m(OM3) 100m(OM4)	Multi-mode	850nm	103.1Gb/s /111.8Gb/s	-8.4~2.4	-10.3~2.4	≤2W	0~70
100G CWDM4	QXP27B4-02D-2	QSFP28	LC	2km	Single-Mode	1271nm/1291nm/ 1311nm/1331nm	103.1Gb/s	-6.5~2.5	-11.5~2.5	≤3.5W	0~70
100G CWDM4	QXP27B4-10D-2	QSFP28	LC	10km	Single-Mode	1271nm/1291nm/ 1311nm/1331nm	103.1Gb/s	-6.5~2.5	-11.5~2.5	≤3.5W	0~70
100G LR4 (hermetic)	QXP29B4-10D	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70
100G LR4 (half-hermetic)	QXP29B4-10D-4	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70
100G LR4 (non-hermetic)	QXP29B4-10D-V4	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70
100G LR4	QXP29B4-10DA	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	-40~85
100G LR4 (non-hermetic)	QXP29B4-10D-V4-1	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s /111.8Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70 -10~85
100G LR4	QXP29B4-10D(E)-2	QSFP28	LC	10km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s /111.8Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70 -10~85
100G LR4	QXP29B4-20D-V4	QSFP28	LC	20km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-4.3~4.5	-10.6~4.5	≤4.5W	0~70
100G ER4 lite	QXP29B4-30D	QSFP28	LC	30km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-2.5~6.5	-18.5~- 3.5	≤4.5W	0~70
100G ER4 lite	QXP29B4-30D-2	QSFP28	LC	30km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s /111.8Gb/s	-2.5~6.5	-18.5~- 3.5	≤4.5W	0~70
100G ER4 lite	QXP29B4-30DA	QSFP28	LC	30km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s /111.8Gb/s	-2.5~4.5	-18.5~- 3.5	≤5.2W	-40~85
100G ER4	QXP29B4-40D-V2	QSFP28	LC	40km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-2.5~6.5	-18.5~- 3.5	≤5W	0~70
100G ER4	QXP29B4-40D-3	QSFP28	LC	40km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-2.9~2.9	-21.4~-5	≤5.5W	0~70
100G ER4	QXP29B4-40DA-3	QSFP28	LC	40km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-2.9~2.9	-20.4~-5	≤7.5W	-40~85
100G ZR4	QXP29B4-80D	QSFP28	LC	80km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	1~6.5	-27~-5	≤6.5W	0~70
100G ZR4	QXP29B4-80DA	QSFP28	LC	80km	Single-Mode	1295nm/1300nm/ 1304nm/1309nm	103.1Gb/s	-2~6.5	-28~-5	≤7.5W	-40~85
QSFP28 AOC	AQP85B4-XXX	QSFP28	AOC	150m(OM3)	Multi-mode	850nm	100Gb/s	/	/	≤2.5W	0~70
QSFP28 to SFP28 AOC	AQP-XPB4-XXX	QSFP28 /SFP28	AOC	100m(OM3) 150m(OM4)	Multi-mode	850nm	100Gb/s	/	/	≤2.5W	0~70