DATA SHEET

Transceivers
25G SFP28 DWDM LR
CSS-411A17

Properties

- Multi-protocol support
- Data rate 9.83...11.3 / 24.33...25.78 Gbps
- Reach up to 15km
- Any ITU DWDM channel between C18 and C61
- LC/PC duplex connector
- Singlemode fiber
- Temp. range 0 ... 70°C
- Link budget at least 18 dB (w/o dispersion penalty)



General data	
Form factor	SFP28
Product image	Actual product may differ from the images shown. Colours, design, and details can vary.
Protocol	10/25G Ethernet, eCPRI, CPRI 7/8/10
Data rate standards	25GBASE-LR 25G eCPRI CPRI Option 7,8,10
Media type	Singlemode
Connector	LC/PC duplex
Modulation Format	NRZ
Built-in FEC	No
CDR	Double
Operation temperature	0 °C ... 70 °C
Supply voltage typical	3.13 V ... 3.47 V
Supply Current	< 550 mA
Power consumption	< 1.8 W
Digital Diagnostic Management (DDM)	Yes
Laser hazard level	1

Absolute Maximum Ratings	
Max. supply voltage range	-0.3 V ... 4 V
Max. Storage Temperature Range	-40 °C ... 85 °C
Max. relative humidity range	5 % ... 95 %

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Transmitter Specifications	
Laser Type	EML
Grid	DWDM 100GHz C-band
Available Wavelength in nm	Any ITU DWDM channel between C18 and C61
Average launch power per lane	0 dBm ... 5 dBm
Dispersion Penalty	< 5 dB
Dispersion range	-100 ps/nm ... 250ps/nm
Extinction Ratio	> 6 dB
Side Mode Suppression	> 30 dB
Supported Data rate	9.83 Gbps ... 11.3 Gbps / 24.33 Gbps ... 25.78 Gbps

Receiver Specifications	
Receiver Type	APD
Operating Wavelength Range	1260 nm ... 1620nm
Receiver Overload	> -7 dBm
Receiver Sensitivity	< -18 dBm
Bit Error Rate at Receiver	5E-5
Receiver LOS De-Assert	< -24 dBm
Receiver LOS Assert	> -35 dBm
Receiver LOS Hysteresis	> 0.5 dB
Supported Data rate	9.83 Gbps ... 11.3 Gbps / 24.33 Gbps ... 25.78 Gbps

Ordering Information Table		
Order Code	Compatibility code explanation	Wavelength code explanation
CSS-411A17xxxx-ww	"xxxx" is an alphanumerical string, describing the compatibility. "0000" means no special coding to ensure compatibility with a special switch type.	-ww: DWDM channel chosen from the table at the end

Channel Allocation

Code	ITU Number	Frequency (GHz)	Wavelength (nm)	Code	ITU Number	Frequency (GHz)	Wavelength (nm)
-18	C18	191800	1563.05	-40	C40	194000	1545.32
-19	C19	191900	1562.23	-41	C41	194100	1544.53
-20	C20	192000	1561.42	-42	C42	194200	1543.73
-21	C21	192100	1560.61	-43	C43	194300	1542.94
-22	C22	192200	1559.79	-44	C44	194400	1542.14
-23	C23	192300	1558.98	-45	C45	194500	1541.35
-24	C24	192400	1558.17	-46	C46	194600	1540.56
-25	C25	192500	1557.36	-47	C47	194700	1539.77
-26	C26	192600	1556.55	-48	C48	194800	1538.98
-27	C27	192700	1555.75	-49	C49	194900	1538.19
-28	C28	192800	1554.94	-50	C50	195000	1537.40
-29	C29	192900	1554.13	-51	C51	195100	1536.61
-30	C30	193000	1553.33	-52	C52	195200	1535.82
-31	C31	193100	1552.52	-53	C53	195300	1535.04
-32	C32	193200	1551.72	-54	C54	195400	1534.25
-33	C33	193300	1550.92	-55	C55	195500	1533.47
-34	C34	193400	1550.12	-56	C56	195600	1532.68
-35	C35	193500	1549.32	-57	C57	195700	1531.90
-36	C36	193600	1548.51	-58	C58	195800	1531.12
-37	C37	193700	1547.72	-59	C59	195900	1530.33
-38	C38	193800	1546.92	-60	C60	196000	1529.55

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Channel Allocation							
-39	C39	193900	1546.12	-61	C61	196100	1528.77

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