100G QSFP28 AOC

Product Overview 3

Data Rate 25.78 x 4	**Wavelength 850**	**Reach 0.5~70m**
Temperature 0℃~+70℃		



Part Number WTAC100-Q28-xxM

1. Product Overview

Features

- Support 100GBASE-SR4/EDR application
- Compliant to QSFP28 Electrical MSA SFF-8636
- Multi rate of up to 25.78125Gbps
- +3.3V single power supply
- Low power consumption
- UL certification cables (optional)
- Operating case temp
- Commercial: 0°C to +70 °C
- RoHS compliant

Applications

- 100GBASE-SR4 at 25.78125Gbps per lane
- InfiniBand QDR, EDR
- Other optical links

2. Ordering Information

Part No.	Bit Rate (Gbps)	Laser (nm)	Distance (m)	Fiber Type	DDMI	Connector	Temp
WTAC100-Q28-xxM	25.78 x 4	850	0.5~70m	MMF	YES	N/A	0℃~+70℃

3. Absolute Maximum Ratings

Parameter	Symbol	Min	Type	Max	Unit	Ref.
Supply Voltage	Vcc3	-0.5	-	+3.6	V	
Storage Temperature	Ts	-5	-	+75	°C	
Operating Humidity	RH	+5	-	+85	%	1

4. Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Max.	Unit	Notes
Operating Case Temperature	TC	0	-	+70	°C	°C	
Power Supply Voltage	Vcc	3.14	3.3	3.47	3.47	V	
Power Dissipation	Pd	-	-	2.5	2.5	W	1

Parameter	Symbol	Min.	Typical	Max.	Max.	Unit	Notes
Bit Rate	BR	25.7	25.78125	25.8	25.8	Gbps	

5. Electrical Characteristics

Parameter	Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics	Electrical transmitter Characteristics
Differential Data Input Swing	Differential Data Input Swing	Vin	200	-	1000	mV	
Input Differential Impedance	Input Differential Impedance	ZD	90	100	110	Ω	
ModSelL	Module Select	VOL	VEE-0.3	-	0.4	V	
ModSelL	Module Unselect	VOH	2.0	-	VCC+0.3	V	
LPMode	Low Power Mode	VIL	VEE-0.3	-	0.8	V	
LPMode	Normal Operation	VIH	2.0	-	VCC+0.3	V	
ResetL	Reset	VIL	VEE-0.3	-	0.8	V	
ResetL	Normal Operation	VIH	2.0	-	VCC+0.3	V	
Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics	Electrical Receiver Characteristics
Differential Date Input Swing	Differential Date Input Swing	Vout	200	-	1000	mV	
Output Differential Impedance	Output Differential Impedance	ZD	90	100	110	Ω	
ModPrsL	Normal Operation	VOL	VEE-0.3	-	0.4	V	
IntL	Interrupt	VOL	VEE-0.3	-	0.4	V	
IntL	Normal Operation	VoH	2.0	-	VCC+0.3	V	
Bit Error Rate	Bit Error Rate	BER			E-12		1

6. Pin Descriptions

Pin	Symbol	Name/Description	Notes
1	GND	Ground	1
2	Tx2n	Transmitter Inverted Data Input	
3	Tx2p	Transmitter Non-Inverted Data Input	
4	GND	Ground	1
5	Tx4n	Transmitter Inverted Data Input	
6	Tx4p	Transmitter Non-Inverted Data Input	
7	GND	Ground	1
8	ModSelL	Module Select	
9	ResetL	Module Reset	
10	Vcc Rx	+3.3V Power Supply Receiver	

Pin	Symbol	Name/Description	Notes
11	SCL	2-wire serial interface clock	
12	SDA	2-wire serial interface data	
13	GND	Ground	1
14	Rx3p	Receiver Non-Inverted Data Output	
15	Rx3n	Receiver Inverted Data Output	
16	GND	Ground	1
17	Rx1p	Receiver Non-Inverted Data Output	
18	Rx1n	Receiver Inverted Data Output	
19	GND	Ground	1
20	GND	Ground	1
21	Rx2n	Receiver Inverted Data Output	
22	Rx2p	Receiver Non-Inverted Data Output	
23	GND	Ground	1
24	Rx4n	Receiver Inverted Data Output	
25	Rx4p	Receiver Non-Inverted Data Output	
26	GND	Ground	1
27	ModPrsL	Module Present	
28	IntL	Interrupt	
29	Vcc Tx	+3.3V Power supply transmitter	
30	Vcc1	+3.3V Power supply	
31	LPMode	Low Power Mode	
32	GND	Ground	1
33	Tx3p	Transmitter Non-Inverted Data Input	
34	Tx3n	Transmitter Inverted Data Input	
35	GND	Ground	1
36	Tx1p	Transmitter Non-Inverted Data Input	
37	Tx1n	Transmitter Inverted Data Input	
38	GND	Ground	1

7. Pin Descriptions

	L	L1	L2	L3	L4	W	W1	W2	H	H1	H2	H3	H4	H5
Max	72.2	-	128	4.35	61.4	18.45	-	6.2	8.6	12.4	5.35	2.5	1.6	2.0
Type	72.0	-	-	4.20	61.2	18.35	-	-	8.5	12.2	5.2	2.3	1.5	1.8
Min	68.8	16.5	124	4.05	61.0	18.25	2.2	5.8	8.4	12.0	5.05	2.1	1.3	1.6

8. Additional Specifications

Parameter	Value	Units
Diameter	3	mm
Minimum bend radius	30	mm
Length Tolerance	Length < 1 m: +5 /-0	cm
Length Tolerance	1 m ≤length ≤ 4.5 m: +15 / -0	cm
Length Tolerance	5 m ≤length ≤ 14.5 m: +30 / -0	cm
Length Tolerance	Length≥15.0 m +2% / -0	m
Cable color	Orange (OM2),Aqua(OM3), Megenta (OM4)	-

9. Recommended Host Interface Circuit

any combination. The connector pins are each rated for a maximum current of 1000 mA.

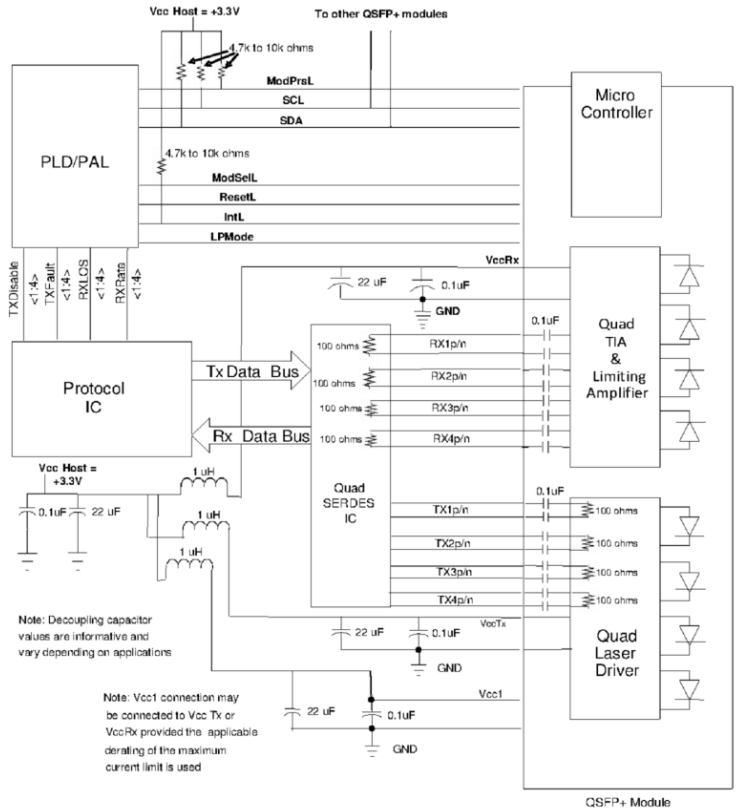
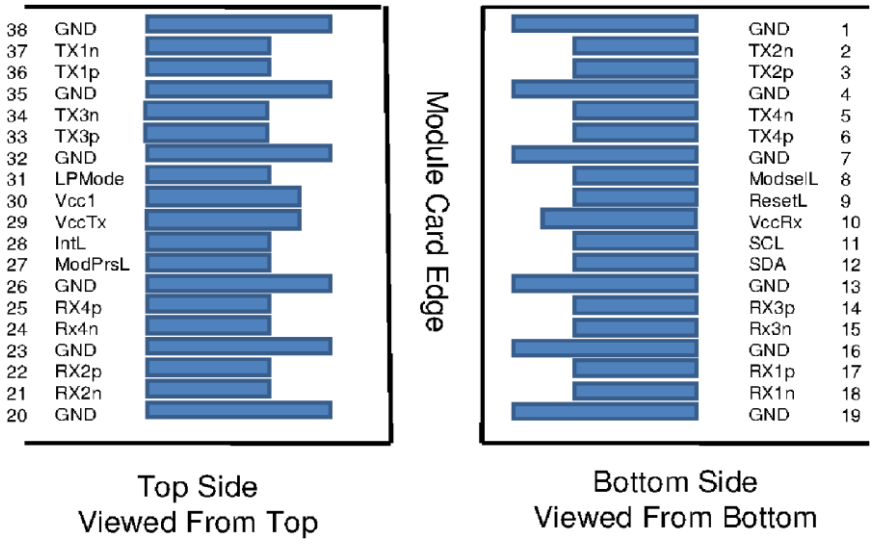


FIGURE 5-2 EXAMPLE: HOST BOARD SCHEMATIC FOR OPTICAL MODULES

10. Pin Assignment



11. Digital Diagnostics Memory Map

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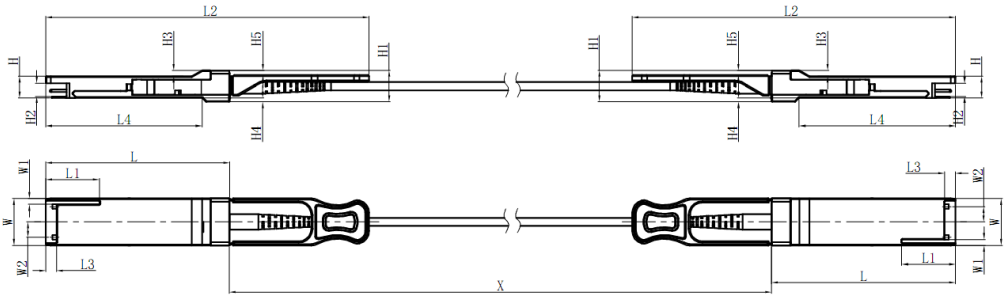
2-Wire Serial Address 1010000x
Lower Page 00h
0 Identifier
1- 2 Status
3- 21 Interrupt Flags
22- 33 Free Side Device Monitors
34- 81 Channel Monitors
82- 85 Reserved
86- 98 Control
99 Reserved
100-104 Hardware Interrupt Pin Masks
105-106 Vendor Specific
107 Reserved
108-110 Free Side Device Properties
111-112 Assigned for use by PCI Express
113 Free Side Device Properties
114-118 Reserved
119-122 Password Change Entry Area (Optional)
123-126 Password Entry Area (Optional)
127 Page Select Byte

Upper Page 00h	Optional Page 01h	Optional Page 02h	Optional Page 03h
128 Identifier	128 CC_APPS	128-255 User EEPROM Data	128-175 Free Side Device Thresholds
129-191 Base ID Fields	129 AST Table Length (TL)		
	130-131 Application Code Entry 0		
	132-133 Application Code Entry 1		
	134-253 other entries		176-223 Channel Thresholds
192-223 Extended ID			224 Tx EQ & Rx Emphasis Magnitude ID
224-255 Vendor Specific ID			225 RX output amplitude indicators
			226-241 Channel Controls
			242-251 Channel Monitor Masks
	254-255 Application Code Entry TL		252-255 Reserved

FIGURE 6-1 COMMON MEMORY MAP

Management Interface for Cabled Environments Page 25

12. Mechanical Specifications



13. Revision History

Version	Date	Description	Prepared by
V6	2025	Unified WincoTek datasheet format	WincoTek
V6.1	2026-10-23	Engineering and format review	WincoTek