TITLE	DOC No. RFD-20260304601-001	
800G OSFP-IHS Active Electrical Cable - PAM4	REVISION : 01	AUTHORIZED BY : Jeff Lo
	DATE : 2026.03.04	CLASSIFICATION : Active Electrical Cable

1. PRODUCT FEATURES

- Compliant with IEEE 802.3ck and OSFP MSA
- Compliant with CMIS5.2
- Support 8x112G (PAM4) electrical data rates
- Enables 800Gb/s transmission
- Selectable: 26AWG, 28AWG, 30AWG, 32AWG
- Link Length up to 7m
- Typical power consumption 12W per end
- Single +3.3V power supply
- BER (Post-FEC) $<10^{-15}$
- Operation case temperature: 0 to 70°C
- RoHS compliant

2. APPLICATION

- Data Centre
- Router, Server, Storage, Switch

3. ABSOLUTE MAXIMUM RATINGS

Parameter	Unit	Min.	Typical	Max.	Notes
Storage Temperature	°C	-45		80	
Operating Relative Humidity	%			85	
Power Supply not Damaged Voltage	V	-0.5		3.6	

4. RECOMMENDED OPERATING CONDITIONS

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Parameter	Unit	Min.	Typical	Max.	Notes
Operating Case Temperature	°C	0		70	
Power Supply Working Voltage	V	3.135	3.3	3.465	
Bit Rate	Gbps		800		

5. PIN FUNCTION DEFINITIONS

Pin#	Symbol	Description	Logic	Direction	Plug Sequence	Notes
1	GND	Ground			1	
2	TX2p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
3	TX2n	Transmitter Data Inverted	CML-I	Input from Host	3	
4	GND	Ground			1	
5	TX4p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
6	TX4n	Transmitter Data Inverted	CML-I	Input from Host	3	
7	GND	Ground			1	
8	TX6p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
9	TX6n	Transmitter Data Inverted	CML-I	Input from Host	3	
10	GND	Ground			1	
11	TX8p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
12	TX8n	Transmitter Data	CML-I	Input from Host	3	

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		Inverted				
13	GND	Ground			1	
14	SCL	2-wire Serial interface clock	LVCMOS-I/O	Bi-directional	3	Open-Drain with pull- up resistor on Host
15	VCC	+3.3V Power		Power from Host	2	
16	VCC	+3.3V Power		Power from Host	2	
17	LPWn/PRSn	Low-Power Mode / Module Present	Multi-Level	Bi-directional	3	See pin description for required circuit
18	GND	Ground			1	
19	RX7n	Receiver Data Inverted	CML-O	Output to Host	3	
20	RX7p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
21	GND	Ground			1	
22	RX5n	Receiver Data Inverted	CML-O	Output to Host	3	
23	RX5p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
24	GND	Ground			1	
25	RX3n	Receiver Data Inverted	CML-O	Output to Host	3	
26	RX3p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
27	GND	Ground			1	
28	RX1n	Receiver Data Inverted	CML-O	Output to Host	3	
29	RX1p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
30	GND	Ground			1	
31	GND	Ground			1	

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32	RX2p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
33	RX2n	Receiver Data Inverted	CML-O	Output to Host	3	
34	GND	Ground			1	
35	RX4p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
36	RX4n	Receiver Data Inverted	CML-O	Output to Host	3	
37	GND	Ground			1	
38	RX6p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
39	RX6n	Receiver Data Inverted	CML-O	Output to Host	3	
40	GND	Ground			1	
41	RX8p	Receiver Data Non-Inverted	CML-O	Output to Host	3	
42	RX8n	Receiver Data Inverted	CML-O	Output to Host	3	
43	GND	Ground			1	
44	INT/RSTn	Module Interrupt / Module Reset	Multi-Level	Bi-directional	3	See pin description for required circuit
45	VCC	+3.3V Power		Power from Host	2	
46	VCC	+3.3V Power		Power from Host	2	
47	SDA	2-wire Serial interface data	LVCMOS-I/O	Bi-directional	3	Open-Drain with pull- up resistor on Host
48	GND	Ground			1	
49	TX7n	Transmitter Data Inverted	CML-I	Input from Host	3	
50	TX7p	Transmitter Data	CML-I	Input from Host	3	

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		Non-Inverted				
51	GND	Ground			1	
52	TX5n	Transmitter Data Inverted	CML-I	Input from Host	3	
53	TX5p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
54	GND	Ground			1	
55	TX3n	Transmitter Data Inverted	CML-I	Input from Host	3	
56	TX3p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
57	GND	Ground			1	
58	TX1n	Transmitter Data Inverted	CML-I	Input from Host	3	
59	TX1p	Transmitter Data Non-Inverted	CML-I	Input from Host	3	
60	GND	Ground			1	

6. ELECTRICAL PAD LAYOUT

For detail mechanical information, please refer to the related document of OSFP MSA.

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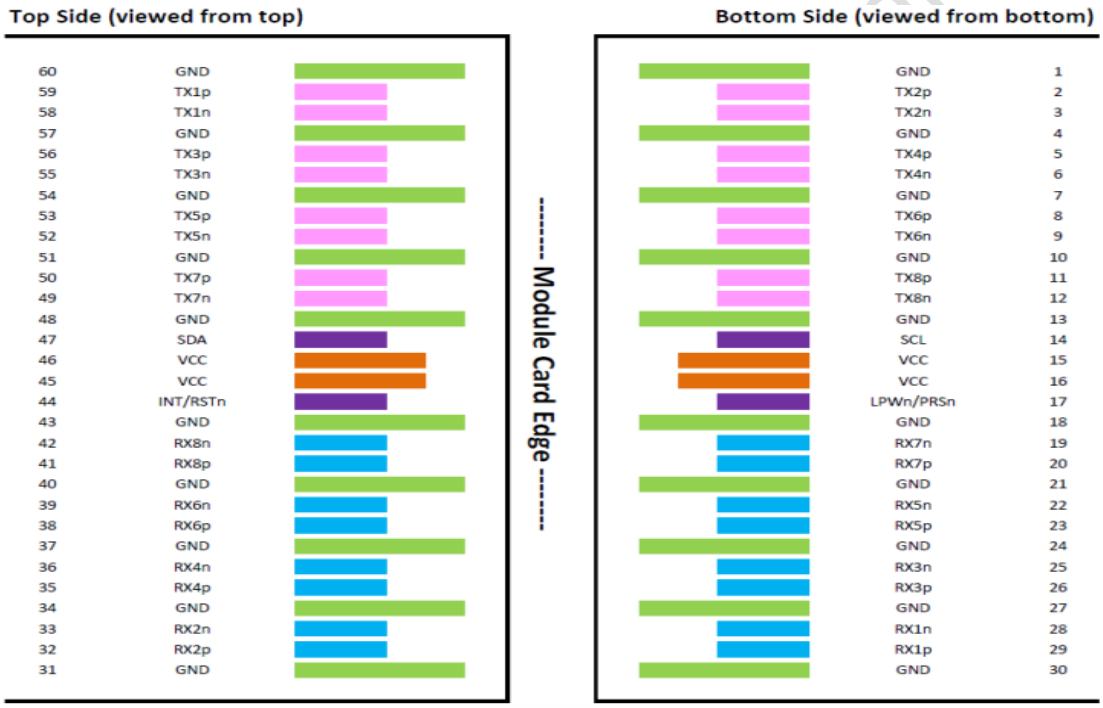

7. MECHANICAL OUTLINES

7.1 Product Name And Series Number(s)

800G OSFP Active Electrical Cable - PAM4

JPC P/N	Length(m)	Cable AWG	Description
P83**7W0a**M-1	0.25m – 3.0m	30 AWG	800G OSFP AEC PAM4 30AWG **m
P83**7Y0a**M-1	3.25m – 7.0m	26 AWG	800G OSFP AEC PAM4 26AWG **m

Note-1： ** **Indicates the customer code.**

Note-2： a **Indicates the Housing Heat Sink**

e.g. A means IHS-IHS, B means RHS-RHS, C means IHS-RHS

Note-3： ** **Indicates the length.**

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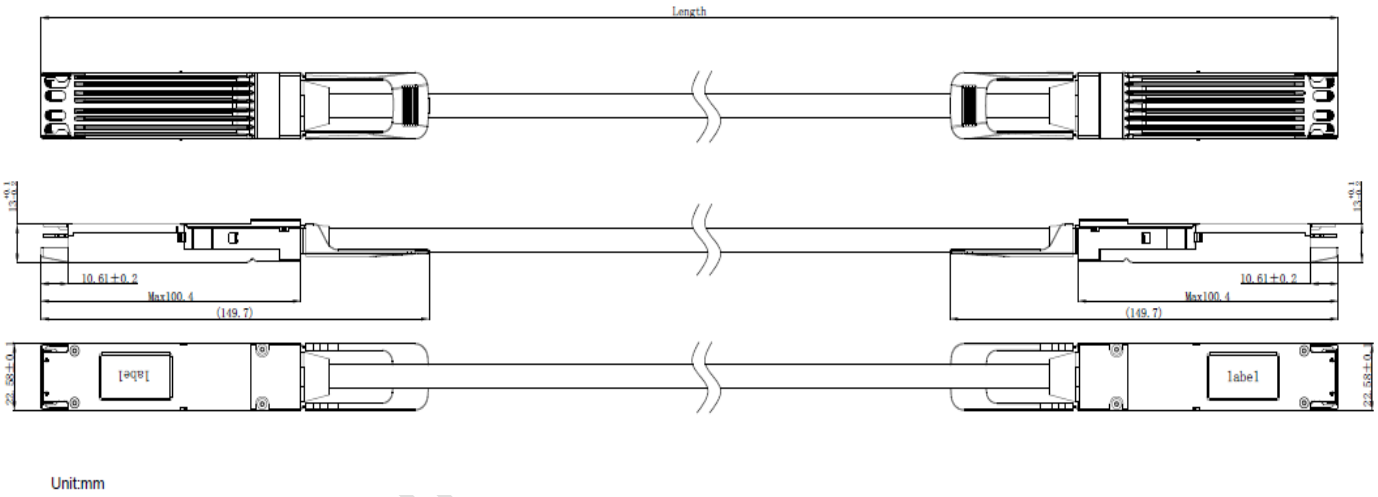

Unit:mm

IHS to IHS Mechanical Dimensions

Length (m)	Cable AWG
0.25m – 3.0m	30
3.25m – 7.0m	26

8. EEPROM INFORMATION

The digital diagnostic memory map specific data field defined as following. For detail EEPROM information, please refer to the related document of CMIS5.2.

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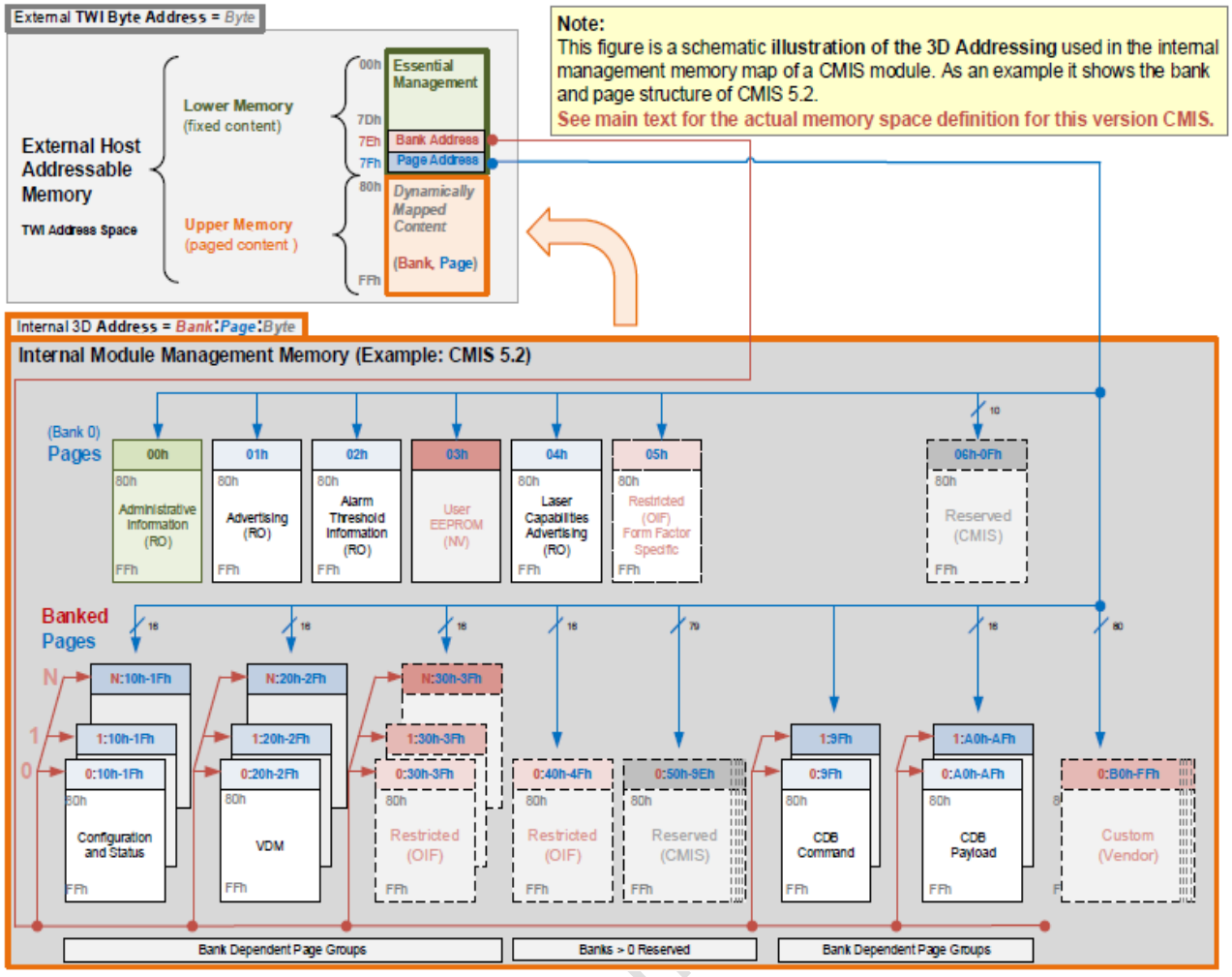

9. Modification History

Rev.	Comments	Date	Originator	Approval
01	Preliminary Draft	2026.03.04	Jeff Lo	Mike Sun