# addon

# QSFP-100G-EXT36CM-AO

MSA and TAA Compliant 100GBase-CU QSFP28 to QSFP28 Male to Female Direct Attach Extension Cable (Passive Twinax, 36cm, 30AWG)

## Features

- Low EMI radiation
- Insertion Loss < 7.0dB @12.89GHZ/channel within 50cm
- Oil resistance, dust-proof and anti-corrosion
- 100 ohm differential impedance system
- Low Near-End Crosstalk (NEXT)
- Compliant with QSFP-MSA
- Compliant with SFF-8436 and SFF-8665
- IEEE 802.3bj Compliant
- Compliant with Infiniband EDR
- Operating Temperature: 0°C to 70°C
- ROHS Compliant

## Applications

- Extend the 100Gb/s high speed interconnection for liquid immersion solution
- Extend the link of 100G AOC
- Extend the link of 100G transceiver

## **Product Description**

This is an MSA compliant 100GBase-CU QSFP28 to QSFP28 direct attach extension cable that operates over passive copper with a maximum reach of 36cm (1.2ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This direct attach cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

AddOn's direct attach extension cables are RoHS compliant and lead free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."





# **Regulatory Compliance**

- ESD to the Electrical PINs: compatible with MIL-STD-883E Method 3015.4
- ESD to the LC Receptacle: compatible with IEC 61000-4-3
- EMI/EMC compatible with FCC Part 15 Subpart B Rules, EN55022:2010
- Laser Eye Safety compliant with FDA 21CFR, EN60950-1& EN (IEC) 60825-1,2
- RoHS compliant with EU RoHS 2.0 directive 2015/863/EU

#### **Absolute Maximum Ratings**

Parameter	Symbol	Min	Typical	Max	Unit
Storage Temperature	Ts	-20		80	°C
Operating Case Temperature	Тор	0	25	70	°C
Data Rate per Lane			25.78125		Gbps

# **General Specifications**

Parameter	Specification	Notes
Feature	Adapter (convert connector type to cage type) with extended cable	
Connector Type	QSFP28 (SFF8665)	
Cage Type	QSFP28 cage	
Wire Gauge	30AWG	
Length	36cm	The length excludes connector and cage
Latch Color	Sky Blue	

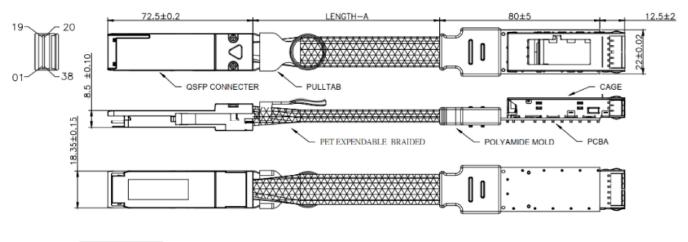
# Pin Assignment

# WIRING DIAGRAM

HIGH SPEED SIGNAL						
P1(QSFP28 PLUG)			P2(QSFP28 RECEPTACLE)			
PAD	SIGNAL	]	PAD	SIGNAL		
02	TX2n	]—	02	TX2n		
03	TX2p	<u> </u>	03	TX2p		
05	TX4n	<u> </u>	05	TX4n		
06	TX4p	<u> </u>	06	TX4p		
14	RX3p	<u> </u>	14	RX3p		
15	RX3n	<u> </u>	15	RX3n		
17	RX1p	<u> </u>	17	RX1p		
18	RX1n	<u> </u>	18	RX1n		
21	RX2n	<u> </u>	21	RX2n		
22	RX2p	<u> </u>	22	RX2p		
24	RX4n	<u> </u>	24	RX4n		
25	RX4p	<u> </u>	25	RX4p		
33	ТХ3р	<u> </u>	33	TX3p		
34	TX3n	<u> </u>	34	TX3n		
36	TX1p	<u> </u>	36	TX1p		
37	TX1n	<u> </u>	37	TX1n		
08	ModSelL	<u> </u>	08	ModSelL		
09	ResetL	<u> </u>	09	ResetL		
10	VccRx	<u> </u>	10	VccRx		
11	SCL	<u> </u>	11	SCL		
12	SDA	<u> </u>	12	SDA		
27	ModPrsL	<u> </u>	27	ModPrsL		
28	IntL	<u> </u>	28	IntL		
29	VccTx	<u> </u>	29	VccTx		
30	Vcc1	<u> </u>	30	Vcc1		
31	LPMode		31	LPMode		
GND GROUP GND			GND GROUP GND   GND GROUP 01,04,07,13,16,19			
GND GROUP						
01,04,07,13,16,19						
20,23,26,32,35,38			20,23,26,32,35,38			
CONNECTOR SHELL		<u> </u>	CONNECTOR SHELL			

\*DC BLOCKING CAPS ON P1,P2 RX END.

# **Mechanical Dimensions**





## Notes:

- 1. Standard length as LENGTHA in drawing with tolerance. Option of LENGTHA: 22cm and 36cm
- 2. Unit: mm
- 3. Compliant with IEEE802.3bj
- 4. LED function: Once pluggable QSFP28 connector end of the extender plugged into an equipment that support Vcc power 3.3v, the LED will be ON.

## **About AddOn Networks**

In 1999, AddOn Networks entered the market with a single product. Our founders fulfilled a severe shortage for compatible, cost-effective optical transceivers that compete at the same performance levels as leading OEM manufacturers. Adhering to the idea of redefining service and product quality not previously had in the fiber optic networking industry, AddOn invested resources in solution design, production, fulfillment, and global support.

Combining one of the most extensive and stringent testing processes in the industry, an exceptional free tech support center, and a consistent roll-out of innovative technologies, AddOn has continually set industry standards of quality and reliability throughout its history.

Reliability is the cornerstone of any optical fiber network and is in engrained in AddOn's DNA. It has played a key role in nurturing the long-term relationships developed over the years with customers. AddOn remains committed to exceeding industry standards with certifications from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.

# **U.S. Headquarters**

Email: sales@addonnetworks.com Telephone: +1 877.292.1701 Fax: 949.266.9273

## **Europe Headquarters**

Email: salessupportemea@addonnetworks.com Telephone: +44 1285 842070