



Credo Announces the HiWire Consortium for Standardization and Certification of Active Electrical Cables (AEC)

September 3, 2019

25 leading OEM, ODM, IC, and Test and Verification partners come together to develop
a Plug and Play interconnect standard for the data center

SAN JOSE, Calif., Sept 3, 2019 – **Credo** today announced the formation of the HiWire Consortium (<https://hiwire.org/>) dedicated to the standardization and certification of a new category of Active Electrical Cables (AEC).

HiWire AECs provide a full solution for layer 1 and 2 interconnect to deliver persistent and deterministic connectivity necessary for the next generation of data centers as the industry moves to 400G and beyond.

The founding companies of the HiWire Consortium are:

[Accton Technology Corp.](#) (TPE: 2345)

[Alpha Networks, Inc.](#) (TPE: 3380)

[Arrcus, Inc.](#)

[Barefoot Networks](#) (an [Intel](#) Company) (NASDAQ: INTC)

[Bizlink Technology, Inc.](#) (TPE: 3665)

[Cameo Communications, Inc.](#) (TPE: 6142)

[Canaan Creative Co., Ltd.](#)

[Centec Networks, Inc.](#)

[Chelsio Communications, Inc.](#)

[Credo](#)

[Dell EMC](#) (NYSE: DELL)

[Delta Electronics, Inc.](#) (TPE: 2308)

[Edom Technology Co., Ltd.](#) (TPE: 3048)

Cheng Uei Precision Industry Co., Ltd ([Foxlink](#)) (TPE: 2392)

[Innovium, Inc.](#)

[Inventec Corporation](#) (TPE: 2356)

[Juniper Networks, Inc.](#) (NYSE: JNPR)

[Keysight](#) (NYSE: KEYS)

[Quanta Computer Inc.](#) (TPE: 2382)

[Senao Networks, Inc.](#) (TPE: 3558)

[Spirent Communication Plc](#) (OTCMKTS: SPMYY)

[Steligent Information Technologies Co., Ltd.](#)

[Wistron Corporation](#) (TPE: 3231)

[Wistron NeWeb Corp](#) (WNC) (TPE: 6285)

[Wiwynn Corporation](#) (TPE: 6669)

The HiWire Consortium is dedicated to the establishment and ongoing development of an AEC standard that defines a specific implementation of the many industry MSAs and a formal certification process. This will enable an ecosystem of trusted Plug and Play AECs, available from multiple sources,

for the hyperscale data center, telecom and enterprise markets.

Credo

"We are delighted and humbled by the widespread support for Credo and the HiWire Consortium," said Bill Brennan, CEO of Credo. "The founding members all share a desire for thinner, longer and more reliable interconnect solutions. The consortium provides the framework to deliver a robust supply of interoperable solutions for 400G and beyond."

Barefoot (An Intel Company)

"As new high-performance software workloads hit the network, the availability of reliable, low cost 400G interconnect is crucial," said Ed Doe, vice president in Intel's Connectivity Group and general manager of the Barefoot Division. "The HiWire Consortium will go a step beyond MSAs and deliver to the datacenter what they have demanded from the start – truly interoperable interconnect solutions from a broad vendor base which will accelerate the adoption of our 12.8 Tbps P4-programmable Barefoot Ethernet switch series."

The Linley Group

"400G Ethernet represents a very challenging transition for the networking industry," said Bob Wheeler, Principal Analyst at The Linley Group. "Creating a specific implementation and formal certification program around the many industry MSAs and standards is key to enabling trusted cables from multiple sources."

HiWire Consortium members will collaborate to develop and formalize the HiWire AEC product specification and certification process as well as a 3rd party certification lab to enable full interoperability of AECs from multiple sources. Additional information on the HiWire Consortium is available at <https://hiwire.org/>

Industry Quotes

ODM Members

Accton

"Accton has been an enthusiastic early adopter of HiWire AEC cables to support reliable interconnect and enable customer deployment of 12.8Tb switches." said Michael Lane, VP R&D Engineering, Accton. "The HiWire Consortium will ensure the development of a robust ecosystem of fully interoperable AEC Cables to support our planned scale-out of 400G."

Delta

"AEC Cables offer an unparalleled value when compared to 400G optical solutions." Said Dennis Chao, sr. Director of marketing, Delta. "Joining the HiWire Consortium as a founding member allows us to define an interoperability standard that will greatly reduce our qualification costs in the future."

QCT

"HiWire AEC cables are key to enabling our broad portfolio of 400G products and enabling interconnectivity to legacy NRZ-based switches and NICs." Said Mike Yang, Sr. VP of Quanta Computer and President of Quanta Cloud Technology (QCT). "We're excited to see the HiWire Consortium get in front of the interoperability issue and help reduce the effort for QCT to diversify our AEC supply base in the future."

OEM / Silicon Members

Centec Networks

"Reliable, cost effective 400G interconnect is key to the success of 12.8Tb switches." said Wei Cheng, Director, Technical Marketing, Centec Networks. "HiWire AECs offer a reliable, cost-effective solution to drive 400G adoption in China and the HiWire consortium is key to developing a broad, interoperable supply base to support the enormous demand we see for 12.8T."

Chelsio Communications

"Smart NICs have become essential to interconnect scalability in the data center but bridging the variety of NIC and switch interconnects has become a challenge to our customers." Said Kianoosh Naghshineh, President and CEO, Chelsio Communications. "Standardizing HiWire AEC's speed shifting technology through the HiWire Consortium will allow NICs and switches to move at their natural lifecycles and maximize choice for our customers."

Juniper

"The 400G advancements in the IEEE 802.3 Ethernet working group and module MSA groups provide what is needed for interoperable interconnects, but there is still possibility for misconfiguration," said Jeffery J. Maki, Distinguished Engineer II at Juniper Networks. "The HiWire Consortium's focus on building a specification and accompanying certification framework will be key for assuring 'plug and play' functionality."

Innovium

"Innovium delivered the industry's first programmable low-latency PAM4 based switch silicon for up to 12.8Tbps performance and has been engaged in extensive interop testing with different connectivity options," said Amit Sanyal, VP of Product Management & Marketing at Innovium. "It is important for the industry to provide trusted, deterministic, multisource, plug and play connectivity solutions. We look forward to collaborating with the HiWire Consortium to develop an AEC standard and certification process."

Test and Verification Members

Keysight

“Our customers are looking for a broader level of consistency and interoperability in 400GE cable products,” said Charles Seifert, senior manager, product development for Keysight Technologies. “Keysight is excited to work with other HiWire Consortium members to improve current interoperability and enable the validation of future specifications and products with our portfolio of test equipment.”

Steligent

“400G and PAM4 are proving to be a difficult transition for the networking industry requiring much more system qualification work than previous standards.” Said Semin Wu, CEO of Steligent. “The HiWire Consortium will help build confidence in the 400G ecosystem and enable a level of interoperability not previous achieved.”

About Credo

Credo is a leading provider of high performance, mixed-signal semiconductor solutions for the data center, enterprise networking and high-performance computing markets. Credo’s advanced Serializer-Deserializer (SerDes) technology delivers the bandwidth scalability and end-to-end signal integrity for next generation platforms requiring single-lane 25G, 50G, and 100G connectivity for 100G, 200G, 400G, and 800G port enabled networks. Credo’s [HiWire™ Active Electrical Cables](#) deliver plug and play 400G connectivity today that is more affordable than optical solutions and more reliable than copper. For more information, please visit: www.credosemi.com. Follow Credo on [LinkedIn](#) and [Twitter](#).