

Y-HDE
S E R I E S

Y-SPE
SINGLE PAIR ETHERNET

Y-CIRC
S E R I E S



SINGLE PAIR ETHERNET

SINGLE PAIR ETHERNET BY YAMAICHI ELECTRONICS

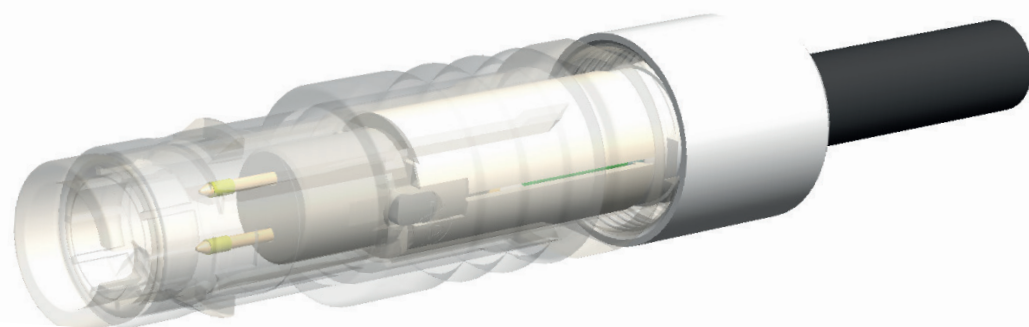
Single Pair Ethernet (SPE) is a future-oriented communication platform for electrical and electronic components and Machinery. In industrial applications, it is the key to efficient and cost-effective data transmission from the sensor to the cloud.

Depending on the data rate, transmission lengths of up to 1,000 m are possible for the first time. Due to the large range and the uniform On the communication level, Single Pair Ethernet is therefore generally considered to be the key in the transition to IIoT and Industry 4.0.

The use of only two instead of the previous four or eight contacts reduces costs and saves space, weight and time during assembly. The reduced number of strands also minimizes sources of error that can arise during assembly.

Single Pair Ethernet found its origin in the automotive industry due to the constantly increasing demands on data transmission. It is already being used successfully there. Because of its properties, Single Pair Ethernet will open up more and more areas of application and its application will become wider.

With Yamaichi Electronics as your partner, you are there from the start and you are well equipped, because we offer you a variety of SPE connectors for the industrial and automotive sectors, as well as customer-specific solutions.



Y-SPE – INDUSTRIAL SINGLE PAIR ETHERNET ACCORDING TO IEC 63171

Yamaichi Electronics offers you the opportunity to choose freely between the connector faces according to IEC 63171-2 or 63-171-6 and to use the advantages that the new technology brings with it.

We have already made initial proposals for a solution for the hybrid connector in accordance with IEC CD-V 63171-7 based on M12. The integration of the M12 push-pull locking according to IEC61076-2-012 is also possible here. Similar to Power over Ethernet (PoE), with Single Pair Ethernet there is the possibility of power transmission without additional contacts. This is called Power over Data Line (PoDL) and can transmit around 60 W. However, since this is not sufficient in some use cases, the additional standard is currently being finalized.

Find out more about the new connectors from us:

- Connector according to IEC 63171-2
- 90 ° variant
- Connector according to IEC 63171-6
- 90 ° variant
- 180 ° variant
- M12 IP67 back wall mounting
- M12 IP67 front wall mounting

- Connector according to IEC CD-V 63171-7
- M12 IP67 back wall mounting
- M12 IP67 front wall mounting
- Power transmission up to 8 A.



ADVANTAGES:

- Future-oriented technology as preparation for Industry 4.0
- Different mating faces available (IEC 63171-2 / -6 / -7)
- Saves space and weight



Y-SPE6-J9STTFP-11-NOALR1T		90° variant
Y-SPE6-J1STTFP-01-NOALR1T		180° variant
Y-SPE2-J9STTMP-11-NOALR1T		90° variant
Y-SPE6-S112SFB-01-NOALR1T		M12 IP67 back wall mounting
Y-SPE6-S112SFF-01-NOALR1T		M12 IP67 front wall mounting

SPE – Y-CIRC P PUSH-PULL CIRCULAR CONNECTORS

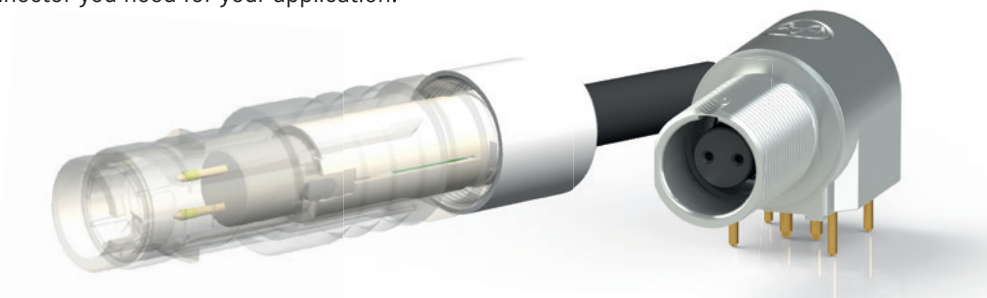
In addition to the standardized versions, we also offer customer-specific solutions based on push-pull connectors with a high number of mating cycles.

On request, we will create exactly the connector you need for your application.

Customized solutions

Application:

- Test equipment interface for up to 5,000 mating cycles

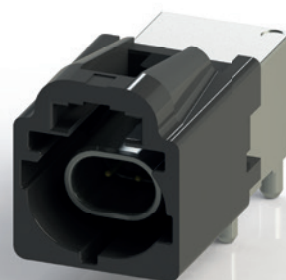


Y-CIRC
S E R I E S

SPE – Y-HDE AUTOMOTIVE

Our Y-HDE connectors, which have been specially developed for this area of application, are suitable for the automotive sector:

- Developed high-speed data ethernet
- and tested for automotive requirements
- Data transfer up to 15 Ghz / 20 Gbps
- 100 ohm differential impedance
- 7 different codings available
- Coding by color and mechanical
- Space and weight saving design
- Single and quad types available



Y-HDE
S E R I E S

SINGLE PAIR ETHERNET

Version November 2021

The specifications are subject to change without notice.

YAMAICHI ELECTRONICS

Deutschland GmbH
Concor Park
Bahnhofstraße 20
85609 Aschheim-Dornach
Germany

Phone +49 (0)89 45109-0
Fax +49 (0)89 45109-110
E-Mail sales@yamaichi.de
Web www.yamaichi.de

YAMAICHI ELECTRONICS

Italia s.r.l.
Centro Direzionale Colleoni
Via Colleoni, 1
Palazzo Taurus Ing. 1
20864 Agrate Brianza (MB)
Italy

Phone +39 039 6881-185
Fax +39 039 6892-150
E-Mail sales@yamaichi.it
Web www.yamaichi.it

YAMAICHI ELECTRONICS

GB Ltd.
6 The Clockhouse
Stratton Park
Micheldever
Hampshire SO21 3DP
Great Britain

Phone +44 (0)7808 493377
Fax +44 (0)1962 774902
E-Mail sales@yamaichi.co.uk
Web www.yamaichi.co.uk

YAMAICHI ELECTRONICS

Israel
P.O. # 66
Palmachim 7689000
Israel

Phone +972 54 20444 23
Fax +972 88 664 344
E-Mail sales@yamaichi.co.il
Web www.yamaichi.co.il