

LPA Connection Systems Ethernet Connectors



Long Life Reliability
does not cost the earth

4S-10G[®] connector



Module 32 - 4 x 4S-10G[®]



Module 42 - mixed data, incl 4S



Ethernet 10GBASE-T Capability

LPA Connection Systems is pleased to announce that its range of proven & rugged railway jumper connectors has been extended to include Ethernet 10GBASE-T capabilities.

LPA has developed an Ethernet connector that is designed to be compatible with existing Railcat Ethernet cables – its 4S-10G[®] connector.

This connector has been independently verified to 10GBASE-T performance and is capable of transmission rates of up to 10Gbit/s.

The 4S-10G[®] connector has been incorporated into our range of standard rail connectors - Module 42 and Module 32 - in order to offer combined data & communication transmission across inter-car gaps. By incorporating the data connector into LPA's robust railway connectors, the data circuits are well protected during insertion and whilst in service.

The 4S-10G[®] connector gives customers the facility to transmit data along a train to provide WiFi services to customers or to send high definition CCTV pictures to a central recorder and/or transmitter to a land based receiver. Using LPA's modular connectors design, these data services can be combined with other data circuits in a bespoke jumper to offer a compact, robust but cost-effective installation.

The 4S-10G[®] connector is also being installed by operators to upgrade their Fibre Optic (FO) circuits to copper to eliminate communications intermittency and improve maintainability.

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c2c C357 Electrostar



GWR HST



Victoria Line 2009 Stock



This connector is in use on the following trains:

Fleet	Jumper Connectors	Connectivity
c2c Class 357 (Electrostar)	4x 4S-10G®	10GbE-Ready EB & MVB upgrade, from FO
SR Class 318 SR Class 320	4x 4S-10G®	2x 10GbE-Ready EBs
GWR HST	2x 4S-10G® + 9x Control	10GbE-Ready EB for WiFi & Central Door Locking circuits
GWR Class 158 GWR Class 150/2	3x 4S-10G®	10GbE-Ready EB & non-IP-based CCTV
XC Class 170 GWR Class 165/6 GWR Class 150/0	2x 4S-10G®	Passenger WiFi & non-IP-based CCTV
GWR Class 165/6	2x 4S-10G® with 90° Receptacle outlet	Passenger WiFi & non-IP-based CCTV
SE Class 375	2x 4S-10G®	MVB upgrade, from FO
TEMU2000, Japan	7x 4S-10G®	7x 100Mb/s EBs
EMU800, Taiwan	3x 4S-10G®	3x 100Mb/s EBs
LUL 2009 Stock (Victoria Line)	8x 4S-10G®	4x 100Mb/s EBs & 4x Train Control

Specification

Standard	10GBASE-T (IEEE 802.3an)
Transmission Speed	up to 10Gbit/s
Characteristic Impedance	100Ω
Frequency Range	up to 600MHz
EMC Immunity	EN 50121-3-2 BS EN 61000-4-3 RIA 12, Clause 11

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