

# Data Sheet

## FUJITSU PLAN EP Intel® X710-DA2 2x10GbE SFP+

Dual-port 10 Gbit PCIe 3.0

Ethernet cards enable data exchange between all the devices connected in a local network (LAN). A networked IT infrastructure that functions well is of great significance when managing and controlling critical business processes in a company. The wide range of complex information transported across the network relies on fast and reliable data processing by the network cards.

The cards offer at least one Ethernet interface which is designed for the respective network types and network architectures. The bus interface links the network card with the server.

### PLAN EP Intel® X710-DA2 2x10GbE SFP+

The Fujitsu PLAN EP Intel X710-DA2 SFP+ Server Adapter is the most flexible and scalable Ethernet adapter for the current demanding data center environments.

The X710 adapter family addresses the demanding needs of the next-generation agile data center by providing unmatched features for both server and network virtualization, flexibility for LAN and SAN networks and proven, reliable performance. The PLAN EP Intel® X710-DA2 SFP+ delivers superior performance with a throughput 40Gb/s, in a PCI Express 3.0 slot.



# Features & Benefits

Main Features	Benefits
<ul style="list-style-type: none"> <li>■ Intel® X710-DA2 SFP+ Dual-Port 10 GbE Controller</li> </ul>	<ul style="list-style-type: none"> <li>■ Industry-leading, cost-- and energy-efficient design delivers superior performance with a theoretical throughput of 40 Gb/s (20 Gb/s Tx; 20Gb/s Rx) bidirectional throughput, in a PCI Express v3.0 x8 slot.</li> </ul>
<ul style="list-style-type: none"> <li>■ A Complete, Unified Networking Solution</li> </ul>	<ul style="list-style-type: none"> <li>■ Converging data and storage onto one fabric eliminates the need for multiple adapters, cables and switches.</li> </ul>
<ul style="list-style-type: none"> <li>■ Data, Storage, Management - DCB</li> </ul>	<ul style="list-style-type: none"> <li>■ A key capability that makes all this possible is traffic class separation provided by Data Center Bridging (DCB) – providing a one-wire solution with virtual pipes for the different classes of traffic.</li> </ul>
<ul style="list-style-type: none"> <li>■ Server Virtualization and VMDq</li> </ul>	<ul style="list-style-type: none"> <li>■ The host-based virtualization technologies supported by Intel VT include VMDq for Emulated Path: Adapter-based Queue sorting enabling efficient hyper-visor-based switching.</li> </ul>
<ul style="list-style-type: none"> <li>■ SR-IOV for Direct Assignment</li> </ul>	<ul style="list-style-type: none"> <li>■ Adapter-based isolation and switching for various virtual station instances enabling optimal CPU usage in virtualized environments.</li> </ul>
<ul style="list-style-type: none"> <li>■ Network Virtualization</li> </ul>	<ul style="list-style-type: none"> <li>■ VXLAN, NVGRE, GENEVE, NSH Offloads. These stateless offloads preserve application performance for overlay networks. With these offloads it is possible to distribute network traffic across CPU cores.</li> </ul>

# Technical details

## Technical details

<b>Controller Silicon</b>	Intel® X710 10 Gigabit Ethernet Controller
<b>Controller type</b>	Ethernet Ctrl.
<b>Connector type</b>	SFP+
<b>Operating system pre-installed</b>	Information to released operating systems can be found in the server datasheets. Details can be found in the released drivers list on the support portal.
<b>Released drivers list link</b>	<a href="http://support.ts.fujitsu.com/Download/Index.asp">http://support.ts.fujitsu.com/Download/Index.asp</a>
<b>Number of ports</b>	2
<b>Data transfer rate(s)</b>	1 Gbit/s; 10 Gbit/s
<b>Auto Negotiation support</b>	Yes
<b>Bus interface</b>	PCIe 3.0 x8
<b>Bus transfer rate</b>	8GT/s
<b>LEDs</b>	LINK (solid) and ACTIVITY (blinking) LINK SPEED (green = 10Gbps; yellow = 1Gbps)
<b>Network protocol and standards compatibility</b>	IPv4, IPv6 and mixed IPv4/IPv6 network protocols IEEE 802.1p Class of Service IEEE 802.1q VLAN IEEE 802.1Qaz Enhanced Transmission Selection (ETS) IEEE 802.3ae 10Gbit Ethernet IEEE 802.3x Flow Control IEEE 802.1as Timing and Synchronization IEEE 1588 Precision Time Protocol IEEE 802.3az Energy Efficient Ethernet (EEE) SFF 8431 SFP+
<b>Interrupt Levels</b>	MSI-X; INTA; MSI
<b>Virtualization</b>	Server Virtualization - VMDq (up to 256 maximum VMDq VMs supported) - SR-IOV ready (64 virtual function per port) - VEPA: IEEE 802.1Qbg support for Virtual Ethernet Port Aggregator Network Virtualization - VXLAN, NVGRE, GENEVE - VLAN support with VLAN tag insertion, stripping and packet filtering for up to 4096 VLAN tags
<b>Teaming</b>	by OS driver
<b>Remote boot support</b>	PXE 2.0
<b>iSCSI support</b>	Yes
<b>Offloading</b>	- TCP Stateless Offloads (include checksum, TSO, VMDq and RSS) - TX/RX IP, SCTP, TCP & UDP checksum offload (IPv4, IPv6) capabilities - iSCSI Host Initiator - Flow Classification (Trafficking data flows across multiple consumers and connections)
<b>Data transfer rate up to</b>	10 Gbit/s

Order code	Height of bracket	Number of ports	Related product
MC-0JXE81	Low Profile (LP)	2	PRIMEQUEST Server
MC-0JXE82	Full Height (FH)	2	PRIMEQUEST Server
MCX0JXE81	Full Height / Low Profile	2	PRIMEQUEST Server
S26361-F3640-E202	Low Profile (LP)	2	PRIMERGY Server
S26361-F3640-E2	Full Height (FH)	2	PRIMERGY Server
S26361-F3640-L502	Full Height / Low Profile	2	PRIMERGY Server
S26361-F3640-L522	Full Height / Low Profile	2	PRIMERGY Server

## Supported Interface Modules / Cables

Order code	Application	Type / mode	Connector / cable Length
MC-0JXE51	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 300m
MCX0JXE51	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 300m
S26361-F3986-E3	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m

**Supported Interface Modules / Cables**

Order code	Application	Type / mode	Connector / cable Length
S26361-F3986-L3	Ethernet 10 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-E4	Ethernet 10 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3986-E4	Ethernet 10 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3986-L4	Ethernet 10 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10Km
S26361-F3986-E5	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-L5	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / MMF (SWL)	LC-style / up to 400m
S26361-F3986-E6	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3986-L6	Ethernet 10 Gbit/s ; 1 Gbit/s	SFP+ / SMF (LWL)	LC-style / up to 10km
S26361-F3989-E600	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 2m or 5m
S26361-F3989-L102	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 2m
S26361-F3989-L105	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 5m
S26361-F3989-L110	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 10m
S26361-F3873-E500	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 3m or 5m
S26361-F3873-L501	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 1m
S26361-F3873-L503	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 3m
S26361-F3873-L505	Ethernet 10 Gbit/s	SFP+ Twinax Cable / active	SFP+ / 5m
Interface Module notes	Only Fujitsu certified modules and cables are supported Order codes starting with "S26361-F3873" are Brocade branded cables, required for connections to Brocade switches		
Description optional cable	10Gbit/s transceiver module for MMF (S26361-F3986-E3 / -L3 and MC-0JXE51 / MCX0JXE51): - OM1 (Multi Mode Fiber 62.5/125µm, 200 MHz*km) up to 33m - OM2 (Multi Mode Fiber 50.0/125µm, 500 MHz*km) up to 82m - OM3 (Multi Mode Fiber 50.0/125µm, 2000 MHz*km) up to 300m - OM4 (Multi Mode Fiber 50.0/125µm, 4700 MHz*km) up to 400m 10Gbit/s transceiver module for SMF (S26361-F3986-E4 / -L4): - OS1 (Single Mode Fiber 9µm) up to 10km		

**Environment**

<b>Power consumption</b>	Dual Port 10GBase-SR	typ. 4.3 W, max. 4.8 W
	Dual Port 10GBase-LR	typ. 4.5 W, max. 5.1 W
	Dual Port SFP+ Twinax	typ. 3.3 W, max. 3.7 W
<b>Power consumption</b>		
<b>Temperature (operating)</b>	0 - 55 °C	
<b>Storage temperature</b>	-40 - 70 °C	

**Compliance**

<b>Compliance notes</b>	According to the corresponding system
<b>Compliance link</b>	<a href="https://sp.ts.fujitsu.com/sites/certificates">https://sp.ts.fujitsu.com/sites/certificates</a>

## More information

### Fujitsu products, solutions & services

In addition to Fujitsu with PLAN EP Intel® X710-DA2 2x10GbE SFP+ , Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

#### Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

#### Computing Products

[www.fujitsu.com/global/products/computing/](http://www.fujitsu.com/global/products/computing/)

#### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

### More information

Learn more about FUJITSU Server PLAN EP Intel® X710-DA2 2x10GbE SFP+ , please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. <http://www.fujitsu.com/primergy>

### Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at <http://www.fujitsu.com/global/about/environment>



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2018-02-01 WW-EN

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