Data Sheet
FUJITSU DynamicLoM for PRIMERGY Server

1Gbit/10Gbit LAN-on-Motherboard solution with iWARP RDMA functionality

Servers are usually provided with network adapters aligned to the current infrastructure, offer less flexibility and scalability opportunities for future requirements. The Fujitsu DynamicLoM technology delivers a perfect solution against these limitation barriers. Through seamless configuration and integration in existing infrastructures, the solution represents the direct opposite to inflexible LAN-on-motherboard architectures.

DynamicLoM for PRIMERGY Server

Powered by the Intel Controller and Intel OCP V3 card, Fujitsu DynamicLoM offers Intel's Ethernet network adapter technology including excellent reliability for enterprise and scale-out data centers. Integrated Intel® Ethernet with scalable iWARP RDMA: Provides up to four 10 Gbps high-speed Ethernet ports for high data throughput and low-latency workloads. Ideal for software-defined storage solutions, and virtual machine migrations. Integrated in the Fujitsu Server PRIMERGY M6 generation server systems chipset. Autonegotiate 10G/1G is supported with DynamicLoM, however DynamicLoM does not support 100BASE-T at all. Fujitsu DynamicLoM offers several features including:

Standards Based Virtualization:
SR-IOV: 4 Physical Functions and 128 Virtual Functions. EVB/802.1Qbg. VEB (Virtual Ethernet Bridge); Broad Operating System Enablement.

Shared LAN:
Multiplexed management LAN is possible with any of Fujitsu's DynamicLoM options; Network infrastructure ecosystem savings where desired. No need to use the dedicated, provided on system board 1000BASE-T RJ45 management port for the iRMC; iRMC traffic can be shared with Ethernet traffic on any DynamicLoM port let it be SFP+ 10GbE, 10G/1GBASE-T or 1000BASE-T RJ45.

Main Features	Benefits
Scalable performance	
■ Powered by the Intel Controller and Intel OCP V3 card for Fujitsu DynamicLoM; Consolidation of multiple 1GbE and 10GbE adapters, including iWARP RDMA	■ Perfect space saving efficiency without PCIe slot occupancy and field-proven technology; Reduced replacement, energy and management costs at less complexity leveraging OCP V3 form factor mezzanine cards
Flexible networking	
■ Based on Intel's latest 10GbE solution; Multiple-speed 1G/10G	■ Optimized for networking capability in Cloud, Comms, and Storage; Single networking driver on Intel platforms
Efficient networking	
■ Remote Direct Memory Access; iWARP	■ Routable and scalable RDMA ideal for large segmented networks in private and public clouds
Connectivity	
■ Flexible Filters ATR, Flow Director and NVGRE, VXLAN, GENEVE	■ Abstract the network for cloud flexibility; Enhanced programmability and application affinity

Technical details

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Controller Silicon	Intel C624 Chipset LBG-4
Controller type	Interface modul for Dynamic LoM
Number of ports	2
	4
Number of Connectors	4
Number of external ports	4
Data transfer rate(s)	10 Gbit/s
	1 Gbit/s
Auto Negotiation support	Yes
Interrupt Levels	MSI-X
WoL	Yes
WoL comment	with 1Gb interface cards on all port, with 10Gb interface cards on port 0
LEDs	2 LED per port LED1: Steady Green: Link. Blinking Green: Activity LED2: Green: 10G speed; Amber: 1G speed
Virtualization	SR-IOV (Single Root IO Virtualization) Overlay Network Virtualization (NVGRE & VXLAN) These features work on 10GbE ports only
Teaming	Teaming functions are provided by the Operating System
Remote boot support	PXE 2.1 iSCSI
Remote boot support notes	iSCSI Boot: Please submit a Request for Special Release in order to get support Windows Server 2016 on Fujitsu Server System PRIMEQUEST only
Additional features	iWARP RDMA. This feature works on 10GbE ports only.
Offloading	Stateless TCP Virtual Network Fabrics (NVGRE, VXLAN, GENEVE)
Standards	Ethernet: - IEEE 802.3-2008 10Gb/s Ethernet ports - IEEE 802.1Q virtual LANs (VLAN) - IEEE 802.3x Flow control with Pause frames - IEEE 802.3ad Link Aggregation / LACP - IEEE 802.1AB Link Layer Discovery Protocol (LLDP) - IEEE 802.1Qbg Edge Vitual Bridging DCE/CEE Support: - IEEE 802.1Qaz Enhanced Transmission Selection (ETS) Data Center Bridging Capability Exchange (DCBX) - IEEE 802.1Qbb Priority-based Flow Control (PFC)
Technology	Intel C620 series Chipset Platform Controller

Sorting / Sequence	Order code	Number of ports	Port types	Speed
3	S26361-F3953-E401	4	RJ45	1 Gbit/s
4	S26361-F3953-L401	4	RJ45	1 Gbit/s
5	S26361-F5651-E530	4	RJ45	1 Gbit/s
6	S26361-F5651-L530	4	RJ45	1 Gbit/s
10	S26361-F3953-E210	2	RJ45	1 Gbit/s; 10 Gbit/s
11	S26361-F3953-L210	2	RJ45	1 Gbit/s; 10 Gbit/s
12	S26361-F5651-E540	2	RJ45	1 Gbit/s; 10 Gbit/s
13	S26361-F5651-L540	2	RJ45	1 Gbit/s; 10 Gbit/s
21	S26361-F3953-L211	2	SFP+	1 Gbit/s; 10 Gbit/s
22	S26361-F3953-E411	4	SFP+	1 Gbit/s; 10 Gbit/s
22	S26361-F5651-E510	2	SFP+	1 Gbit/s; 10 Gbit/s
23	S26361-F3953-L411	4	SFP+	1 Gbit/s; 10 Gbit/s
23	S26361-F5651-L510	2	SFP+	1 Gbit/s; 10 Gbit/s

Sorting / Sequence	Order code	Number of ports	Port types	Speed
24	S26361-F5651-E550	4	SFP+	1 Gbit/s; 10 Gbit/s
25	S26361-F5651-L550	4	SFP+	1 Gbit/s; 10 Gbit/s

DVI	
LAN / Ethernet (RJ-45)	Up to 4X 1GBASE-T or 2X 10GBASE-T ports, select from S26361-F3953-E401 PLAN EM 4X 1GBASE-T Intel I357-T4 OCP, or S26361-F3953-L401 PLAN EM 4X 1GBASE-T Intel I357-T4 OCP, or S26361-F3953-E210 PLAN EM 2X 10GBASE-T Intel X557-T2 OCP, or S26361-F3953-L210 PLAN EM 2X 10GBASE-T Intel X557-T2 OCP.

Supported Interface Modules / Cables

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

Interface Module notes	Up to 4X SFP+ Cages. Products ship with empty cages. Intel 10G/1G dual-line-rate or Finisar 10G single-line-rate optical transceivers SFP+ modules are available. Choose between SR and LR. 10G DAC, AOC, Twinax cables are available.
Description optional cable	10G/1G Intel transceiver module for MMF (S26361-F3986-E5, S26361-F3986-L5) or 10G Finisar transceiver module for MMF (S26361-F3986-E3, S26361-F3986-L3): - 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 10G/1G Intel transceiver module for SMF (S26361-F3986-E6, S26361-F3986-L6) or 10GFinisar transceiver module for SMF (S26361-F3986-E4, S26361-F3986-L4): - OS1 (Single Mode Fiber 9µm) up to 10km 10GBASE-T - 100m on Cat 6A or Cat 7 - 55m on Cat 6 (compliant to TSB-155) 1GBASE-T - 100m on Cat 5e, Cat 6, Cat 6A or CAT 7

Environment

Power consumption	PLAN EM 4X 1GBASE-T Intel I357-T4 OCP max. 3.3 W PLAN EM 2X 10GBASE-T Intel X557-T2 OCP max. 9.9 W PLAN EM 2X 10GbE SFP+ Intel X527-DA2 OCP max. 3.7 W, plus the actual power consumption of SFP+ modules or DAC cables PLAN EM 4X 10GbE SFP+ Intel X527-DA4 OCP max. 8.3 W, plus the actual power consumption of SFP+ modules or DAC cables
Temperature (operating)	0 - 55 °C
Storage temperature	-40 - 70 °C

Compliance

Compliance notes	According to the corresponding system
Compliance link	https://sp.ts.fujitsu.com/sites/certificates

More information

Fujitsu products, solutions & services

In addition to Fujitsu with DynamicLoM for PRIMERGY Server, 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/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu DynamicLoM for PRIMERGY Server, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
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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