FUJITSU

Data Sheet
Fujitsu PRIMERGY TX140 S1 Mono-Socket Intel® Xeon® processor server

Datasheet for Red Hat certification
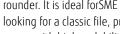
Expandable SME All-Round Server

PRIMERGY TX industry standard tower servers: efficient, rock solid, record-breaking performance. PRIMERGY TX servers benefit from over 20 years pioneering work in the field of Green IT. That is how TX servers reach industry leading performance per watt ratios, lowering the environmental impact and running costs. TX servers can easily be managed via the free of charge PRIMERGY ServerView Suite, saving IT admin costs. That's efficient performance. Our made-to-measure service packages take care of your system every step of the way. Rest assured, PRIMERGY TX servers are put through 5000 boot cycles - that's rock solid performance. PRIMERGY TX servers are flexible systems capable of using up to two processors and up to 20 hard disks. Tower to rack mounting kits are available for most TX systems to help you move to a consolidated rack infrastructure. TX servers have a tradition of setting record-breaking performance levels. So, whether you use them as tower or rack servers, for file, print or application purposes, you will benefit from record-breaking performance. PRIMERGY TX: a tower of strength.

PRIMERGY TX140 S1
PRIMERGY TX140 S1: the expandable SME all-rounder. It is ideal forSME or branch customers looking for a classic file, print, mail, or database server, with high scalability and record-setting performance per watt. As the company evolves, so too does the TX140 S1. Storing up to 8TB of data, the TX140 S1 can easily handle large files. At a later stage, the TX140 S1 can be included in a rack cabinet with dedicated storage systems. From here, customers can fully take advantage of the extensive connectivity options, Intel® Xeon® E3 series performance, and high serviceability via the

optional front service LAN port. The TX140 S1: an excellent long-term investment.

Features and Benefits

Main Features	Benefits
■ The Intel® Xeon® processor E3 family-based platform and Fujitsu's engineering capabilities give you excellent performance with low energy consumption (CSCI Gold).	■ High performance and energy efficiency
■ Up to 8TB of storage possible	■ Whatever you need you can store it: databases, pictures, large files...storage - no problem!
■ 2x 1Gigabit LAN as standard and 3.5-inch (max.4) or 2.5-inch (max.8) hot-plug hard disks	■ High availability to keep your business going - non-stop!
■ Optional tower to rack conversion kit and extensive connectivity options	■ The TX140 S1 grows as your company grows, making it an excellent long-term investment
■ The onboard remote management controller (iRMC S3), and the optional service LAN, makes it easier to service your TX140 S1	■ High manageability and serviceability - saving you time

Technical details

Mainboard	
Mainboard type	D 3049
Processor quantity and type	1 x Intel® Core™ i3 processor / Intel® Pentium® processor / Intel® Xeon® processor E3 series
Processor	Intel® Core™ i3-2100 processor (2C/4T, 3.10 GHz, TLC: 3 MB, Turbo: No, 1333 MHz, 65 W)
	Intel® Core™ i3-2120 processor (2C/4T, 3.30 GHz, TLC: 3 MB, Turbo: No, 1333 MHz, 65 W)
	Intel® Pentium® processor G620 (2C/2T, 2.60 GHz, TLC: 3 MB, Turbo: No, 1066 MHz, 65 W)
	Intel® Xeon® processor E3-1220 (4C/4T, 3.10 GHz, TLC: 8 MB, Turbo: 3.40 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1230 (4C/8T, 3.20 GHz, TLC: 8 MB, Turbo: 3.60 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1240 (4C/8T, 3.30 GHz, TLC: 8 MB, Turbo: 3.70 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1260L (4C/8T, 2.40 GHz, TLC: 8 MB, Turbo: 3.30 GHz, 1333 MHz, 45 W)
	Intel® Xeon® processor E3-1270 (4C/8T, 3.40 GHz, TLC: 8 MB, Turbo: 3.80 GHz, 1333 MHz, 80 W)
	Intel® Xeon® processor E3-1280 (4C/8T, 3.50 GHz, TLC: 8 MB, Turbo: 3.90 GHz, 1333 MHz, 95 W)
Memory slots	4
Memory slot type	DIMM (DDR3) UDIMM
Memory capacity (min. - max.)	2 GB - 32 GB
Memory protection	ECC
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
Memory modules notes	1333 MHz memory modules

Interfaces	
USB ports	10 x USB 2.0 (2x front, 6x rear, 2x internal; the 2 internal ports cannot be used in parallel)
Graphics (15-pin)	1 x VGA
Serial 1 (9-pin)	1 x serial RS-232-C, usable for iRMC or system or shared
Serial 2 (9-pin)	1 x serial RS-232-C (optional)
LAN / Ethernet (RJ-45)	2 x Gbit/s Ethernet
Service LAN (RJ45)	1 x dedicated Service LAN port for iRMC S3 (10/100/1000 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port

Onboard or integrated Controller	
RAID Controller	Integrated RAID 0/1 or RAID 5/6 controller for SAS base units (option, occupies one PCIe slot). See under Components RAID controller
SATA Controller	Intel® C202, 2 ports used for accessible drives 4 port for internal SATA HDDs with RAID 0, 1, 10 for Windows and Linux;
LAN Controller	Intel® 82574L + Intel® 82579LM onboard, 2 x 10/100/1000 Mbit/s Ethernet (TCP/IP acceleration), iSCSI and PXE-Boot via LAN, WoL for Intel® 82574L only.
Remote Management Controller	Integrated Remote Management Controller (iRMC S3, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible
Trusted Platform Module (TPM)	Infineon / 1.2 (option)

Slots

PCI Express 2.0 x1 (mech. x4)	1 x
PCI-Express 2.0 x4 (mech. x8)	1 x
PCI-Express 2.0 x16	1 x
PCI slots	1 x PCI 32/33 MHz, 1x long, 5V
Slot Notes	in SAS configuration 1x PCI-Express occupied by modular RAID controller.

Drive bays

Hard disk bay configuration	4x 3.5-inch, for SAS / SATA or 8x 2.5-inch for SAS/SATA optional
Accessible drive bays	3 x 5.25/1.6-inch
Notes accessible drives	all possible options described in relevant system configurator
Number of fans	1
Fan configuration	1 standard fan

Operating panel

Operating buttons	On/off switch NMI button Reset button
Status LEDs	System status (orange / yellow) Identification (blue) Hard disks access (green) Power (orange / green) At system rear side: System status (orange / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow) CSS (yellow)

BIOS

BIOS features	ROM based setup utility Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager Remote PXE boot support Remote iSCSI boot support

Operating Systems and Virtualization Software

Certified or supported operating systems and virtualization software	Microsoft® Microsoft® Hyper-V™ Server 2008 R2
	Microsoft® Windows Server® 2008 R2 Datacenter
	Microsoft® Windows Server® 2008 R2 Enterprise
	Microsoft® Windows Server® 2008 R2 Standard
	Microsoft® Windows Server® 2008 R2 Foundation
	Microsoft® Microsoft® Windows Web Server 2008 R2
	Microsoft® Windows® Small Business Server 2011 Premium Add-On
	Microsoft® Windows® Small Business Server Standard 2011
	Microsoft® Windows® Server 2008 Datacenter
	Microsoft® Windows® Server 2008 Enterprise
	Microsoft® Windows® Server 2008 Standard
	Microsoft® Windows® Web Server 2008
	Novell® SUSE Linux Enterprise Server 11
	Novell® SUSE Linux Enterprise Server 10
	Red Hat® Enterprise Linux 6
	Red Hat® Enterprise Linux 5
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421
Operating system notes	Support of other Linux derivatives on demand

Server Management

Standard	ASR&R Automatic Server Recovery and Restart
	PDA Prefailure Detection and Anaylsis
	Online update packages for BIOS, firmware drivers and ServerView Agents
	ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris
	Deployment Solution ServerView Deployment Manager (fully functional 30-day trial version)
	ServerView Deployment Manager (fully functional 30-day trial version)
Option	iRMC S3 Advanced Pack
	ServerView Integration for Tivoli TEC®, Tivoli NetView, HP NNM and HP Operations Manager
Server Management notes	Regarding Operating System dependencies and product details for ServerView Suite Software Products see dedicated Product Data sheets.

Dimensions / Weight

Floor-stand (W x D x H)	205 x 584 x 444 mm
Rack (W x D x H)	482 x 570 x 220 mm
Dimension notes	Floorstand Width 306 mm with tilt protection; depth measured excludes handles on redundant PSU. Rack depth excludes handles of redundant PSU and rack front.
Height Unit Rack	5 U
Weight	21-28 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option
Dimensions / Weight / Environmental (Base unit specific)	

Environmental

Sound pressure (LpAm)	SATA: 25 dB(A) idle mode/ 25 dB(A) operation mode; SAS: 31 dB(A) idle mode/ 33 dB(A) operation mode
Sound power (LWAd; 1B = 10dB)	SATA: 4.2 B idle mode/ 4.2 B operation mode ; SAS: 4.9 B idle mode/ 5.1 B operation mode
Noise notes / description	May vary according to configuration
Operating ambient temperature	10 - 35C
Operating relative humidity	10 - 85 % (non condensing)
Operating environment	FTS 04230 Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe

Electrical values

Standard power supply output	300W (90% efficiency)
Rated voltage range	100 V - 240 V
Rated frequency range	47 Hz - 63 Hz
Rated current max.	6 A / 3 A (100 V / 240 V)
Active power (max. configuration)	216 W
Apparent power (max. configuration)	247 VA
Heat emission	777.6 kJ/h (737.0 BTU/h)
Power Supply Notes	The active power and apparent power values may change according to configuration.

Compliance

Europe	CE Class A *
USA/Canada	CSA us
	ULc/us
	FCC Class A
Global	CB
	RoHS (Restriction of hazardous substances) - planned
	WEEE (Waste electrical and electronical equipment) - planned
Japan	VCCI
Russia	GOST-R
China	CCC (planned)
Australia/New Zealand	C-Tick
Taiwan	BSMI

Compliance	
Compliance notes	* Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Components

Hard disk drives	SSD SATA, 3 Gb/s, 64 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 320 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SATA, 3 Gb/s, 250 GB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 5400 rpm, hot-plug, 2.5-inch, economic
	HDD SATA, 3 Gb/s, 2 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SATA, 3 Gb/s, 1 TB, 7200 rpm, hot-plug, 3.5-inch, business critical
	HDD SAS, 6 Gb/s, 600 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 600 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 450 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise
	HDD SAS, 6 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 3 Gb/s, 146 GB, 15000 rpm, hot-plug, 3.5-inch, enterprise

Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software. No mix of SAS and 'Eco' SATA HDDs possible
Tape Drives	DDS Gen5, 36 GB, 3 MB/s, half height, USB 2.0
	DDS Gen6, 80 GB, 6 MB/s, half height, USB 2.0
	RDX Drive, 80 GB, 160 GB, 320 GB, 500 GB , 25 MB/s, half height, USB 2.0
Optical drives	Blu-ray Disc™ Triple Writer, (4x BD-RW; 16x DVD; 40x CD), half height, SATA I
	DVD-ROM, (16xDVD; 48xCD), half height, SATA I
	DVD Super Multi, (16xDVD, 8xDVD+RW 6xDVD-RW, 12xDVD-RAM; 48xCD, 32xCD-RW), half height, SATA I
SCSI / SAS Controller	SAS Ctrl. 6 Gb 8 ports ext. PCIe Gen2 x8
RAID Controller	RAID 5/6 Ctrl., HDD SAS 6 Gb, LSI , 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
	Integrated RAID 5/6 Ctrl., HDD SAS 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
	Integrated RAID 0/1 Ctrl., SAS/SATA 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, no BBU support (based on LSI SAS2008)
	Integrated RAID 0/1 Ctrl., SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 1E, no BBU support (based on LSI 1068e)
	Integrated RAID 0/1 Ctrl., SAS/SATA 3 Gb, 4 ports int. RAID level: 0, 1, 1E, no BBU support (based on LSI 1064e)

LAN Controller	Ethernet Ctrl. 1 x 1 Gb Intel® Gigabit CT Desktop Adapter
	Ethernet Ctrl. 2 x 10 Gb Fujitsu Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Eth Ctrl 2x1Gbit PCIe x4 D2735-2 Cu
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Eth Ctrl 2x1Gbit PCIe x4 D2735 Cu
	Ethernet Ctrl. 4 x 1 Gb Fujitsu Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu
Rack infrastructure	Cable Arm 2U for 3rd party racks
	Rackmount kit full extraction (760mm), tool less mounting
	Cable Management for 19-inch DataCenter / PRIMECENTER Racks

Warranty

Standard Warranty	1 year
Service level	On-site Service (depending on country)

Maintenance and Support Services - the perfect extension

Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu PRIMERGY TX140 S1, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products

www.fujitsu.com/global/services/computing/

Software

www.fujitsu.com/software/

More information

Learn more about Fujitsu PRIMERGY TX140 S1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.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 resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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