

LSI Logic 2005 I/O Controller Selector Guide

SCSI I/O Controllers

Device	Host Bus	PCI Bus	SCSI	SCSI Performance	Transceivers	On-Chip Engine	Package	Voltage	Comments
LSI53C1030	PCI-X	64-bit/133MHz	Ultra320	2@320MBps	LVD or SE	Fusion-MPT™	456 EPBGA	3.3/5V	Fusion-MPT Architecture, SureLINK™, Domain Validation
LSI53C1020	PCI-X	64-bit/133MHz	Ultra320	320MBps	LVD or SE	Fusion-MPT	456 EPBGA	3.3/5V	Fusion-MPT Architecture, SureLINK, Domain Validation
LSI53C1010R	PCI	64-bit/66MHz	Ultra160	2@160MBps	LVD or SE	SCRIPTS™	456 PBGA	3.3/5V	SureLINK
LSI53C1000R	PCI	64-bit/66MHz	Ultra160	160MBps	LVD or SE	SCRIPTS	456 PBGA	3.3/5V	SureLINK
LSI53C1010-66	PCI	64-bit/66MHz	Ultra160	2@160MBps	LVD or SE	SCRIPTS	329 BGA	3.3/5V	SureLINK
LSI53C1010-33	PCI	64-bit/33MHz	Ultra160	2@160MBps	LVD or SE	SCRIPTS	329 BGA	3.3/5V	SureLINK/LVDLink™
LSI53C1000	PCI	64-bit/66MHz	Ultra160	160MBps	LVD or SE	SCRIPTS	329 BGA	3.3/5V	LVDLink
LSI53C896	PCI	64-bit/33MHz	Ultra2	2@80MBps	LVD or SE	SCRIPTS	329 BGA	3.3/5V	LVDLink
LSI53C895A	PCI	32-bit/33MHz	Ultra2	80MBps	LVD or SE	SCRIPTS	208 PQFP/272 BGA	3.3/5V	HVD-requires ext. transceivers
LSI53C895	PCI	32-bit/33MHz	Ultra2	80MBps	LVD or SE	SCRIPTS	208 PQFP/272 BGA	3.3/5V	TolerANT®
LSIC876E	PCI	32-bit/33MHz	Ultra	2@40MBps	SE	SCRIPTS	208 PQFP/256 BGA	5V	TolerANT
LSIC875E	PCI	32-bit/33MHz	Ultra	40MBps	SE	SCRIPTS	160 PQFP/169 BGA	5V	TolerANT
LSI53C860E	PCI	32-bit/33MHz	Ultra	20MBps	SE	SCRIPTS	100 PQFP	5V	TolerANT
LSI53C770		32-bit/33MHz	Ultra	40MBps	SE	SCRIPTS	208 PQFP	5V	TolerANT
LSI53C825AE	PCI	32-bit/33MHz	Fast	20MBps	SE	SCRIPTS	160 PQFP	5V	TolerANT
LSI53C810AE	PCI	32-bit/33MHz	Fast	10MBps	SE	SCRIPTS	100 PQFP	5V	TolerANT

Serial Attached SCSI (SAS) I/O Controllers

Device	Host Bus	SAS Ports	PCI Bus	Data Transfer	SAS Performance	On-Chip Engine	Package	Voltage	Comments
LSISAS1064	PCI-X	8	64-bit/133MHz	1.5 & 3Gb/s SAS and SATA	300MBps per port	Fusion-MPT	636 EPBGA	3.3V	Fusion-MPT Architecture
LSISAS1068	PCI-X	4	64-bit/133MHz	1.5 & 3Gb/s SAS and SATA	300MBps per port	Fusion-MPT	472 EPBGA	3.3V	Fusion-MPT Architecture

Fibre Channel Controllers

Device	Host Bus	PCI Bus	Fibre Channel Performance	On-Chip Engine	Package	Voltage	Comments
LSIFC929X	PCI-X	64-bit/133MHz	2@2GBps, 800MBps - Full Duplex	Fusion-MPT	456 PBGA	3.3/5V	Fusion-MPT Architecture, Single Chip Solution
LSIFC919X	PCI-X	64-bit/133MHz	2GBps, 400MBps - Full Duplex	Fusion-MPT	456 PBGA	3.3/5V	Fusion-MPT Architecture, Single Chip Solution
LSIFC929	PCIFC	64-bit/66MHz	2@2GBps, 528MBps - Full Duplex	Fusion-MPT	329 PBGA	3.3/5V	Fusion-MPT Architecture, Single Chip Solution
LSIFC919	PCIFC	64-bit/66MHz	2GBps, 400MBps - Full Duplex	Fusion-MPT	329 PBGA	3.3/5V	Fusion-MPT Architecture, Single Chip Solution

SCSI Bus Expanders

Device	SCSI Bus	Repeater	Converter	Package	Voltage	Comments
LSI53C320	Ultra320	LVD to LVD, (Ultra320, Ultra160, Ultra2) SE to SE, (Ultra)	LVD to SE (Ultra) SE to LVD	272 EPBGA	3.3V/5V	SureLINK Domain Validation Margin checking, QAS, Packetized
LSI53C180	Ultra160	LVD/SE	LVD to SE, (Ultra), SE to LVD	192 PBGA	3.3V/5V	Pin Compatible with LSI53C140, SureLINK™
LSI53C140	LVD	LVD/SE, HVD to HVD, (Ultra) SE to SE, (Ultra)	LVD to HVD, (Ultra) VD to SE,L(Ultra), HVD to SE, (Ultra)	160 PQFP/192 BGA	3.3V/5V	HVD requires ext. transceivers
LSI53C141	LVD	LVD/SE	SE to LVD	128 PQFP	3.3V/5V	
LSI53C120	Ultra	SE to SE	SE to HVD	128 PQFP	3.3V/5V	HVD requires ext. transceivers

Serial Attached SCSI (SAS) Expanders

Device	SAS Ports	Data Transfer	Package	Voltage	Comments
LSISASx12	12	1.5 & 3Gb/s SAS and 1.5Gb/s SATA	472 EPBGA	3.3V	Pin compatible with SASx12A
LSISASx12A	12	1.5 & 3Gb/s SAS and SATA	472 EPBGA	3.3V	Pin compatible with SASx12

PCI Rates

PCI Bus	Rate
32-bit/33MHz	132MBs
64-bit/33MHz	264MBs
64-bit/66MHz	528MBs
64-bit/133MHz (PCI-X)	1064MBs



SCRIPTS Chip level firmware interface to internal MPU executing SCRIPTS commands
Fusion-MPT Next generation architecture that supports a "Message Passing Interface"
LVDLink Provides high-signal integrity and greater compatibility for Ultra2 and Ultra160 offerings
TolerANT Provides power-up and power-down protection for unreliable cabling environments by ignoring noise
SureLINK Ultra160 link integrity checking that provides Level 3 (margining) domain validation

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