

## ■ FIFO Memories

Capacity	Configuration (words × bits)	Model No.	Operating frequency (MHz) MAX.	Access time (ns) MAX.	Cycle time (ns) MIN.	Supply current		Supply voltage (V)	Package			
						Operating (mA) MAX.	Standby (mA) MAX.					
0.5k	64 × 8	LH5481D/U-25	25	—	—	45	—	5 ± 10%	28SK-DIP/ 28QFJ			
		LH5481D/U-35	35	—	—	45	—					
	64 × 9	LH5491D/U-25	25	—	—	45	—	5 ± 10%	28SK-DIP/ 28QFJ			
		LH5491D/U-35	35	—	—	45	—					
4.5k	512 × 9	LH5496D/U-20	—	20	30	100	5	5 ± 10%	28DIP/ 28SK-DIP/ 32QFJ			
		LH5496D/U-35	—	35	45	100	5					
		LH5496D/U-50	—	50	65	100	5					
		LH540201AD/AN/AK/AU-10	—	10	20	40 (at 30 MHz)	5			5 ± 10%	28SOP/28SOJ	
		LH540201AN/AK-15	—	15	25	40 (at 30 MHz)	5					
		LH540201AN/AK-20	—	20	30	40 (at 30 MHz)	5					
	LH540201AN/AK-25	—	25	35	40 (at 30 MHz)	5						
	LH540201AN/AK-35	—	35	45	40 (at 30 MHz)	5						
LH540201AN/AK-50	—	50	65	40 (at 30 MHz)	5							
9k	1k × 9	LH540202D/U-15	—	15	25	100	5	5 ± 10%	28SK-DIP/ 32QFJ			
		LH540202D/U-20	—	20	30	100	5					
		LH540202D/U-25	—	25	35	100	5					
		LH540202D/U-35	—	35	45	100	5					
		LH540202AD/AN/AK/AU-10	—	10	20	40 (at 30 MHz)	5			5 ± 10%	28SK-DIP/28SOP/ 28SOJ/32QFJ	
		LH540202AN/AK-15	—	15	25	40 (at 30 MHz)	5					
		LH540202AN/AK-20	—	20	30	40 (at 30 MHz)	5					
		LH540202AN/AK-25	—	25	35	40 (at 30 MHz)	5					
	512 × 18		LH540202AN/AK-35	—	35	45	40 (at 30 MHz)	5	5 ± 10%	28SOP/28SOJ		
			LH540202AN/AK-50	—	50	65	40 (at 30 MHz)	5				
			LH540215U-20	—	12	20	190	1			5 ± 10%	68QFJ
			LH540215U-25	—	15	25	190	1				
LH540215U-35	—	20	35	190	1							
18k	2k × 9	LH540203D/U-15	—	15	25	100	5	5 ± 10%	28SK-DIP/ 32QFJ			
		LH540203D/U-20	—	20	30	100	5					
		LH540203D/U-25	—	25	35	100	5					
		LH540203D/U-35	—	35	45	100	5					
		LH540203AK/AU-10	—	10	20	100 (at 30 MHz)	5			5 ± 10%	28SOJ/32QFJ	
		LH540203AD/AK/AU-12	—	12	22	100 (at 30 MHz)	5					
		LH540203AK-15	—	15	25	100 (at 30 MHz)	5					
		LH540203AK-20	—	20	30	100 (at 30 MHz)	5					
	1k × 18		LH540203AK-25	—	25	35	100 (at 30 MHz)	5	5 ± 10%	32QFJ		
			LH540203AK-35	—	35	45	100 (at 30 MHz)	5				
			LH540203AK-50	—	50	65	100 (at 30 MHz)	5				
			LH540203AD/AK/AU-80	—	80	100	100 (at 30 MHz)	5			28SK-DIP/28SOJ/32QFJ	
			LH540225U-20	—	12	20	190	1				
			LH540225U-25	—	15	25	190	1				
			LH540225U-35	—	20	35	190	1				
			256 × 36 × 2		LH543601P-20	—	12.8	20			280	0.1
LH543601P-25	—	16			25	280	0.1					
LH543601P-30	—	20			30	280	0.1					
LH543601P-35	—	25			35	280	0.1					

## FIFO Memories (cont'd)

★ Under development

Capacity	Configuratin (words×bits)	Model No.	Operating frequency (MHz) MAX.	Access time (ns) MAX.	Cycle time (ns) MIN.	Supply current		Supply voltage (V)	Package	
						Operating (mA) MAX.	Standby (mA) MAX.			
36k	4k x 9	LH540204D/U-20	—	20	30	110	8	5 ± 10%	28SK-DIP/ 32QFJ	
		LH540204D/U-25	—	25	35	110	8			
		LH540204D/U-35	—	35	45	110	8			
		LH540204AK/AU-10	—	10	20	100 (at 30 MHz)	8	5 ± 10%	28SOJ/32QFJ	
		LH540204AD/AK/AU-12	—	12	22	100 (at 30 MHz)	8		28SK-DIP/28SOJ/ 32QFJ	
		LH540204AD/AK/AU-15	—	15	25	100 (at 30 MHz)	8		28SOJ	
		LH540204AK-20	—	20	30	100 (at 30 MHz)	8			
		LH540204AK-25	—	25	35	100 (at 30 MHz)	8			
		LH540204AK-35	—	35	45	100 (at 30 MHz)	8			
		LH540204AK-50	—	50	65	100 (at 30 MHz)	8		28SK-DIP/28SOJ/32QFJ	
LH540204AD/AK/AU-80	—	80	100	100 (at 30 MHz)	8					
36k	2k x 18	★LH540235M/U-20	—	TBD	20	190	TBD		5 ± 10%	64TQFP*1/ 68QFJ
		★LH540235M/U-25	—	TBD	25	190	TBD			
		★LH540235M/U-35	—	TBD	35	190	TBD			
	1k x 36	LH543620P-20	—	14	20	380	1	5 ± 10%	132QFP	
		LH543620P-25	—	16	25	380	1			
		LH543620P-30	—	18	30	380	1			
	512 x 36 x 2	LH543611M/P-18	—	13	18	280	1	5 ± 10%	144TQFP*2/ 132QFP	
		LH543611M/P-20	—	13.8	20	280	1			
		LH543611M/P-25	—	16	25	280	1			
		LH543611M/P-30	—	20	30	280	1			
	72k	8k x 9	LH540205D-20	—	20	30	110	8	5 ± 10%	28SK-DIP
			LH540205D-25	—	25	35	110	8		
			LH540205D-35	—	35	45	110	8		
4k x 18		★LH540245M/U-20	—	TBD	20	190	TBD	5 ± 10%	64TQFP*1/ 68QFJ	
		★LH540245M/U-25	—	TBD	25	190	TBD			
		★LH540245M/U-35	—	TBD	35	190	TBD			
1k x 36 x 2		LH543621M/P-18	—	13	18	280	1	5 ± 10%	144TQFP*2/ 132QFP	
		LH543621M/P-20	—	13.8	20	280	1			
		LH543621M/P-25	—	16	25	280	1			
		LH543621M/P-30	—	20	30	280	1			
LH543621M/P-35	—	25	35	280	1					

\*1 1.4 mm thickness \*2 1.6 mm thickness QFJ = PLCC

## Shared Port RAMs

Capacity	Configuratin (words×bits)	Model No.	Operating frequency (MHz) MAX.	Access time (ns) MAX.	Cycle time (ns) MIN.	Supply current		Supply voltage (V)	Package
						Operating (mA) MAX.	Standby (mA) MAX.		
144k	4k x 36	LH590436M-20	50	—	20	450	—	5 ± 10%	208QFP
		LH590436M-25	40	—	25	450	—		
		LH590436M-30	33	—	30	450	—		
288k	8k x 36	LH590836M-20	50	—	20	450	—	5 ± 10%	208QFP
		LH590836M-25	40	—	25	450	—		
		LH590836M-30	33	—	30	450	—		