

# Digital Circuits

## 54/74 MSI Series

Type	Description	Prop Delay (ns) or Max. Op. Freq. (MHz)	Pwr <sup>1</sup> Diss (mW)	Available Packages					
				14 Pin		16 Pin		24 Pin	
				DC	CJ	CL	DD	N	R
54/7442	BCD-to-Decimal Decoder	22	140			X	X		
54/7443	Excess 3-to-Decimal Decoder	22	140			X	X		
54/7444	Excess 3 Gray-to-Decimal Decoder	22	140			X	X		
54/7445	BCD-to-Decimal Decoder/Driver (30V Breakdown)	30	215			X	X		
54/7483	4-Bit Binary Full Adder	13	300			X	X		
54/74123	Dual Retriggerable Monostable Multivibrator	21	230			X	X		
54/74145	BCD-to-Decimal Decoder Driver (15V Breakdown)	30	215			X	X		
54/74150	16-to-1 Line Data Selector/Multiplexer	11	200					X	X
54/74151	8-to-1 Line Data Selector/Multiplexer	11	145			X	X		
54/74152	8-to-1 Line Data Selector/Multiplexer	11	130			X	X		
54/74153	Dual 4-in-1 Line Data Selector/Multiplexer	14	180			X	X		
54/74154	4-to-16 Line Decoder/Demultiplexer	23	170					X	X
54/74155	Dual 2-to-4 Line Decoder/Demultiplexer	21	250			X	X		
54/74156	Dual 2-to-4 Line Decoder/Demultiplexer (Open Coll.)	21	250			X	X		
54/74157	Quad 2-to-1 Line Data Selector/Multiplexer	9	150			X	X		
54/74158	Quad 2-to-1 Line Data Selector/Multiplexer (Inv. Data)	9	150			X	X		
54/74159	4-to-16 Line Decoder/Demultiplexer (Open Coll.)	24	170					X	X
54/74160	BCD Decade Counter, Async. Clear	32 MHz	305			X	X		
54/74161	4-Bit Binary Counter, Async. Clear	32 MHz	305			X	X		
54/74162	BCD Decade Counter, Sync. Clear	32 MHz	305			X	X		
54/74163	4-Bit Binary Counter, Sync. Clear	32 MHz	305			X	X		
54/74164	8-Bit Parallel-Out Serial Shift Register (S.I.P.O.)	36 MHz	167	X	X				
54/74165	Parallel-Load 8-Bit Shift Register (P.I.S.O.)	26 MHz	210			X	X		
54/74166	8-Bit Shift Register with Clear (P.I.S.O.)	35 MHz	360			X	X		
54/74170	4x4 Register File	20	625			X	X		
54/74174	Hex D-Type Flip-Flop	35 MHz	225			X	X		
54/74175	Quad D-Type Flip-Flop	35 MHz	150			X	X		
54/74180	9-Bit Odd/Even Parity Generator/Checker	32	170	X	X				
54/74181	4-Bit Arithmetic Logic Unit	17	440					X	X
54/74182	Look-Ahead Carry Generator	13	180			X	X		
54/74190	BCD Decade Up/Down Counter	25 MHz	325			X	X		
54/74191	4-Bit Binary Up/Down Counter	25 MHz	325			X	X		
54/74192	BCD Decade Up/Down Counter (Dual Clock)	30 MHz	325			X	X		
54/74193	4-Bit Binary Up/Down Counter (Dual Clock)	30 MHz	325			X	X		
54/74194	4-Bit Bidirectional Universal Shift Register	36 MHz	195			X	X		
54/74195	4-Bit Parallel Access Shift Register	39 MHz	195			X	X		
54/74198	8-Bit Right/Left Shift Register (P.I.P.O.)	35 MHz	360					X	X
54/74199	8-Bit Shift Register (P.I.P.O.)	35 MHz	360					X	X
54/74255	54/74155 with 3-State Outputs	21	250			X	X		
54/74283	4-Bit Binary Full Adder with Fast Carry	13	300			X	X		

1. Power dissipation is given for  $V_{CC} = 5.0$  Volts. Propagation delays given are for the average path. Operating temperature range, 5400 Types:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ ; 7400 Types:  $0^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ .