

RF COMMUNICATIONS CIRCUITS (continued)

Components for PLL Circuit Development (continued)

The following functions are given in order of decreasing frequency within each category.

Function	Family	Frequency MHz typ	Power Dissipation mW typ/pkg	Type		Case ^①
				-55 to +125°C	0 to +75°C	
Counters						
Binary	MECL	325	750	—	MC1654#	620
Bi-Quinary (÷2, ÷5, ÷10)	MECL	325	750	—	MC1678#	620
Universal Hexadecimal (÷0-15)	MECL	150	625	—	—	620, 648
Universal Decade	MECL	150	625	—	—	620, 648, 650
Bi-Quinary	MECL	150	370	MC10538	MC10138#	620, 648, 650
Binary	MECL	150	370	MC10578	MC10178#	620, 648, 650
Presetable Binary (÷2, ÷8)	LS TTL	60	60	SN54LS197	SN74LS197	717, 632, 646
Presetable Decade (÷2, ÷5)	LS TTL	60	60	SN54LS196	SN74LS196	717, 632, 646
Presetable Up/Down Decade	LS TTL	40	95	SN54LS192	SN74LS192	620, 648, 650
Presetable Up/Down Binary	LS TTL	40	95	SN54LS193	SN74LS193	620, 648, 650
Presetable Decade	LS TTL	35	95	SN54LS160	SN74LS160	620, 648, 650
Presetable Binary	LS TTL	35	95	SN54LS161	SN74LS161	620, 648, 650
Presetable Decade	LS TTL	35	95	SN54LS162	SN74LS162	620, 648, 650
Presetable Binary	LS TTL	35	95	SN54LS163	SN74LS163	620, 648, 650
Presetable Up/Down Decade	LS TTL	35	95	SN54LS190	SN74LS190	620, 648, 650
Presetable Up/Down Binary	LS TTL	35	95	SN54LS191	SN74LS191	620, 648, 650
Decade (÷2, ÷5)	LS TTL	32**	45	SN54LS90	SN74LS90	717, 632, 646
Binary (÷2, ÷8)	LS TTL	32**	45	SN54LS93	SN74LS93	717, 632, 646
Universal (÷2-12 except 7 and 11)	MTTL	30	200	MC4323	MC4023	607, 632, 646
Presetable BCD Counter with Asynchronous Reset	CMOS	27*	—	MC54HC160	MC74HC160§	620, 648
Presetable 4-Bit Binary Counter with Asynchronous Reset	CMOS	27*	—	MC54HC161	MC74HC161§	620, 648
Presetable BCD Counter with Synchronous Reset	CMOS	27*	—	MC54HC162	MC74HC162§	620, 648
Presetable 4-Bit Binary Counter with Synchronous Reset	CMOS	27*	—	MC54HC163	MC74HC163§	620, 648
Presetable BCD Up/Down Counter	CMOS	—	—	MC54HC190	MC74HC190§	620, 648
Presetable 4-Bit Binary Up/Down Counter	CMOS	—	—	MC54HC191	MC74HC191§	620, 648
Presetable BCD Up/Down Counter with Reset	CMOS	—	—	MC54HC192	MC74HC192§	620, 648
Presetable 4-Bit Binary Up/Down Counter with Reset	CMOS	—	—	MC54HC193	MC74HC193§	620, 648
Dual 4-Stage Binary Ripple Counter (÷2 and ÷5)	CMOS	27*	—	MC54HC390	MC74HC390§	620, 648
Dual 4-Stage Binary Ripple Counter	CMOS	27*	—	MC54HC393	MC74HC393§	632
Decade Counter/Divider	CMOS	20*	—	MC54HC4017	MC74HC4017§	620, 648
14-Stage Binary Ripple Counter	CMOS	—	—	MC54HC4020	MC74HC4020§	620, 648
7-Stage Binary Ripple Counter	CMOS	27*	—	MC54HC4024	MC74HC4024§	632, 646
12-Stage Binary Ripple Counter	CMOS	20*	—	MC54HC4040	MC74HC4040§	620, 648
14-Stage Binary Ripple Counter with Oscillator	CMOS	20*	—	MC54HC4060	MC74HC4060§	620, 648
Decade (÷2, ÷5, ÷10)	MTTL	20	160	—	—	607, 632, 646
Programmable ÷N Decade (÷0-9)	MTTL	10	250	MC4316	MC4016	620, 648, 650
Two Programmable ÷N (÷0-1, ÷0-4)	MTTL	10	250	MC4317	MC4017	620, 648, 650
Programmable ÷N Hexadecimal (÷0-15)	MTTL	10	250	MC4318	MC4018	620, 648, 650
Two Programmable ÷N (÷0-3, ÷0-3)	MTTL	10	250	MC4319	MC4019	620, 648, 650

① Plastic package available for commercial-temperature devices only.

* Operating Supply Current @ 10.24 MHz

** T_A = 0 to +70°C

§ T_A = -40 to -85°C

T_A = -30 to -85°C

‡ 7.0 mA @ 6.8 V = 47.6 mW