

SCL4022B

OCTAL COUNTER/DIVIDER

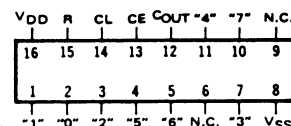
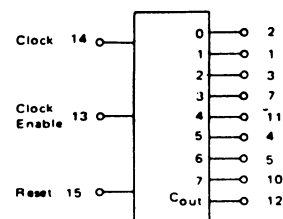
STATIC CHARACTERISTICS: ($V_{SS} = 0\text{ V}$)

PARAMETER	CONDITIONS	V_{DD} (Vdc)	T_{LOW}^{*} MIN	T_{HIGH}^{**} MAX	+25°C TYP	MAX	T_{HIGH}^{**} MIN	MAX	UNIT
QUIESCENT DEVICE CURRENT I_{DD}	$V_{IN} = V_{SS}$ OR V_{DD}	5		5	0.05	5		150	μAdc
		10		10	0.1	10		300	
		15		15	0.2	20		600	

Note: $*T_{LOW} = -55^{\circ}\text{C}$ for C / H devices, -40°C for E / S devices, $**T_{HIGH} = +125^{\circ}\text{C}$ for C / H devices, $+85^{\circ}\text{C}$ for E / S devices.

DYNAMIC CHARACTERISTICS: ($C_L = 50\text{pF}$, $T_A = 25^{\circ}\text{C}$)

PARAMETER	V_{DD} Vdc	MINIMUM	TYPICAL	MAXIMUM	UNIT
PROPAGATION DELAY TIME t_{PLH} , t_{PHL} (TO DECODED OUTPUTS)	5		600	1200	ns
	10		240	480	
	15		180	360	
PROPAGATION DELAY TIME t_{PLH} , t_{PHL} (TO CARRY OUTPUT)	5		500	1000	ns
	10		200	400	
	15		150	300	
OUTPUT TRANSITION TIME t_{TLH} , t_{THL} (DECODED OUTPUTS)	5		250	500	ns
	10		125	250	
	15		90	180	
OUTPUT TRANSITION TIME t_{TLH} , t_{THL} (CARRY OUTPUT)	5		180	360	ns
	10		90	180	
	15		65	130	
CLOCK PULSE WIDTH MINIMUM PW_{CL}	5		200	400	ns
	10		100	200	
	15		80	160	
CLOCK FREQUENCY MAXIMUM f_{CL}	5	1.25	2.5		MHz
	10	2.5	5		
	15	3	6		
CLOCK OR ENABLE RISE & FALL TIME MAXIMUM t_{rCL} , t_{fCL}	5	15			μs
	10	15			
	15	5			
ENABLE SETUP TIME MINIMUM t_{set}	5		175	350	ns
	10		75	150	
	15		55	110	
ENABLE REMOVAL TIME MINIMUM t_{rem}	5		250	500	ns
	10		100	200	
	15		75	150	

CONNECT DIAGRAM**BLOCK DIAGRAM**

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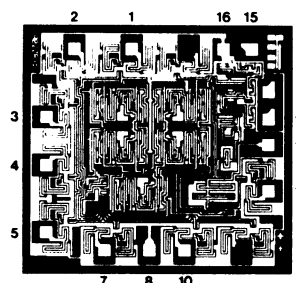
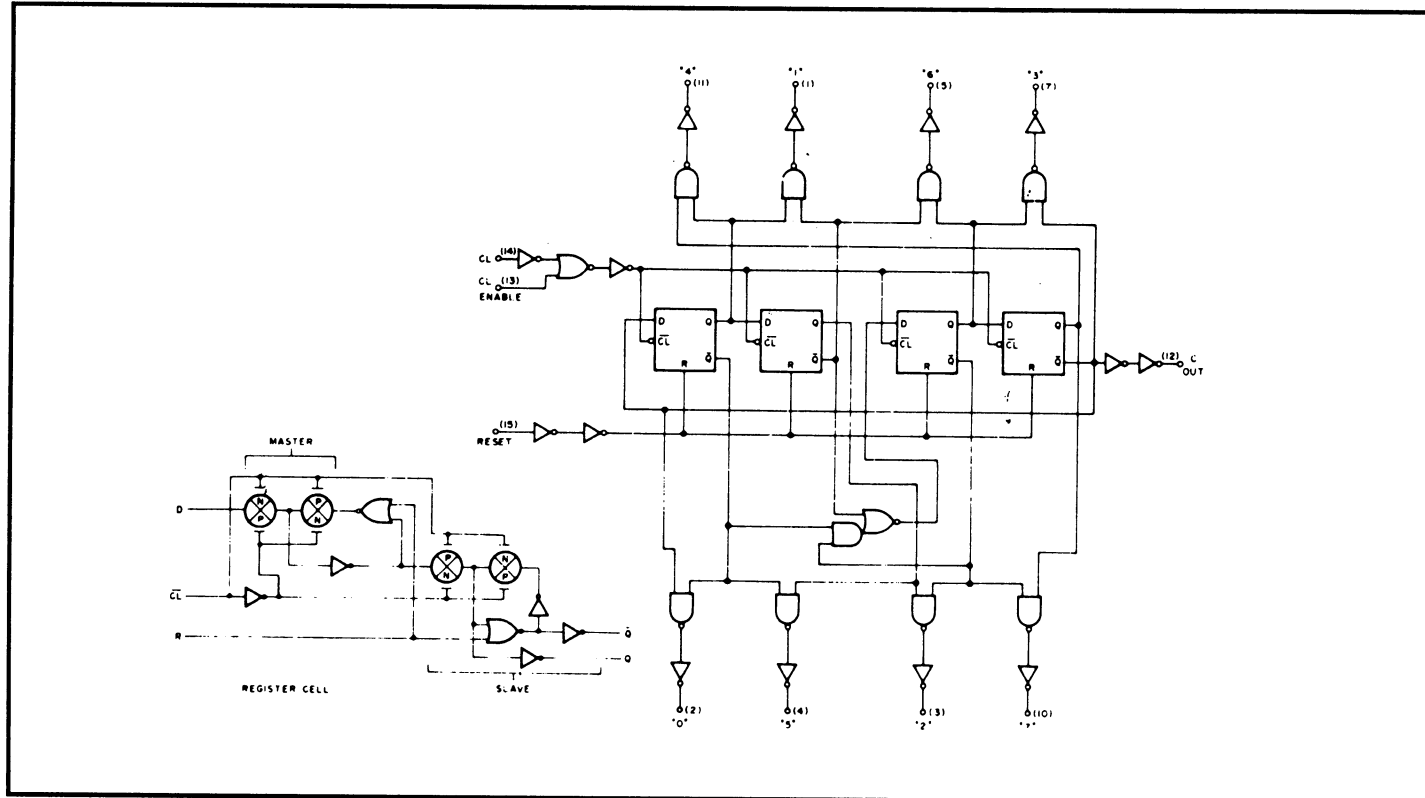
DYNAMIC CHARACTERISTICS: ($C_L = 50\text{pF}$, $T_A = 25^\circ\text{C}$)

PARAMETER	V_{DD} V_{dc}	MINIMUM	TYPICAL	MAXIMUM	UNIT
RESET PROPAGATION	5		500	1000	ns
DELAY TIME t_{PLH} t_{PHL}	10		200	400	
(TO DECODED OUTPUTS)	15		140	280	
PROPAGATION	5		400	800	ns
DELAY TIME t_{PLH}	10		150	300	
(TO CARRY OUTPUT)	15		110	220	
RESET PULSE WIDTH	5		150	300	ns
MINIMUM PW_R	10		75	150	
	15		60	120	
RESET REMOVAL TIME	5		250	500	ns
t_{rem}	10		100	200	
	15		80	160	

DIE DRAWING

SCL4022B

83 x 76 mils

**LOGIC DIAGRAM**

Note: Refer to "SCL4000B SERIES FAMILY SPECIFICATIONS" for remaining Dynamic & Static Characteristics, and, for recommended and maximum operating conditions.