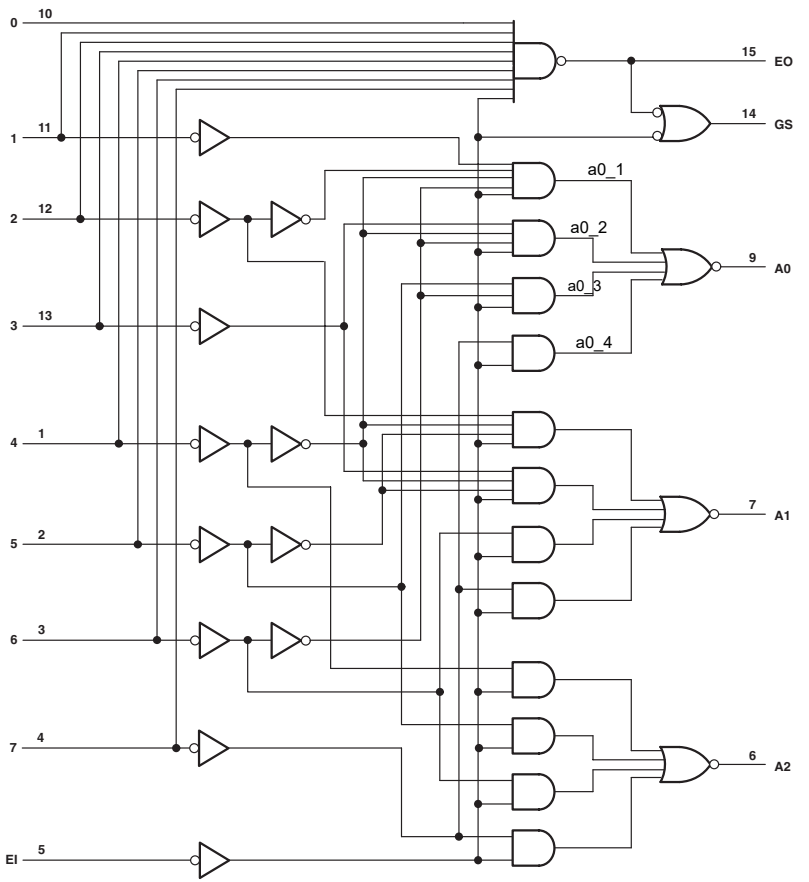
Logic Diagram (SN74)



: OBSOLETED or NOT RECOMMENDED NEW DESIGNS

FUNCTION TABLE (SN74)

INPUTS									OUTPUTS				
EI	0	1	2	3	4	5	6	7	A2	A1	A0	GS	EO
H	X	X	X	X	X	X	X	X	H	H	H	H	H
L	H	H	H	H	H	H	H	H	H	H	H	H	L
L	X	X	X	X	X	X	X	L	L	L	L	L	H
L	X	X	X	X	X	X	L	H	L	L	H	L	H
L	X	X	X	X	X	L	H	H	L	H	L	L	H
L	X	X	X	X	L	H	H	H	L	H	H	L	H
L	X	X	X	L	H	H	H	H	H	L	L	L	H
L	X	X	L	H	H	H	H	H	H	L	H	L	H
L	X	L	H	H	H	H	H	H	H	H	L	L	H
L	L	H	H	H	H	H	H	H	H	H	H	L	H

ELECTRICAL CHARACTERISTICS AND RECOMMENDED OPERATING CONDITIONS

PARAMETER	MAX or MIN	TTL	LS	SN74 HC	UNIT
I_{CC}	MAX	60	20	0.08	mA
I_{OL}	MAX	16	8	4	mA
I_{OH}	MAX	-0.8	-0.4	-4	mA

SWITCHING CHARACTERISTICS

PARAMETER	INPUT	OUTPUT	WAVEFORM	MAX or MIN	TTL	LS	SN74 HC
t_{PLH}	1 to 7	A0, A1 or A2	In-phase output	MAX	15	18	45
t_{PHL}					14	25	45
t_{PLH}	1 to 7	A0, A1 or A2	Out-of-phase output	MAX	19	36	45
t_{PHL}					19	29	45
t_{PLH}	0 to 7	E0	Out-of-phase output	MAX	10	18	38
t_{PHL}					25	40	38
t_{PLH}	0 to 7	GS	In-phase output	MAX	30	55	48
t_{PHL}					25	21	48
t_{PLH}	EI	A0, A1 or A2	In-phase output	MAX	15	25	49
t_{PHL}					15	25	49
t_{PLH}	EI	GS	In-phase output	MAX	12	17	36
t_{PHL}					15	36	36
t_{PLH}	EI	EO	In-phase output	MAX	15	21	41
t_{PHL}					30	35	41

UNIT: ns