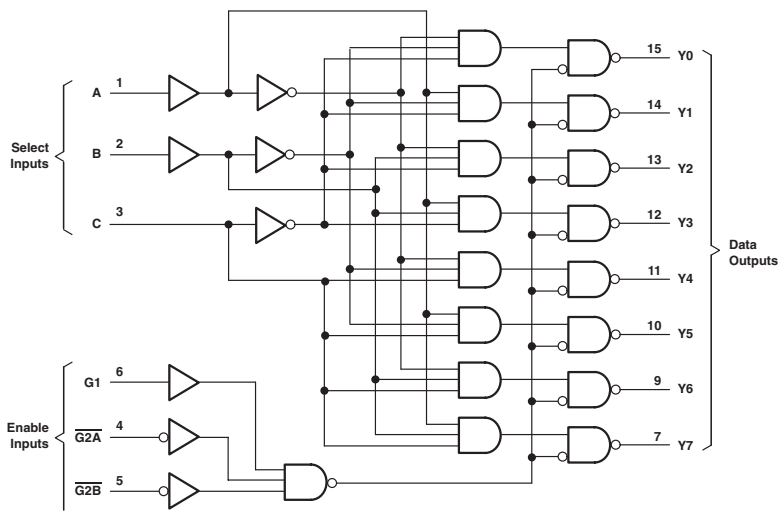


3-LINE TO 8-LINE DECODERS/DEMULTIPLEXRS

- 3 Enable Inputs to Simplify Cascading and /or Data Reception
- 74AC11xxx: Product Available in Reduced-Noise Advanced CMOS (11000 Series)
- 74ACT11xxx: Product Available in Reduced-Noise Advanced CMOS (11000 Series)

Logic Diagram (SN74, CD74AC/ACT)



FUNCTION TABLE (SN74)

ENABLE INPUTS			SELECT INPUTS			OUTPUTS										
G1	G2A	G2B	C	B	A	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7			
X	H	X	X	X	X	H	H	H	H	H	H	H	H			
X	X	H	X	X	X	H	H	H	H	H	H	H	H			
L	X	X	X	X	X	H	H	H	H	H	H	H	H			
H	L	L	L	L	L	L	H	H	H	H	H	H	H			
H	L	L	L	L	H	H	L	H	H	H	H	H	H			
H	L	L	L	H	L	H	H	L	H	H	H	H	H			
H	L	L	L	H	H	H	H	H	L	H	H	H	H			
H	L	L	H	L	L	H	H	H	H	L	H	H	H			
H	L	L	H	L	H	H	H	H	H	H	L	H	H			
H	L	L	H	H	L	H	H	H	H	H	H	L	H			
H	L	L	H	H	H	H	H	H	H	H	H	H	L			

ELECTRICAL CHARACTERISTICS AND RECOMMENDED OPERATING CONDITIONS

PARAMETER	MAX or MIN	LS	S	ALS	AS	F	SN74 HC	CD74 HC	SN74 HCT	CD74 HCT	UNIT
I _{CC}	MAX	10	74	10	20	20	0.08	0.16	0.08	0.16	mA
I _{OH}	MAX	-0.4	-1	-0.4	-2	-1	-4	-4	-4	-4	mA
I _{OL}	MAX	8	20	8	20	20	4	4	4	4	mA

PARAMETER	MAX or MIN	AC 11	CD74 AC	ACT 11	CD74 ACT	AHC	AHCT	LV 3V	LV 5V	LV-AT	LVC 3V	UNIT
I _{CC}	MAX	0.04	0.16	0.04	0.16	0.04	0.04	0.02	0.02	0.01	0.01	mA
I _{OH}	MAX	-24	-24	-24	-24	-8	-8	-6	-12	-8	-24	mA
I _{OL}	MAX	24	24	24	24	8	8	6	12	8	24	mA

SWITCHING CHARACTERISTICS

PARAMETER	INPUT	OUTPUT	MAX or MIN	LS	S	ALS	AS	F	SN74 HC	CD74 HC	SN74 HCT	CD74 HCT
t _{PLH}	A, B, C	Y (CD74:Y)	MAX	27	12	22	10	8.5	45	45	45	53
t _{PHL}			MAX	39	12	18	9.5	9	45	45	45	53
t _{PLH}	$\overline{G2}$	Y (CD74:Y)	MAX	26	11	17	7.5	8	39	53	42	53
t _{PHL}			MAX	38	11	17	8.5	7.5	39	53	42	53
t _{PLH}	G1	Y (CD74:Y)	MAX	26	11	17	10	9	39	53	42	53
t _{PHL}			MAX	38	11	17	10	8.5	39	53	42	53

PARAMETER	INPUT	OUTPUT	MAX or MIN	AC 11	CD74 AC	ACT 11	CD74 ACT	AHC	AHCT	LV 3V	LV 5V	LV-AT	LVC 3V
t _{PLH}	A, B, C	Y (CD74:Y)	MAX	8.1	11	9.8	12	11.5	13	18	11.5	14	6.7
t _{PHL}			MAX	8.8	11	9.7	12	11.5	13	18	11.5	14	6.7
t _{PLH}	$\overline{G2}$	Y (CD74:Y)	MAX	8.3	10	8.9	10.5	11.5	12	17	11.5	13	6.5
t _{PHL}			MAX	8.3	10	8.9	10.5	11.5	12	17	11.5	13	6.5
t _{PLH}	G1	Y (CD74:Y)	MAX	7.5	11	9.3	11	11.5	11.5	18.5	11.5	12	5.8
t _{PHL}			MAX	7.7	11	9.8	11	11.5	11.5	18.5	11.5	12	5.8

UNIT: ns