

TYPES SN54ALS620A THRU SN54ALS623A, SN54AS620 THRU SN54AS623 SN74ALS620A THRU SN74ALS623A, SN74AS620 THRU SN74AS623

OCTAL BUS TRANSCEIVERS

D2661, DECEMBER 1982—REVISED DECEMBER 1983

- Bus Transceivers in High-Density 20-Pin DIP and the New Plastic and Ceramic Chip Carriers
- Local Bus-Latch Capability
- Choice of True or Inverting Logic
- Choice of 3-State or Open-Collector Outputs
- Dependable Texas Instruments Quality and Reliability

DEVICE	OUTPUT	LOGIC
'ALS620A, 'AS620	3-State	Inverting
'ALS621A, 'AS621	Open-Collector	True
'ALS622A, 'AS622	Open-Collector	Inverting
'ALS623A, 'AS623	3-State	True

description

These octal bus transceivers are designed for asynchronous two-way communication between data buses. The control function implementation allows for maximum flexibility in timing.

These devices allow data transmission from A bus to the B bus or from the B bus to the A bus depending upon the logic levels at the enable inputs ($\overline{\text{GBA}}$ and GAB).

The enable inputs can be used to disable the device so that the buses are effectively isolated.

The dual-enable configuration gives the octal bus transceivers the capability to store data by simultaneous enabling of $\overline{\text{GBA}}$ and GAB . Each output reinforces its input in this transceiver configuration. Thus, when both control inputs are enabled and all other data sources to the two sets of bus lines are at high impedance, both sets of bus lines (16 in all) will remain at their last states. The 8-bit codes appearing on the two sets of buses will be identical for the 'ALS621A, 'AS621 and 'ALS623A, 'AS623 or complementary for the 'ALS620A, 'AS620 and 'ALS622A, 'AS622.

The -1 versions of the SN74ALS' parts are identical to their standard versions except that the recommended maximum I_{OL} is increased to 48 mA. There are no -1 versions of the SN54ALS' parts.

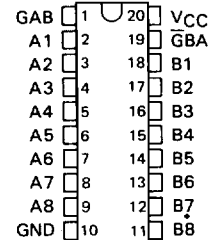
The SN54' family is characterized for operation over the full military temperature range of -55°C to 125°C . The SN74' family is characterized for operation from 0°C to 70°C .

FUNCTION TABLE

ENABLE INPUTS		OPERATION	
$\overline{\text{GBA}}$	GAB	'ALS620A, 'ALS622A 'AS620, 'AS622	'ALS621A, 'ALS623A 'AS621, 'AS623
L	L	$\overline{\text{B}}$ data to A bus	B data to A bus
H	H	$\overline{\text{A}}$ data to B bus	A data to B bus
H	L	Isolation	Isolation
L	H	$\overline{\text{B}}$ data to A bus, $\overline{\text{A}}$ data to B bus	B data to A bus, A data to B bus

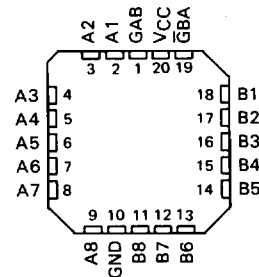
SN54ALS', SN54AS' . . . J PACKAGE
SN74ALS', SN74AS' . . . N PACKAGE

(TOP VIEW)



SN54ALS', SN54AS' . . . FH PACKAGE
SN74ALS', SN74AS' . . . FN PACKAGE

(TOP VIEW)

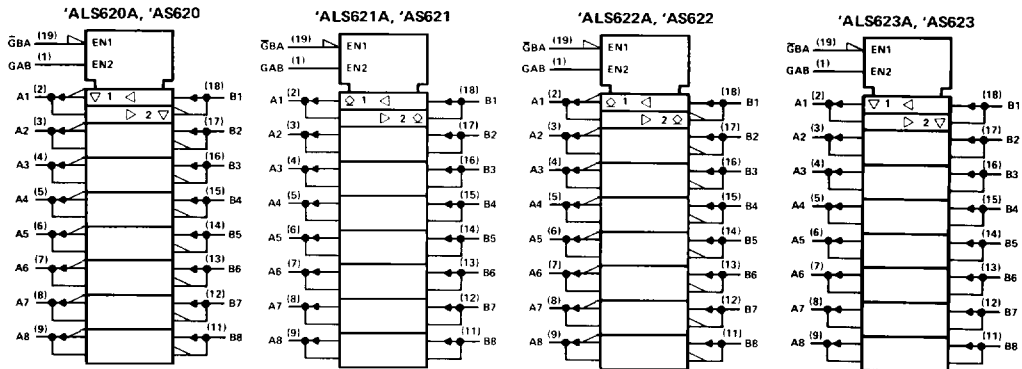


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ALS AND AS CIRCUITS

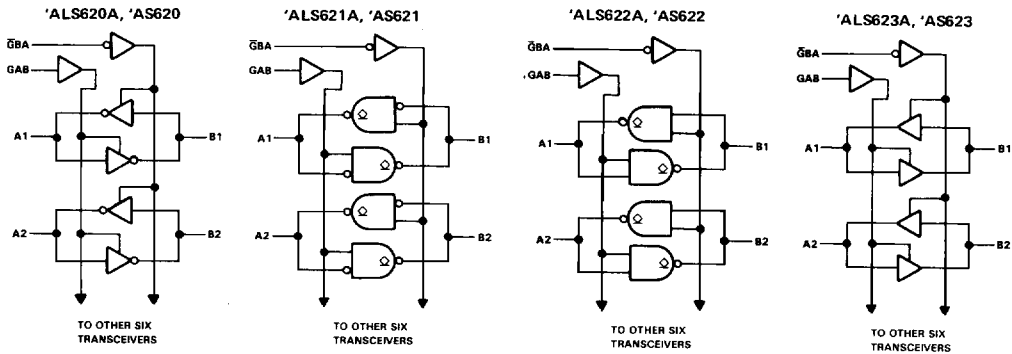
**TYPES SN54ALS620A THRU SN54ALS623A, SN54AS620 THRU SN54AS623
SN74ALS620A THRU SN74ALS623A, SN74AS620 THRU SN74AS623
OCTAL BUS TRANSCEIVERS**

logic symbols



Pin numbers shown are for J and N packages.

logic diagrams (positive logic)



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TYPES SN54ALS620A, SN54ALS623A, SN74ALS620A, SN74ALS623A OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage, V_{CC}	7 V
Input voltage: All inputs	7 V
I/O ports	7 V
Operating free-air temperature range: SN54ALS620A, SN54ALS623A	-55°C to 125°C
SN74ALS620A, SN74ALS623A	0°C to 70°C
Storage temperature range	-65°C to 150°C

recommended operating conditions

		SN54ALS620A SN54ALS623A			SN74ALS620A SN74ALS623A			UNIT
		MIN	NOM	MAX	MIN	NOM	MAX	
V_{CC}	Supply voltage	4.5	5	5.5	4.5	5	5.5	V
V_{IH}	High-level input voltage	2			2			V
V_{IL}	Low-level input voltage	0.8			0.8			V
I_{OH}	High-level output current	-12			-15			mA
I_{OL}	Low-level output current	12			24			mA
		48†			48†			
T_A	Operating free-air temperature	-55			0			°C

†The extended limits apply only if V_{CC} is maintained between 4.75 V and 5.25 V.
The 48-mA limit applies for the SN74ALS620A-1 and SN74ALS623A-1 only.

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

PARAMETER		TEST CONDITIONS	SN54ALS620A SN54ALS623A			SN74ALS620A SN74ALS623A			UNIT
			MIN	TYP‡	MAX	MIN	TYP‡	MAX	
V_{IK}		$V_{CC} = 4.5\text{ V}$, $I_I = -18\text{ mA}$	-1.5			-1.5			V
V_{OH}		$V_{CC} = 4.5\text{ V to }5.5\text{ V}$, $I_{OH} = -0.4\text{ mA}$	$V_{CC}-2$			$V_{CC}-2$			V
		$V_{CC} = 4.5\text{ V}$, $I_{OH} = -3\text{ mA}$	2.4	3.2		2.4	3.2		
		$V_{CC} = 4.5\text{ V}$, $I_{OH} = -12\text{ mA}$	2						
		$V_{CC} = 4.5\text{ V}$, $I_{OH} = -15\text{ mA}$				2			
V_{OL}		$V_{CC} = 4.5\text{ V}$, $I_{OL} = 12\text{ mA}$	0.25	0.4		0.25	0.4	V	
		$V_{CC} = 4.5\text{ V}$, $I_{OL} = 24\text{ mA}$				0.35			
		$I_{OL} = 48\text{ mA for }-1\text{ versions}$				0.5			
I_I	Control inputs	$V_{CC} = 5.5\text{ V}$, $V_I = 7\text{ V}$	0.1			0.1			mA
	A or B ports	$V_{CC} = 5.5\text{ V}$, $V_I = 5.5\text{ V}$	0.1			0.1			
I_{IH}	Control inputs	$V_{CC} = 5.5\text{ V}$, $V_I = 2.7\text{ V}$	20			20			µA
	A or B ports‡		20			20			
I_{IL}	Control inputs	$V_{CC} = 5.5\text{ V}$, $V_I = 0.4\text{ V}$	-0.1			-0.1			mA
	A or B ports‡		-0.1			-0.1			
I_{O1}		$V_{CC} = 5.5\text{ V}$, $V_O = 2.25\text{ V}$	-30	-112		-30	-112	mA	
I_{CC}	ALS620A	$V_{CC} = 5.5\text{ V}$	Outputs high	24	39	24	34	mA	
			Outputs low	31	49	31	44		
			Outputs disabled	33	52	33	47		
	ALS623A	$V_{CC} = 5.5\text{ V}$	Outputs high	32	48	32	43		
			Outputs low	39	55	39	50		
			Outputs disabled	42	60	42	55		

‡All typical values are at $V_{CC} = 5\text{ V}$, $T_A = 25^\circ\text{C}$

§For I/O ports, the parameters I_{IH} and I_{IL} include the off-state output current.

¶The output conditions have been chosen to produce a current that closely approximates one half of the true short-circuit output current, I_{OS} .

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TYPES SN54ALS620A, SN54ALS623A, SN74ALS620A, SN74ALS623A
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

***ALS620A switching characteristics (see Note 1)**

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V},$ $C_L = 50 \text{ pF},$ $R_1 = 500 \Omega,$ $R_2 = 500 \Omega,$ $T_A = \text{MIN to MAX}$				UNIT
			SN54ALS620A		SN74ALS620A		
			MIN	MAX	MIN	MAX	
t_{PLH}	A	B	2	12	2	10	ns
t_{PHL}			2	12	2	10	
t_{PLH}	B	A	2	12	2	10	ns
t_{PHL}			2	12	2	10	
t_{PZH}	$\bar{G}BA$	A	3	23	3	17	ns
t_{PZL}			5	31	5	25	
t_{PHZ}	$\bar{G}BA$	A	2	14	2	12	ns
t_{PLZ}			3	22	3	18	
t_{PZH}	GAB	B	3	23	3	18	ns
t_{PZL}			5	31	5	25	
t_{PHZ}	GAB	B	2	14	2	12	ns
t_{PLZ}			3	22	3	18	

***ALS623A switching characteristics (see Note 1)**

2 ALS AND AS CIRCUITS

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V},$ $C_L = 50 \text{ pF},$ $R_1 = 500 \Omega,$ $R_2 = 500 \Omega,$ $T_A = \text{MIN to MAX}$				UNIT
			SN54ALS623A		SN74ALS623A		
			MIN	MAX	MIN	MAX	
t_{PLH}	A	B	2	15	2	13	ns
t_{PHL}			3	13	3	11	
t_{PLH}	B	A	2	15	2	13	ns
t_{PHL}			3	13	3	11	
t_{PZH}	$\bar{G}BA$	A	5	25	5	22	ns
t_{PZL}			5	25	5	22	
t_{PHZ}	$\bar{G}BA$	A	2	19	2	16	ns
t_{PLZ}			2	23	2	19	
t_{PZH}	GAB	B	5	25	5	22	ns
t_{PZL}			5	25	5	22	
t_{PHZ}	GAB	B	2	19	2	16	ns
t_{PLZ}			2	23	2	19	

NOTE 1: For load circuit and voltage waveforms, see page 1-12.

TYPES SN54ALS621A, SN54ALS622A, SN74ALS621A, SN74ALS622A OCTAL BUS TRANSCEIVERS WITH OPEN-COLLECTOR OUTPUTS

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage, V_{CC}	7 V
Input voltage: All inputs and I/O ports	7 V
Operating free-air temperature range: SN54ALS621A, SN54ALS622A	-55°C to 125°C
SN74ALS621A, SN74ALS622A	0°C to 70°C
Storage temperature range	-65°C to 150°C

recommended operating conditions

		SN54ALS621A SN54ALS622A			SN74ALS621A SN74ALS622A			UNIT
		MIN	NOM	MAX	MIN	NOM	MAX	
V_{CC}	Supply voltage	4.5	5	5.5	4.5	5	5.5	V
V_{IH}	High-level input voltage	2			2			V
V_{IL}	Low-level input voltage				0.8			V
V_{OH}	High-level output voltage				5.5			V
I_{OL}	Low-level output current				12			mA
					24			
T_A	Operating free-air temperature	-55			125			°C

†The extended limits apply only if V_{CC} is maintained between 4.75 V and 5.25 V.
The 48-mA limit applies for the SN74ALS621A-1 and SN74ALS622A-1 only.

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

PARAMETER	TEST CONDITIONS	SN54ALS621A SN54ALS622A		SN74ALS621A SN74ALS622A		UNIT		
		MIN	TYP‡	MAX	MIN		TYP‡	MAX
V_{IK}	$V_{CC} = 4.5$ V, $I_I = -18$ mA			-1.5		V		
I_{OH}	$V_{CC} = 4.5$ V, $V_{OH} = 5.5$ V			0.1		mA		
V_{OL}	$V_{CC} = 4.5$ V, $I_{OL} = 12$ mA	0.25		0.4		V		
	$V_{CC} = 4.5$ V, $I_{OL} = 24$ mA ($I_{OL} = 48$ mA for -1 versions)			0.35				
I_I	Control inputs $V_{CC} = 5.5$ V, $V_I = 7$ V			0.1		mA		
	A or B ports $V_{CC} = 5.5$ V, $V_I = 5.5$ V			0.1				
I_{IH}	Control inputs $V_{CC} = 5.5$ V, $V_I = 2.7$ V			20		µA		
	A or B ports‡			20				
I_{IL}	Control inputs $V_{CC} = 5.5$ V, $V_I = 0.4$ V			-0.1		mA		
	A or B ports‡			-0.1				
I_{CC}	ALS621A	$V_{CC} = 5.5$ V	Outputs high	29	45	29	40	mA
			Outputs low	35	53	35	48	
	ALS622A	$V_{CC} = 5.5$ V	Outputs high	11	20	11	15	
			Outputs low	20	33	20	28	

‡All typical values are at $V_{CC} = 5$ V, $T_A = 25$ °C.

§For I/O ports, the parameters I_{IH} and I_{IL} include the off-state output current.

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ALS AND AS CIRCUITS

**TYPES SN54ALS621A, SN54ALS622A, SN74ALS621A, AN74ALS622A
OCTAL BUS TRANCEIVERS WITH OPEN-COLLECTOR OUTPUTS**

'ALS621A switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V,}$ $C_L = 50 \text{ pF,}$ $R_L = 680 \Omega,$ $T_A = \text{MIN to MAX}$				UNIT
			SN54ALS621A		SN74ALS621A		
			MIN	MAX	MIN	MAX	
t_{PLH}	A	B	10	45	10	33	ns
t_{PHL}			5	24	5	20	
t_{PLH}	B	A	10	45	10	33	ns
t_{PHL}			5	24	5	20	
t_{PLH}	$\bar{G}BA$	A	10	47	10	39	ns
t_{PHL}			12	40	12	35	
t_{PLH}	GAB	B	10	47	10	39	ns
t_{PHL}			12	40	12	35	

'ALS622A switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V,}$ $C_L = 50 \text{ pF,}$ $R_L = 680 \Omega,$ $T_A = \text{MIN to MAX}$				UNIT
			SN54ALS622A		SN74ALS622A		
			MIN	MAX	MIN	MAX	
t_{PLH}	A	B	8	42	8	35	ns
t_{PHL}			5	23	5	19	
t_{PLH}	B	A	8	42	8	35	ns
t_{PHL}			5	23	5	19	
t_{PLH}	$\bar{G}BA$	A	8	45	8	38	ns
t_{PHL}			10	40	10	35	
t_{PLH}	GAB	B	8	45	8	38	ns
t_{PHL}			10	40	10	35	

NOTE 1: For load circuit and voltage waveforms, see page 1-12.

2 ALS AND AS CIRCUITS

TYPES SN54AS620, SN54AS623, SN74AS620, SN74AS623 OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage, V_{CC}	7 V
Input voltage: All inputs	7 V
I/O ports	5.5 V
Operating free-air temperature range: SN54AS620, SN54AS623	-55 °C to 125 °C
SN74AS620, SN74AS623	0 °C to 70 °C
Storage temperature range	-65 °C to 150 °C

recommended operating conditions

		SN54AS620 SN54AS623			SN74AS620 SN74AS623			UNIT
		MIN	NOM	MAX	MIN	NOM	MAX	
V_{CC}	Supply voltage	4.5	5	5.5	4.5	5	5.5	V
V_{IH}	High-level input voltage	2			2			V
V_{IL}	Low-level input voltage			0.8			0.8	V
I_{OH}	High-level output current			-12			-15	mA
I_{OL}	Low-level output current			48			64	mA
T_A	Operating free-air temperature	-55		125	0		70	°C

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

PARAMETER	TEST CONDITIONS	SN54AS620 SN54AS623		SN74AS620 SN74AS623		UNIT		
		MIN	TYP†	MAX	MIN		TYP†	MAX
V_{IK}	$V_{CC} = 4.5 \text{ V}$, $I_I = -18 \text{ mA}$			-1.2		-1.2	V	
V_{OH}	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V}$, $I_{OH} = -2 \text{ mA}$	$V_{CC}-2$		$V_{CC}-2$		V		
	$V_{CC} = 4.5 \text{ V}$, $I_{OH} = -3 \text{ mA}$	2.4	3.2	2.4	3.2			
	$V_{CC} = 4.5 \text{ V}$, $I_{OH} = -12 \text{ mA}$	2.4						
	$V_{CC} = 4.5 \text{ V}$, $I_{OH} = -15 \text{ mA}$			2.4				
V_{OL}	$V_{CC} = 4.5 \text{ V}$, $I_{OL} = 48 \text{ mA}$	0.30	0.55			V		
	$V_{CC} = 4.5 \text{ V}$, $I_{OL} = 64 \text{ mA}$			0.35	0.55			
I_I	Control inputs $V_{CC} = 5.5 \text{ V}$, $V_I = 7 \text{ V}$			0.1	0.1	mA		
	A or B ports $V_{CC} = 5.5 \text{ V}$, $V_I = 5.5 \text{ V}$			0.1	0.1			
I_{IH}	Control inputs $V_{CC} = 5.5 \text{ V}$, $V_I = 2.7 \text{ V}$			20	20	μA		
	A or B ports‡ $V_{CC} = 5.5 \text{ V}$, $V_I = 2.7 \text{ V}$			50	50			
I_{IL}	Control inputs $V_{CC} = 5.5 \text{ V}$, $V_I = 0.4 \text{ V}$			-0.5	-0.5	mA		
	A or B ports‡ $V_{CC} = 5.5 \text{ V}$, $V_I = 0.4 \text{ V}$			-0.75	-0.75			
I_{OS}^{\S}	$V_{CC} = 5.5 \text{ V}$, $V_O = 2.25 \text{ V}$	-30	-112	-30	-112	mA		
I_{CC}	'AS620	$V_{CC} = 5.5 \text{ V}$	Outputs high	35	57	35	57	mA
			Outputs low	74	122	74	122	
			Outputs disabled	48	77	48	77	
	'AS623	$V_{CC} = 5.5 \text{ V}$	Outputs high	57	57			
			Outputs low	116	116			
			Outputs disabled	71	71			

†All typical values are at $V_{CC2} = 5 \text{ V}$, $T_A = 25^\circ\text{C}$.

‡For I/O ports, the parameters I_{IH} and I_{IL} include the off-state output current.

§The output conditions have been chosen to produce a current that closely approximates one half of the true short-circuit output current, I_{OS} .

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TYPES SN54AS620, SN54AS623, SN74AS620, SN74AS623
OCTAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS

'AS620 switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V,}$ $C_L = 50 \text{ pF,}$ $R_1 = 500 \Omega,$ $R_2 = 500 \Omega,$ $T_A = \text{MIN to MAX}$				UNIT
			SN54AS620		SN74AS620		
			MIN	MAX	MIN	MAX	
t_{PLH}	A	B	1	8	1	7	ns
t_{PHL}			2	7	2	6	
t_{PLH}	B	A	1	8	1	7	ns
t_{PHL}			2	7	2	6	
t_{PZH}	$\bar{G}BA$	A	2	8.5	2	8	ns
t_{PZL}			2	10	2	9	
t_{PHZ}	$\bar{G}BA$	A	1	7.5	1	6	ns
t_{PLZ}			2	15	2	12	
t_{PZH}	GAB	B	2	9	2	8	ns
t_{PZL}			2	10.5	2	9	
t_{PHZ}	GAB	B	1	6.5	1	6	ns
t_{PLZ}			2	16	2	13	

'AS623 switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 4.5 \text{ V to } 5.5 \text{ V,}$ $C_L = 50 \text{ pF,}$ $R_1 = 500 \Omega,$ $R_2 = 500 \Omega,$ $T_A = \text{MIN to MAX}$						UNIT
			SN54AS623			SN74AS623			
			MIN	TYP†	MAX	MIN	TYP†	MAX	
t_{PLH}	A	B	5			5			ns
t_{PHL}			5			5			
t_{PLH}	B	A	5			5			ns
t_{PHL}			5			5			
t_{PZH}	$\bar{G}BA$	A	4			4			ns
t_{PZL}			6			6			
t_{PHZ}	$\bar{G}BA$	A	4			4			ns
t_{PLZ}			5			5			
t_{PZH}	GAB	B	5			5			ns
t_{PZL}			7			7			
t_{PHZ}	GAB	B	4			4			ns
t_{PLZ}			5			5			

†All typical values are at $V_{CC} = 5 \text{ V, } T_A = 25^\circ\text{C.}$
 NOTE 1: For load circuit and voltage waveforms, see page 1-12.

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PRODUCT PREVIEW

2-422 This page contains information on a product under development. Texas Instruments reserves the right to change or discontinue this product without notice.

**TEXAS
INSTRUMENTS**

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TYPES SN54AS621, SN54AS622, SN74AS621, SN74AS622 OCTAL BUS TRANSCEIVERS WITH OPEN-COLLECTOR OUTPUTS

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage, V_{CC}	7 V
Input voltage: All inputs and I/O ports	7 V
Operating free-air temperature range: SN54AS621, SN54AS622	-55 °C to 125 °C
SN74AS621, SN74AS622	0 °C to 70 °C
Storage temperature range	-65 °C to 150 °C

recommended operating conditions

		SN54AS621 SN54AS622			SN74AS621 SN74AS622			UNIT		
		MIN	NOM	MAX	MIN	NOM	MAX			
V_{CC}	Supply voltage	4.5	5	5.5	4.5	5	5.5	V		
V_{IH}	High-level input voltage	2			2			V		
V_{IL}	Low-level input voltage	0.8			0.8			V		
V_{OH}	High-level output voltage	5.5			5.5			V		
I_{OL}	Low-level output current	48			64			mA		
T_A	Operating free-air temperature	-55			125			0	70	°C

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

PARAMETER	TEST CONDITIONS	SN54AS621 SN54AS622			SN74AS621 SN74AS622			UNIT
		MIN	TYP†	MAX	MIN	TYP†	MAX	
V_{IK}	$V_{CC} = 4.5 V, I_I = -18 mA$	-1.2			-1.2			V
I_{OH}	$V_{CC} = 4.5 V, V_{OH} = 5.5 V$	0.1			0.1			mA
V_{OL}	$V_{CC} = 4.5 V, I_{OL} = 48 mA$	0.25			0.5			V
	$V_{CC} = 4.5 V, I_{OL} = 64 mA$				0.35			
I_I	Control inputs $V_{CC} = 5.5 V, V_I = 7 V$	0.1			0.1			mA
	A or B ports $V_{CC} = 5.5 V, V_I = 5.5 V$	0.1			0.1			
I_{IH}	Control inputs $V_{CC} = 5.5 V, V_I = 2.7 V$	20			20			μA
	A or B ports‡	20			20			
I_{IL}	Control inputs $V_{CC} = 5.5 V, V_I = 0.4 V$	-0.5			-0.5			mA
	A or B ports‡	-0.5			-0.5			
I_{CC}	'AS621 $V_{CC} = 5.5 V$	Outputs high	48	79	48	79	mA	
		Outputs low	116	189	116	189		
	'AS622 $V_{CC} = 5.5 V$	Outputs high	25		25			
		Outputs low	62		62			

† All typical values are at $V_{CC} = 5 V, T_A = 25 °C$

‡ For I/O ports, the parameters I_{IH} and I_{IL} include the off-state output current.

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ALS AND AS CIRCUITS

TYPES SN54AS621, SN54AS622, SN74AS621, SN74AS622
OCTAL BUS TRANSCEIVERS WITH OPEN-COLLECTOR OUTPUTS

'AS621 switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC} = 4.5 V to 5.5 V, C _L = 50 pF, R _L = 680 Ω, T _A = MIN to MAX				UNIT
			SN54AS621		SN74AS621		
			MIN	MAX	MIN	MAX	
t _{PLH}	A	B	5	28.5	5	24	ns
t _{PHL}			1	8.5	1	7.5	
t _{PLH}	B	A	5	23	5	21	ns
t _{PHL}			1	8.5	1	7.5	
t _{PLH}	G̅BA	A	5	24	5	21	ns
t _{PHL}			1	10	1	9	
t _{PLH}	GAB	B	5	26	5	22	ns
t _{PHL}			1	11	1	10	

'AS622 switching characteristics (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC} = 4.5 V to 5.5 V, C _L = 50 pF, R _L = 680 Ω, T _A = MIN to MAX						UNIT
			SN54AS622			SN74AS622			
			MIN	TYP†	MAX	MIN	TYP†	MAX	
t _{PLH}	A	B	20			20			ns
t _{PHL}			6			6			
t _{PLH}	B	A	20			20			ns
t _{PHL}			6			6			
t _{PLH}	G̅BA	A	22			22			ns
t _{PHL}			8			8			
t _{PLH}	GAB	B	23			23			ns
t _{PHL}			9			9			

† All typical values are at V_{CC} = 5 V, T_A = 25°C.
 NOTE 1: For load circuit and voltage waveforms, see page 1-12.

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PRODUCT PREVIEW

2-424 This page contains information on a product under development. Texas Instruments reserves the right to change or discontinue this product without notice.