Low-power dual PCB configurable multiple function gateRev. 1 — 4 November 2014Product data

Product data sheet

General description 1.

The 74AUP2G97 is a dual configurable multiple function gate with Schmitt-trigger inputs. Each gate within the device can be configured as any of the following logic functions MUX, AND, OR, NAND, NOR, inverter and buffer; using the 3-bit input. All inputs can be connected directly to V_{CC} or GND.

This device ensures very low static and dynamic power consumption across the entire V_{CC} range from 0.8 V to 3.6 V.

This device is fully specified for partial power down applications using I_{OFF}. The I_{OFF} circuitry disables the output, preventing the potentially damaging backflow current through the device when it is powered down.

2. **Features and benefits**

- Wide supply voltage range from 0.8 V to 3.6 V
- High noise immunity
- ESD protection:
 - HBM JESD22-A114F exceeds 5000 V
 - MM JESD22-A115-A exceeds 200 V
 - CDM JESD22-C101E exceeds 1000 V
- Low static power consumption; $I_{CC} = 0.9 \,\mu A$ (maximum)
- Latch-up performance exceeds 100 mA per JESD 78 Class II
- Inputs accept voltages up to 3.6 V
- Low noise overshoot and undershoot < 10 % of V_{CC}
- I_{OFF} circuitry provides partial power-down mode operation
- Multiple package options
- Specified from -40 °C to +85 °C and -40 °C to +125 °C



3. Ordering information

Table 1. Ordering information

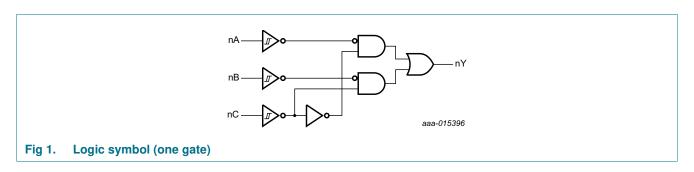
Type number	Package							
	Temperature range	Name	Description	Version				
74AUP2G97DP	–40 °C to +85 °C	TSSOP10	plastic thin shrink small outline package; 10 leads; body width 3 mm	SOT552-1				
74AUP2G97GM	–40 °C to +125 °C	XQFN10	plastic extremely thin quad flat package; no leads; 10 terminals; body $2 \times 1.55 \times 0.5$ mm	SOT1049-3				
74AUP2G97GU	-40 °C to +125 °C	XQFN10	plastic, extremely thin quad flat package; no leads; 10 terminals; body $1.40 \times 1.80 \times 0.50$ mm	SOT1160-1				
74AUP2G97GF	-40 °C to +125 °C	XSON10	plastic extremely thin small outline package; no leads; 10 terminals; body $1.0 \times 1.7 \times 0.5$ mm	SOT1081-2				

4. Marking

Table 2. Marking	
Type number	Marking code ^[1]
74AUP2G97DP	aV
74AUP2G97GM	aV
74AUP2G97GU	aV
74AUP2G97GF	aV

[1] The pin 1 indicator is located on the lower left corner of the device, below the marking code.

5. Functional diagram



Low-power dual PCB configurable multiple function gate

6. Pinning information

74AUP2G97 ∕cc 10 1 1A 9 1Y 2C 1B 2 8 74AUP2G97 3 7 2B 1C 10 V_{CC} 1A 1 1B 2 9 1Y 6 2A 2Y 4 S 1C 3 8 2C GND 7 2B 2Y 4 6 2A GND 5 Transparent top view aaa-015397 aaa-015398 Fig 2. Pin configuration SOT552-1 (TSSOP10) Fig 3. Pin configuration SOT1049-3 (XQFN10) 74AUP2G97 74AUP2G97 ∕cc ⊴ ≿ 1A 1 10 Vcc terminal 1 index area 10 ი ω 1B 2 9 1Y 1B 1 7 2C 1C 3 8 2C

6.1 Pinning

1C 2

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2

Pin configuration SOT1160-1 (XQFN10)

4

GND

Transparent top view

6 2B

ß

2A

aaa-015399

Product data sheet

74AUP2G97

Fig 4.

Fig 5.



4

5

Transparent top view

Pin configuration SOT1081-2 (XSON10)

2Y

GND

7

6

2B

2A

aaa-015400

6.2 Pin description

Table 3. Pin description

Symbol	Pin		Description		
	SOT552-1, SOT1049-3 and SOT1081-2	SOT1160-1			
1A, 2A	1, 6	10, 5	data input		
1B, 2B	2, 7	1, 6	data input		
1C, 2C	3, 8	2, 7	data input		
1Y, 2Y	9, 4	8, 3	data output		
GND	5	4	ground (0 V)		
V _{CC}	10	9	supply voltage		

7. Functional description

Table 4. Function table ^[1]							
Input			Output				
nC	nB	nA	nY				
L	L	L	L				
L	L	Н	L				
L	Н	L	Н				
L	Н	Н	Н				
Н	L	L	L				
Н	L	Н	Н				
Н	Н	L	L				
Н	Н	Н	Н				

[1] H = HIGH voltage level; L = LOW voltage level.

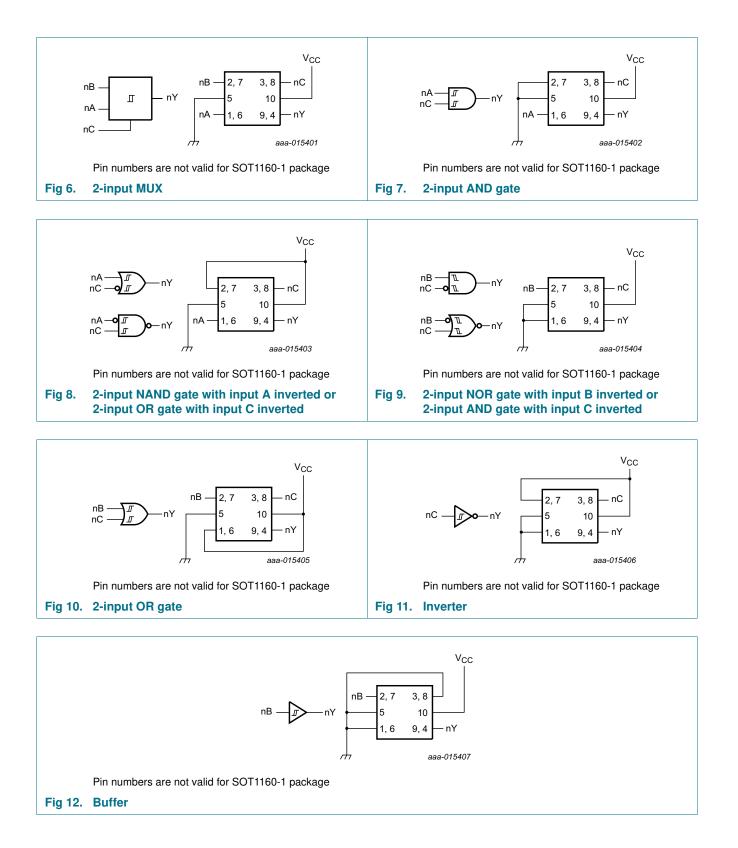
7.1 Logic configurations

Table 5. Function selection table

Logic function	Figure
2-input MUX	see Figure 6
2-input AND	see Figure 7
2-input OR with one input inverted	see Figure 8
2-input NAND with one input inverted	see Figure 8
2-input AND with one input inverted	see Figure 9
2-input NOR with one input inverted	see Figure 9
2-input OR	see Figure 10
Inverter	see Figure 11
Buffer	see Figure 12

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8. Limiting values

Table 6. Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134). Voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Max	Unit
V _{CC}	supply voltage		-0.5	+4.6	V
I _{IK}	input clamping current	V ₁ < 0 V	-50	-	mA
VI	input voltage	<u>[1]</u>	-0.5	+4.6	V
I _{OK}	output clamping current	V _O < 0 V	-50	-	mA
V _O	output voltage	Active mode and Power-down ^[1] mode	-0.5	+4.6	V
I _O	output current	$V_{O} = 0 V$ to V_{CC}	-	±20	mA
I _{CC}	supply current		-	50	mA
I _{GND}	ground current		-50	-	mA
T _{stg}	storage temperature		-65	+150	°C
P _{tot}	total power dissipation	$T_{amb} = -40 \text{ °C to } +125 \text{ °C}$ [2]	-	250	mW

[1] The minimum input and output voltage ratings may be exceeded if the input and output current ratings are observed.

[2] For TSSOP10 package: above 55 °C the value of P_{tot} derates linearly with 2.5 mW/K. For XQFN10 (SOT1049-3) package: above 132 °C the value of P_{tot} derates linearly with 14.1 mW/K. For XQFN10 (SOT1160-1) package: above 128 °C the value of P_{tot} derates linearly with 11.5 mW/K. For XSON10 package: above 45 °C the value of P_{tot} derates linearly with 2.4 mW/K.

9. Recommended operating conditions

Table 7. Recommended operating conditions

Symbol	mbol Parameter Conditions			Max	Unit	
V _{CC}	supply voltage		0.8	3.6	V	
VI	input voltage		0	3.6	V	
V _O	output voltage	Active mode	0	V _{CC}	V	
		Power-down mode; $V_{CC} = 0 V$	0	3.6	V	
T _{amb}	ambient temperature		-40	+125	°C	

10. Static characteristics

Table 8. Static characteristics

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T _{amb} = 2	5 °C				I	
V _{OH}	HIGH-level output voltage	$V_{I} = V_{T+} \text{ or } V_{T-}$				
		I_O = –20 $\mu A;V_{CC}$ = 0.8 V to 3.6 V	$V_{CC}-0.1$	-	-	V
		I _O = -1.1 mA; V _{CC} = 1.1 V	$0.75 \times V_{CC}$	-	-	V
		$I_{O} = -1.7 \text{ mA}; V_{CC} = 1.4 \text{ V}$	1.11	-	-	V
		$I_{O} = -1.9 \text{ mA}; V_{CC} = 1.65 \text{ V}$	1.32	-	-	V
		$I_{O} = -2.3 \text{ mA}; V_{CC} = 2.3 \text{ V}$	2.05	-	-	V
		$I_{O} = -3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	1.9	-	-	V
		$I_{O} = -2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.72	-	-	V
		$I_{O} = -4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.6	-	-	V
V _{OL}	LOW-level output voltage	$V_I = V_{T+} \text{ or } V_{T-}$				
		I_O = 20 $\mu\text{A};V_{CC}$ = 0.8 V to 3.6 V	-	-	0.1	V
		I _O = 1.1 mA; V _{CC} = 1.1 V	-	-	$0.3\times V_{CC}$	V
		$I_{O} = 1.7 \text{ mA}; V_{CC} = 1.4 \text{ V}$	-	-	0.31	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.31	V
		I_{O} = 2.3 mA; V_{CC} = 2.3 V	-	-	0.31	V
		$I_{O} = 3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	-	-	0.44	V
		$I_{O} = 2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.31	V
		$I_{O} = 4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.44	V
l _l	input leakage current	$V_I = GND$ to 3.6 V; $V_{CC} = 0$ V to 3.6 V	-	-	±0.1	μA
I _{OFF}	power-off leakage current	V_I or $V_O = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.2	μA
ΔI_{OFF}	additional power-off leakage current		-	-	±0.2	μA
I _{CC}	supply current	$\label{eq:VI} \begin{array}{l} V_{I} = GND \text{ or } V_{CC}; I_{O} = 0 \; A; \\ V_{CC} = 0.8 \; V \; to \; 3.6 \; V \end{array}$	-	-	0.5	μA
Δl _{CC}	additional supply current		-	-	40	μ A
CI	input capacitance	$V_{CC} = 0$ V to 3.6 V; $V_I = GND$ or V_{CC}	-	1.1	-	pF
Co	output capacitance	$V_{O} = GND; V_{CC} = 0 V$	-	1.7	-	pF
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Low-power dual PCB configurable multiple function gate

Table 8. Static characteristics ...continued

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T _{amb} = -	40 °C to +85 °C			-1		
V _{OH}	HIGH-level output voltage	$V_{I} = V_{T+}$ or V_{T-}				
		I_O = –20 $\mu A; V_{CC}$ = 0.8 V to 3.6 V	$V_{CC}-0.1$	-	-	V
		$I_{O} = -1.1 \text{ mA}; V_{CC} = 1.1 \text{ V}$	$0.7\times V_{CC}$	-	-	V
		$I_{O} = -1.7 \text{ mA}; V_{CC} = 1.4 \text{ V}$	1.03	-	-	V
		$I_{O} = -1.9 \text{ mA}; V_{CC} = 1.65 \text{ V}$	1.30	-	-	V
		$I_{O} = -2.3 \text{ mA}; V_{CC} = 2.3 \text{ V}$	1.97	-	-	V
		$I_{O} = -3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	1.85	-	-	V
		$I_{O} = -2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.67	-	-	V
		$I_{O} = -4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.55	-	-	V
V _{OL}	LOW-level output voltage	$V_{I} = V_{T+}$ or V_{T-}				
		I_{O} = 20 $\mu\text{A};V_{CC}$ = 0.8 V to 3.6 V	-	-	0.1	V
		I _O = 1.1 mA; V _{CC} = 1.1 V	-	-	$0.3 \times V_{\text{CC}}$	V
		I _O = 1.7 mA; V _{CC} = 1.4 V	-	-	0.37	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.35	V
		$I_{O} = 2.3 \text{ mA}; V_{CC} = 2.3 \text{ V}$	-	-	0.33	V
		$I_{O} = 3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	-	-	0.45	V
		$I_{O} = 2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.33	V
		$I_{O} = 4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.45	V
l _l	input leakage current	$V_{I} = GND$ to 3.6 V; $V_{CC} = 0$ V to 3.6 V	-	-	±0.5	μA
I _{OFF}	power-off leakage current	$V_1 \text{ or } V_0 = 0 \text{ V to } 3.6 \text{ V}; V_{CC} = 0 \text{ V}$	-	-	±0.5	μA
ΔI_{OFF}	additional power-off leakage current	$V_{I} \text{ or } V_{O} = 0 \text{ V to } 3.6 \text{ V};$ $V_{CC} = 0 \text{ V to } 0.2 \text{ V}$	-	-	±0.6	μA
I _{CC}	supply current	$\label{eq:VI} \begin{array}{l} V_{I}=GND \text{ or } V_{CC}; \ I_{O}=0 \ \text{A}; \\ V_{CC}=0.8 \ \text{V to } 3.6 \ \text{V} \end{array}$	-	-	0.9	μA
Δl _{CC}	additional supply current		-	-	50	μA

Low-power dual PCB configurable multiple function gate

Table 8. Static characteristics ...continued

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T _{amb} = -	40 °C to +125 °C					
V _{OH}	HIGH-level output voltage	$V_{I} = V_{T+}$ or V_{T-}				
		I_O = –20 $\mu A; V_{CC}$ = 0.8 V to 3.6 V	$V_{CC}-0.11$	-	-	V
		$I_{O} = -1.1 \text{ mA}; V_{CC} = 1.1 \text{ V}$	$0.6 \times V_{CC}$	-	-	V
		$I_{O} = -1.7 \text{ mA}; V_{CC} = 1.4 \text{ V}$	0.93	-	-	V
		$I_{O} = -1.9 \text{ mA}; V_{CC} = 1.65 \text{ V}$	1.17	-	-	V
		$I_{O} = -2.3 \text{ mA}; V_{CC} = 2.3 \text{ V}$	1.77	-	-	V
		$I_{O} = -3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	1.67	-	-	V
		$I_{O} = -2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.40	-	-	V
		$I_{O} = -4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	2.30	-	-	V
V _{OL}	LOW-level output voltage	$V_{I} = V_{T+}$ or V_{T-}				
		I_{O} = 20 µA; V_{CC} = 0.8 V to 3.6 V	-	-	0.11	V
		$I_{O} = 1.1 \text{ mA}; V_{CC} = 1.1 \text{ V}$	-	-	$0.33 \times V_{CC}$	V
		$I_{O} = 1.7 \text{ mA}; V_{CC} = 1.4 \text{ V}$	-	-	0.41	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.39	V
		$I_{O} = 2.3 \text{ mA}; V_{CC} = 2.3 \text{ V}$	-	-	0.36	V
		$I_{O} = 3.1 \text{ mA}; V_{CC} = 2.3 \text{ V}$	-	-	0.50	V
		$I_{O} = 2.7 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.36	V
		$I_{O} = 4.0 \text{ mA}; V_{CC} = 3.0 \text{ V}$	-	-	0.50	V
I _I	input leakage current	$V_{I} = GND$ to 3.6 V; $V_{CC} = 0$ V to 3.6 V	-	-	±0.75	μA
I _{OFF}	power-off leakage current	$V_1 \text{ or } V_0 = 0 \text{ V to } 3.6 \text{ V}; V_{CC} = 0 \text{ V}$	-	-	±0.75	μA
ΔI_{OFF}	additional power-off leakage current	$V_{I} \text{ or } V_{O} = 0 \text{ V to } 3.6 \text{ V};$ $V_{CC} = 0 \text{ V to } 0.2 \text{ V}$	-	-	±0.75	μA
I _{CC}	supply current	$\label{eq:VI} \begin{array}{l} V_{I}=GND \text{ or } V_{CC}; \ I_{O}=0 \ A; \\ V_{CC}=0.8 \ V \ to \ 3.6 \ V \end{array}$	-	-	1.4	μA
ΔI_{CC}	additional supply current		-	-	75	μA

[1] One input at V_{CC} – 0.6 V, other input at V_{CC} or GND.

11. Dynamic characteristics

Dynamic characteristics Table 9.

Voltages are referenced to GND (ground = 0 V); for test circuit, see Figure 14.

Symbol	Parameter	Conditions	25 °C			–40 °C to +125 °C			
				Typ[1]	Мах	Min	Max (85 °C)	Max (125 °C)	
C _L = 5 p	F			1		1			
t _{pd}	propagation delay	nA, nB, nC to nY; see Figure 13 [2]							
		V _{CC} = 0.8 V	-	23.0	-	-	-	-	ns
		V _{CC} = 1.1 V to 1.3 V	2.8	6.6	12.6	2.5	13.0	13.2	ns
		V _{CC} = 1.4 V to 1.6 V	2.3	4.7	7.6	2.5	8.2	8.6	ns
		V _{CC} = 1.65 V to 1.95 V	2.2	3.9	6.2	2.0	6.8	7.2	ns
		V _{CC} = 2.3 V to 2.7 V	2.0	3.2	4.5	1.7	5.1	5.3	ns
		V _{CC} = 3.0 V to 3.6 V	1.9	2.8	3.9	1.5	4.1	4.3	ns
C _L = 10	pF								
t _{pd} propag	propagation delay	nA, nB, nC to nY; see Figure 13							
		V _{CC} = 0.8 V	-	26.6	-	-	-	-	ns
		V _{CC} = 1.1 V to 1.3 V	3.2	7.4	14.3	2.9	14.9	15.2	ns
		V _{CC} = 1.4 V to 1.6 V	2.6	5.3	8.7	2.8	9.4	9.8	ns
		V _{CC} = 1.65 V to 1.95 V	2.5	4.5	7.0	2.3	7.8	8.2	ns
		V _{CC} = 2.3 V to 2.7 V	2.4	3.7	5.2	2.1	5.9	6.1	ns
		V _{CC} = 3.0 V to 3.6 V	2.3	3.4	4.6	1.9	4.9	5.1	ns
C _L = 15	pF								
t _{pd}	propagation delay	nA, nB, nC to nY; see Figure 13							
		V _{CC} = 0.8 V	-	30.1	-	-	-	-	ns
		V _{CC} = 1.1 V to 1.3 V	3.6	8.2	16.0	3.2	16.7	17.0	ns
		V _{CC} = 1.4 V to 1.6 V	2.9	5.9	9.6	3.1	10.4	10.9	ns
		V _{CC} = 1.65 V to 1.95 V	2.8	5.0	7.8	2.5	8.7	9.1	ns
		V _{CC} = 2.3 V to 2.7 V	2.7	4.2	5.8	2.4	6.5	6.9	ns
		V _{CC} = 3.0 V to 3.6 V	2.5	3.8	5.1	2.2	5.5	5.7	ns
C _L = 30	pF								
t _{pd}	propagation delay	nA, nB, nC to nY; see Figure 13 [2]							
		V _{CC} = 0.8 V	-	38.3	-	-	-	-	ns
		V _{CC} = 1.1 V to 1.3 V	4.6	10.5	20.9	4.0	21.8	22.2	ns
		V _{CC} = 1.4 V to 1.6 V	3.7	7.4	12.2	3.8	13.3	14.0	ns
		V _{CC} = 1.65 V to 1.95 V	3.5	6.3	9.9	3.2	11.1	11.8	ns
		V _{CC} = 2.3 V to 2.7 V	3.4	5.3	7.4	3.1	8.3	8.8	ns
		V _{CC} = 3.0 V to 3.6 V	3.2	4.9	6.6	2.8	7.0	7.4	ns

74AUP2G97

Low-power dual PCB configurable multiple function gate

Table 9. Dynamic characteristics ... continued

Voltages are referenced to GND (ground = 0 V); for test circuit, see Figure 14.

Symbol	Parameter	ameter Conditions		25 °C			–40 °C to +125 °C			
				Typ[1]	Мах	Min	Max (85 °C)	Max (125 °C)		
C _L = 5 pl	F, 10 pF, 15 pF and	30 pF								
C _{PD}	power dissipation capacitance	$f_i = 1 \text{ MHz}; V_I = \text{GND to } V_{\text{CC}}$ [3]								
		V _{CC} = 0.8 V	-	2.6	-	-	-	-	pF	
		V _{CC} = 1.1 V to 1.3 V	-	2.8	-	-	-	-	pF	
		V _{CC} = 1.4 V to 1.6 V	-	2.9	-	-	-	-	pF	
		V _{CC} = 1.65 V to 1.95 V	-	3.1	-	-	-	-	pF	
		V _{CC} = 2.3 V to 2.7 V	-	3.7	-	-	-	-	pF	
		V _{CC} = 3.0 V to 3.6 V	-	4.3	-	-	-	-	pF	

[1] All typical values are measured at nominal V_{CC}.

[2] t_{pd} is the same as t_{PLH} and t_{PHL}

[3] C_{PD} is used to determine the dynamic power dissipation (P_D in μ W).

 $P_{D} = C_{PD} \times V_{CC}^{2} \times f_{i} \times N + \Sigma (C_{L} \times V_{CC}^{2} \times f_{o}) \text{ where:}$

 f_i = input frequency in MHz;

 $f_o = output frequency in MHz;$

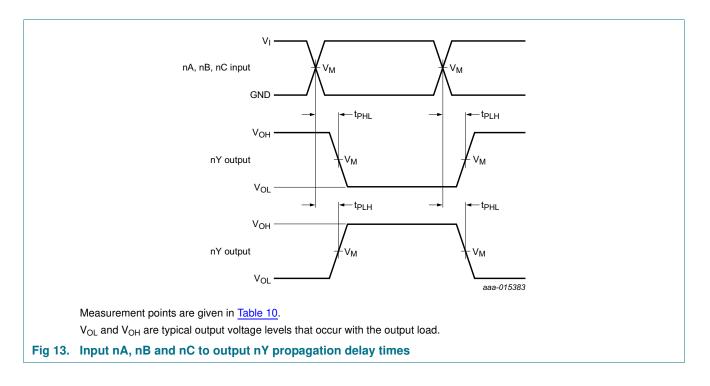
 C_L = output load capacitance in pF;

V_{CC} = supply voltage in V;

N = number of inputs switching;

 $\Sigma(C_L \times V_{CC}^2 \times f_o)$ = sum of the outputs.

12. Waveforms



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Low-power dual PCB configurable multiple function gate

Table 10.Measurement points

Supply voltage	Output	Input		
V _{CC}	V _M	V _M	VI	$t_r = t_f$
0.8 V to 3.6 V	$0.5 imes V_{CC}$	$0.5\times V_{CC}$	V _{CC}	≤ 3.0 ns

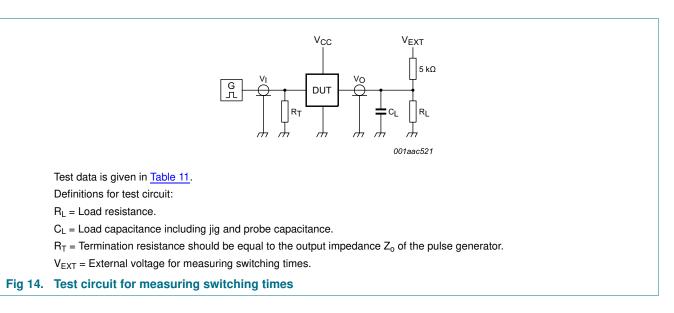


Table 11. Test data

Supply voltage	Load		V _{EXT}		
V _{cc}	CL	R _L [1]	t _{PLH} , t _{PHL}	t _{PZH} , t _{PHZ}	t _{PZL} , t _{PLZ}
0.8 V to 3.6 V	5 pF, 10 pF, 15 pF and 30 pF	5 k Ω or 1 M Ω	open	GND	2V _{CC}

[1] For measuring enable and disable times, $R_L = 5 \text{ k}\Omega$, for measuring propagation delays, setup and hold times and pulse width $R_L = 1 M\Omega$.

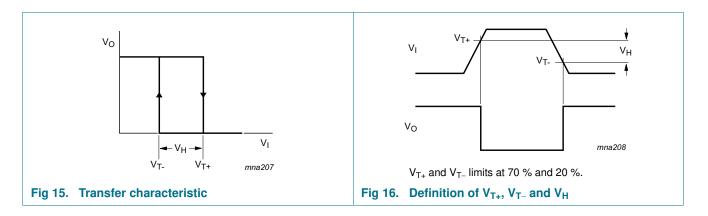
13. Transfer characteristics

Table 12. Transfer characteristics

Voltages are referenced to GND (ground = 0 V; for test circuit, see Figure 14.

Symbol Parameter		Conditions		25 °C		–40 °C to +125 °C			Unit
			Min	Тур	Max	Min	Max (85 °C)	Max (125 °C)	
V_{T+}	positive-going	see Figure 15 and Figure 16							
	threshold voltage	V _{CC} = 0.8 V	0.30	-	0.60	0.30	0.60	0.62	V
		V _{CC} = 1.1 V	0.53	-	0.90	0.53	0.90	0.92	V
		V _{CC} = 1.4 V	0.74	-	1.11	0.74	1.11	1.13	V
		V _{CC} = 1.65 V	0.91	-	1.29	0.91	1.29	1.31	V
		$V_{CC} = 2.3 V$	1.37	-	1.77	1.37	1.77	1.80	V
		$V_{CC} = 3.0 V$	1.88	-	2.29	1.88	2.29	2.32	V
V_{T-}	V _{T-} negative-going threshold voltage	see Figure 15 and Figure 16							
		$V_{CC} = 0.8 V$	0.10	-	0.60	0.10	0.60	0.60	V
		$V_{CC} = 1.1 V$	0.26	-	0.65	0.26	0.65	0.65	V
		$V_{CC} = 1.4 V$	0.39	-	0.75	0.39	0.75	0.75	V
		V _{CC} = 1.65 V	0.47	-	0.84	0.47	0.84	0.84	V
	$V_{CC} = 2.3 V$	0.69	-	1.04	0.69	1.04	1.04	V	
		$V_{CC} = 3.0 V$	0.88	-	1.24	0.88	1.24	1.24	V
V _H	hysteresis	$(V_{T_{+}} - V_{T_{-}})$; see Figure 15, Figure 16, Figure 17 and Figure 18							
	voltage	$V_{CC} = 0.8 V$	0.07	-	0.50	0.07	0.50	0.50	V
		V _{CC} = 1.1 V	0.08	-	0.46	0.08	0.46	0.46	V
	$V_{CC} = 1.4 V$	0.18	-	0.56	0.18	0.56	0.56	V	
		V _{CC} = 1.65 V	0.27	-	0.66	0.27	0.66	0.66	V
		$V_{CC} = 2.3 V$	0.53	-	0.92	0.53	0.92	0.92	V
		$V_{CC} = 3.0 V$	0.79	-	1.31	0.79	1.31	1.31	V

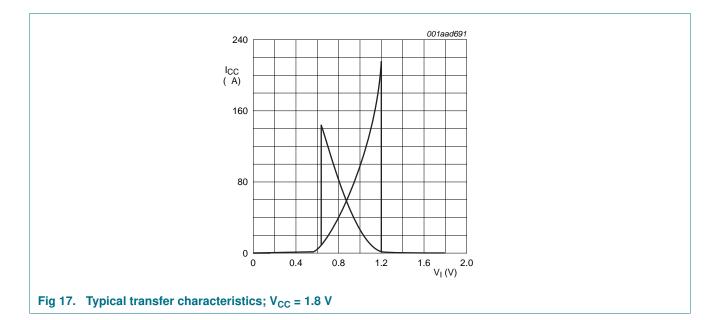
14. Waveforms transfer characteristics

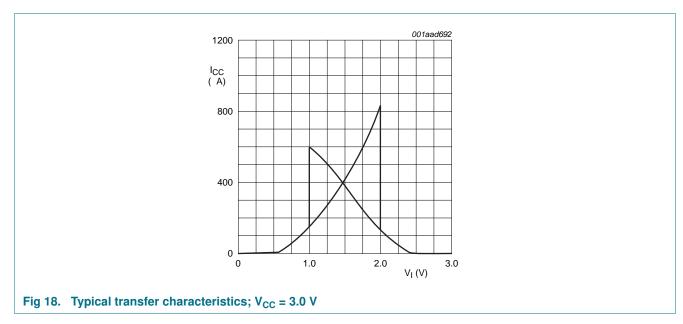


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15. Package outline

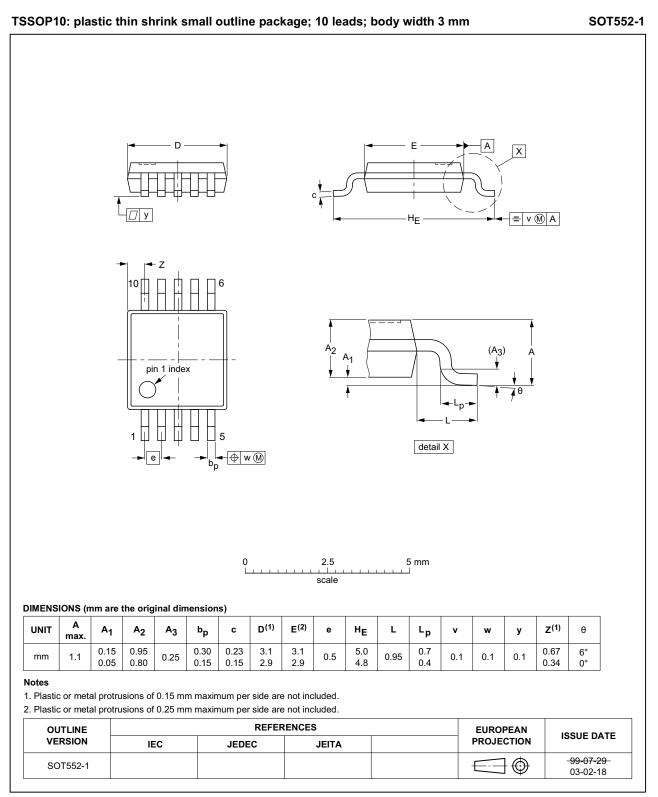
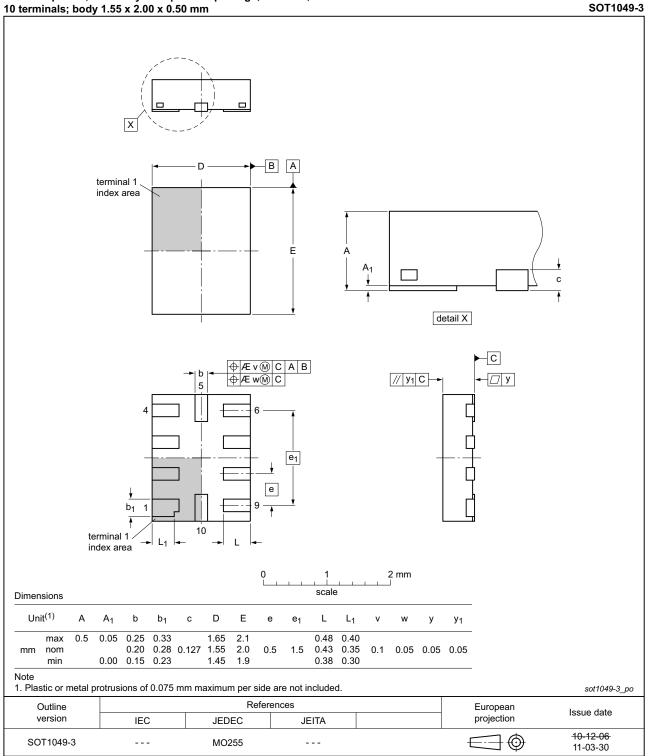


Fig 19. Package outline SOT552-1 (TSSOP10)

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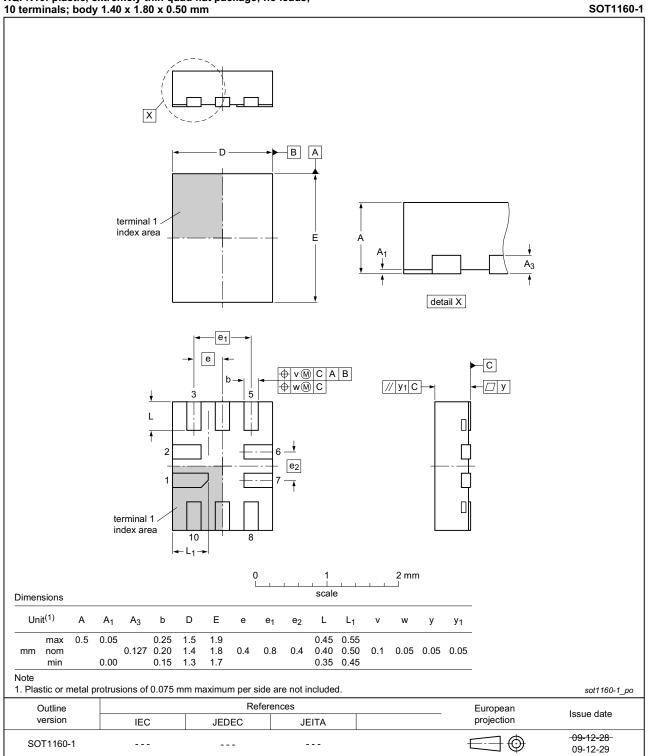


XQFN10: plastic, extremely thin quad flat package; no leads; 10 terminals; body 1.55 x 2.00 x 0.50 mm

Fig 20. Package outline SOT1049-3 (XQFN10)

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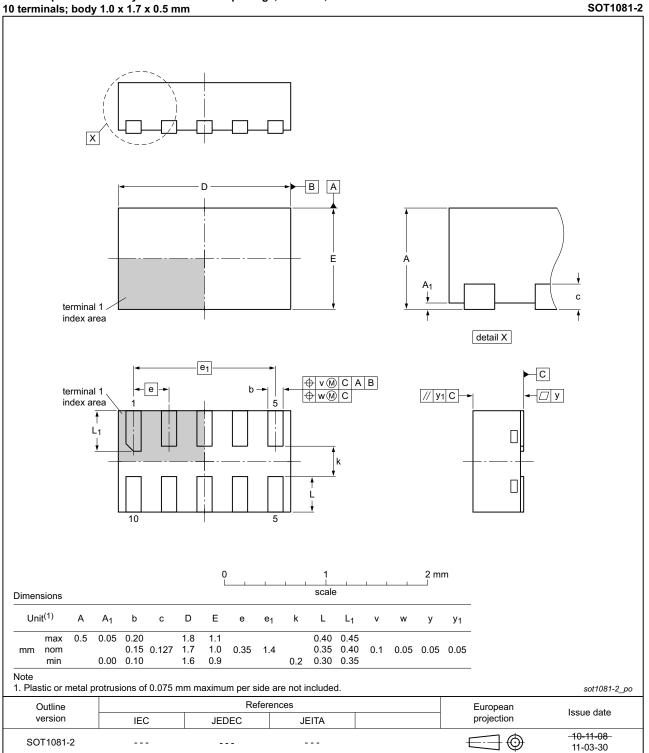


XQFN10: plastic, extremely thin quad flat package; no leads; 10 terminals; body 1.40 x 1.80 x 0.50 mm

Fig 21. Package outline SOT1160-1 (XQFN10)

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XSON10: plastic extremely thin small outline package; no leads;

Fig 22. Package outline SOT1081-2 (XSON10)

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16. Abbreviations

Table 13. Abbreviations		
Acronym	Description	
CDM	Charged Device Model	
DUT	Device Under Test	
ESD	ElectroStatic Discharge	
НВМ	Human Body Model	
MM	Machine Model	
PCB	Printed-Circuit Board	

17. Revision history

Table 14. Revision history				
Document ID	Release date	Data sheet status	Change notice	Supersedes
74AUP2G97 v.1	20141104	Product data sheet	-	-

18. Legal information

18.1 Data sheet status

Document status[1][2]	Product status ^[3]	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
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[2] The term 'short data sheet' is explained in section "Definitions".

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Low-power dual PCB configurable multiple function gate

20. Contents

1	General description 1
2	Features and benefits 1
3	Ordering information 2
4	Marking 2
5	Functional diagram 2
6	Pinning information 3
6.1	Pinning 3
6.2	Pin description 4
7	Functional description 4
7.1	Logic configurations 4
8	Limiting values 6
9	Recommended operating conditions 6
10	Static characteristics 7
11	Dynamic characteristics 10
12	Waveforms 11
13	Transfer characteristics
14	Waveforms transfer characteristics 13
15	Package outline 15
16	Abbreviations 19
17	Revision history 19
18	Legal information 20
18.1	Data sheet status 20
18.2	Definitions 20
18.3	Disclaimers
18.4	Trademarks
19	Contact information 21
20	Contents 22

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