

# 74AUP2GU04-Q100

## Low-power dual unbuffered inverter

Rev. 4 — 31 January 2022

Product data sheet

## 1. General description

The 74AUP2GU04-Q100 is a dual unbuffered inverter. Schmitt-trigger action at all inputs makes the circuit tolerant of slower input rise and fall times. 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 product has been qualified to the Automotive Electronics Council (AEC) standard Q100 (Grade 1) and is suitable for use in automotive applications.

## 2. Features and benefits

- Automotive product qualification in accordance with AEC-Q100 (Grade 1)
  - Specified from -40 °C to +85 °C and from -40 °C to +125 °C
- Wide supply voltage range from 0.8 V to 3.6 V
- CMOS low power dissipation
- High noise immunity
- Overvoltage tolerant inputs to 3.6 V
- Low noise overshoot and undershoot < 10 % of  $V_{CC}$
- Latch-up performance exceeds 100 mA per JESD 78 Class II
- Low static power consumption;  $I_{CC} = 0.9 \mu\text{A}$  (maximum)
- Complies with JEDEC standards:
  - JESD8-12 (0.8 V to 1.3 V)
  - JESD8-11 (0.9 V to 1.65 V)
  - JESD8-7 (1.2 V to 1.95 V)
  - JESD8-5 (1.8 V to 2.7 V)
  - JESD8-B (2.7 V to 3.6 V)
- ESD protection:
  - MIL-STD-883, method 3015 Class 3A. Exceeds 5000 V
  - HBM JESD22-A114F Class 3A. Exceeds 5000 V
  - MM JESD22-A115-A exceeds 200 V (C = 200 pF; R = 0  $\Omega$ )

## 3. Ordering information

Table 1. Ordering information

Type number	Package			Version
	Temperature range	Name	Description	
74AUP2GU04GW-Q100	-40 °C to +125 °C	TSSOP6	plastic thin shrink small outline package; 6 leads; body width 1.25 mm	SOT363-2
74AUP2GU04GM-Q100	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1.45 × 0.5 mm	SOT886

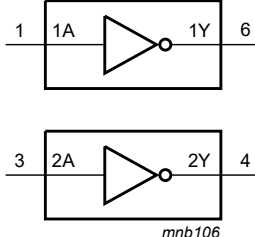
## 4. Marking

Table 2. Marking

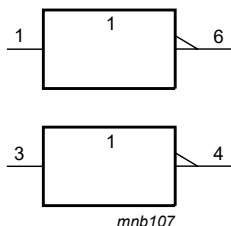
Type number	Marking code <sup>[1]</sup>
74AUP2GU04GW-Q100	aD
74AUP2GU04GM-Q100	aD

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

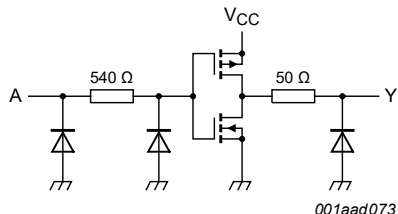
## 5. Functional diagram



**Fig. 1. Logic symbol**



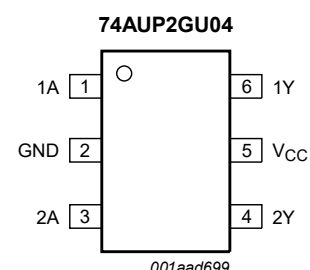
**Fig. 2. IEC logic symbol**



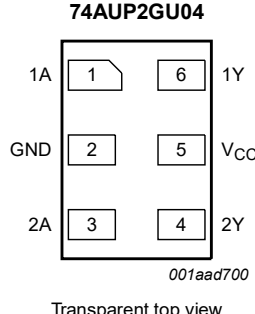
**Fig. 3. Logic diagram (one gate)**

## 6. Pinning information

### 6.1. Pinning



**Fig. 4. Pin configuration SOT363-2 (TSSOP6)**



**Fig. 5. Pin configuration SOT886 (XSON6)**

### 6.2. Pin description

Table 3. Pin description

Symbol	Pin	Description
1A	1	data input
GND	2	ground (0 V)
2A	3	data input
2Y	4	data output
V <sub>CC</sub>	5	supply voltage
1Y	6	data output

## 7. Functional description

**Table 4. Function table**

*H = HIGH voltage level; L = LOW voltage level.*

Input	Output
nA	nY
L	H
H	L

## 8. Limiting values

**Table 5. 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	$V_I < 0$ V	-50	-	mA
$V_I$	input voltage		[1] -0.5	+4.6	V
$I_{OK}$	output clamping current	$V_O < 0$ V	-50	-	mA
$V_O$	output voltage		[2] -0.5	$V_{CC} + 0.5$	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	$T_{amb} = -40$ °C to +125 °C	[3] -	250	mW

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

[2] The output voltage ratings may be exceeded if the output current ratings are observed.

[3] For SOT363-2 (TSSOP6) package:  $P_{tot}$  derates linearly with 3.7 mW/K above 83 °C.

For SOT886 (XSON6) package:  $P_{tot}$  derates linearly with 3.3 mW/K above 74 °C.

## 9. Recommended operating conditions

**Table 6. Recommended operating conditions**

Symbol	Parameter	Conditions	Min	Max	Unit
$V_{CC}$	supply voltage		0.8	3.6	V
$V_I$	input voltage		0	3.6	V
$V_O$	output voltage		0	$V_{CC}$	V
$T_{amb}$	ambient temperature		-40	+125	°C
$\Delta t/\Delta V$	input transition rise and fall rate	$V_{CC} = 0.8$ V to 3.6 V	0	200	ns/V

## 10. Static characteristics

**Table 7. Static characteristics**

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
<b>T<sub>amb</sub> = 25 °C</b>						
V <sub>IH</sub>	HIGH-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	0.75 × V <sub>CC</sub>	-	-	V
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.25 × V <sub>CC</sub>	V
V <sub>OH</sub>	HIGH-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = -20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	V <sub>CC</sub> - 0.1	-	-	V
		I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V	0.75 × V <sub>CC</sub>	-	-	V
		I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V	1.11	-	-	V
		I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V	1.32	-	-	V
		I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V	2.05	-	-	V
		I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V	1.9	-	-	V
		I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V	2.72	-	-	V
V <sub>OL</sub>	LOW-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = 20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.1	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.3 × V <sub>CC</sub>	V
		I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V	-	-	0.31	V
		I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V	-	-	0.31	V
		I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V	-	-	0.31	V
		I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V	-	-	0.44	V
		I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V	-	-	0.31	V
I <sub>I</sub>	input leakage current	V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.1	μA
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.5	μA
C <sub>I</sub>	input capacitance	V <sub>CC</sub> = 0 V to 3.6 V; V <sub>I</sub> = GND or V <sub>CC</sub>	-	1.5	-	pF
C <sub>O</sub>	output capacitance	V <sub>O</sub> = GND; V <sub>CC</sub> = 0 V	-	1.8	-	pF
<b>T<sub>amb</sub> = -40 °C to +85 °C</b>						
V <sub>IH</sub>	HIGH-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	0.75 × V <sub>CC</sub>	-	-	V
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.25 × V <sub>CC</sub>	V
V <sub>OH</sub>	HIGH-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = -20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	V <sub>CC</sub> - 0.1	-	-	V
		I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V	0.7 × V <sub>CC</sub>	-	-	V
		I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V	1.03	-	-	V
		I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V	1.30	-	-	V
		I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V	1.97	-	-	V
		I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V	1.85	-	-	V
		I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V	2.67	-	-	V
I <sub>O</sub>	output current	I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V	2.55	-	-	V

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V <sub>OL</sub>	LOW-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = 20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.1	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.3 × V <sub>CC</sub>	V
		I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V	-	-	0.37	V
		I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V	-	-	0.35	V
		I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V	-	-	0.33	V
		I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V	-	-	0.45	V
		I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V	-	-	0.33	V
		I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V	-	-	0.45	V
I <sub>I</sub>	input leakage current	V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.5	μA
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.9	μA
<b>T<sub>amb</sub> = -40 °C to +125 °C</b>						
V <sub>IH</sub>	HIGH-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	0.75 × V <sub>CC</sub>	-	-	V
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.25 × V <sub>CC</sub>	V
V <sub>OH</sub>	HIGH-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = -20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	V <sub>CC</sub> - 0.11	-	-	V
		I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V	0.6 × V <sub>CC</sub>	-	-	V
		I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V	0.93	-	-	V
		I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V	1.17	-	-	V
		I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V	1.77	-	-	V
		I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V	1.67	-	-	V
		I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V	2.40	-	-	V
		I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V	2.30	-	-	V
V <sub>OL</sub>	LOW-level output voltage	V <sub>I</sub> = GND or V <sub>CC</sub>				
		I <sub>O</sub> = 20 μA; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.11	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.33 × V <sub>CC</sub>	V
		I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V	-	-	0.41	V
		I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V	-	-	0.39	V
		I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V	-	-	0.36	V
		I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V	-	-	0.50	V
		I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V	-	-	0.36	V
		I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V	-	-	0.50	V
I <sub>I</sub>	input leakage current	V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.75	μA
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	1.4	μA

## 11. Dynamic characteristics

**Table 8. Dynamic characteristics**

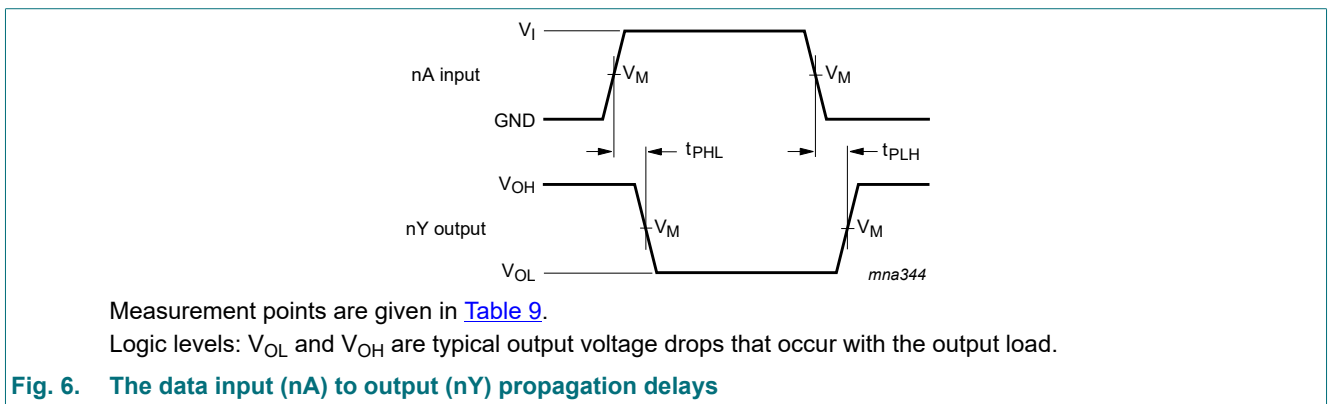
Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 7.

Symbol	Parameter	Conditions	25 °C			-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Typ [1]	Max	Min	Max	Min	Max	
<b>C<sub>L</sub> = 5 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	6.2	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	0.9	2.3	4.4	0.9	4.8	0.9	5.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	0.7	1.7	3.1	0.6	3.4	0.6	3.8	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	0.5	1.4	2.6	0.5	2.9	0.5	3.2	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	0.4	1.1	2.0	0.4	2.3	0.4	2.6	ns
<b>C<sub>L</sub> = 10 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	9.6	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	1.2	3.1	6.1	1.2	6.8	1.2	7.5	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	1.0	2.3	4.0	0.9	4.6	0.9	5.1	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	0.8	1.9	3.3	0.7	3.8	0.7	4.2	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	0.6	1.5	2.7	0.6	3.1	0.6	3.5	ns
<b>C<sub>L</sub> = 15 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	13.0	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	1.6	3.8	7.9	1.4	8.8	1.4	9.7	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	1.3	2.8	4.9	1.1	5.7	1.1	6.3	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.0	2.3	4.0	0.9	4.7	0.9	5.2	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	0.8	1.9	3.2	0.8	3.7	0.8	4.1	ns
<b>C<sub>L</sub> = 30 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	23.2	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.4	6.0	13.1	2.2	14.8	2.2	16.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.0	4.2	7.6	1.8	9.0	1.8	9.9	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	3.6	6.1	1.5	7.2	1.5	8.0	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	2.9	4.8	1.3	5.7	1.3	6.3	ns
<b>C<sub>L</sub> = 30 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	23.2	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.4	6.0	13.1	2.2	14.8	2.2	16.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.0	4.2	7.6	1.8	9.0	1.8	9.9	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	3.6	6.1	1.5	7.2	1.5	8.0	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	2.9	4.8	1.3	5.7	1.3	6.3	ns
<b>C<sub>L</sub> = 30 pF</b>										
t <sub>pd</sub>	propagation delay	nA to nY; see Fig. 6 [2]								
		V <sub>CC</sub> = 0.8 V	-	23.2	-	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.4	6.0	13.1	2.2	14.8	2.2	16.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.0	4.2	7.6	1.8	9.0	1.8	9.9	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	3.6	6.1	1.5	7.2	1.5	8.0	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	2.9	4.8	1.3	5.7	1.3	6.3	ns

Symbol	Parameter	Conditions	25 °C			-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Typ [1]	Max	Min	Max	Min	Max	
<b>C<sub>L</sub> = 5 pF, 10 pF, 15 pF and 30 pF</b>										
C <sub>PD</sub>	power dissipation capacitance	f <sub>i</sub> = 1 MHz; V <sub>I</sub> = GND to V <sub>CC</sub> [3] [4]								
		V <sub>CC</sub> = 0.8 V	-	1.1	-	-	-	-	-	pF
		V <sub>CC</sub> = 1.1 V to 1.3 V	-	1.1	-	-	-	-	-	pF
		V <sub>CC</sub> = 1.4 V to 1.6 V	-	1.3	-	-	-	-	-	pF
		V <sub>CC</sub> = 1.65 V to 1.95 V	-	1.5	-	-	-	-	-	pF
		V <sub>CC</sub> = 2.3 V to 2.7 V	-	3.0	-	-	-	-	-	pF
		V <sub>CC</sub> = 3.0 V to 3.6 V	-	4.5	-	-	-	-	-	pF

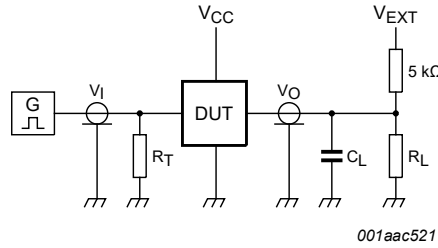
- [1] All typical values are measured at nominal V<sub>CC</sub>.
- [2] t<sub>pd</sub> is the same as t<sub>PLH</sub> and t<sub>PHL</sub>.
- [3] All specified values are the average typical values over all stated loads.
- [4] C<sub>PD</sub> is used to determine the dynamic power dissipation (P<sub>D</sub> in μW).  
 $P_D = C_{PD} \times V_{CC}^2 \times f_i \times N + \Sigma(C_L \times V_{CC}^2 \times f_o)$  where:  
 f<sub>i</sub> = input frequency in MHz;  
 f<sub>o</sub> = output frequency in MHz;  
 C<sub>L</sub> = load capacitance in pF;  
 V<sub>CC</sub> = supply voltage in V;  
 N = number of inputs switching;  
 Σ(C<sub>L</sub> × V<sub>CC</sub><sup>2</sup> × f<sub>o</sub>) = sum of the outputs.

### 11.1. Waveforms and test circuit



**Table 9. Measurement points**

Supply voltage	Input			Output
V <sub>CC</sub>	V <sub>M</sub>	V <sub>I</sub>	t <sub>r</sub> = t <sub>f</sub>	V <sub>M</sub>
0.8 V to 3.6 V	0.5 × V <sub>CC</sub>	V <sub>CC</sub>	≤ 3.0 ns	0.5 × V <sub>CC</sub>



Test data is given in [Table 10](#).

Definitions for test circuit:

$R_L$  = Load resistance;

$C_L$  = Load capacitance including jig and probe capacitance;

$R_T$  = Termination resistance should be equal to the output impedance  $Z_o$  of the pulse generator;

$V_{EXT}$  = External voltage for measuring switching times.

**Fig. 7. Test circuit for measuring switching times**

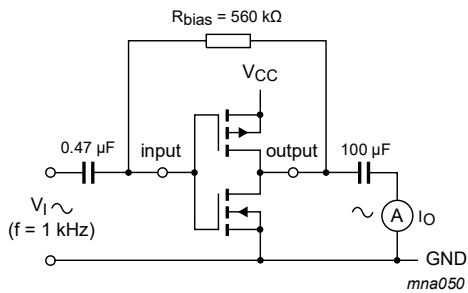
**Table 10. Test data**

Supply voltage	Load		$V_{EXT}$		
$V_{CC}$	$C_L$	$R_L$ [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 kΩ or 1 MΩ	open	GND	$2 \times V_{CC}$

[1] For measuring enable and disable times  $R_L = 5 \text{ k}\Omega$ .

For measuring propagation delays, set-up and hold times and pulse width  $R_L = 1 \text{ M}\Omega$ .

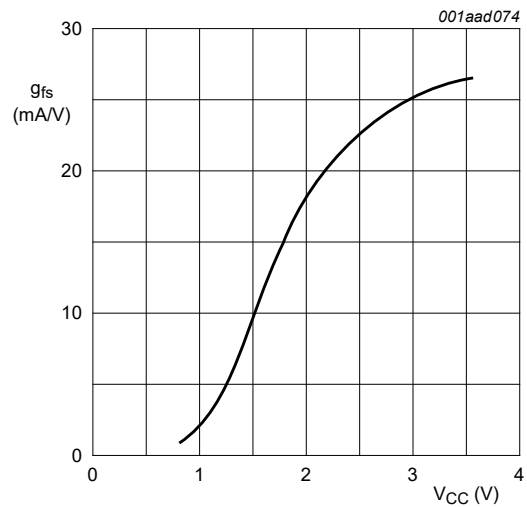
## 12. Additional characteristics



$$g_{fs} = \frac{\Delta I_O}{\Delta V_I}$$

$V_O$  is constant.

**Fig. 8. Test set-up for measuring forward transconductance**



$T_{amb} = 25 \text{ }^\circ\text{C}$ .

**Fig. 9. Typical forward transconductance as a function of supply voltage**

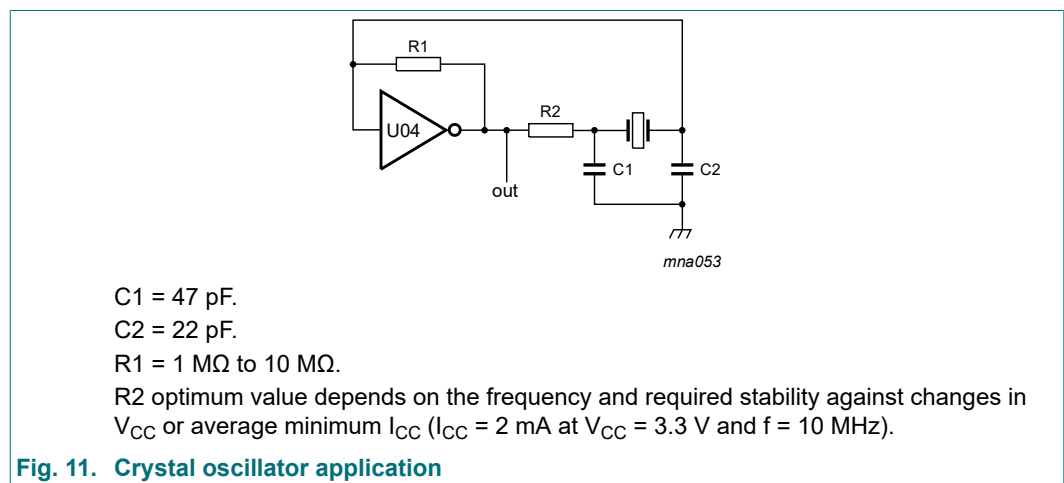
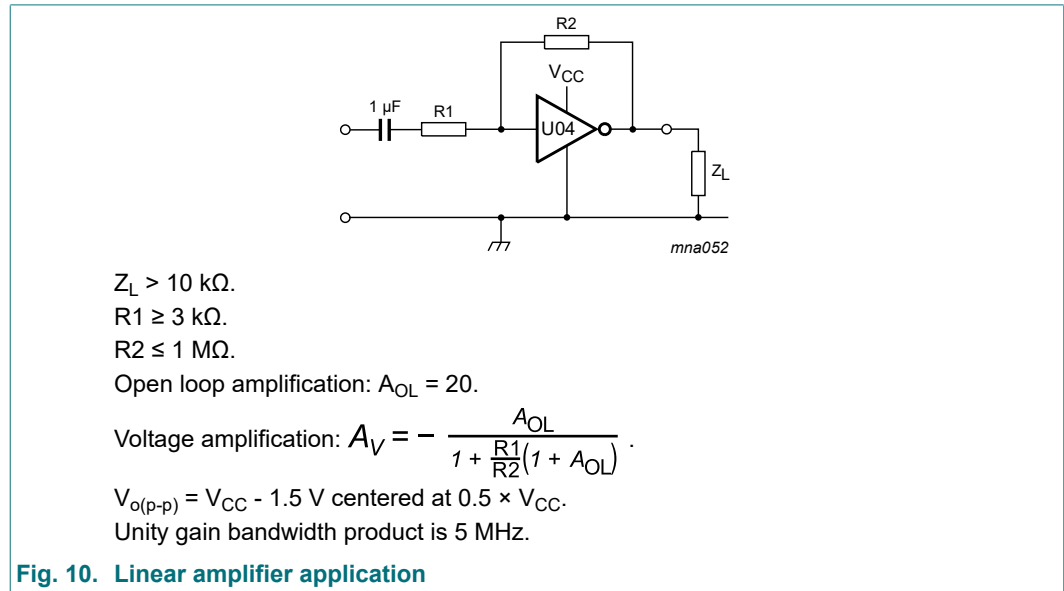


## 13. Application information

Some applications for the 74AUP2GU04-Q100 are:

- Linear amplifier (see [Fig. 10](#))
- Crystal oscillator (see [Fig. 11](#))

**Remark:** All values given are typical values unless otherwise specified.



14. Package outline

TSSOP6: plastic thin shrink small outline package; 6 leads; body width 1.25 mm

SOT363-2

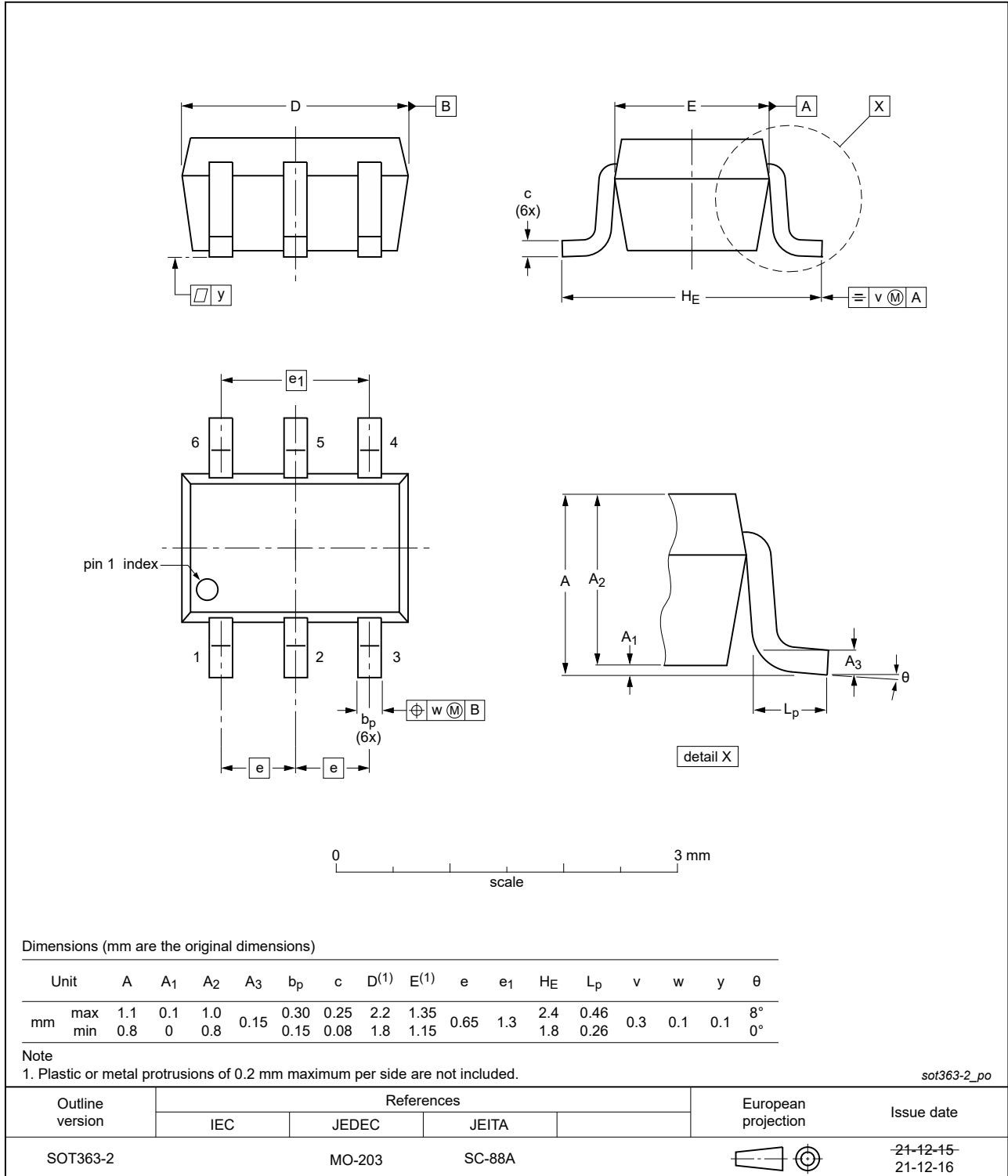


Fig. 12. Package outline SOT363-2 (TSSOP6)

XSON6: plastic extremely thin small outline package; no leads; 6 terminals; body 1 x 1.45 x 0.5 mm

SOT886



Fig. 13. Package outline SOT886 (XSON6)

## 15. Abbreviations

Table 11. Abbreviations

Acronym	Description
CMOS	Complementary Metal Oxide Semiconductor
DUT	Device Under Test
ESD	ElectroStatic Discharge
HBM	Human Body Model
MIL	Military
MM	Machine Model

## 16. Revision history

Table 12. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74AUP2GU04_Q100 v.4	20220131	Product data sheet	-	74AUP2GU04_Q100 v.3
Modifications:	<ul style="list-style-type: none"> <li>SOT363 (SC-88) package changed to SOT363-2 (TSSOP6).</li> </ul>			
74AUP2GU04_Q100 v.3	20210809	Product data sheet	-	74AUP2GU04_Q100 v.2
Modifications:	<ul style="list-style-type: none"> <li><a href="#">Section 1</a> and <a href="#">Section 2</a> updated.</li> <li><a href="#">Table 5</a>: Derating values for <math>P_{tot}</math> total power dissipation updated.</li> </ul>			
74AUP2GU04_Q100 v.2	20190128	Product data sheet	-	74AUP2GU04_Q100 v.1
Modifications:	<ul style="list-style-type: none"> <li>The format of this data sheet has been redesigned to comply with the identity guidelines of Nexperia.</li> <li>Legal texts have been adapted to the new company name where appropriate.</li> <li>Added type number 74AUP2GU04GM-Q100 (SOT886/XSON6).</li> </ul>			
74AUP2GU04_Q100 v.1	20141020	Product data sheet	-	-

## 17. Legal information

### 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.
Product [short] data sheet	Production	This document contains the product specification.

- [1] Please consult the most recently issued document before initiating or completing a design.
- [2] The term 'short data sheet' is explained in section "Definitions".
- [3] The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the internet at <https://www.nexperia.com>.

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