NEW PRODUCT

Description

The Advanced Ultra Low Power (AUP) CMOS logic family is designed for low power and extended battery life in portable applications.

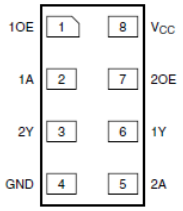
The 74AUP2G126 is a dual 3-State Buffer. Each buffer has an individual output enable pin while asserted LOW will place the output in a high impedance state. The device is designed for operation over a power supply range of 0.8V to 3.6V. The device is fully specified for partial power down applications using I_{OFF}. The I_{OFF} circuitry disables the output preventing damaging current backflow when the device is powered down.

Features

- Advanced Ultra Low Power (AUP) CMOS
- Supply Voltage Range from 0.8V to 3.6V
- ±4mA Output Drive at 3.0V
- Low Static Power Consumption
- I_{CC} < 0.9µA
- Low Dynamic Power Consumption
- C_{PD} = 6pF Typical at 3.6V
- Schmitt Trigger Action at All Inputs Make the Circuit Tolerant for Slower Input Rise and Fall Time. The hysteresis is typically 250mV at V_{CC} = 3.0V
- I_{OFF} Supports Partial-Power-Down Mode Operation
- ESD Protection per JESD 22
  - Exceeds 200-V Machine Model (A115)
  - Exceeds 2000-V Human Body Model (A114)
  - Exceeds 1000-V Charged Device Model (C101)
- Latch-Up Exceeds 100mA per JESD 78, Class I
- Leadless Packages per JESD30E
  - DFN1210 Denoted as X2-DFN1210-8
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

Pin Assignments

(Top View)



X2-DFN1210-8

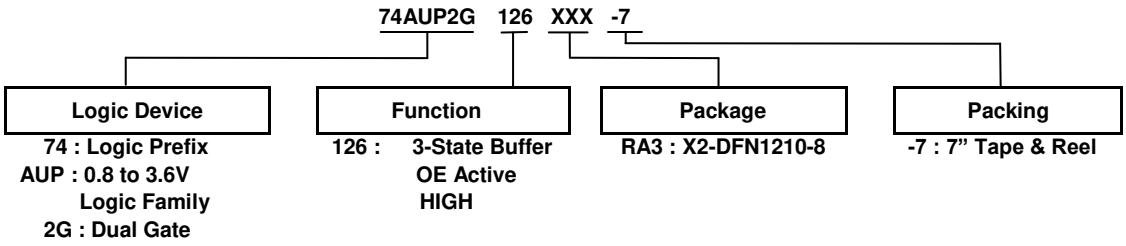
Applications

- Suited for Battery and Low Power Needs
- Wide Array of Products Such as:
  - Tablets, E-readers
  - Cell Phones, Personal Navigation / GPS
  - MP3 Players, Cameras, Video Recorders
  - PCs, Ultrabooks, Notebooks, Netbooks
  - Computer Peripherals, Hard Drives, SSD, CD/DVD ROM
  - TV, DVD, DVR, Set-Top Box

Notes: 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

NEW PRODUCT

Ordering Information



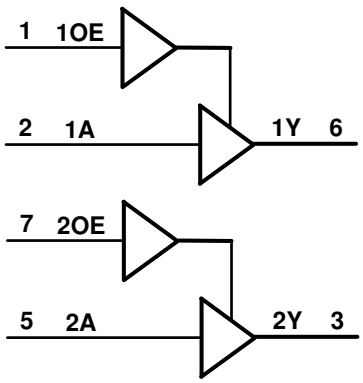
Device	Package Code	Package (Notes 4, 5)	Package Size	7" Tape and Reel	
				Quantity	Part Number Suffix
74AUP2G126RA3-7	RA3	X2-DFN1210-8	1.2mm X 1.0mm X 0.35mm 0.3mm Lead Pitch	5000/Tape & Reel	-7

Notes: 4. Pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf
5. The taping orientation is located on our website at http://www.diodes.com/datasheets/ap02007.pdf

Pin Descriptions

Pin NO.	Pin Name	Description
1	1OE	Output Enable Active HIGH
2	1A	Data Input
3	2Y	Data Output
4	GND	Ground
5	2A	Data Input
6	1Y	Data Output
7	2OE	Output Enable Active HIGH
8	V_{CC}	Supply Voltage

Logic Diagram



Function Table

Inputs		Output
OE	A	Y
H	H	H
H	L	L
L	X	Z

NEW PRODUCT

Absolute Maximum Ratings (Notes 6, 7)

Symbol	Description	Rating	Unit
ESD HBM	Human Body Model ESD Protection	2	kV
ESD CDM	Charged Device Model ESD Protection	1	kV
V_{CC}	Supply Voltage Range	-0.5 to +4.6	V
V_I	Input Voltage Range	-0.5 to +4.6	V
V_O	Voltage Applied to Output in High or Low State	-0.5 to V_{CC}+0.5	V
I_{IK}	Input Clamp Current ($V_I < 0$)	50	mA
I_{OK}	Output Clamp Current ($V_O < 0$)	50	mA
I_O	Continuous Output Current (V_O = 0 to V_{CC})	±20	mA
I_{CC}	Continuous Current Through V_{CC}	50	mA
I_{GND}	Continuous Current Through GND	-50	mA
T_J	Operating Junction Temperature	-40 to +150	°C
T_{STG}	Storage Temperature	-65 to +150	°C

Notes: 6. Stresses beyond the absolute maximum may result in immediate failure or reduced reliability. These are stress values and device operation should be within recommend values.
7. Forcing the maximum allowed voltage could cause a condition exceeding the maximum current or conversely forcing the maximum current could cause a condition exceeding the maximum voltage. The ratings of both current and voltage must be maintained within the controlled range.

Recommended Operating Conditions (Note 8)

Symbol	Parameter		Min	Max	Unit
V_{CC}	Operating Voltage		0.8	3.6	V
V_I	Input Voltage		0	3.6	V
V_O	Output Voltage		0	V_{CC}	V
I_{OH}	High-Level Output Current	V_{CC} = 0.8V	—	-20	µA
		V_{CC} = 1.1V	—	-1.1	mA
		V_{CC} = 1.4V	—	-1.7	
		V_{CC} = 1.65V	—	-1.9	
		V_{CC} = 2.3V	—	-3.1	
		V_{CC} = 3.0V	—	-4	
I_{OL}	Low-Level Output Current	V_{CC} = 0.8V	—	20	µA
		V_{CC} = 1.1V	—	1.1	mA
		V_{CC} = 1.4V	—	1.7	
		V_{CC} = 1.65V	—	1.9	
		V_{CC} = 2.3V	—	3.1	
		V_{CC} = 3.0V	—	4	
Δt/ΔV	Input Transition Rise or Fall Rate	V_{CC} = 0.8V to 3.6V	—	200	ns/V
T_A	Operating Free-Air Temperature		-40	+125	°C

Note: 8. Unused inputs should be held at V_{CC} or Ground.

NEW PRODUCT

Electrical Characteristics

Symbol	Parameter	Test Conditions	V_{CC}	T_A = +25°C		T_A = -40°C to +85°C		Unit
				Min	Max	Min	Max	
V_{IH}	High-Level Input Voltage	—	0.8V to 1.65V	0.80 X V_{CC}	—	0.80 X V_{CC}	—	V
		—	1.65V to 1.95V	0.65 X V_{CC}	—	0.65 X V_{CC}	—	
		—	2.3V to 2.7V	1.6	—	1.6	—	
		—	3.0V to 3.6V	2.0	—	2.0	—	
V_{IL}	Low-Level Input Voltage	—	0.8V to 1.65V	—	0.30 X V_{CC}	—	0.30 X V_{CC}	V
		—	1.65V to 1.95V	—	0.35 X V_{CC}	—	0.35 X V_{CC}	
		—	2.3V to 2.7V	—	0.7	—	0.7	
		—	3.0V to 3.6V	—	0.9	—	0.9	
V_{OH}	High-Level Output Voltage	I_{OH} = -20µA	0.8V to 3.6V	V_{CC} – 0.1	—	V_{CC} – 0.1	—	V
		I_{OH} = -1.1mA	1.1V	0.75 X V_{CC}	—	0.7 X V_{CC}	—	
		I_{OH} = -1.7mA	1.4V	1.11	—	1.03	—	
		I_{OH} = -1.9mA	1.65V	1.32	—	1.3	—	
		I_{OH} = -2.3mA	2.3V	2.05	—	1.97	—	
		I_{OH} = -3.1mA		1.9	—	1.85	—	
		I_{OH} = -2.7mA	3V	2.72	—	2.67	—	
		I_{OH} = -4mA		2.6	—	2.55	—	
V_{OL}	Low-Level Output Voltage	I_{OL} = 20µA	0.8V to 3.6V	—	0.1	—	0.1	V
		I_{OL} = 1.1mA	1.1V	—	0.3 X V_{CC}	—	0.3 X V_{CC}	
		I_{OL} = 1.7mA	1.4V	—	0.31	—	0.37	
		I_{OL} = 1.9mA	1.65V	—	0.31	—	0.35	
		I_{OL} = 2.3mA	2.3V	—	0.31	—	0.33	
		I_{OL} = 3.1mA		—	0.44	—	0.45	
		I_{OL} = 2.7mA	3V	—	0.31	—	0.33	
		I_{OL} = 4mA		—	0.44	—	0.45	
I_I	Input Current	A or B Input V_I = GND to 3.6V	0 to 3.6V	—	±0.1	—	±0.5	µA
I_{OZ}	Z-State Leakage Current	V_I or V_O = 0V to 3.6V	0 to 3.6V	—	0.2	—	±0.5	µA
I_{OFF}	Power Down Leakage Current	V_I or V_O = 0V to 3.6V	0V	—	±0.2	—	±0.5	µA
ΔI_{OFF}	Delta Power Down Leakage Current	V_I or V_O = 0V to 3.6V	0V to 0.2V	—	0.2	—	0.6	µA
I_{CC}	Supply Current	V_I = GND or V_{CC}, I_O = 0	0.8V to 3.6V	—	0.5	—	0.9	µA
ΔI_{CC}	Additional Supply Current	Data Input at V_{CC}–0.6V OE = GND, I_O = 0A	3.3V	—	40	—	50	µA
		OE Input at V_{CC}–0.6V Data Input = GND or V_{CC}, I_O = 0A	3.3V	—	110	—	120	µA
		OE Input at VCC Data Input = GND to 3.6V, I_O = 0A	0.8V to 3.6V	—	1	—	1	µA

NEW PRODUCT

Electrical Characteristics (Cont.)

Symbol	Parameter	Test Conditions	V_{CC}	T_A = -40°C to +125°C		Unit
				Min	Max	
V_{IH}	High-Level Input Voltage	—	0.8V to 1.65V	0.80 X V_{CC}	—	V
		—	1.65V to 1.95V	0.70 X V_{CC}	—	
		—	2.3V to 2.7V	1.6	—	
		—	3.0V to 3.6V	2.0	—	
V_{IL}	Low-Level Input Voltage	—	0.8V to 1.65V	—	0.25 X V_{CC}	V
		—	1.65V to 1.95V	—	0.30 X V_{CC}	
		—	2.3V to 2.7V	—	0.7	
		—	3.0V to 3.6V	—	0.9	
V_{OH}	High-Level Output Voltage	I_{OH} = -20µA	0.8V to 3.6V	V_{CC} – 0.11	—	V
		I_{OH} = -1.1mA	1.1V	0.6 X V_{CC}	—	
		I_{OH} = -1.7mA	1.4V	0.93	—	
		I_{OH} = -1.9mA	1.65V	1.17	—	
		I_{OH} = -2.3mA	2.3V	1.77	—	
		I_{OH} = -3.1mA		1.67	—	
		I_{OH} = -2.7mA	3V	2.40	—	
		I_{OH} = -4mA		2.30	—	
V_{OL}	Low-Level Output Voltage	I_{OL} = 20µA	0.8V to 3.6V	—	0.11	V
		I_{OL} = 1.1mA	1.1V	—	0.33 X V_{CC}	
		I_{OL} = 1.7mA	1.4V	—	0.41	
		I_{OL} = 1.9mA	1.65V	—	0.39	
		I_{OL} = 2.3mA	2.3V	—	0.36	
		I_{OL} = 3.1mA		—	0.50	
		I_{OL} = 2.7mA	3V	—	0.36	
		I_{OL} = 4mA		—	0.50	
I_I	Input Current	A or B Input, V_I = GND to 3.6V	0 to 3.6V	—	±0.75	µA
I_{OZ}	Z-State Leakage Current	V_I or V_O = 0V to 3.6V	0 to 3.6V	—	±1.5	µA
I_{OFF}	Power Down Leakage Current	V_I or V_O = 0V to 3.6V	0	—	±3.5	µA
ΔI_{OFF}	Delta Power Down Leakage Current	V_I or V_O = 0V to 3.6V	0V to 0.2V	—	±2.5	µA
I_{CC}	Supply Current	V_I = GND or V_{CC}, I_O = 0	0.8V to 3.6V	—	3.0	µA
ΔI_{CC}	Additional Supply Current	Data Input at V_{CC}–0.6V OE = GND, I_O=0A	3.3V	—	75	µA
		OE Input at V_{CC}–0.6V Data Input = GND or V_{CC}, I_O=0A	3.3V	—	180	µA
		OE Input at VCC Data Input = GND to 3.6V, I_O = 0A	0.8V to 3.6V	—	1	µA

NEW PRODUCT

Operating and Package Characteristics (@T_A = +25°C, unless otherwise specified.)

Parameter		Test Conditions		V_{CC}	Typ	Unit
C_{PD}	Power Dissipation Capacitance per Gate	f = 1MHz Output Enabled No Load		0.8V	6.5	pF
				1.2V ± 0.1V	6.3	
				1.5V ± 0.1V	6.3	
				1.8V ± 0.15V	6.2	
				2.5V ± 0.2V	6.2	
				3.3V ± 0.3V	6.1	
C_I	Input Capacitance	$V_I = V_{CC}$ or GND		0V or 3.3V	1.5	pF
C_O	Output Capacitance	Output Enabled V_O = GND		0V	2.9	pF
		Output Disabled V_O = GND or V_{CC}		0V or 3.6V	2.1	pF
θ_{JA}	Thermal Resistance Junction-to-Ambient	X2-DFN1210-8	(Note 9)	—	395	°C/W
θ_{JC}	Thermal Resistance Junction-to-Case	X2-DFN1210-8	(Note 9)	—	236	°C/W

Note: 9. Test condition, X2-DFN1210-8 device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

NEW PRODUCT

Switching Characteristics

C_L = 5pF see Figure 1

Parameter	From Input	To Output	V_{CC}	T_A = +25°C			T_A = -40°C to +85°C		T_A = -40°C to +125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
t_{PD}	A	Y	0.8V	—	20.6	—	—	—	—	—	ns
			1.2V ± 0.1V	2.8	5.5	12.6	2.5	14	2.5	17	
			1.5V ± 0.1V	2.2	3.9	7.3	2.0	7.6	2.0	8.1	
			1.8V ± 0.15V	1.9	3.2	4.1	1.7	6.1	1.7	6.7	
			2.5V ± 0.2V	1.6	2.6	3.6	1.4	4.3	1.4	4.9	
			3.3V ± 0.3V	1.4	2.4	3.1	1.2	3.9	1.2	4.4	
t_{EN}	$\overline{OE}$	Y	0.8V	—	71.6	—	—	—	—	—	ns
			1.2V ± 0.1V	2.8	6.2	14.9	2.6	19.6	2.6	19.8	
			1.5V ± 0.1V	2.3	4.2	8.3	2.2	8.8	2.2	9.2	
			1.8V ± 0.15V	1.9	3.3	6.4	1.7	7.1	1.7	7.4	
			2.5V ± 0.2V	1.5	2.4	4.3	1.4	4.6	1.4	4.9	
			3.3V ± 0.3V	1.3	2.0	3.8	1.2	4.2	1.2	4.4	
t_{DIS}	$\overline{OE}$	Y	0.8V	—	10.3	—	—	—	—	—	ns
			1.2V ± 0.1V	2.6	4.2	8.9	2.9	9.2	2.9	9.4	
			1.5V ± 0.1V	2.1	3.2	6.4	2.2	6.6	2.2	6.7	
			1.8V ± 0.15V	2.1	3.1	5.6	1.7	5.8	1.7	6.1	
			2.5V ± 0.2V	1.7	2.4	4.0	1.4	4.3	1.4	4.5	
			3.3V ± 0.3V	2.1	2.8	4.9	1.2	5.0	1.2	5.1	

C_L = 10pF see Figure 1

Parameter	From Input	To Output	V_{CC}	T_A = +25°C			T_A = -40°C to +85°C		T_A = -40°C to +125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
t_{PD}	A	Y	0.8V	—	24.0	—	—	—	—	—	ns
			1.2V ± 0.1V	3.2	6.4	14.8	3.0	16.6	3.0	18.3	
			1.5V ± 0.1V	2.1	4.5	8.8	1.9	9.1	1.9	9.4	
			1.8V ± 0.15V	1.9	3.8	5.5	1.7	6.8	1.7	7.6	
			2.5V ± 0.2V	2.1	3.2	4.2	1.6	5.3	1.6	5.9	
			3.3V ± 0.3V	1.8	3.0	3.8	1.6	4.6	1.6	5.2	
t_{EN}	$\overline{OE}$	Y	0.8V	—	75.3	—	—	—	—	—	ns
			1.2V ± 0.1V	3.2	7.1	16.9	3.0	22.2	3.0	22.4	
			1.5V ± 0.1V	2.2	4.8	9.6	2.1	10.0	2.1	10.3	
			1.8V ± 0.15V	1.8	3.9	7.1	1.7	7.8	1.7	8.2	
			2.5V ± 0.2V	1.5	2.9	5.0	1.4	5.4	1.4	5.8	
			3.3V ± 0.3V	1.4	2.6	4.7	1.3	4.9	1.3	5.2	
t_{DIS}	$\overline{OE}$	Y	0.8V	—	12.2	—	—	—	—	—	ns
			1.2V ± 0.1V	3.5	5.3	10.9	3.3	11.4	3.3	11.6	
			1.5V ± 0.1V	2.2	4.1	8.0	2.1	8.2	2.1	8.5	
			1.8V ± 0.15V	2.4	4.2	7.1	1.7	7.4	1.7	7.6	
			2.5V ± 0.2V	1.9	3.2	5.1	1.4	5.5	1.4	5.7	
			3.3V ± 0.3V	2.4	4.1	6.8	1.3	7.1	1.3	7.2	

NEW PRODUCT

Switching Characteristics (Cont.)

C_L = 15pF see Figure 1

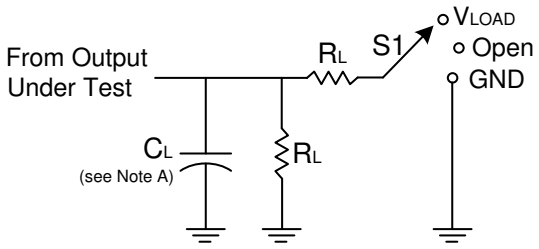
Parameter	From Input	To Output	V_{CC}	T_A = +25°C			T_A = -40°C to +85°C		T_A = -40°C to +125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
t_{PD}	A	Y	0.8V	—	27.4	—	—	—	—	—	ns
			1.2V ± 0.1V	3.6	7.2	15.5	3.3	22.4	3.3	22.5	
			1.5V ± 0.1V	3.0	5.1	8.8	2.5	9.8	2.5	10.9	
			1.8V ± 0.15V	2.2	4.3	6.3	2.0	7.9	2.0	8.8	
			2.5V ± 0.2V	2.0	3.7	4.9	1.8	6.0	1.8	6.7	
			3.3V ± 0.3V	2.0	3.5	4.4	1.8	5.4	1.8	6.1	
t_{EN}	$\overline{OE}$	Y	0.8V	—	79.2	—	—	—	—	—	ns
			1.2V ± 0.1V	3.6	7.8	19.0	3.3	21.8	3.3	22	
			1.5V ± 0.1V	3.0	5.4	10.6	2.9	11.3	2.9	11.6	
			1.8V ± 0.15V	2.1	4.3	8.0	2.0	8.8	2.0	9.2	
			2.5V ± 0.2V	1.8	3.4	5.8	1.7	6.2	1.7	6.7	
			3.3V ± 0.3V	1.6	3.1	5.3	1.5	5.9	1.5	6.1	
t_{DIS}	$\overline{OE}$	Y	0.8V	—	14.9	—	—	—	—	—	ns
			1.2V ± 0.1V	4.3	6.4	13.9	3.7	15.5	3.7	15.7	
			1.5V ± 0.1V	3.0	5.0	8.8	2.5	9.7	2.5	9.9	
			1.8V ± 0.15V	3.1	5.4	8.8	2.0	10.3	2.0	10.5	
			2.5V ± 0.2V	2.4	4.0	8.2	1.7	8.4	1.7	8.6	
			3.3V ± 0.3V	3.2	5.3	8.6	1.5	9.2	1.5	9.4	

C_L = 30pF see Figure 1

Parameter	From Input	To Output	V_{CC}	T_A = +25°C			T_A = -40°C to +85°C		T_A = -40°C to +125°C		Unit
				Min	Typ	Max	Min	Max	Min	Max	
t_{PD}	A	Y	0.8V	—	37.4	—	—	—	—	—	ns
			1.2V ± 0.1V	4.8	9.5	20.7	4.4	27.6	4.4	27.8	
			1.5V ± 0.1V	4.0	6.7	10.8	3.0	13.0	3.0	14.5	
			1.8V ± 0.15V	2.9	5.6	8.4	2.6	10.3	2.6	11.5	
			2.5V ± 0.2V	2.7	4.8	6.3	2.5	7.8	2.5	8.7	
			3.3V ± 0.3V	2.7	4.6	5.8	2.5	7.0	2.5	8.3	
t_{EN}	$\overline{OE}$	Y	0.8V	—	90.6	—	—	—	—	—	ns
			1.2V ± 0.1V	4.7	10.0	24.5	4.3	26.4	4.3	26.6	
			1.5V ± 0.1V	3.0	6.9	13.6	3.7	14.4	3.7	15.0	
			1.8V ± 0.15V	2.6	5.6	10.3	3.2	11.4	3.2	12.1	
			2.5V ± 0.2V	2.3	4.5	7.6	2.9	8.2	2.9	8.8	
			3.3V ± 0.3V	2.2	4.2	7.5	2.7	8.3	2.7	8.7	
t_{DIS}	$\overline{OE}$	Y	0.8V	—	51.6	—	—	—	—	—	ns
			1.2V ± 0.1V	6.0	9.8	16.3	4.7	18.7	4.7	18.9	
			1.5V ± 0.1V	4.5	7.7	12.6	3.0	12.8	3.0	13.2	
			1.8V ± 0.15V	5.2	8.8	13.7	2.6	13.8	2.6	13.9	
			2.5V ± 0.2V	3.9	6.4	8.9	2.3	10.8	2.3	12.2	
			3.3V ± 0.3V	5.5	9.0	13.9	2.2	14.0	2.2	15.6	

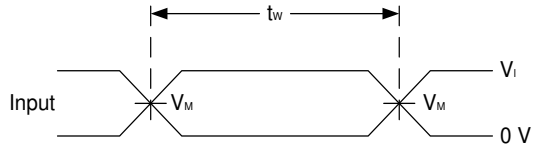
NEW PRODUCT

Parameter Measurement Information

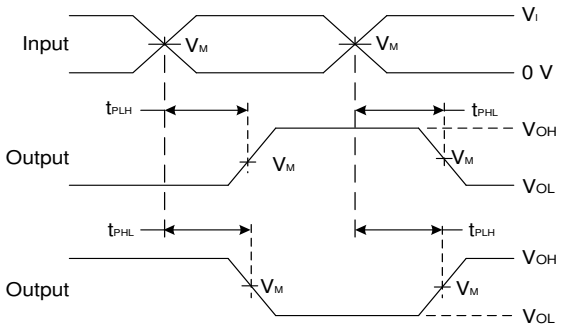


TEST	S1	R_L
t_{PLH}/t_{PHL}	Open	1MΩ
t_{PLZ}/t_{PZL}	V_{LOAD}	5KΩ
t_{PHZ}/t_{PZH}	GND	5KΩ

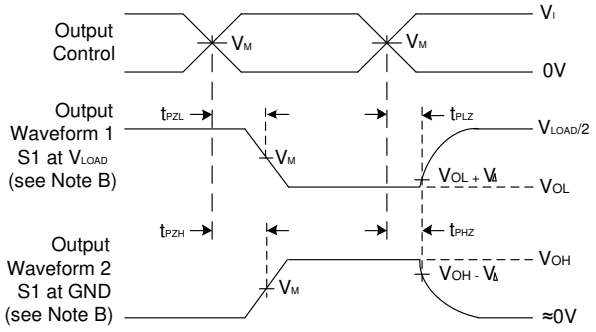
V_{CC}	Inputs		V_M	V_{LOAD}	C_L	$V\Delta$
	V_I	t_r/t_f				
0.8V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.1V
1.2V±0.1V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.1V
1.5V±0.1V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.1V
1.8V±0.15V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.15V
2.5V±0.2V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.15V
3.3V±0.3V	V_{CC}	≤3ns	$V_{CC}/2$	2 X V_{CC}	5, 10, 15, 30pF	0.3V



Voltage Waveform Pulse Duration



Voltage Waveform Propagation Delay Times
Inverting and Non Inverting Outputs



Voltage Waveform Enable and Disable Times
Low and High Level Enabling

Figure 1. Load Circuit and Voltage Waveforms

Notes: A. Includes test lead and test apparatus capacitance.
B. All pulses are supplied at pulse repetition rate ≤ 10MHz.
C. Inputs are measured separately one transition per measurement.
D. t_{PLZ} and t_{PHZ} are the same as t_{DIS}.
E. t_{PZL} and t_{PZH} are the same as t_{EN}.
F. t_{PLH} and t_{PHL} are the same as t_{PD}.

NEW PRODUCT

Marking Information

X2-DFN1210-8

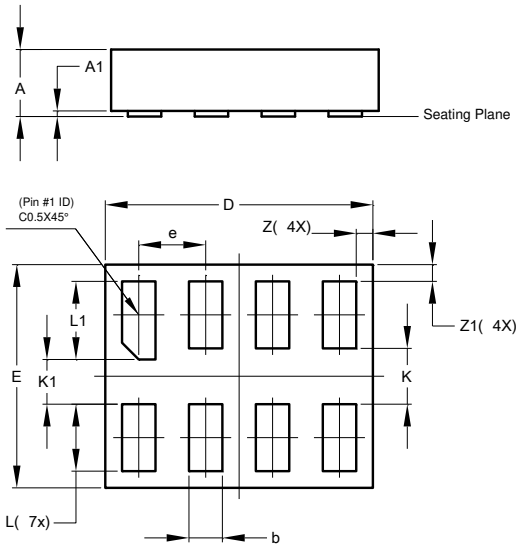
(Top View)

XX : Identification Code
Y : Year : 0~9
W : Week : A~Z : 1~26 Week
a~z: 27-52 Week
z Represents 52 and 53 Week
X : Week : A~Z : Internal Code

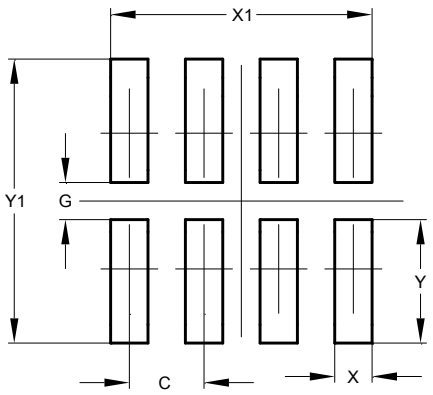
Part Number	Package	Identification Code
74AUP2G126RA3-7	X2-DFN1210-8	KT

X2-DFN1210-8 Package Outline Dimensions and Suggested Pad Layout

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



X2-DFN1210-8			
Dim	**Min**	**Max**	**Typ**
A	-	0.35	0.30
A1	0	0.03	0.02
b	0.10	0.20	0.15
D	1.15	1.25	1.20
E	0.95	1.05	1.00
e	-	-	0.30
K	-	-	0.25
K1	-	-	0.20
L	0.25	0.35	0.30
L1	0.30	0.40	0.35
Z	0.050	0.100	0.075
Z1	0.050	0.100	0.075
All Dimensions in mm			



Dimensions	Value (in mm)
C	0.300
G	0.150
X	0.150
X1	1.050
Y	0.500
Y1	1.150

NEW PRODUCT

IMPORTANT NOTICE

DIODES INCORPORATED MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARDS TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION).

Diodes Incorporated and its subsidiaries reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein. Diodes Incorporated does not assume any liability arising out of the application or use of this document or any product described herein; neither does Diodes Incorporated convey any license under its patent or trademark rights, nor the rights of others. Any Customer or user of this document or products described herein in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on Diodes Incorporated website, harmless against all damages.

Diodes Incorporated does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel. Should Customers purchase or use Diodes Incorporated products for any unintended or unauthorized application, Customers shall indemnify and hold Diodes Incorporated and its representatives harmless against all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized application.

Products described herein may be covered by one or more United States, international or foreign patents pending. Product names and markings noted herein may also be covered by one or more United States, international or foreign trademarks.

This document is written in English but may be translated into multiple languages for reference. Only the English version of this document is the final and determinative format released by Diodes Incorporated.

LIFE SUPPORT

Diodes Incorporated products are specifically not authorized for use as critical components in life support devices or systems without the express written approval of the Chief Executive Officer of Diodes Incorporated. As used herein:

A. Life support devices or systems are devices or systems which:

1. are intended to implant into the body, or
2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.

B. A critical component is any component in a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or to affect its safety or effectiveness.

Customers represent that they have all necessary expertise in the safety and regulatory ramifications of their life support devices or systems, and acknowledge and agree that they are solely responsible for all legal, regulatory and safety-related requirements concerning their products and any use of Diodes Incorporated products in such safety-critical, life support devices or systems, notwithstanding any devices- or systems-related information or support that may be provided by Diodes Incorporated. Further, Customers must fully indemnify Diodes Incorporated and its representatives against any damages arising out of the use of Diodes Incorporated products in such safety-critical, life support devices or systems.

www.diodes.com