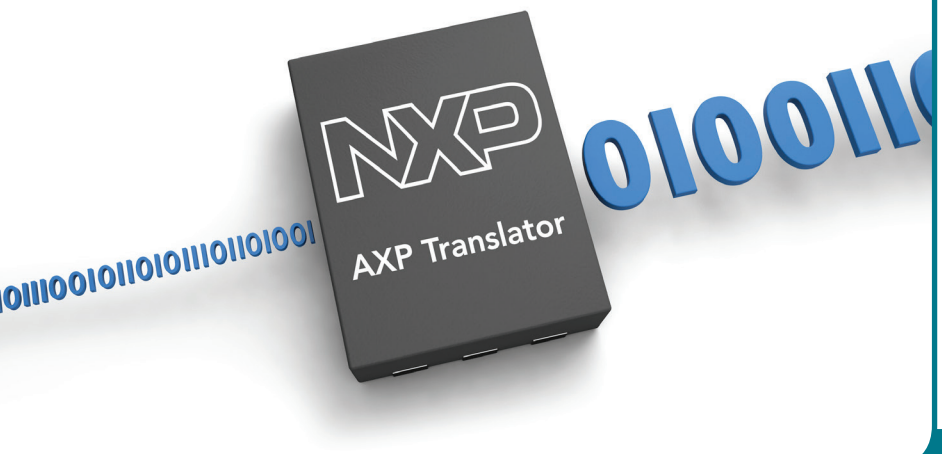

AXP translators the solution for mixed voltage applications

Advanced, extremely-low power translators

A feature rich family designed for high-performance, low voltage and low-power applications, these Si-gate CMOS devices provide voltage level translation solutions with very low static and dynamic power dissipation.

KEY FEATURES

- Dual supply voltage level translation
- V_{CCI} = 0.7 V to 2.75 V; V_{CCO} = 1.2 V to 5.5 V
- Very low dynamic power dissipation (C_{PD})
- Fully specified at the 0.8 V node
- Schmitt-trigger action on all inputs
- 12 mA balanced output drive
- Over-voltage tolerant inputs and outputs
- Fully specified (-40 to +85 °C)
- Pb-free, RoHS compliant and Dark Green

BENEFITS

- Low propagation delay
- Suitable for mixed voltage applications
- High noise immunity
- Extended battery life
- Wide range of functions
- Simplified board layout, mechanical stability

APPLICATIONS

- Smart phones/Tablet PC's
- Digital cameras
- Portable medical devices
- Other power sensitive applications

The AXP family of Si-gate CMOS devices uses leading low threshold process technology and next generation packaging technology to create extremely small functions that support the trend to very low operating voltage and consume very little power. The AXP translators are level translating buffers and gates targeted at small footprint portable applications. They are available in single (1T) and dual (2T) gate Mini Logic formats.

Multiple standard and configurable logic functions are included in the AXP translators. These are made available in the industries smallest packages.

LOW POWER INTERFACING SOLUTIONS FOR MIXED VOLTAGE APPLICATIONS

AXP logic level translating gates and buffers address the control logic interface requirement of driving higher voltage applications from lower voltage controllers. With its wide supply voltage range these translators can be used to interface modern low power control logic at the supply range nodes of 2.5 V, 1.8 V, 1.2 V or 0.8 V to systems operating at supply voltage nodes of 5.0 V, 3.3 V, 2.5 V, 1.8 V or 1.5 V. This further supports the migration of applications or sub-systems to lower voltage nodes in order to maximize power savings. The AXP family is the lowest power logic family, likewise the AXP level translating gates are the lowest power voltage translators available.

AXP TRANSLATORS

Type number	Description	Features					Packages												
		Schmitt trigger inputs	Schmitt trigger action	3.0 V tolerant I/O's	Open-drain output	Power-off protection (I_{OFF})	SOT353-1 (GW)	SOT363 (GW)	SOT552-1 (DP)	SOT765-1 (DC)	SOT833-1 (GT)	SOT886 (GM)	SOT1081-2 (GF)	SOT1115 (GN)	SOT1116 (GN)	SOT1160-1 (GU)	SPT1202 (GS)	SOT1203 (GS)	SOT1226 (GX)
Configurable																			
74AXP1T57	dual supply single configurable gate	•		•		•				•	•				•			•	
Buffers/inverters																			
74AXP1T125	dual supply single buffer; 3-state		•	•		•		•				•		•			•		
74AXP1T34	dual supply single buffer		•	•		•	•					•		•			•		•
74AXP2T3407	dual supply single buffer and single buffer with open-drain output		•	•	•	•				•	•				•			•	
Gates																			
74AXP2TG08	dual 2-input AND gate		•	•		•			•				•			•			

For more information about our AXP family visit: **www.nxp.com/products/logic/family/AXP/**

PACKAGES

AXP translators are available in leaded PicoGate and leadless MicroPak packages. This makes them suitable for volume constrained (area and height) applications found in automotive, industrial, smart phone and tablet PC.

The lower gate count Mini logic products reduce time-to-market by facilitating last-minute changes. They also improve the cost-effectiveness of crowded lay outs, by simplifying routing and eliminating dependencies in intricate line-layout patterns.

Package suffix	GW	GX	GW	GM	GN	GS	DC	GT	GN	GS	DP	GU	GF
	5-pin	5-pin	6-pin	6-pin	6-pin	6-pin	8-pin	8-pin	8-pin	8-pin	10-pin	10-pin	10-pin
													
Package	SOT353	SOT1226	SOT363	SOT886	SOT1115	SOT1202	SOT765-1	SOT833	SOT1116	SOT1203	SOT552-1	SOT1160-1	SOT1081-2
Width (mm)	2.10	0.80	2.10	1.00	1.00	1.00	3.10	1.00	1.00	1.00	3.00	1.40	1.00
Length (mm)	2.00	0.80	2.00	1.45	0.90	1.00	2.00	1.95	1.20	1.35	3.00	1.80	1.70
Height (mm)	1.00	0.35	1.00	0.50	0.35	0.35	1.00	0.50	0.35	0.35	1.10	0.50	0.50
Pitch (mm)	0.65	0.50	0.65	0.50	0.30	0.35	0.50	0.50	0.30	0.35	0.50	0.40	0.35

For more information about our Mini Logic portfolio visit: **www.nxp.com/products/logic/family/MINI_LOGIC/**

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Nexperia:

74AXP1T34GNH 74AXP1T34GSH 74AXP1T34GMH 74AXP1T34GWH 74AXP1T34GXH 74AXP2T3407GSX 74AXP2T3407DCH 74AXP2T3407GNX 74AXP2T3407GTX