

## New Product Announcement



AP3401  
AP3428

# 1A Step-Down Synchronous DC-DC Step-Down Converter

The AP3401/AP3428 is a current mode, PWM synchronous buck DC-DC converter, capable of driving a 1A load with high efficiency and excellent line and load regulation. It is developed to meet the demands of set-top boxes, TVs, Routers, Wi-Fi modules and security systems.

AP3401/AP3428 delivers 1A maximum output current while consuming only 40 $\mu$ A no-load quiescent current.

Ultra-low  $R_{DS(ON)}$  integrated MOSFETs and 100% duty cycle operation, make it an ideal choice for high-current applications which require a low dropout threshold.

AP3401/AP3428 has built-in protection features and the AP3401 features a Power-Good output.

They are available in the TSOT25, TSOT26, U-DFN2020-6 packages.



### The Diodes Advantage

- **Synchronous DC-DC Buck Converter with Continued Load Current of 1A and Light-Load High-Efficiency**
  - High Switching Frequency Operation for small external components
  - Current mode control provides fast transient response
  - Excellent line and load regulation with high efficiency
- **Protection**  
Input Overvoltage Protection, Undervoltage Lock Out, Over-Temperature Protection and Short Circuit Protection
- **Package - TSOT25, TSOT26 and U-DFN2020-6**  
Low-profile, small footprint industry standard package

### Applications

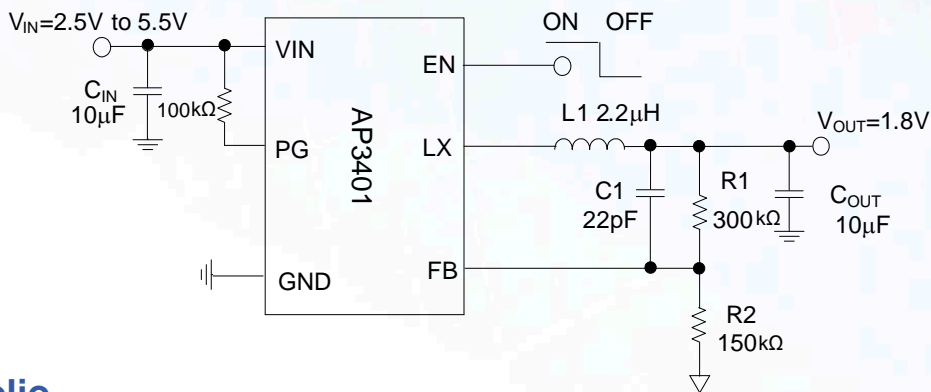
- TVs
- Set-Top-Boxes
- Wi-Fi Modules
- Routers



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## Typical Application Schematic



## Product Portfolio

Part #	Min. Input Voltage (V)	Max. Input Voltage (V)	Output Voltage (V)	Output Current (A)	Frequency (kHz) typ	Internal Vref (V) typ	Efficiency (%)	Standby Quiescent Current (µA) typ	Operating Ambient Temp Range (°C)	Features							Available Packages
										Enable Pin	Current Limit Protection	Thermal Shutdown	Adjustable Output Voltage	Under Voltage Lockout	Programmable Softstart	Power Good	
AP3429/A	2.5	5.5	0.7~5.5	2	1,000	0.6	95	90	-40 to +85	Y	Y	Y	Y	Y	N	N	TSOT25
AP3417C	2.5	5.5	0.7~5.5	1	1,500	0.6	95	90	-40 to +85	Y	Y	Y	Y	Y	N	N	TSOT25, DFN2020-8
AP3401	2.5	5.5	0.6~5.5	1	1,500	0.6	95	40	-40 to +85	Y	Y	Y	Y	Y	N	Y	TSOT26 U-DFN2020-6
AP3428/A	2.5	5.5	0.6~5.5	1	1,500	0.6	95	40	-40 to +85	Y	Y	Y	Y	Y	N	N	TSOT25 U-DFN2020-6
AP3403	2.5	5.5	0.7~5.5	0.6	2,000	0.6	95	5	-40 to +85	Y	Y	Y	Y	Y	N	N	U-DFN1616-6

Synchronous Rectified Step up Converter Web page : [http://diodes.com/catalog/buck\\_converter\\_57/](http://diodes.com/catalog/buck_converter_57/)

Datasheets: <http://www.diodes.com/files/datasheets/AP3401.pdf> and <http://www.diodes.com/files/datasheets/AP3428.pdf>

## Ordering Information

Device	Packaging	Identification Code	Reel Size	Quantity
AP3401KTTR-G1	TSOT26	L2G	7"	3,000
AP3401DNTR-G1	U-DFN2020-6	CP	7"	3,000
AP3428AKTTR-G1	TSOT25	L2J	7"	3,000
AP3428KTTR-G1	TSOT25	L2H	7"	3,000
AP3428DNTR-G1	U-DFN2020-6	CQ	7"	3,000

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)  
Notes:1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes