

The World Leader in High Performance Signal Processing Solutions



Introducing the Newest Family of *isoPower*[®] Products

November 2012

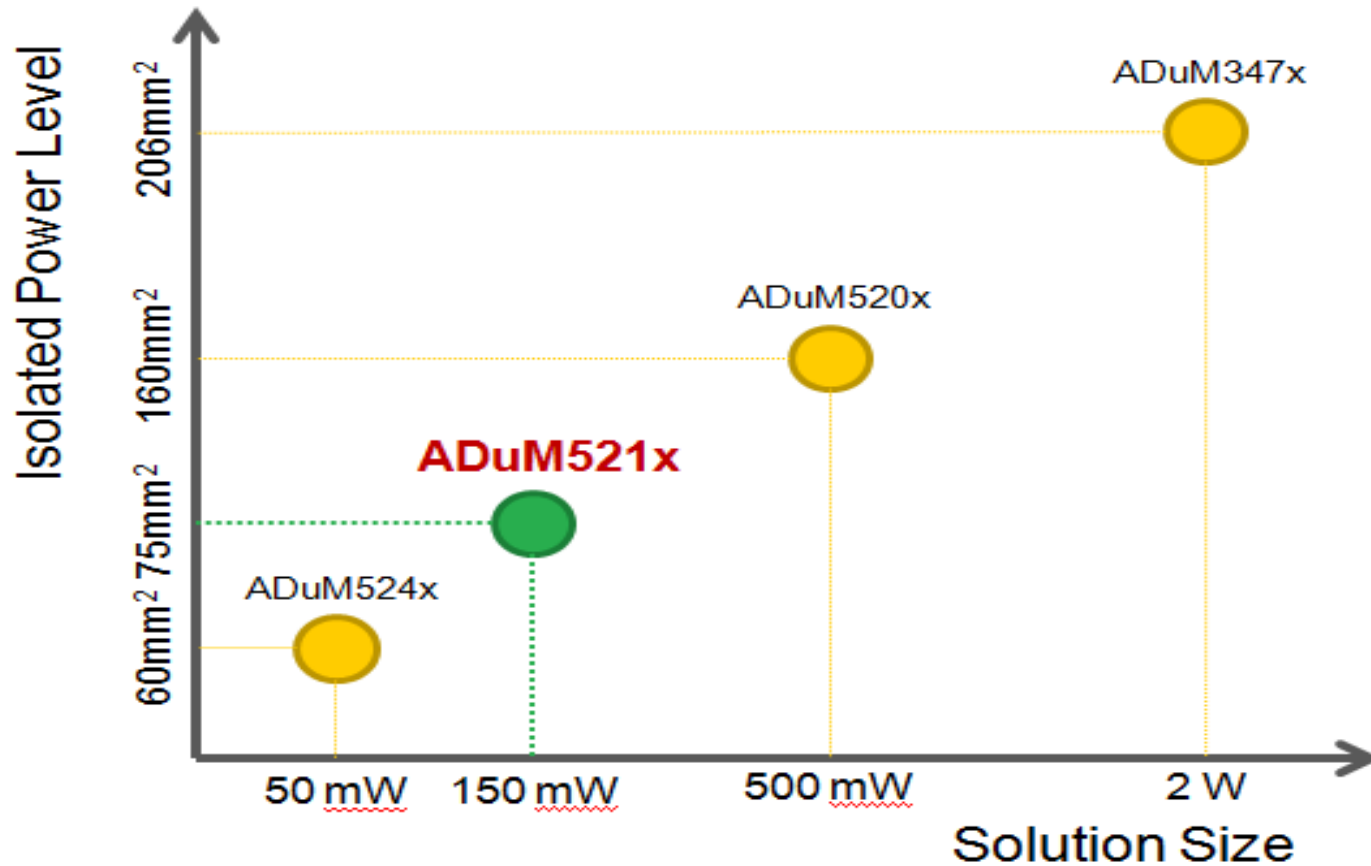


ADI is Expanding the *iso*Power Portfolio

- ◆ **Introducing the Newest Versions of Our Popular *iso*Power Products**
 - Smallest and lowest cost *iso*Power products, yet
 - New features to improve design flexibility and power control
- ◆ **Better than Traditional Isolated DC/DC Solutions**
 - Smaller, higher reliability and lower cost
- ◆ **New Family Members Now Available**
 - 2.5kVrms and 3.75kVrms versions
 - Versions with digital isolators included in the same package

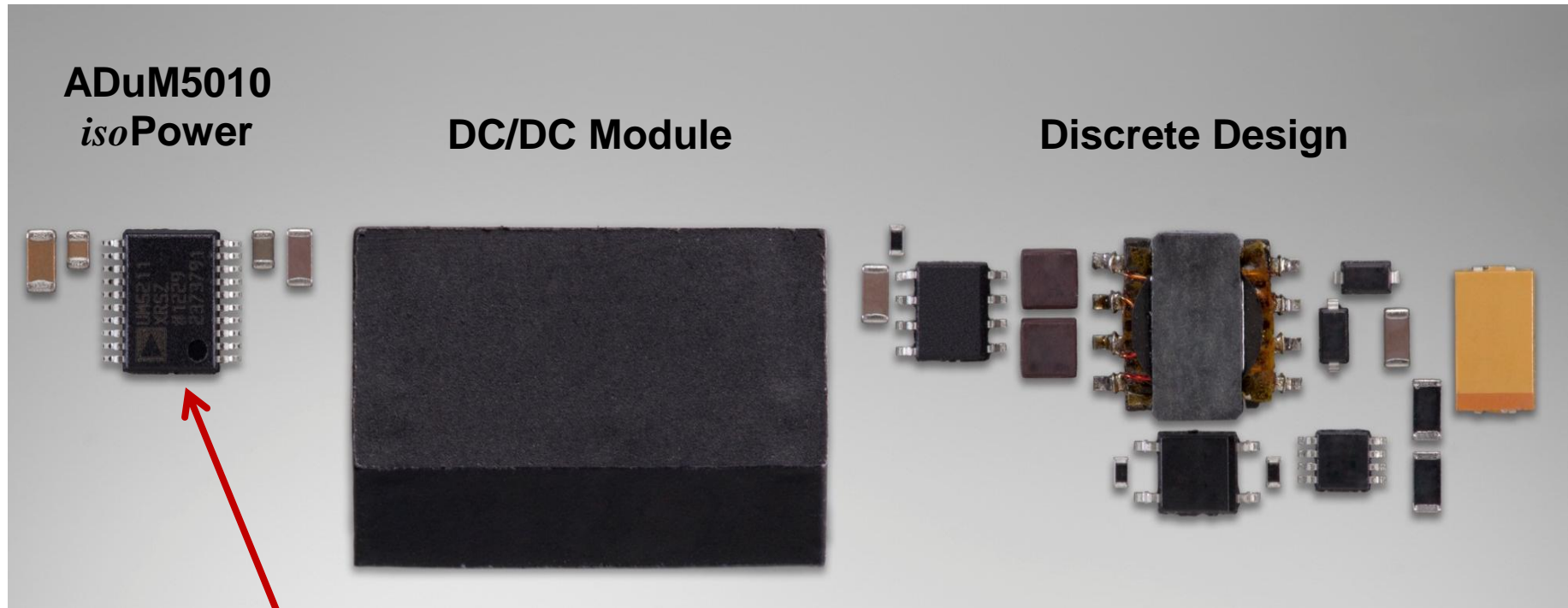
Isolated Power Portfolio Overview

Providing Options for Isolated Power Solutions



Smaller & Easier-to-Use than Other Solutions

Optimizing Size with Application Power Requirements



ADuM5010
isoPower

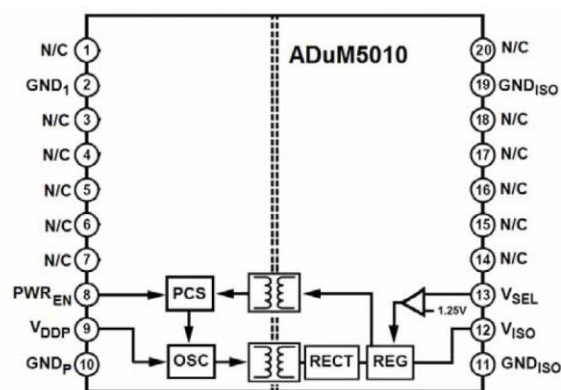
DC/DC Module

Discrete Design

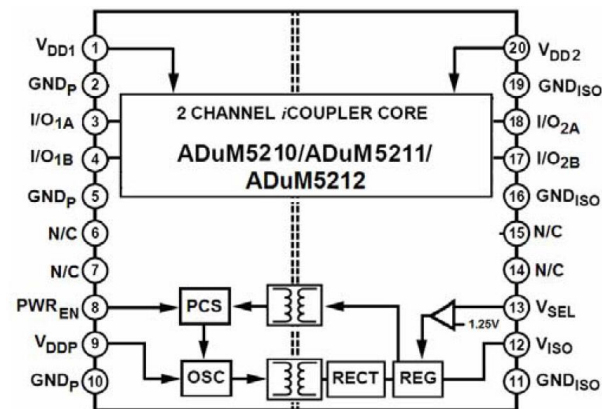
***isoPower* reduces size and cost
by integrating chip-scale
transformers**

isoPower Available with DC/DC Only or With Integrated Digital Isolator Channels

**ADuM5010
ADuM6010**



**ADuM521x
ADuM621x**



◆ **isoPower with DC/DC Only**

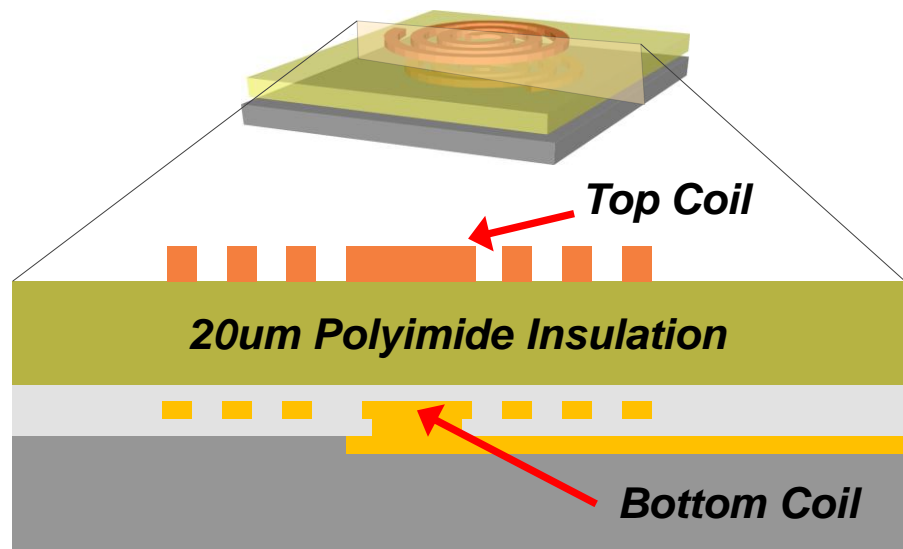
- **Adjustable, Regulated V_{ISO}**
 - ◆ 3.15V to 5.25V
 - ◆ Up to 150mW
- **Power saving Enable feature**
- **Soft-start**
- **Small SSOP Package**
 - ◆ Reinforced insulation up to 3.75kV_{rms}

◆ **isoPower with Isolated Digital Isolator Channels**

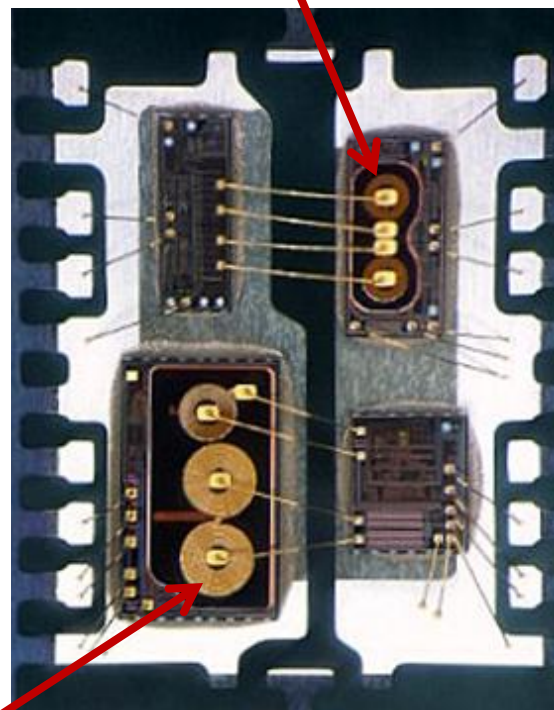
- **Dual Channel iCoupler Digital Isolators**
 - ◆ Up to 100 Mbps
 - ◆ Lower power
- **Higher reliability than Optocouplers**
- **Single Easy-to-use package**

isoPower: Patented Isolated DC/DC Converters and Data in a Single Package

AIR-CORE TRANSFORMER



High-Speed Digital Data Isolation (2 Channels)



- ◆ 3.75kVrms 1-minute withstand
- ◆ 400V_{RMS} 50-year working voltage

Isolated DC/DC Converter

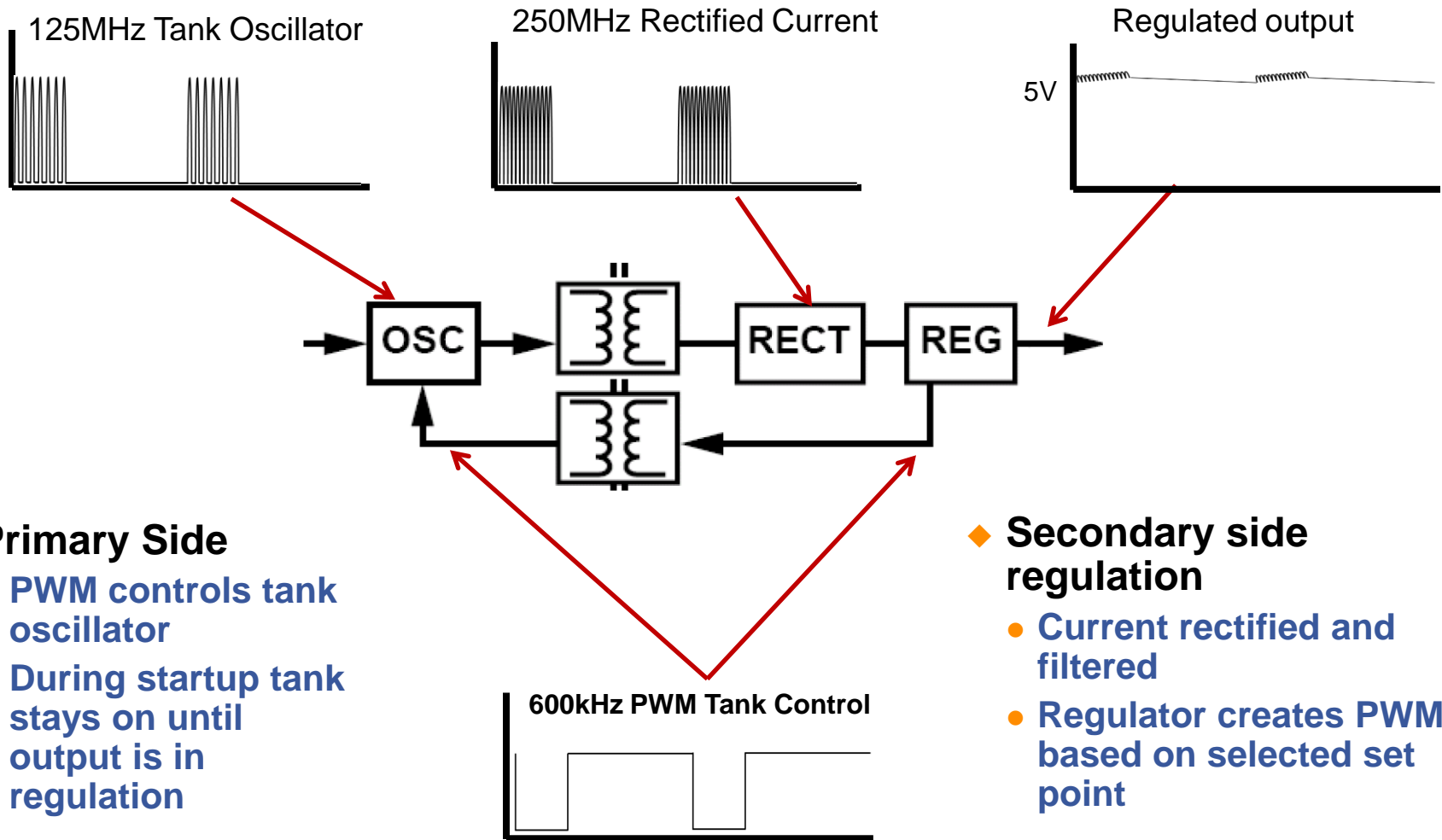
ADuM521x

Newly Released Product Family Information

	2.5kVrms	3.75kVrms	Channel Directionality
ADuM5010	X		0
ADuM5210	X		2/0
ADuM5211	X		1/1
ADuM5212	X		0/2
ADuM6010		X	0
ADuM6210		X	2/0
ADuM6211		X	1/1
ADuM6212		X	0/2

- ◆ Look for future *isoPower* products with additional channels and features
- ◆ For more information on these and other *isoPower* products go to www.analog.com/isoPower

How Does *iso*Power Work?



◆ Primary Side

- PWM controls tank oscillator
- During startup tank stays on until output is in regulation

◆ Secondary side regulation

- Current rectified and filtered
- Regulator creates PWM based on selected set point



Many Benefits for Many Applications

Self-contained in One Surface Mount Package

- ◆ Simplifies Isolated System Designs
- ◆ Reduces Board Space
- ◆ Lowers Circuit Costs

Appropriate For These Applications and More...

- ◆ Industrial Control
- ◆ Test and Measurement
- ◆ Communications Infrastructure
- ◆ Automotive
- ◆ Industrial Motors
- ◆ Energy Management
- ◆ Power Distribution
- ◆ Transportation
- ◆ Industrial Test Equipment

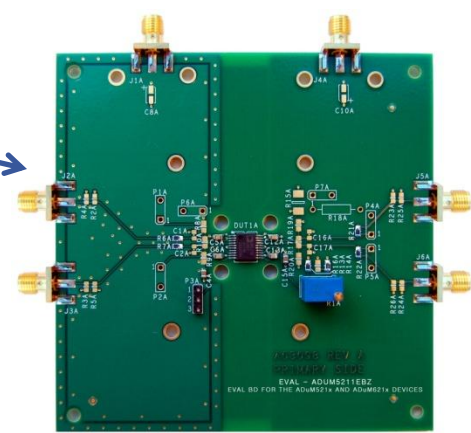
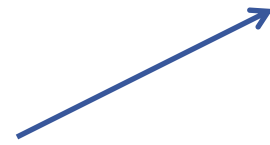
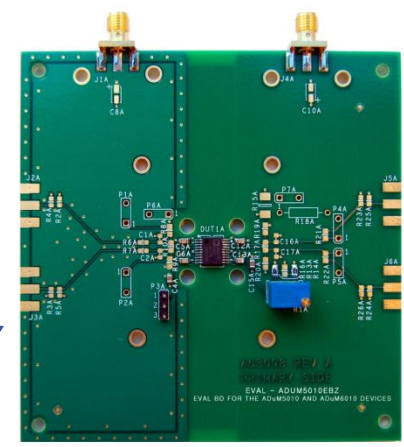


Want Additional *iso*Power Information?

Visit www.analog.com/isoPower

Resources Available on the Web Include:

- ◆ Webcast and Videos
- ◆ Application Notes
- ◆ Technical Articles
- ◆ Regulatory Agency Certifications
- ◆ Datasheets
- ◆ Evaluation Boards
 - **New boards now available**
 - ◆ **EVAL-ADuM5010EBZ**
 - Supports the ADuM5010/ADuM6010
 - ◆ **EVAL-ADuM5211EBZ**
 - Supports the ADuM521x/621x families



Learn More About *i*Coupler Digital Isolators

www.analog.com/iCoupler

Resources Available on the Web Include:

- ◆ Webcast and Training videos
- ◆ Interface and Isolation Newsletter Archives and Subscription Link
- ◆ Circuits from the Lab™
- ◆ Application Notes
- ◆ Technical Articles
- ◆ Digital Isolator Product Selector Guide →
- ◆ Regulatory Agency Certifications
- ◆ Datasheets
- ◆ Evaluation Boards

And Much More!

Digital Isolator Product Selection and Resource Guide

Performance • Integration • Efficiency • Reliability • Safety

Advantages of the Broadest Portfolio of Digital Isolators

- Performance:** 40 temperature and timing specifications
- Integration:** Single monolithic channels integrated with other functions reduce PCB cost and design complexity
- Power Consumption:** Operates at power levels up to 10% lower than competitors
- Size and Pin:** Standard digital CMOS interface makes easy external components interface to various other digital devices
- Reliability:** Operates at 100% normal bandwidth based on applications
- Safety:** Meets some high safety standards in applications, including automotive

Product Offerings:

- Single and multi-channel digital isolators
- Digital isolators with bidirectional capability
- USB isolators
- Isolated gate drivers
- 17V digital isolators
- Isolated CAN transceivers
- Isolated RS-485 transceivers
- Isolated RS-232 transceivers
- Isolated I²C transceivers

Part Number	Isolation Rating	Isolation Breakdown Voltage	Max. Data Rate (Mbps)	Supply Voltage (V)	Max. Temperature (°C)	Package
AD2020	2	1.5	10	1.8	100	8-Small SOIC-W
AD2021	2	1.5	10	1.8	100	8-Small SOIC-W
AD2022	2	1.5	10	1.8	100	8-Small SOIC-W
AD2023	2	1.5	10	1.8	100	8-Small SOIC-W
AD2024	2	1.5	10	1.8	100	8-Small SOIC-W
AD2025	2	1.5	10	1.8	100	8-Small SOIC-W
AD2026	2	1.5	10	1.8	100	8-Small SOIC-W
AD2027	2	1.5	10	1.8	100	8-Small SOIC-W
AD2028	2	1.5	10	1.8	100	8-Small SOIC-W
AD2029	2	1.5	10	1.8	100	8-Small SOIC-W
AD2030	2	1.5	10	1.8	100	8-Small SOIC-W
AD2031	2	1.5	10	1.8	100	8-Small SOIC-W
AD2032	2	1.5	10	1.8	100	8-Small SOIC-W
AD2033	2	1.5	10	1.8	100	8-Small SOIC-W
AD2034	2	1.5	10	1.8	100	8-Small SOIC-W
AD2035	2	1.5	10	1.8	100	8-Small SOIC-W
AD2036	2	1.5	10	1.8	100	8-Small SOIC-W
AD2037	2	1.5	10	1.8	100	8-Small SOIC-W
AD2038	2	1.5	10	1.8	100	8-Small SOIC-W
AD2039	2	1.5	10	1.8	100	8-Small SOIC-W
AD2040	2	1.5	10	1.8	100	8-Small SOIC-W
AD2041	2	1.5	10	1.8	100	8-Small SOIC-W
AD2042	2	1.5	10	1.8	100	8-Small SOIC-W
AD2043	2	1.5	10	1.8	100	8-Small SOIC-W
AD2044	2	1.5	10	1.8	100	8-Small SOIC-W
AD2045	2	1.5	10	1.8	100	8-Small SOIC-W
AD2046	2	1.5	10	1.8	100	8-Small SOIC-W
AD2047	2	1.5	10	1.8	100	8-Small SOIC-W
AD2048	2	1.5	10	1.8	100	8-Small SOIC-W
AD2049	2	1.5	10	1.8	100	8-Small SOIC-W
AD2050	2	1.5	10	1.8	100	8-Small SOIC-W
AD2051	2	1.5	10	1.8	100	8-Small SOIC-W
AD2052	2	1.5	10	1.8	100	8-Small SOIC-W
AD2053	2	1.5	10	1.8	100	8-Small SOIC-W
AD2054	2	1.5	10	1.8	100	8-Small SOIC-W
AD2055	2	1.5	10	1.8	100	8-Small SOIC-W
AD2056	2	1.5	10	1.8	100	8-Small SOIC-W
AD2057	2	1.5	10	1.8	100	8-Small SOIC-W
AD2058	2	1.5	10	1.8	100	8-Small SOIC-W
AD2059	2	1.5	10	1.8	100	8-Small SOIC-W
AD2060	2	1.5	10	1.8	100	8-Small SOIC-W
AD2061	2	1.5	10	1.8	100	8-Small SOIC-W
AD2062	2	1.5	10	1.8	100	8-Small SOIC-W
AD2063	2	1.5	10	1.8	100	8-Small SOIC-W
AD2064	2	1.5	10	1.8	100	8-Small SOIC-W
AD2065	2	1.5	10	1.8	100	8-Small SOIC-W
AD2066	2	1.5	10	1.8	100	8-Small SOIC-W
AD2067	2	1.5	10	1.8	100	8-Small SOIC-W
AD2068	2	1.5	10	1.8	100	8-Small SOIC-W
AD2069	2	1.5	10	1.8	100	8-Small SOIC-W
AD2070	2	1.5	10	1.8	100	8-Small SOIC-W
AD2071	2	1.5	10	1.8	100	8-Small SOIC-W
AD2072	2	1.5	10	1.8	100	8-Small SOIC-W
AD2073	2	1.5	10	1.8	100	8-Small SOIC-W
AD2074	2	1.5	10	1.8	100	8-Small SOIC-W
AD2075	2	1.5	10	1.8	100	8-Small SOIC-W
AD2076	2	1.5	10	1.8	100	8-Small SOIC-W
AD2077	2	1.5	10	1.8	100	8-Small SOIC-W
AD2078	2	1.5	10	1.8	100	8-Small SOIC-W
AD2079	2	1.5	10	1.8	100	8-Small SOIC-W
AD2080	2	1.5	10	1.8	100	8-Small SOIC-W
AD2081	2	1.5	10	1.8	100	8-Small SOIC-W
AD2082	2	1.5	10	1.8	100	8-Small SOIC-W
AD2083	2	1.5	10	1.8	100	8-Small SOIC-W
AD2084	2	1.5	10	1.8	100	8-Small SOIC-W
AD2085	2	1.5	10	1.8	100	8-Small SOIC-W
AD2086	2	1.5	10	1.8	100	8-Small SOIC-W
AD2087	2	1.5	10	1.8	100	8-Small SOIC-W
AD2088	2	1.5	10	1.8	100	8-Small SOIC-W
AD2089	2	1.5	10	1.8	100	8-Small SOIC-W
AD2090	2	1.5	10	1.8	100	8-Small SOIC-W
AD2091	2	1.5	10	1.8	100	8-Small SOIC-W
AD2092	2	1.5	10	1.8	100	8-Small SOIC-W
AD2093	2	1.5	10	1.8	100	8-Small SOIC-W
AD2094	2	1.5	10	1.8	100	8-Small SOIC-W
AD2095	2	1.5	10	1.8	100	8-Small SOIC-W
AD2096	2	1.5	10	1.8	100	8-Small SOIC-W
AD2097	2	1.5	10	1.8	100	8-Small SOIC-W
AD2098	2	1.5	10	1.8	100	8-Small SOIC-W
AD2099	2	1.5	10	1.8	100	8-Small SOIC-W
AD2100	2	1.5	10	1.8	100	8-Small SOIC-W