Switches and Multiplexers

Portfolio Overview

	Industry Standard	Precision Lowest R_{ON}, Lowest Leakage, Q_{INJ} and Capacitance	System Expansion SPI Interface	Robust, Guaranteed Latch-Up Immunity and High ESD	Fault Protection, Overvoltage Protection and Detection	MEMS
Low R_{ON}	ADG4xx* ADG6xx* LTC13xx* ADG7xx ADG8xx	ADG14xx ADG16xx	ADGS14xx ADGS54xx ADGS16xx	ADG54xx	ADG54xxF **New** ADG4xxF* ADG5xxF*	
Low Capacitance, Q_{INJ}, Leakage	ADG5xx* ADG2xx* LTC2xx*	ADG12xx	ADGS12xx	ADG52xx	ADG52xxF	
Specialty SW/Mux (0 GHz to 4.5 GHz Bandwidth, Level Translators, Crosspoint)	ADG9xx ADG3xxx ADG21xx					
MEMS Switch						ADGM1304 **New** 0 Hz/dc to 14.5 GHz ADGM1004 **New** 2.5 kV HBM ESD

±15 V supply

±22 V supply

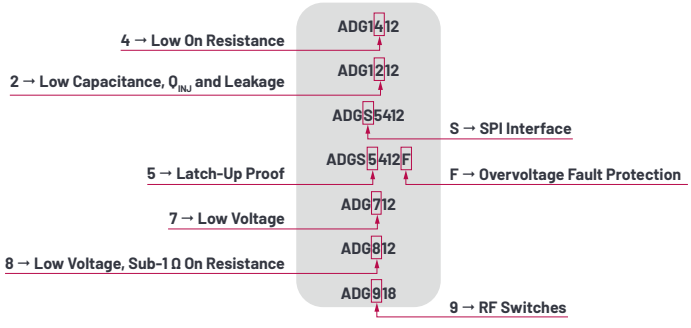
±5 V and/or less than 5 V single supply

* Indicates switch and/or multiplexer(s) within that family that are in production but not recommended for new design.

"F" Signifies fault protection and detection.

Automotive, EP, high temperature (−55°C to +210°C), and die only versions of selected generics are also available. For more information, contact Analog Devices.

Naming Convention



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Parameter Cheat Sheet

Analog Switches and Multiplexers[1]								
Specification/ Supply Voltage	≤5 V Single Supply		±5 V Dual Supply		±15 V Dual Supply		±22 V Dual Supply	
R_{ON}	ADG801	0.25 Ω	ADG1611	1 Ω	ADG1401	1 Ω	ADG5401	6 Ω
Lowest Leakage (at 85°C)	ADG774A	250 pA	ADG636	250 pA	ADG5212	250 pA	ADG5212	250 pA
Lowest Charge Injection	ADG772	0.5 pC	ADG611	−0.5 pC	ADG5212	0.07 pC	ADG5212	0.05 pC
Widest Bandwidth	ADG772	630 MHz	ADG611	680 MHz	ADGS1212	1 GHz	ADG5212	460 MHz
Continuous Current Carrying (One Channel On)	ADG801	400 mA	ADGS1612	566 mA	ADG1401 (LFCSP)	430 mA	ADG5401 (LFCSP)	246 mA
Off Isolation	ADG779	−87 dB	ADG633	−90 dB	ADG508F	−93 dB	ADG5206	−90 dB
Fastest Switch/ Switch Enable	ADG774A	6 ns	ADG611	45 ns	ADG1204	70 ns	ADG5209	120 ns
RC Product (R_{ON} × Coff)	ADG774A	11 ps	ADG1611	63 ps	ADG1411	34.5 ps	ADG5404F	110 ps
Lowest Power Supply[2]	ADG841	1.65 V	ADG611	2.7 V	ADG14xx	±4.5 V dual, 10.8 V single	ADG54xxF ADG52xxF	±13.5 V dual, 10.8 V single
Widest Power Supply[2]	ADG7xx	±2.5 V dual, 5.5 V single	ADG16xx	±5.5 dual, 13.2 V single	ADG54xxF ADG52xxF	±22 V dual, 39.6 V single	ADG54xxF ADG52xxF	±22 V dual, 39.6 V single
Density/Switch mm²/ Channel	ADG888 dual DPDT	2 mm × 2 mm WLCSP	ADG1608/ ADG1609 8:1 mux	3 mm × 3 mm LFCSP	ADG5206 16:1 mux	5 mm × 5 mm LFCSP	ADG5206 16:1 mux	5 mm × 5 mm LFCSP
Absolute Footprint	ADG772	1.3 mm × 1.6 mm LFCSP	ADG619	2.9 mm × 2.8 mm SOT-23	ADG1201	2.9 mm × 2.8 mm SOT-23	ADG5401	2.9 mm × 3 mm LFCSP
Power Consumption (I_{DD})	ADG7xx ADG8xx	1 nA typ	ADG16xx	1 nA	ADG413	100 pA	ADG54xx ADG52xx	50 µA

[1] Typical specifications unless otherwise stated
[2] Guaranteed in specification table

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