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Murata reduces the size of its AMR magnetic switches for open/close detection



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Product Newsletter



Intersil's octal switch provides unmatched design flexibility and >8kV ESD protection for switching and routing of diverse signal types



Offering 4x the ESD protection of competitive solutions, Intersil's ISL54230 octal switch provides a simple, space-efficient way to interconnect baseband chip, application processor, internal SIM cards and other support chips in full-featured Smartphones.

The ISL54230's small size and flexibility allows designers to optimize the routing of the many different types of signals found in high-feature-set mobile phone products.

The ISL54230 has eight individual Single Pole Double Throw (SPDT) switches whose performance has been carefully designed to enable them to pass a wide range of precision voice and data signals, including high-speed USB, UART, PCM, audio and power. With the addition of simple logic control, the switches can be configured to multiplex between pairs of signals like USB 2.0 high-speed ports, or between groups of signals like SIM card clock, data and power lines.

To minimize board space, the signal pins on the ISL54230 have been arranged in a 'flow-through' manner to avoid signal crossovers on the PCB. Unused switches can be powered down as required under logic control.

For dual-mode mobile phones, the ISL54230 allows dual baseband chips to access either of two SIM cards while allowing the unused SIM card to be powered down in order to minimize battery drain. All signal lines have greater than 8kV ESD protection allowing for much safer SIM card insertion and removal.

Key features

- High-speed (480Mbps) and full-speed (12Mbps) signalling capability per USB 2.0
- Compliant with USB 2.0 short-circuit and overvoltage requirements without additional external components
- High-speed SIM Card, UART and PCM data-line switching
- Low-resistance switches for SIM card power line switching
- 2.0V to 5.5V supply range
- Rail-to-Rail analogue signal switching






- 1.8V logic compatible (2.7V to 3.6V supply)
- Switch terminals overvoltage protected up to +5.5V
- Low switch leakage during power down
- Dual output-enable controls for selective shutdown of switches when not in use
- Electrostatic discharge (ESD) capability of greater than 8kV on all signal pins protects against ESD damage caused by SIM card insertion and removal.
- Operating temperature range of -40 to +85°C


For more information, or details on the full range of Intersil products available from Anglia, please call +44 (0)1945 474747 or email info@anglia.com

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22/12/09