

## PRODUCT BRIEF

# MM1200

## 6-Channel SPST Relay

The MM1200 device is a 6-channel SPST Micro Relay developed and manufactured by Menlo Micro. It is intended for power and signal switching applications in both DC and AC circuits.

Reliable and innovative, Menlo Micro's Ideal Switch™ technology enables robust switches capable of 1.0 A per channel. The technology also enables low on-state contact resistance and high off-state isolation with greater than 3 billion switching cycles at elevated +85°C temperatures. Each switch is normally open (NO) and individually controlled by a Serial Peripheral Interface (SPI) bus. An external +5 VDC logic supply and high voltage +75 V<sub>DC</sub> bias source is required for operation of the internal switch driver.

### FEATURES

- 1.0 A per channel / 3.0 A Total Current
- Maximum Voltage (AC or DC): +150 V
- Low On-State Resistance < 1.0  $\Omega$
- 10 G $\Omega$  Input to Output Isolation
- < 10 $\mu$ s Switching Time
- High Reliability > 3 Billion Switching Operations
- Integrated SPI Bus Control
- 6mm x 6mm x 1.3mm BGA Package

### APPLICATIONS

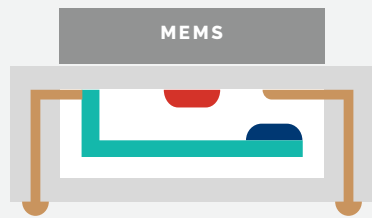
- High Density Switch Matrixes
- Automated Test and Measurement Systems
- Mechanical Relay Replacement

### MARKETS

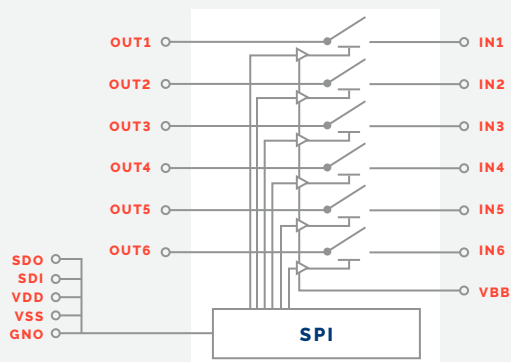
- Test & Measurement
- Wireless Charging
- Scientific and Medical
- Telecom



**FIG. 1** Wafer Level Chip Scale Package



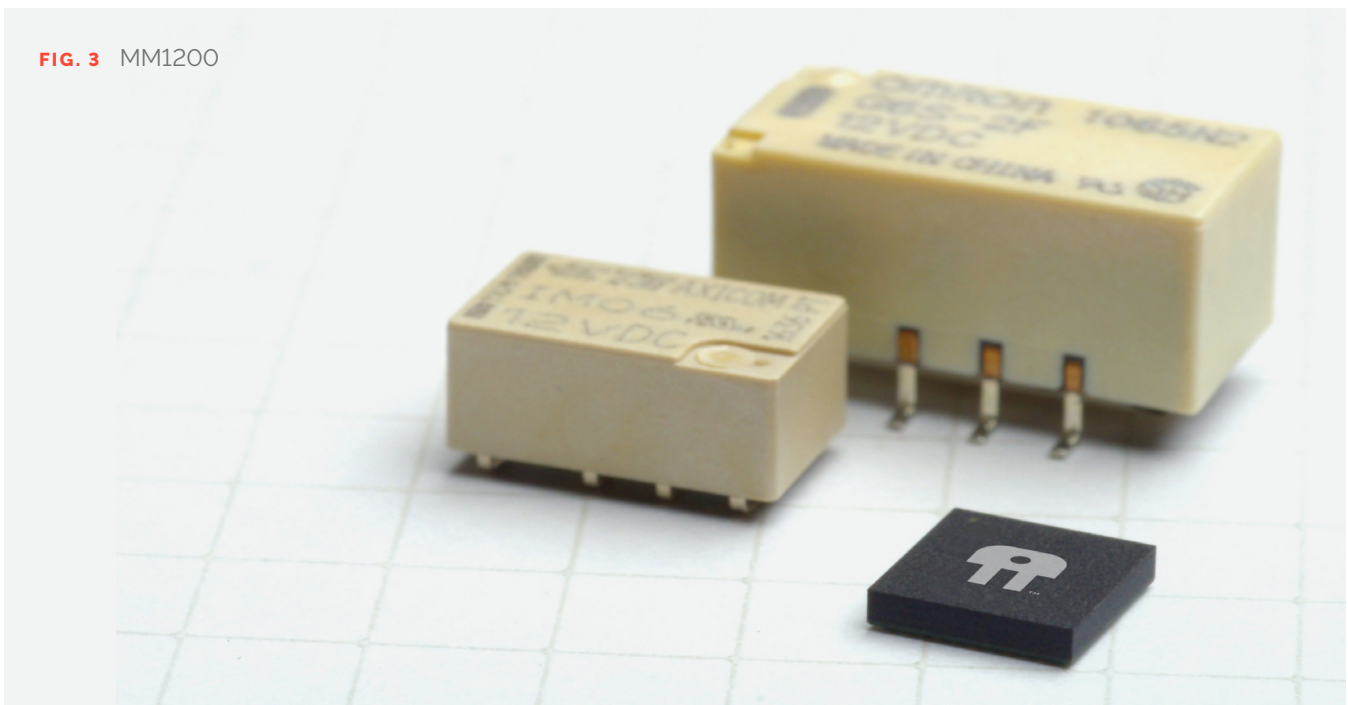
**FIG. 2** Functional Block Diagram



#### DESIGN ADVANTAGES

- 85% PCB Area Reduction
- 75% Build Height Reduction
- 120g weight savings/100 DPDT
- 300 X switching speed improvement enables faster measurements
- 300 X reliability reduces system downtime
- Digital control direct from MCU
- Simplifies schematic & routing on PCB
- Saves 20 W power consumption per 100 DPDT relays

**FIG. 3** MM1200



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