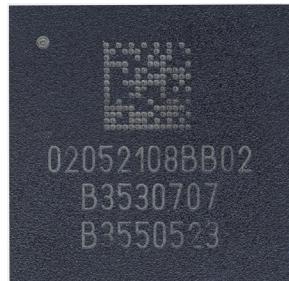


# MM5620

## 64 GT/s Differential Dual DP3T Relay with Loopback



The Menlo Micro Differential Dual DP3T relay supports the high-speed differential signal switching required in PCIe Gen 6, SerDes and other applications. The MM5620 is based on Menlo's Ideal Switch® technology and can operate up to 64 GT/s or 20 GHz for high-performance applications.

The MM5620 has low insertion loss, fast switching speed, and can operate with greater than 3 billion switching cycles. The MM5620's integrated charge pump and driver can be controlled through SPI or GPIO interfaces by a host processor.

The design fully integrates the loopback capacitors and offers substantial reductions in size when compared with other high speed relay solutions.

### FEATURES

- DC to 20 GHz range, up to 64 GT/s
- Dual 2 Form C, DP3T (differential mode) with LoopBack Mode
- Normally Open, Reflective actuator
- Low Insertion Loss: 0.8 dB @ 16 GHz
- Integrated charge pump and driver eliminates the requirement for external biasing and driver circuitry
- Built-in AC Coupling Capacitors
- Fully controllable ports for low, medium, and high data rate signal routing
- High Reliability: Greater than 3 billion switching operations
- 8.2 x 8.2 mm LGA Package

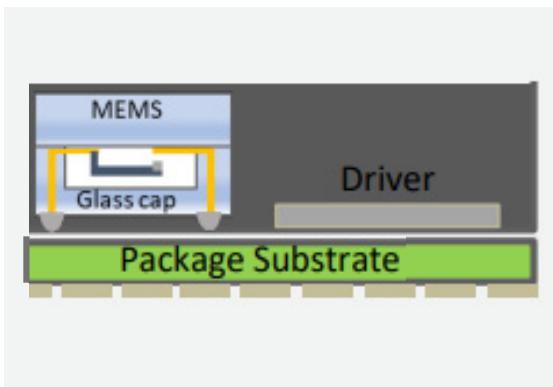
### APPLICATIONS

- Differential High-Speed I/O Loopback
- ATE-Device Interface Boards
- High-Speed Computer Peripheral Interfaces

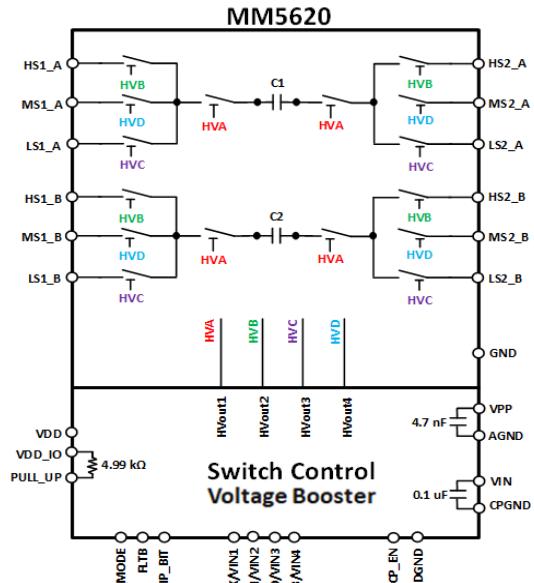
### MARKETS

- Differential Component Testing
- Differential Signal Routing
- Test and Measurement

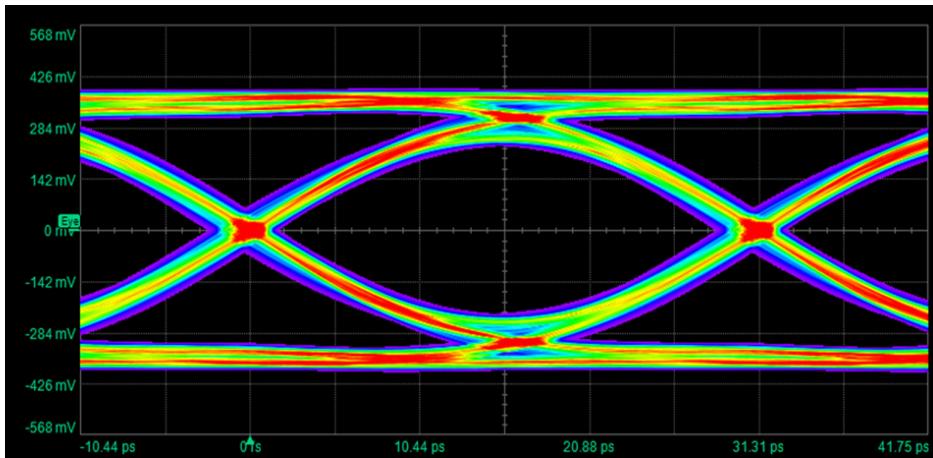
**FIG. 1** Wafer Level Chip Scale Package



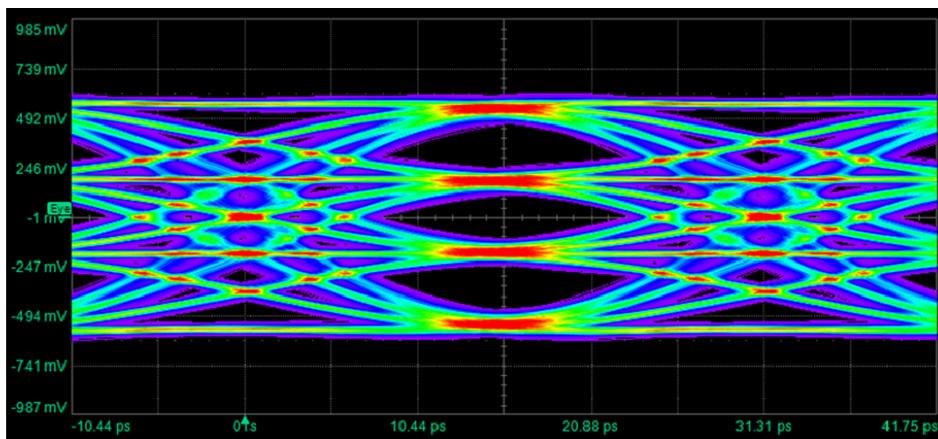
**FIG. 2** Functional Block Diagram



**FIG. 3** MM5620 Loopback Eye Diagram  
Measurement PCIe Gen5 NRZ @ 32 Gbps



**FIG. 4** MM5620 Loopback Eye Diagram Measurement  
PCIe Gen6 PAM-4 @ 32 GBaud (64 Gbps)



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