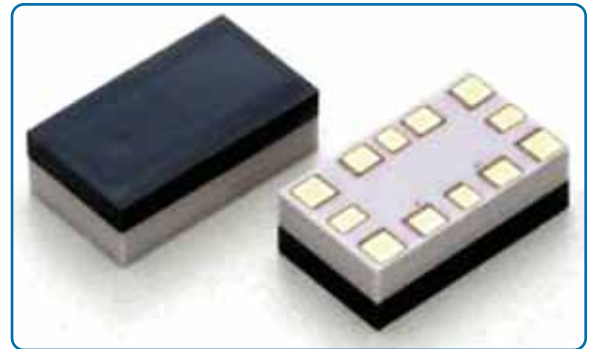


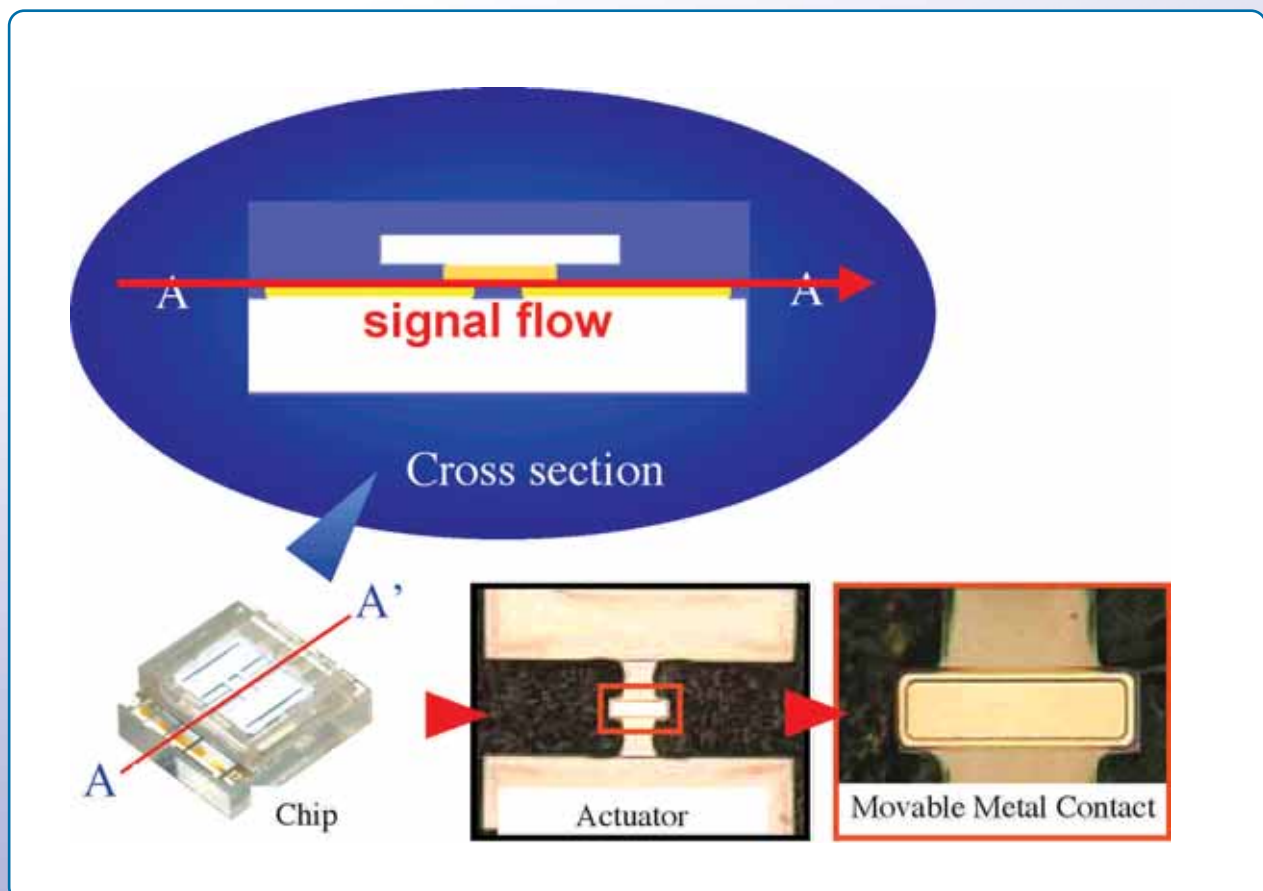
RF-MEMS Switch

Combining its long history of innovative relay products with its MEMS (Micro Electro Mechanical System) expertise, Omron has developed a new RF-MEMS Switch to meet the requirements of the ATE (Automatic Test Equipment) market. Using an electrostatic drive mechanism, the switch combines the desirable HF characteristics of electromechanical relays with a life expectancy generally only found in solid state relays.

Highly reliable, Omron's RF MEMS Switch is small in size, consumes low power yet possesses excellent frequency characteristics.



RF-MEMS Switch Design



Ratings & Characteristics

- Possess all advantages of electromechanical relays (initial CR of 1.0 Ohms).
- Dimensions: 5.2 x 3.0 x 1.8mm / LGA 12
- Two contact sets with independent operation of the signal paths (SPDT / DPST-NO).
- Life Expectancy Rating: 100 Million Operations
- Testing beyond 1 Billion Operations
- Low Power consumption : 10 μ W max
- Excellent frequency characteristics up to a rated bandwidth of 8 GHz, 10 GHz typical.
- High linearity (low noise distortion)
- Very low insertion loss (1dB)
- High isolation (30dB)
- High-speed operation (100 μ s max)
- RoHS Compliant

Specifications

Load	Resistive Load	Item	2GHz	8GHz	12GHz
Rated Load	0.5mA at 0.5VDC	Isolation	-	30dB	-
Rated Carry Current	DC: 100mA RF: 30dBm	Insertion Loss	-	1dB	3dB
Max. Switching Voltage	0.5VDC	Return Loss	-	10dB	-
Max. Switching Current	0.5mA DC	Max. Peak Power	36dBm	-	-
Max. Switching Capacity	0.25mW	Max. Carry Power	30dBm		

Applications

Test & Measurement

Oscilloscope, instrumentation,
IC tester, test equipment, I/O part



ATE



**RF
Measurement**

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