

A Ka-band RF MEMS enabled frequency reconfigurable triangular microstrip patch antenna has been designed for monolithic integration with RF MEMS phase shifters to demonstrate a low-cost monolithic passive electronically scanned array (PESA). This paper introduces our first prototype reconfigurable triangular patch antenna currently in fabrication. The aperture coupled patch antenna is fabricated on a dual-layer quartz/alumina substrate using surface micromachining techniques.