Abstract - The frequency of analogue signals and the data rate of digital signals are continuously increasing. Many high-frequency applications like wireless telecommunication, cable TV (CATV) and automatic test equipment (ATE) etc. require RF switching. Most applications like the 3rd generation mobile standard (UMTS) operate with frequencies up to 3GHz. Compared with solid state RF switches, electromechanical devices offer better RF performance providing better insulation, lower insertion loss and better VSWR. Furthermore the linear characteristics of electromechanical contacts provide optimal signal transfer without any signal distortion and the RF characteristic is non-temperature-dependent.

Low-cost, high-performance, ultra-miniature high frequency relays are capable of handling signals up to several GHz. Excellent isolation, insertion loss and V.S.W.R. is provided to the highest frequency level, for applications with both 50Ω and 75Ω impedance.

Bridge contacts mainly applied for excellent RF characteristics, provide at the same time excellent switching capability for RF power signals, as two contact gaps in series are present to switch the signal. Pure RF signals as well as RF signal superimposed with DC signals can be handled.

Keywords: RF relay, RF switching, RF switch