

RELIANT SWITCH™ SERIES

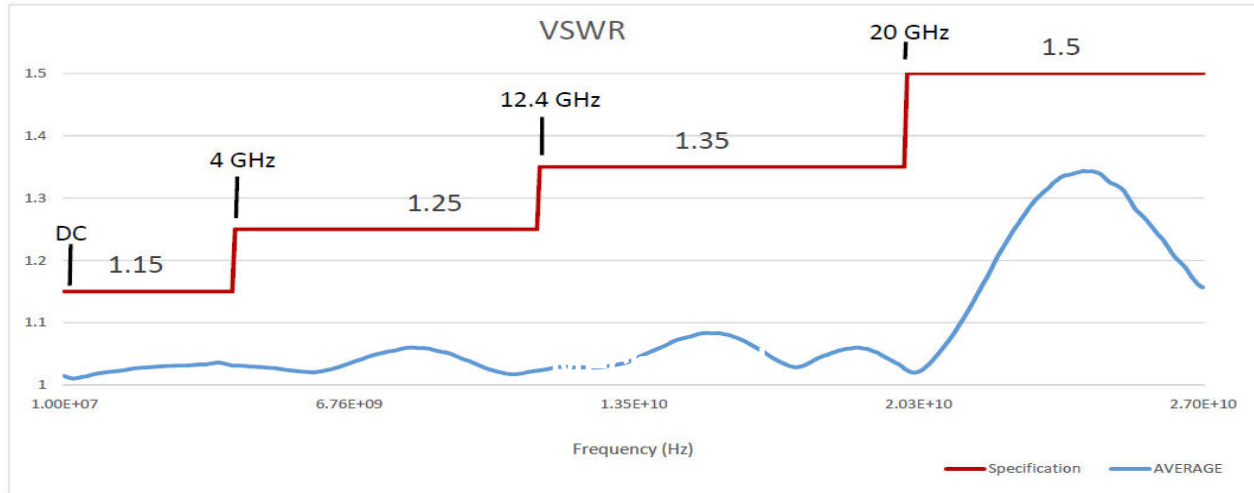
**RF switch solution with high insertion loss repeatability &
a minimum design life of 10 million cycles**



**SPDT TERMINATED SWITCH:
R521K-4X0853
R521K-4X0853A**

RF PERFORMANCE DATA

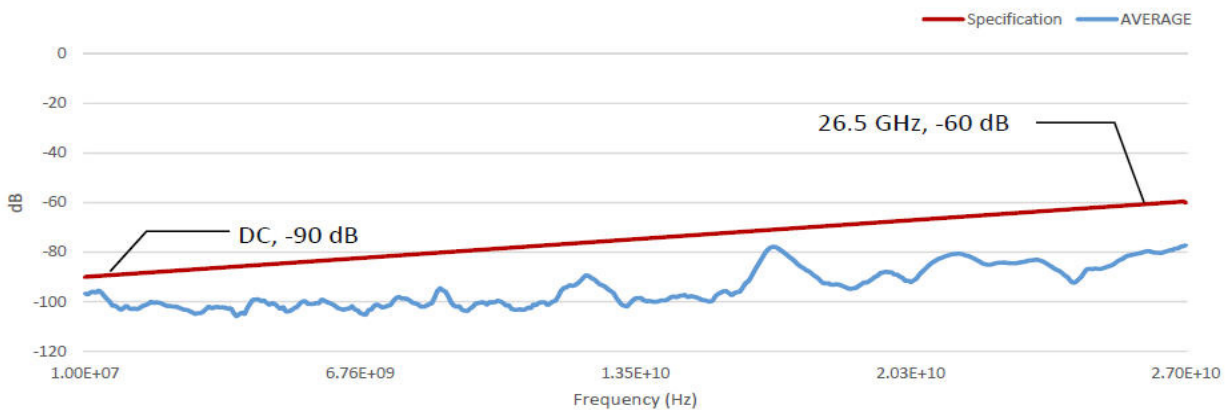
VSWR



Insertion Loss



Isolation



Typical RF Performance shown

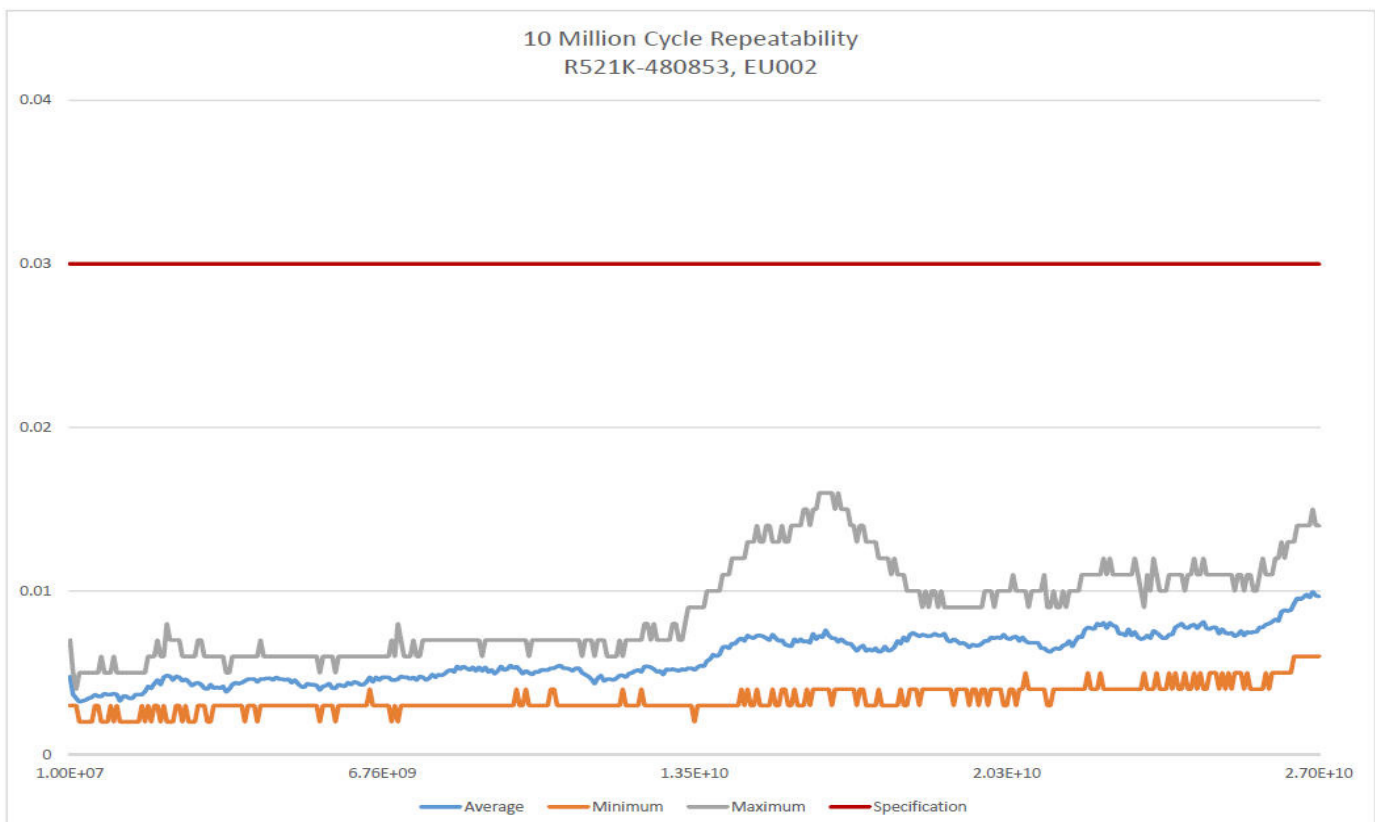
QUALIFICATION TEST

SPDT Reliant Switch has successfully pass qualification testing.

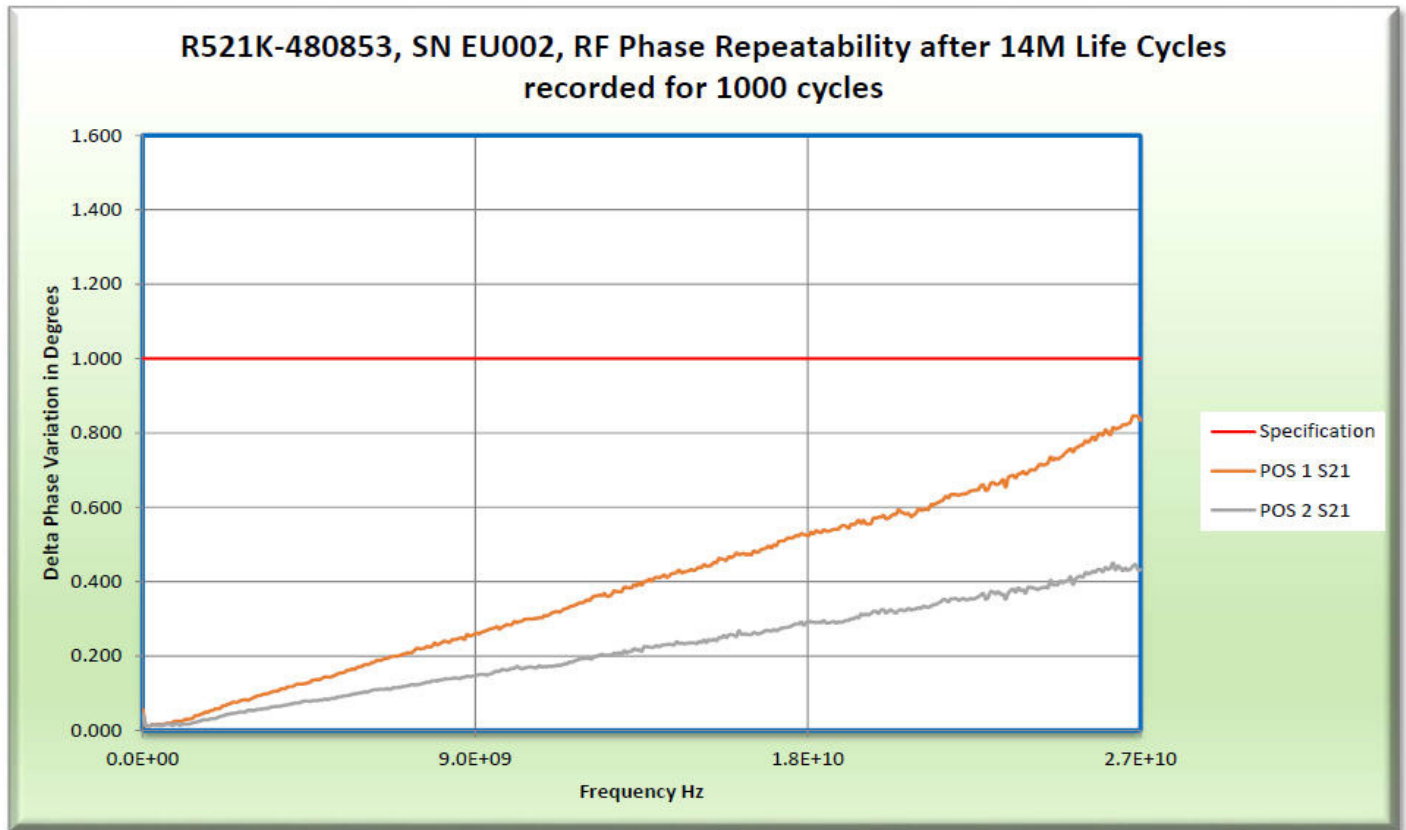
The switch design has been subjected to a very demanding Qualification Process including but not limited to:

- » Thermal Shock – to MIL-STD-202, method 107G, test condition A Modified to 10 cycles from -55°C to +85°C
- » Temperature extremes - Three Cycles of -25 °C to +75°C
- » Altitude Storage Test - MIL-STD-202G, Method 105C, Condition B. Pressure 3.44 inches / 87 mm mercury, 50,000 feet / 15,240 Meters altitude.
- » Sine Vibration Operating - Sine Vibration per MIL-STD-202G, Method 204D, Condition D, 7G peak
- » Sine Vibration Survival - Sine Vibration per MIL-STD-202G, Method 204D, Condition D. 20G peak
- » Random Vibration - MIL-STD-202G, Method 214D, condition 1, 2.41g RMS and 10 minutes per axis.
- » Shock Operating - MIL-STD-202G, Method 213-1, Condition A
- » 10 Million Cycle Life Test with Contact Resistance and Insertion Loss Repeatability Monitoring - 10,000,000 cycles operating the switch at 24V
- » Non-Switching Power Test - 200 Watts CW at 2GHz
- » Hot Switching Power Test - At 2 Watts CW power, cycle one position 50,000 times at 1 Hz at 12GHz and at room temperature.

INSERTION LOSS REPEATABILITY



PHASE REPEATABILITY



After completion of 10 Million cycles, the life test was extended to 14 Million cycles. The unit maintained a phase repeatability below .9 degrees at 27 GHz.

