

SURFACE MOUNT ULTRA PORCELAIN™ CAPACITORS

PRESIDIO ADVANTAGE

- Ultra Lowest ESL
- Ultra Combination of ESR and Q
- Ultra Stable Over Time — No Aging
- Amplified High Power Tuning
- High Reliability – Low Profile
- Ultra Highest Q
- Ultra Stable NPO
- Ultra Compliant — Strontium Free
- Matching Oscillator Design
- Typical Designs from DC to 6 GHz+

DIELECTRIC

Porcelain UP: Ultra temperature stable dielectric. Extremely low ESR. For RF power and high Q applications.

Porcelain P90: Dielectric increases over temperature (90ppm/C). Extremely low ESR. For temperature compensation.

Ceramic NPO: Ultra temperature stable dielectric. Low ESR. Suited for higher capacitance applications.

Ceramic BX: Temperature stable X7R dielectric. Suited for highest capacitance value applications.

HI-REL SPACE APPLICATIONS

For information on our Ultra-Porcelain™ Hi-Rel Capacitors for Space See Pages 16 and 17

TYPICAL APPLICATIONS

Filter Capacitors

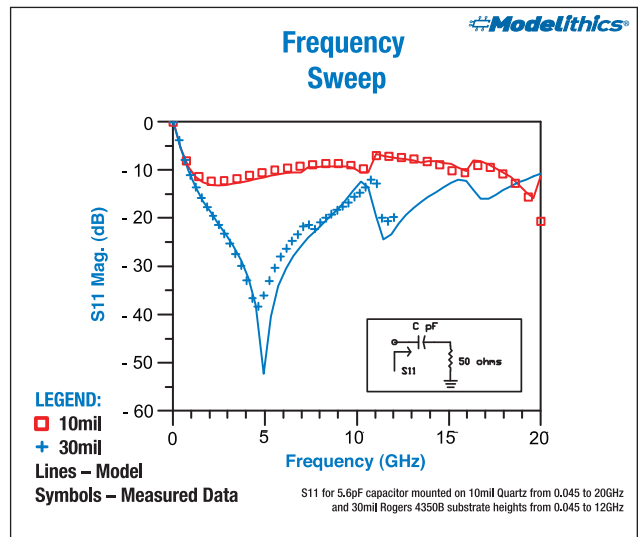
A filter design requires a specific capacitance value, cF, and at the upper end of the filter response, fF, the effective capacity must not exceed cF by more than a specified amount of delta C. Once cF is determined, case size, voltage rating and temperature characteristics can be selected.

DC Block and RF Bypass

The bandwidth over which the insertion loss meets specification is determined by the location of parallel resonances. Minimum insertion loss at the band center is achieved by choosing a capacitor whose lowest series resonance is approximately at this frequency. Low impedance is typically more important than the capacitance value.

Low Noise Applications

Dissipation loss is the consideration. ESR is very small at the series resonance, very large at the parallel resonance. The neighboring parallel resonances determine the bandwidth.



Presidio's capacitors are available in various screening levels from Commercial to Space Grade (See Page15).

Front Cover: Thermal image of 0505 10pF during RF Power Test

