

**DATA SHEET**

# 7300 Series: Temperature-Stable Dielectric Material

## Applications

- TM rods
- Specialty TE mode filters
- Ceramic antennas



## Features

- Temperature stable
- Wide range of  $\tau_f$
- Small size
- High Q for 700 MHz to 4 GHz range
- Low insertion loss for dielectric constant
- Linear temperature coefficient

## Description

Skyworks, through its wholly owned subsidiary, Trans-Tech, offers the 7300 series of temperature-stable dielectric material designed for frequency applications from 700 MHz to 4 GHz. The high dielectric constant of this material allows for dramatic reductions in the cavity size for lower frequency operations while maintaining acceptable Q values. Custom temperature coefficients are available.

## Material Characteristics

Characteristic	Value
Dielectric constant	72 to 75 (depending on $\tau_f$ selected)
Temperature coefficient of resonant frequency	-12 to +12 ( $\pm 2$ ppm)
Q	9500 @ 1 GHz 3800 @ 3 GHz

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