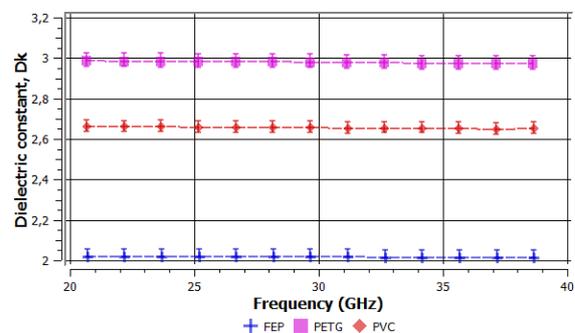
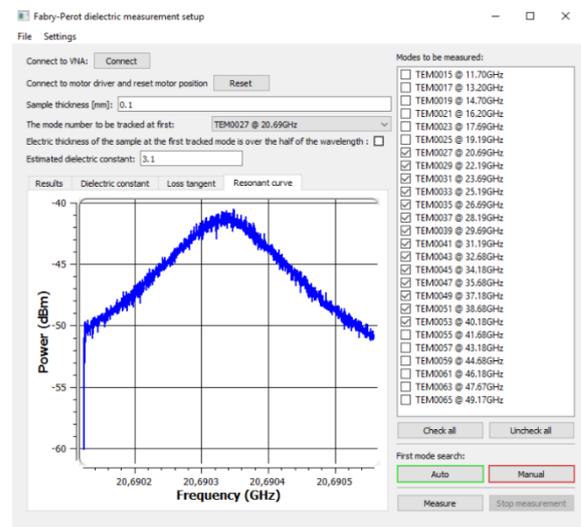


# MICROWAVE Q-METER 20-40 GHz



EMArges offers a new model of **Microwave Q-Meter** dedicated to the measurement of dielectric properties of low-loss dielectrics with the aid of a **Fabry-Perot Open Resonator (FPOR)** in the frequency band of 20-40 GHz.

-  The Q-Meter can replace a laboratory-grade vector network analyzer (VNA) that is usually employed to measure the resonant frequency and the quality factor of the FPOR.
-  It allows one to perform automated broadband and precise room temperature scalar measurements of the properties of high-Q resonators loaded with material samples in this frequency range.
-  The Q-Meter allows one to automatically extract material properties at ca. 14 frequency points corresponding to the consecutive **TEM<sub>0,0,q</sub>** odd modes spaced every 1.5 GHz.
-  It is controlled with a specialized software that oversees the measurement process and extracts complex permittivity of the material under test based on the measured properties of the cavity.
-  Due fast data exchange routines and adaptive algorithm implemented in the control software dedicated total measurement time usually does not exceed **10 minutes** in the 20-40 GHz range (less than 20 seconds per frequency point).



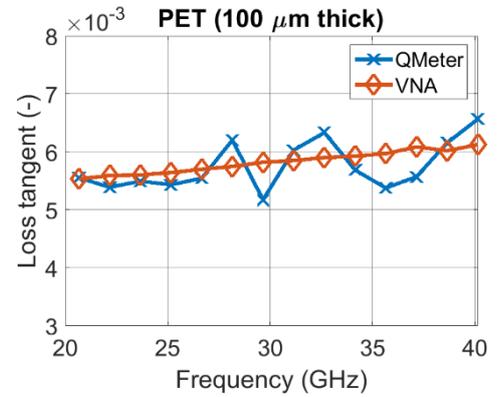
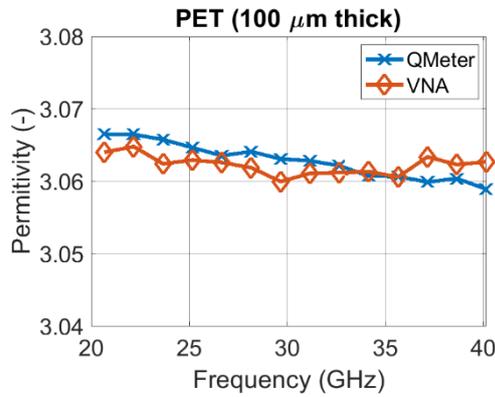
Q-Meter connected to the FPOR

Measurement software

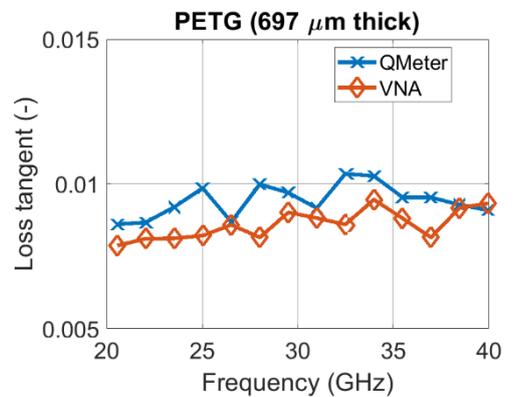
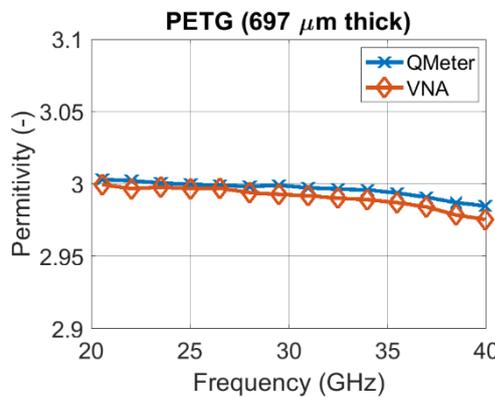
# MICROWAVE Q-METER 20-40 GHz



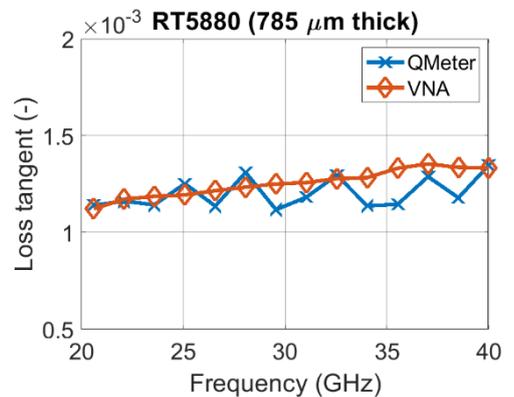
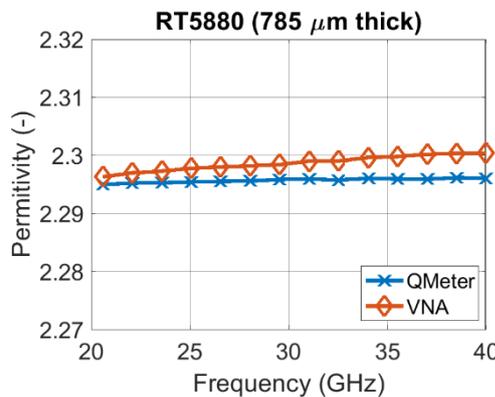
PET ( $t = 100 \mu\text{m}$ )



PET ( $t = 697 \mu\text{m}$ )



RT5880 ( $t = 785 \mu\text{m}$ )



RT6002 ( $t = 500 \mu\text{m}$ )

