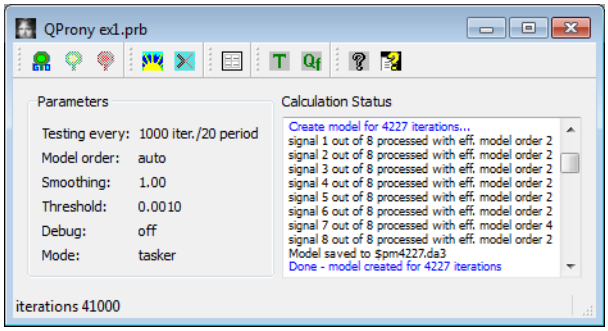
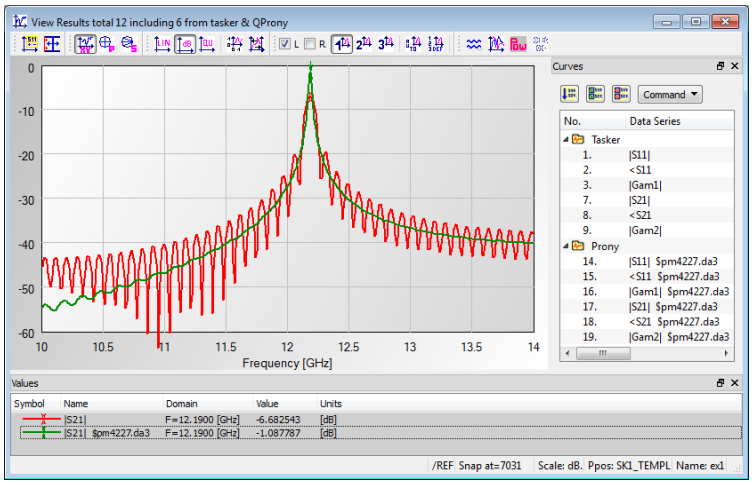
QPRONY

QProny module assists the users of QuickWave-3D in the analysis of high Q structures using very efficient digital signal processing techniques allowing reducing the simulation time. It uses one of the most robust signal processing techniques known as the Generalised Pencil of Function Method (GPOF) and employs unique and innovative methods for automatic selection of the most important parameters such as:

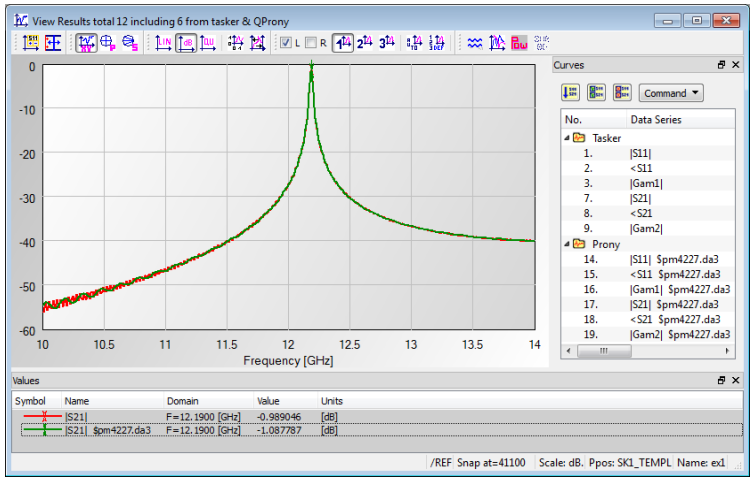
- the number of initial samples to be skipped,
- the number of samples required for model construction,
- the model order.

As a result, high quality models may be created without any user's intervention.





The S21 characteristic obtained for single cavity waveguide filter example from Fourier postprocessing (red) after about 7000 iterations and *QProny* module (green) after about 4000 iterations.



The S21 characteristic obtained for single cavity waveguide filter example from Fourier postprocessing (red) after about 41000 iterations and *QProny* module (green) after about 4000 iterations.

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