

Website News

DATE: July 11, 2016

RE: NASA's JPL JUNO Project & RS Microwave Participation

Dr. & Valerie Snyder were fortunate attendees at Jet Propulsion Labs in Pasadena, California on the Fourth of July for the celebration of the Juno spacecraft's orbital insertion of Jupiter. The operations were a huge success and many followed along in the excitement on www.nasa.gov/nasatv.

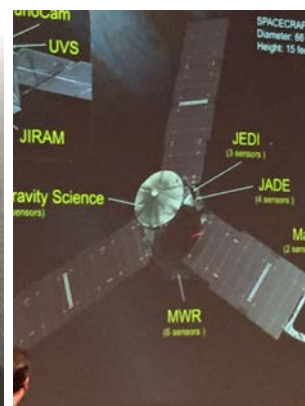
Our filters involved on board for the project are 72343B-1 (a 600 MHz bandpass filter), 72343B-2 (a 1200 MHz bandpass filter) and 72343B-3 (a 2400 MHz bandpass filter). The JPL instrument that depends on RS Microwave filters is called "A six-wavelength microwave radiometer for atmospheric sounding and composition (MWR)". *



Juno Spacecraft Mock-up (1/10th size)



MWR (Microwave Radiometer) Mock-up & Position on Spacecraft



* For information on all of the instruments on board, see http://www.nasa.gov/mission_pages/juno/spacecraft/index.html

Our three filters help the JPL instrument containing our filters to separate the emitted radiation from Jupiter's atmosphere, and determine the composition and atmospheric depth of the detected components. This will lead to an understanding of the nature of Jupiter's atmosphere and the enormous winds, lightning, high pressures and other details regarding the mysterious and well-shrouded giant planet. Perhaps we Earthlings will have a clearer picture of the solar system's past and the future of our own planet, based on the findings of Juno!

The filters were designed by our design team with significant interaction with JPL scientists, advising RS Microwave on materials and processes. Our top assembly and lab personnel completed the filters (evanescent filters) using special, radiation resistant soft and hard dielectrics and other materials. Specialized testing such as X-ray and PIND was outsourced.

Our thanks to Dr. Frank Maiwald of JPL for his mentoring and oversight during this exciting and important project.



Drs. Maiwald & Snyder at the Juno Mock-up

We wish to thank all of our employees involved in this project and say how proud we are of all of your work and everyone at RS Microwave for the quality work you do daily! Congratulations to us all!

To learn more about the Juno mission in general, see http://www.nasa.gov/mission_pages/juno/main/index.html.