

Dr. Mark Rosker

Microsystems Technology Office (MTO)

Office Director

Dr. Mark Rosker became director of DARPA's Microsystems Technology Office (MTO) in April 2019. Prior to this, he was deputy director of Defense Sciences Office (DSO) beginning in April 2018.

Prior to his most recent DARPA appointment, Dr. Rosker was a principal engineering fellow at Raytheon Space and Airborne Systems (SAS) in Rosslyn, Virginia, working to anticipate and recognize emerging technical directions and program opportunities within the government science and technology (S&T) community. From 2003 to 2011, Dr. Rosker was a program manager in DARPA's Microsystems Technology Office (MTO). As program manager, he developed a portfolio of technical programs in gallium nitride and other compound semiconductor radio frequency (RF) device technologies, heterogeneous circuit integration, terahertz electronics, and quantum cascade lasers. One of Dr. Rosker's programs, the Wide Band Gap Semiconductors for Radio Frequency Applications (WBGs-RF) program, was selected in 2016 for the prestigious "DARPA Game-Changer Award." In 2009, Dr. Rosker became the deputy director of MTO, and he ended his first tour as the acting office director.

Prior to 2003, Dr. Rosker worked in NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, where he was a member of the submillimeter wave advanced technology group. Dr. Rosker was also at the Rockwell Scientific Co. (now Teledyne Scientific) in Thousand Oaks, California, from 1989 to 2003. His technical work there was in researching nonlinear optics, including photorefractive oscillators and visible and infrared frequency conversion materials and devices, time-domain spectroscopy of optical materials, and optical power limiters. He later led research groups within the materials science and the electronics divisions. From 1986 to 1989, he was a postdoctoral research fellow at Caltech, where he performed fundamental studies (cited in the 1999 Nobel Prize in Chemistry) observing the dynamics of unimolecular chemical reactions in real-time.

He received his Bachelor of Science in physics from the California Institute of Technology in 1981, and his Master of Science (1983) and doctorate (1987) in applied and engineering physics from Cornell University.

In 2012, Dr. Rosker was selected as a Fellow of the IEEE for "his leadership in microwave and millimeter-wave