

Irwin Jacobs

Dr. Irwin Jacobs is co-founder of Qualcomm Incorporated, pioneer and world leader of Code Division Multiple Access (CDMA) digital wireless technology. Dr. Jacobs served as chief executive officer of the Company until July 2005 and chairman of the Company's board of directors until March 2009.

Dr. Jacobs has led the commercialization of CDMA technology and its success as the world's fastest-growing, most-advanced voice and data wireless communications technology. He holds several CDMA patents, contributing to Qualcomm's extensive portfolio of issued U.S. and foreign patent and pending applications.

Dr. Jacobs previously served as co-founder, president, CEO and chairman of LINKABIT Corporation, directing its growth from a few part-time employees in 1969 to more than 1,400 employees in 1985 and first introduction of Ku-band Very Small Aperture Earth Terminals (VSATs), commercial TDMA wireless phones, and the VideoCipher® satellite-to-home TV system. LINKABIT merged with M/A-COM in August 1980, at which time Dr. Jacobs served on the company's board of directors until he resigned from M/A-COM in April 1985. More than 35 San Diego telecommunications companies, including Qualcomm, trace their roots back to LINKABIT.

From 1959 to 1966, Dr. Jacobs was an assistant/associate professor of electrical engineering at the Massachusetts Institute of Technology (MIT). From 1966 to 1972 he served as a professor of computer science and engineering at the University of California, San Diego. At MIT, Dr. Jacobs co-authored a basic textbook on digital communications entitled, Principles of Communication Engineering. First published in 1965, the book remains in use today.

Dr. Jacobs received a bachelor's degree in electrical engineering in 1956 from Cornell University and master of science and doctor of science degrees in electrical engineering from MIT in 1957 and 1959, respectively.

Dr. Jacobs is the recipient of numerous industry, education and business awards, including:

- Visionary Award, SDForum, June 2008
- Robert N. Noyce Award, Semiconductor Industry Association, November 2007
- IEEE/ RSE Wolfson James Clerk Maxwell Award, groundbreaking contributions that have had an exceptional impact on the development of electronics and electrical engineering or related fields, June 2007
- Doctor of Humane Letters, University of San Diego, May 2007
- Economic Opportunity Award (for development of CDMA technology, LEAD San Diego), June 2006
- Honorary Degree Recipient - Doctor of Science (Sc.D.), San Diego State University and the California State University System Board of Trustees, May 2006

- Lifetime Achievement Award (for 25 years in telecommunications), Financial Times, December 2005
- Honorary Professorship, Beijing University of Posts & Telecom (BUPT), October 2005
- First Member of the Entrepreneur Technology Hall of Fame, established by the technology business organization Connect, May 2005
- America's Best CEOs, Institutional Investor Magazine, January 2005
- Woodrow Wilson Award for Corporate Citizenship, Woodrow Wilson International Center for Scholars, May 2004
- Dorothy I. Height Chair's Award, Leadership Council on Civil Rights, May 2004
- IEEE Communications Society 2004 Distinguished Industry Leader Award, for his contribution to and leadership in the development and growth of the wireless communications industry, March 2004
- Dr. Morris Chang Exemplary Leadership Award, the Fabless Semiconductor Association, December 2003
- Eta Kappa Nu Eminent Member Award, Electrical & Computer Engineering Honor Society, November 2003
- Tau Beta Pi Distinguished Alumnus Award, Tau Beta Pi Engineering Honor Society, October 2003
- International Engineering Consortium Fellow Award, November 2002
- Innovation Award in Communication, The Economist, September 18, 2002
- Honorary Doctorate, University of Pennsylvania, May 13, 2002
- American Academy of Arts and Sciences Fellow, April 2001
- Bower Award in Business Leadership, the Franklin Institute, April 2001
- Honorary Doctorate, Technion University, June 5, 2000
- Golden State Award, Board of Directors of the California Council for International Trade, May 2000
- Scientist of the Year Award, Achievement Rewards for College Scientists, April 2000
- Radio Communication Report (RCR) Wireless Hall of Fame Inductee, March 2000, for his significant contributions to the advancement of the wireless telecommunications industry
- Director of the Year Award for Enhancement of Economic Values, the Corporate Directors Forum, February 2000
- Ernst & Young Leadership Award for Global Integration, Computerworld
- Smithsonian Award Program, 1999
- Medal of Achievement Award, the American Electronics Association (AEA), 1998
- Entrepreneur of the Year in the Master Entrepreneur category, RCR, 1996
- Person of the Year Award, RCR, 1996
- The Albert Einstein Award, the American Society of Technion, 1996
- IEEE Alexander Graham Bell Medal, Institute of Electrical and Electronics Engineers (IEEE), 1995
- Cornell's Entrepreneur of 1994
- The National Medal of Technology Award, 1994, the highest award bestowed by the president of the United States for extraordinary achievements in the

commercialization of technology, or the development of human resources that foster technology commercialization

- Inventing America's Future Award, AEA, 1993
- The International Citizens Award, World Affairs Council of San Diego, 1993
- The San Diego Business Leader of the Year Award, San Diego Venture Group, 1993
- Entrepreneur of the Year Award, the Institute of American Entrepreneurs, 1992
- First Annual ExcEL Award, the local AEA, 1989
- Distinguished Community Service Award, the Anti-Defamation League of B'nai B'rith, 1984
- Election to the National Academy of Engineering, 1982
- Bi-annual award "for an outstanding contribution to aerospace communications," the American Institute of Aeronautics and Astronautics, 1980 (Drs. Jacobs and Andrew Viterbi were jointly honored)

Dr. Jacobs is a member of numerous industry and community boards and committees. He is a Fellow of the IEEE and a member of Sigma XI, Phi Kappa Phi, Eta Kappa Nu and Tau Beta Pi. Dr. Jacobs also serves on the Council on Competitiveness, the National Academy of Engineering Committee on Public Awareness of Engineering, the board of directors of Building Engineering & Science Talent, the visiting committee of the MIT Laboratory for Information and Decision Systems, California Council on Science and Technology, and is past chairman of the University of California President's Engineering Advisory Council. In November 2006, Dr. Jacobs was named Chair of the Salk Institute's Board of Trustees and in May 2008 was named Chair of the National Academy of Engineering.