

## **Boeing EDD Wins Contract For Linearized C-Band Amplifiers From Orbital**

Boeing [NYSE:BA] has been awarded a contract from Orbital Sciences Corporation [NYSE:ORB] to provide Linearized C-Band Traveling Wave Tube Amplifiers (LTWTAs) for the TELKOM-2 Satellite for Indonesia.

Orbital awarded the contract to Boeing Electron Dynamic Devices, Inc. (EDD) located in Torrance, Calif. EDD is a leading provider of high reliability products for space and defense customers and is a business unit of The Boeing Company.

"We are extremely pleased to continue our successful relationship with Orbital on the TELKOM-2 program," said Chris Stephens, vice president and general manager of EDD. EDD recently completed delivery of 96 linearized C-Band TWTAs for three satellites Orbital is building for PanAmSat. Galaxy 12, the first of the three satellites was successfully launched on April 9.

In communication satellites, TWTAs are used to amplify and transmit radio frequency signals back to Earth for a variety of applications including voice, video and data. On satellites that carry a large number of signals, a linearizer is often added to the TWT to cancel the amplifier distortion. This results in clearer communications that benefits the customers of the satellite operator. The final assembly is referred to as an LTWTA.

A typical TWTA consists of a traveling wave tube (TWT) and an electronic power conditioner (EPC). The TELKOM-2 C-Band TWTAs will be comprised of a 41 watt Model 8560HT TWT, a Model 2000HAB EPC and a linearizer from L3 Narda Microwave West in Folsom, California. The C-Band TWTAs will be integrated into Orbital's STAR-2 Spacecraft and will be launched into geosynchronous orbit in 2004.

Orbital develops and manufactures small space systems for commercial, civil government and military customers. The company's primary products are spacecraft and launch vehicles, including low-orbit, geostationary and planetary spacecraft for communications, remote sensing and scientific missions; ground- and air-launched rockets that deliver satellites into orbit; and missile defense boosters that are used as interceptor and target vehicles. Orbital also offers space-related technical services to government agencies and develops and builds satellite-based transportation management systems for public transit agencies and private vehicle fleet operators. More information about Orbital can be found at <http://www.orbital.com>.

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses. Headquartered in St. Louis, Boeing Integrated Defense Systems is a \$25 billion business. It provides systems solutions to its global military, government and commercial customers. It is a leading provider of intelligence, surveillance and reconnaissance; the world's largest military aircraft manufacturer; the world's largest satellite manufacturer and a leading provider of space-based communications; the primary systems integrator for U.S. missile defense; NASA's largest contractor; and a global leader in launch services.

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