
ThinKom IFC antennas prove interoperable with LEO, MEO, GEO satellites

By **Jane Hobson** on June, 23 2020 | Connectivity & Satellites



[ThinKom Solutions, Inc.](#), has announced its Ku3030 aero satellite antennas have been installed on more than 1,550 commercial aircraft of 16 major airlines. The antennas have accrued more than 17 million flight hours and have achieved in excess of 100,000 hours mean-time-before-failure (MTBF) while supporting industry-leading 98 percent end-to-end system availability.

The Ku3030, underpinned by ThinKom's patented VICTS flat-panel phased array technology, is the core antenna subsystem employed by industry-leader [Gogo](#) in its 2Ku in-flight connectivity (IFC) systems.

ThinKom also reported the Ku3030 antennas recently completed successful OEM line-fit qualification testing by major airframe manufacturers.

"While we're proud of our impressive record of best-in-class performance and reliability metrics for our patented VICTS antenna technology to date, we're not resting on our laurels. We continue making operational software enhancements to further improve reliability and the network efficiency of our systems," said Bill Milroy, chief technology officer, adding that the software updates can easily be

uploaded to existing aircraft installations.

Ka-Band Products Commercially Available

ThinKom's Ka-band IFC antennas, using the same VICTS technology, are now in production. The Ka2517 antennas are fully operational on a fleet of U.S. government aircraft and are nearing introduction on several commercial airline fleets. Multiple supplemental type certificates (STCs) are in process and are expected to be awarded this year.

ThinKom has worked with Gogo to develop an economical and efficient process to convert 2Ku systems to Ka-band for airlines seeking to transition to a Ka IFC solution, according to the press release. This offering can be completed during overnight service.

On-Air Tests Confirm Multi-Constellation Interoperability

"We're looking to a future that will be characterized by multiple frequency bands and satellite constellations, and we're actively working to ensure our IFC solutions provide the required rapid switching speeds and agility to track and switch seamlessly and reliably between beams, satellites and constellations. The ability of ThinKom's VICTS antennas to effectively operate between satellite networks is the key enabler for IFC systems being able to operate globally and benefit from the lowest latency available," Milroy said.

In recent months, ThinKom's Ku- and Ka-band IFC antennas completed multiple ground and inflight tests demonstrating seamless interoperability across low-Earth orbit (LEO), medium-Earth orbit (MEO) and high-throughput geostationary (GEO) satellite constellations. The live on-air testbeds included OneWeb LEO, Telesat LEO 1 and SES' GEO and O3b MEO satellites.

The ThinKom antennas met or exceeded all test parameters, including spectral efficiency, data throughput rates, beam agility, switching speeds, ASI interference, low-angle tracking and inter-constellation roaming.

"The company has also confirmed that its antennas comply with the latest international regulatory requirements, including ITU Article 22, which restricts NGSO terminal emissions to GEO satellites, and the new WRC-19 ESIM rules to protect terrestrial 5G networks operating in the Ka-band from interference emitted by airborne satellite terminals," reads the press release.