

Radio Altimeter Faults – 5G or not to be 5G

This application note provides a solution to help isolate if 5G interference is the actual cause of a reported RADALT anomaly.

As the aviation industry learned about the possibility of 5G interference, pilots began to watch the aircraft's radio altimeter displayed altitude more closely. Because of the added attention, some anomalies that may have previously been ignored or unnoticed are now being written up as possibly caused by 5G interference. This brings up a couple of very important questions:

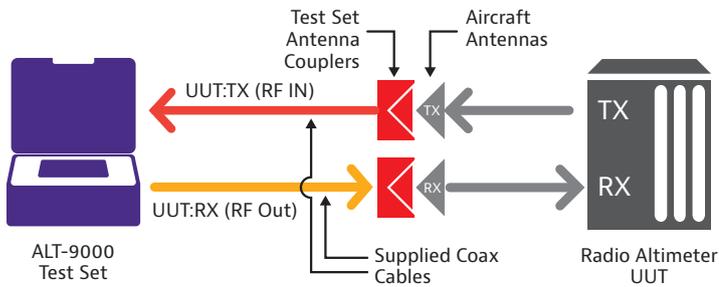
- Was the issue caused by 5G interference?
- What can be done to help maintenance personnel determine if issues were caused by 5G interference or a problem with the radio altimeter system itself?

These questions are best answered by ensuring that the radio altimeter system is functioning correctly by performing preflight and/or postflight testing of the system to determine if a problem exists. If you have confidence that the system is in good working order, then 5G interference could more likely be the cause of an inflight issue. This gives the operator and the avionics industry a better understanding if the issues related to 5G interference. *This would also ensure that reported RADALT anomalies are not assumed to be 5G interference and allowed to continue causing issues on future flights.*



Operators concerned with the effects of 5G towers on RADALTs should perform more testing to confirm system performance

Preflight testing could be performed during overnight service or during any maintenance downtime of the aircraft. This would confirm system operational integrity prior to flight and support the root cause of a reported issue as possible 5G interference.



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Verify system performance from the antenna to the LRU

Postflight testing could be performed after an inflight-reported issue. The postflight test could be performed once the aircraft is on the ground or during overnight maintenance to help determine if there were any issues that may have caused the reported inflight issue. Identifying and correcting a problem in the system would help eliminate issues on future flights and could help support the assumption that an inflight issue was caused by 5G interference.



ALT-9000 Radio Altimeter Test Set

The VIAVI ALT-8000 and ALT-9000 Radio Altimeter Test Sets provide a way to perform a quick, comprehensive, and *non-invasive* preflight or postflight test of the **complete** Radio Altimeter system. By utilizing the provided antenna couplers, maintenance personnel can ensure:

- Transmitter output parametrics are within tolerance
- Verification of receiver sensitivity
- Integrity of transmit/receive coaxes and antennas to ensure no RF loss is introduced into the transmit or receive signal path



Non-intrusive testing method using supplied couplers simulates flight conditions



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