

Telemetry, Telecommand and Telecontrol – one system solves all

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Abstract: UAV airframe, flight control and application developments today are such that flight test programs closely model those of their manned counterparts. Use of UAVs in habited and commercial airspace areas mean that flight certification too is now becoming a mandatory function. In some flight test and certification programs it is a requirement to induce vibrations into the airframe during flight and this is typically achieved by installing 'shakers' on board the test article. The additional control systems for these shakers adds weight (always a critical factor) and complexity to the test configuration.

This paper describes one such application, focusing on an innovative solution that combines the controller for the shakers with a data acquisition unit, providing a complete solution in a confined space. An architecture for the combined controller and acquisition unit is described. The solution used for the application is discussed.