ATS Instrument Panel (IP) Testing

Description

The ATS Automotive IP Test System is a Standard Product solution intended for full validation of Option Content, Assembly and Full Functional Testing of any standard Automotive Instrument Panel / Cockpit and is also applicable for Console or Door Module testing.

System utilizes a Windows based PC running ATS Test Executive. All test specific software is scripted. Allows Test Engineers to easily change, add, delete or re-configure tests via re-configure tests via script [password protected user levels].

Incorporated in every one of our test systems are ATS’ Non Destructive Electrical Test Connectors. These provide high integrity electrical connections in demanding repetitive manufacturing environments.

Components

- Clusters, Steering column module [SCCM], Air Bag control modules
- HVAC, Blower Motors, actuators, sun sensors
- Keyless Ignition Node [KIN], Keyfob & RKE programming
- Radio, Amplifier, Speakers, Hands Free Module [HFM]
- Shifter PRND, traction control button, window up\down\lock buttons, Bezel and trim colors

Tests

- Bus messages to confirm module part number, software\hardware version, initiate self-test, reset internal faults, set\enable programmable features, read data digital\analog values
- Source or sink 12V\6V\ground through low and high resistance, performing voltage and current measurements, generate PWM signals etc to test non bus diagnostic components

Features

- Custom load & measurement boards [ATS MUX card]. Scalable from 16 to 256 channels in one rack, multiple racks to achieve 512 or more IO
- Multiple bus protocols and/or baud rates simultaneous
- Execute tests sequentially and/or in parallel

Our Expertise Includes

- Interfacing to Plant Floor Host Systems
- Option Decoding
- Traceability [Air Bags, safety components, etc]
- Full Functional Testing, every circuit is verified
- Quiescent current analysis
- Continuity Testing, every wire-harness to electrical module connection is verified
- Communicating to automotive bus diagnostics (CAN, LIN, K-Line, Class 2, SCP, etc…)
- Custom electrical test connectors. Pigtail or Table Mount styles. Custom continual flex cable harness utilizing quick change

Contact ATS directly for custom or product specific applications beyond the scope of this document.

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