
Fieldcomm Group WirelessHART Registration Engineering Services



Certification Services

Center offers various certification, device interoperability and debugging support engineering services to customers interested in certifying WirelessHART field instruments and products

Focus is on helping customers swiftly obtain Fieldcomm WirelessHART registration reducing time-to-market

Vetted team of experts with in-depth domain knowledge and experience with WirelessHART technologies

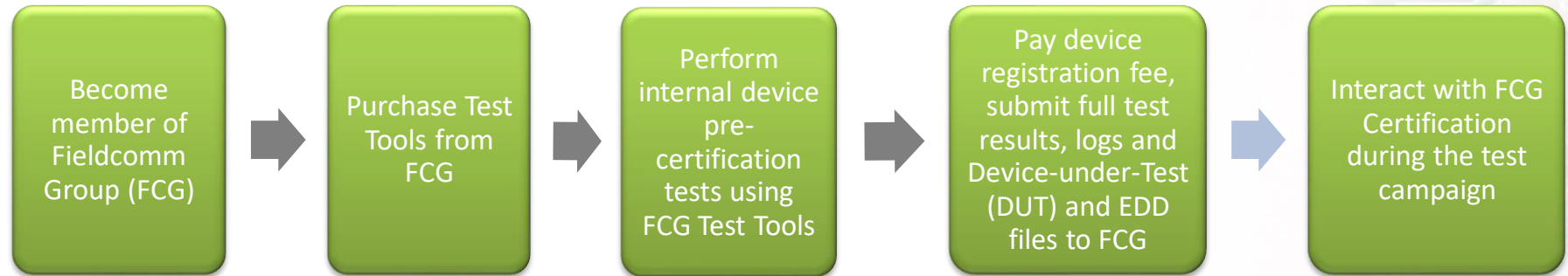
Typically requires cross-disciplinary expertise – firmware and hardware engineering support

Fieldcomm WirelessHART Certification Process



Fieldcomm WiHART Certification Process

- Fieldcomm WiHART certification process requires testing and certification/registration of:
 - WirelessHART field instrument
 - EDD files associated with the field instrument



FCG WirelessHART Field Instrument Certification Requirements



Test	Description	Comments
HART Maintenance Port – FSK PHY	Physical layer testing of the HART maintenance port	Ensures that you can connect to a HART loop or configuration/maintenance tool
WirelessHART module wireless- PHY compliance	IEEE 802.15.4 compliance tests Wireless compliance test results (FCC, ETSI etc) Antenna radiation patterns	Provided by wireless module manufacturer (Centero) – except antenna radiation pattern
Token Passing DLL Tests	Both slave/master tests run for both wired/wireless interfaces	
TDMA Data-link and Mesh Network Layer	Both device and system level tests	
Application Layer Universal Commands	Both wired/wireless interface tests	
Application Layer Common Practice Commands	Both wired/wireless interface tests	
System Level Tests	Ensure proper functionality in a mesh network composed of 15+ WiHART field instruments and interoperability with instruments from other vendors	These tests alone take up to 6 weeks as they are long-term endurance functionality and interoperability tests



FCG WirelessHART Field Instrument Registration Fees

Description	Pre-tested WirelessHART Field Instrument (single)	Pre-Tested WirelessHART Family (<i>Devices with same Manufacturer ID and Device Type but different model names due to physical sensors or configuration, single EDD for entire family</i>)	Duration/Comments
Testing Fee	\$1,500 per testing campaign	\$2,450 for each testing campaign	Typical FCG advertised campaign duration is 6-8 weeks. Realistically up to 4-6 months (1-2 testing campaigns) depending on how many issues found
Registration fee	\$2,000	\$5,000 for entire family of products	

Note: Please consult Fieldcomm's website for the latest registration fees.

FCG WirelessHART EDD Registration Requirements and Fees

- Separate certification/registration process
- Typically submitted at the same time with the field instrument
- Requires submissions of:
 - Source Files
 - SDC Test Logs
 - Product Documentation
 - Host Application Test Logs

Description	Fee (for members)	Duration/comments
Testing Fee	\$500 per testing campaign	Typical FCG advertised campaign duration is 2-4 weeks – run in parallel with the field instrument testing campaign so realistically minimum 3 months
Registration fee	Included in initial field device registration fee \$2,000 if submitting on its own	

Testing Tools Needed

Note: Please consult Fieldcomm's website for the latest costs.



Tool	Description	Cost (for FCG members)
WirelessHART Test System	Data Link Layer and Application Layer test system for WirelessHART products. The WirelessHART Test System is an add-on to the HART Test System and includes WirelessHART Access Points and test automation.	\$4,850
HART Test System	Hardware and software system that supports HART product development and, once development is completed, is used to test the resulting. The HART Test System includes HTest (a programmable Host Application) HSniffer (a HART bus analyzer) and test automation to assess HART Data Link and Application Layer conformance.	\$4,350
HART Physical Layer Test Kit	Software and hardware tools used to test HART Frequency Shift Keying (FSK) Physical Layer conformance.	\$1,310
WirelessHART WiAnalys	WiAnalys is a WirelessHART packet sniffer / network analyzer. WiAnalys captures and deciphers WirelessHART communications enabling product development and compliance assessment. WiAnalys includes a FieldComm Group proprietary 16-channel IEEE 802.15.4 receiver that can capture radio communications on all channels simultaneously.	\$5,750
HART FSK Physical Layer Test Interface (Modem)	FSK Modem	\$650
TOTAL COST		\$16,910

Fieldcomm WirelessHART Certification Engineering Services



WirelessHART Pre-Certification Basic

Description and Tasks

- **Includes the following:**
 - Product setup and configuration
 - Compliance testing of WirelessHART field instrument - **for one model**
- **Deliverables:**
 - Detailed test reports
 - Log investigation and recommendation for firmware changes reports
- Will use Centro's licensed HART/WiHART compliance testing tools – hardware, software and firmware
- Assumptions:
 - Product is ready for test suite needs (hardware, firmware)

Duration	4-6 Weeks
Cost	Contact Centro

WirelessHART Pre-Certification Premium

Description and Tasks

- **Includes the following:**
 - Product setup and configuration
 - Compliance testing of WirelessHART field instrument – **for one model**
 - Investigate and fix issues in source code
 - Re-testing as needed until all tests are passed
 - Includes 200 hours of cross disciplinary engineering support (hardware, firmware, software, compliance expertise)
 - **Deliverables:**
 - Detailed test reports
 - Firmware files (source and object code) that includes necessary fixes
- **Assumptions:**
 - Product is ready for test suite needs (hardware, firmware)
 - Requires access to application processor source code

Duration	8 - 10 Weeks
Cost	Contact Centero

WirelessHART Turnkey Certification

Description and Tasks

- **Includes the following:**
 - Product setup and configuration
 - Compliance testing of WirelessHART field instrument and EDD – **for the entire product family**
 - Investigate and fix issues in source code
 - Includes an unlimited number of hours of cross-disciplinary engineering support (hardware, firmware, software, compliance expertise)
 - Re-testing as needed until all tests are passed
 - Prepare documentation, reports and log package for submission to FCG
 - Interact with FCG certification team until product receives certification/registration
 - Includes all FCG testing and registration fees for a family of products of up to 3 models and EDD file
- **Deliverables:**
 - Detailed test reports
 - FCG WirelessHART certification package submitted (reports, documents, logs, etc)
 - Firmware files (source and object code) of certified/registered field instrument
- **Assumptions:**
 - Product is ready for test suite needs (hardware, firmware)
 - Requires access to application processor source code

Contact

For additional information please visit

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