



# SMARTMESH® IA-510 SmartStart Kit

WirelessHART®

**PRODUCT DESCRIPTION** > Dust Networks' WirelessHART® SmartStart™ Kit is designed to speed the development and testing of new WirelessHART products. The SmartStart Kit supplies everything needed to design, develop, test, and roll out new WirelessHART-compliant sensor networking solutions, including:

- Hardware – a network manager and 15 mote modules, 10 of which are equipped with a general purpose microprocessor to enable network formation and operation, RF certified for FCC, IC, and CE
- Network – a preconfigured SmartMesh IA-510 intelligent network with GUI and dynamic bandwidth to demonstrate multiple processes
- Software – libraries, code samples, sample WirelessHART command definitions and utilities to accelerate development
- Dust Networks' documentation package – helps speed development, testing, and WirelessHART device certification

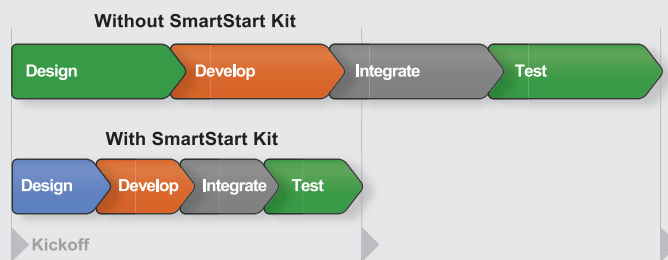
OEMs using the Dust Networks SmartStart Kit can dramatically shorten development time—often going from concept to WirelessHART product in half the time required by most WirelessHART development cycles.

## KEY BENEFITS

- ❑ Easy-to-use, easy to deploy wireless sensor networking solution
- ❑ Ultra low power performance coupled with carrier class reliability
- ❑ Extensive documentation simplifies mote integration into WirelessHART field devices
- ❑ Evaluation module includes general purpose microprocessor to enable network formation and operation
- ❑ Software libraries, code samples and development utilities accelerate software development

## KIT CONTENTS

- ❑ D2511 packaged manager
- ❑ 10 EV2510 evaluation modules
- ❑ 5 DV2510 development modules
- ❑ Sample HART application executable and source C code interface libraries
- ❑ Extensive documentation, including application notes, user guides, datasheets, and a WirelessHART integration guide



**ABOUT SMARTMESH IA-510** > IA-510 is a WirelessHART-compliant Wireless Sensor Network system. The SmartMesh® IA-510 system offers industrial automation vendors an industry-leading standards-based system that delivers flexible, secure solutions. The SmartMesh IA-510 system consists of the PM2511 embedded network manager and two mote form factors: the DN2510 Mote-on-Chip™ and the M2510 RF-certified mote module. SmartMesh IA-510 systems are easy for industrial automation vendors to integrate and simple for end users to deploy.

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## KIT CONTENTS

DESCRIPTION	QTY	IA-510 EVALUATION KIT	IA-510 HART DEVELOPMENT KIT	IA-510 HART SMARTSTART KIT
Part Number		KT251001	HDEV251001	HDEVKT251001
Evaluation Kit:				
D2511 packaged manager (mesh networking manager)	1	•	•	•
EV2510 evaluation modules (mesh networking module)	10	•		•
DV2510 modules (signal breakout modules for development)	5		•	•
Evaluation GUI (includes Mesh Topology Viewer and Data Transport Utility)	1	•		•
IA-510 Evaluation Kit Guide	1	•		•
LVTTTL voltage converter	3		•	•
Dust Networks' WirelessHART Certification Support:				
041-0004 IA510 Mote Command List	1		•	•
041-0006 SmartMesh IA-510 HART Errata	1		•	•
041-0008 Product Note, Dust Template for HCF Lit-18	1		•	•
IA-510 Application Development Libraries:				
Serial handshake libraries			•	•
HDLC packet generation libraries			•	•
API library			•	•
IA-510 Software Utilities:				
Manager API HART command generator			•	•
Mote API HART command generator			•	•
User Documentation:				
IA-510 Development Kit Quick Start Guide	1		•	•
020-0028 DN2510 Datasheet	1		•	•
020-0027 M2510 Datasheet	1		•	•
020-0035 PM2511 Datasheet	1		•	•
040-0078 D2511 User Guide	1		•	•
040-0051 DN2510 Integration Guide	1		•	•
040-0057 M2510 Integration Guide	1		•	•
040-0080 PM2511 Integration Guide	1		•	•
040-0045 IA-510 Mote Serial API Guide	1		•	•
040-0044 IA-510 Manager XML API Guide	1		•	•
040-0046 IA-510 Manager Serial API Guide	1		•	•
040-0048 IA-510 Command Line Interface Guide	1		•	•
040-0056 IA-510 Admin Toolset Guide	1		•	•
040-0058 DN2510 Marking Specification	1		•	•
041-0002 Product Note, DN2510 and Industrial Locations	1		•	•
041-0058 Product note, M2510 and Industrial Locations	1		•	•
040-0053 IA-510 HART Integrator's Guide	1		•	•

## IA-510 EVALUATION KIT

- ☒ Demonstrate HART-based wireless sensor networking
- ☒ Evaluate SmartMesh IA-510 network performance

## WIRELESSHART CERTIFICATION SUPPORT

- ☒ Extensive testing across PHY, DLL/MAC, NET and APP layers
- ☒ Supporting documentation for OEM submission to HART Communication Foundation

## IA-510 APPLICATION DEVELOPMENT LIBRARIES

- ☒ Sample application source code
- ☒ Reusable software libraries and drivers

## IA-510 SOFTWARE UTILITIES

- ☒ Software developer utilities to exercise manager and mote APIs

## IA-510 USER DOCUMENTATION

- ☒ Hardware integration guides to speed OEM integration of Dust Networks' pre-engineered RF solution
- ☒ Software API guides provide details to Dust's rich and flexible functionality without complex coding
- ☒ HART integrator's guide to ensure seamless integration of Dust's wireless sensor networking solution and OEMs sensor technology

