



SMARTMESH® IA-510 Development Kit

LM2650

PRODUCT DESCRIPTION > Dust Network's IA-510 LM2650 Development Kit includes everything needed to design, develop, and test new LM2650-based sensor networking solutions. An LM2650-based network is optimized for small networks where both the manager and network devices may operate on battery, solar power, or line power. The Development Kit delivers the tools to enable OEM pilot deployments, and accelerate product integration and design verification, including:

- Hardware – a network manager and 10 mote modules, 8 of which are equipped with a general purpose microprocessor to enable network formation and operation, and 2 of which are signal breakout modules
- Software – application development libraries, code samples, sample command definitions, and utilities to accelerate development
- Dust Networks' documentation package – helps speed development, testing, and device certification

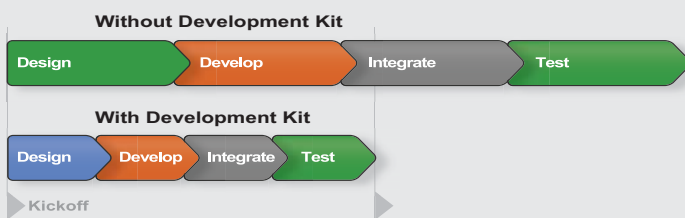
OEMs using the Dust Networks Development Kit can dramatically shorten development time—often going from concept to product in half the time typically required.

KEY BENEFITS

- ❑ Easy-to-use, easy to deploy wireless sensor networking solution
- ❑ Ultra low power performance coupled with carrier class reliability
- ❑ Evaluation modules represent a working reference design, allowing you to evaluate mesh network performance
- ❑ Development modules can connect directly to a sensor processor, providing for fast prototyping without hardware integration
- ❑ Extensive documentation simplifies mote and manager hardware and software integration into OEM devices
- ❑ Software libraries, code samples and development utilities accelerate software development

KIT CONTENTS

- ❑ DLM2650 packaged manager
- ❑ 8 EV2510 evaluation modules
- ❑ 2 DV2510 development modules
- ❑ Sample application executable and source C code interface libraries
- ❑ User documentation, including application notes, product guides, datasheets, and integration guides



ABOUT SMARTMESH IA-510 > Dust Networks' SmartMesh® IA-510 is an industry-leading wireless networking solution designed for critical monitoring and control applications. SmartMesh IA-510 serves a wide range of applications from renewable energy generation, such as solar monitoring, to factory machine health monitoring and data center energy management. The SmartMesh IA-510 system delivers dynamic network optimization and intelligent routing to achieve unsurpassed levels of wireless network scalability, system-wide reliability and low latency, coupled with industrial-class security. Additionally, ultra low-power operation permits even greater deployment flexibility for wire-free applications.

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KIT CONTENTS

DESCRIPTION	QUANTITY
IA-510 LM2650 Development Kit Hardware:	
DLM2650 Packaged manager (mesh networking manager)	1
DLM2650 power supply	1
DV2510 modules (signal breakout modules for development)	2
EV2510 modules (mesh networking modules)	8
LVTTTL voltage converters	2
International power adapter	1
Serial cable DB-9 cable	2
IA-510 Application Development Libraries:	
Serial handshake libraries	
HDLC packet generation libraries	
API library	
IA-510 Software Utilities:	
Manager API command generator	
Mote API command generator	
User Documentation:	
040-0089 IA-510 LM2650 Development Kit Guide	
020-0038 DN2510 Datasheet	
020-0037 M2510 Datasheet	
020-0041 LM2650 Datasheet	
040-0090 DLM2650 Manager User Guide	
040-0071 DN2510 Integration Guide	
040-0070 M2510 Integration Guide	
040-0076 LM2650 Integration Guide	
040-0084 IA-510 Mote Serial API Guide for LM2650	
040-0083 IA-510 LM2650 Manager Serial API Guide	
040-0091 IA-510 LM2650 Command Line Interface Guide	
040-0092 Integrator's Guide for LM2650 Systems	
040-0058 DN2510 Marking Specification	
LM2650 Product Guide (DLM2650, EV2510, DV2510)	
Product Notes	
Application Notes	

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
- ▣ Utilities and sample source code demonstrate API packet construction

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 Networks' rich and flexible functionality without complex coding

