

SNxxx-250, SNISDxxx SNRCM-250, SNXIDE-250, SNINSAD-2X

Complete, full-featured tool kits for ZigBee® based networks

Data Brief

Features

- Breakout boards with SN250 daughter board (8 with SNPRO-250, 3 with SNDEV-250)
- Multiple InSight Adapters (8 with SNPRO-250, 3 with SNDEV-250), Ethernet switch for host PC interface
- EmberZnet[™] ZigBee® compliant networking stack
- IDE environment with C compiler and source level debugger
- InSight Desktop PC Development Suite for debug of wireless nodes at protocol stack API level, includes
 - Network analyzer
 - Packet sniffer
 - SN250 firmware download
 - Supports multiple nodes (SNPRO-250 unlimited, SNDEV-250 - 3)
 - Supports multiple radio events (SNPRO-250 - unlimited, SNDEV-250 - 10,000)
- SN250 application examples
 - Sensor/sink
 - Light/switch
 - Range test
- Training for one person (SNPKC 250)



Description

The SNDEV-250 Development and SNPRO-250 Professional Kits from Ember are complete, full-leatured tool kits that offer all the hardware and software users need for deployment of wireless networks using SN250 microcontrollers for remote monitoring, sensing, and control-network applications based on the ZigBee® standard.

Table 1. Device sum nery

Reference	Part number	Description		
For complete d velopment kits				
SNxxx 200	SNPRO-250	8 SN250 nodes, PRO version of InSight Desktop		
	SNDEV-250	3 SN250 nodes, DEV version of InSight Desktop		
i-o kit components				
SNINSAD-2X	SNINSAD-2X	InSight Adapter		
SNRCM-250	SNRCM250	SN250 radio daughter board		
SNXIDE-250	SNXIDE-250	Single user license for xIDE		
SNISDxxx	SNISDDEV	Single user license InSight Desktop Development edition, supports up to 3 nodes and 10,000 radio events		
	SNISDPRO	Single user license InSight Desktop Professional edition, supports unlimited number of nodes and radio events		

1 Description

Based on the proven tool solution for Ember's EM250 and EM260 wireless networking devices, the SN250 Development and SN250 Professional Kits provide a complete hardware/software development environment and network system (3 or 8 nodes depending on the kit ordered) that uses the SN250 and the EmberZnet™ ZigBee® advanced wireless protocol stack.

For interface between the host PC during debugging and programming, the kits include InSight Adapters (3 or 8 depending on the kit ordered) with a 10-pin Insight connection to SN250 modules and an Ethernet switch for connection of multiple adapters to a host PC.

The kits facilitate application development with sample applications and a complete software tool set that includes Ember's InSight Desktop with Network Traffic Analyzer to display network and node activity in real time, as well as the xIDE development environment with C compiler for application building and debugging. InSight Desktop is delivered in two editions:

- InSight Desktop Development (SNISDDEV) edition which is included in the SN-250
 Development kits, supports up to 3 nodes and 10,000 radio events and includes a 6month support and maintenance agreement
- InSight Desktop Professional (SNISDPRO) edition which is included in the SN-250
 Professional kits, supports up an unlimited number of nodes and radio events and
 includes a 1-year support and maintenance agreement and a 2-day training for one
 person

In addition, developers using InSight Desktop Professional or the SN-250 Professional Kit benefit from Ember's hands-on ZigBee® training that includes the following topics and workshops:

- Network topologies and characteristics
- Common messaging models
- Commissioning strategies
- Application structure and stack integration
- Network efficiency
- Tool set use
- Fundamental messaging types
- Sensor network applications
- Distributed control applications
- Power management

2 Ordering information

Kits are available from STMicroelectronics (see order codes below) and ST distributors. All tools can be bought separately as spare parts, or as part of a complete starter kit.

Table 2. Ordering information

Order code	Description		
For complete development kits			
SNPRO-250	8 SN250 nodes, PRO version of InSight Desktop with 1-year support and maintenance agreement and 2-day training		
SNDEV-250	3 SN250 nodes, DEV version of InSight Desktop with 6-month support and maintenance agreement		
For kit components			
SNINSAD-2X	InSight Adapter		
SNRCM-250	SN250 radio daughter board		
SNXIDE-250	Single user license for xIDE		
SNISDDEV	Single user license InSight Desktop Development edition, supports up to 3 nodes and 10,000 radio events, 6-month support and maintenance agreement		
SNISDPRO	Single user license InSight Desktop Professional edition, supports unlimited number of nodes and radio events, 1-year support and maintenance agreement and 2-day training		

For more information

For additional information about STMicroelectronics' SN250 devices including datasheets, user manuals, downloads and support, as well as development kit contents and ordering, please refer to www.st.com.

For details about development kit characteristics, user documentation and tool training, please refer to www.ember.com/products_zigbee_development_tools.html.

3 Revision history

Table 3. Document revision history

Date	Revision	Changes
14-May-2007	1	Initial release.
21-May-2007	2	Updated cover page and product number information.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2007 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

47/

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

STMicroelectronics:

SNDEV-250 SNISDPRO SNXIDE-250 SNISDDEV SNINSAD-2X