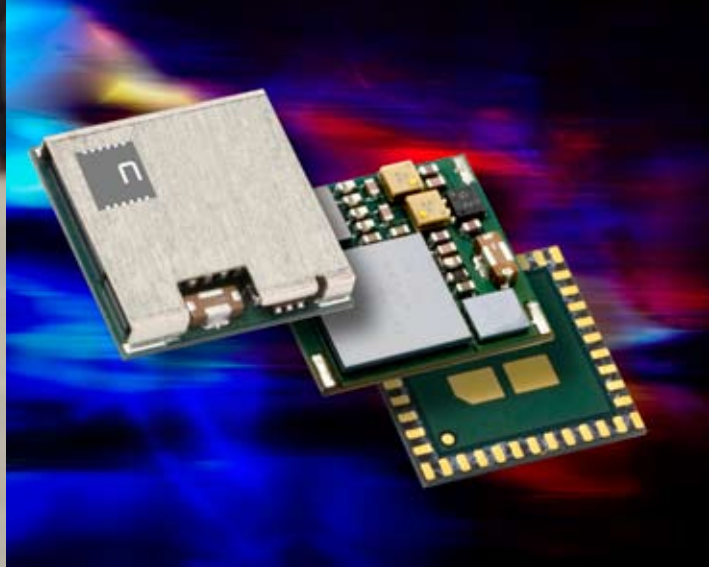
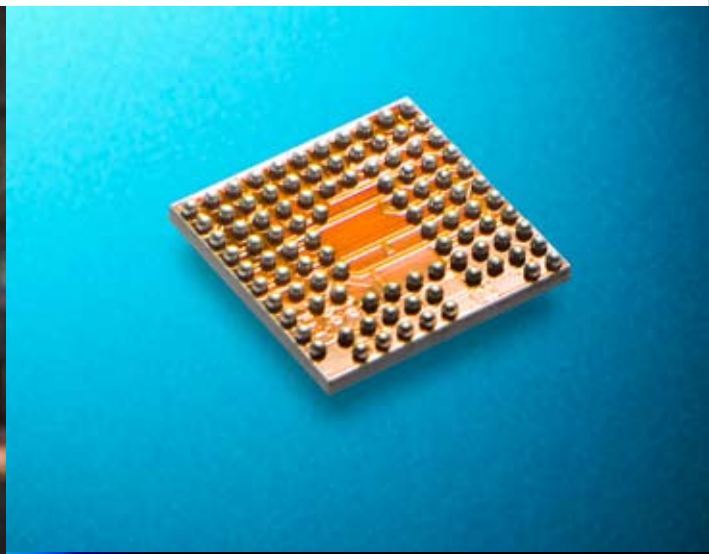


Short form catalogue 2011



Always On WiFi™

Short description

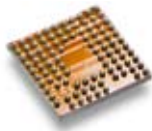
Nanoradio AB has developed the smallest and most power efficient Wi-Fi solutions in the world, for battery operated mobile devices like:

Mobile phones, VoIP phones, tablets (MID), multimedia devices (Mobile gaming terminals, portable multimedia players, digital cameras, positioning devices and E-book readers) and headsets. Nanoradio AB is now broadening its offerings by developing solutions including further connectivity features, e.g. Bluetooth. The Nanoradio solutions are offered as Wi-Fi chipset or as complete modules from our global module partners.

PRODUCTS

NRX600 - 802.11 b/g true one chip (COB)

High performance 802.11 b/g true one chip for direct PCB mounting, designed to handle the 802.11 b/g standards. This ultra low power chip is optimized for use in battery operated mobile devices, due to one chip power management. Totally integrated RF front-end including RF-PA, LNA and antenna switch. Superior BT coexistence performance.



NRX605 - 802.11 b/g/n (2.4GHz) true one chip (COB)

High performance 802.11 b/g/n true one chip for direct PCB mounting, designed to handle the 802.11 b/g/n standards (2.4GHz). Totally integrated RF front-end including RF-PA, LNA and antenna switch.

NRX700/2 – 802.11b/g core chipset architecture for Mobile Devices

The NRX700/2 includes the radio IC NRX511 and the baseband/MAC IC NRX701. The NRX511 is a world class 2.4GHz radio IC with integrated RF frontend, designed for Wi-Fi (802.11b/g) mobile phone applications, with just 2 x 2 mm footprint. The NRX701C is a high performance baseband/MAC IC using a unique architecture developed by Nanoradio, ensuring minimized power consumption and maximum system performance, using only 4 x 4 mm footprint.



NRG731 - 802.11b/g single chip System in Package (SiP) for Mobile Devices

The NRG731 is 802.11bg compliant Wireless LAN System-in-Package (SiP) solution. This ultra-low power circuit is optimized for use in mobile phones and supports full co-existence with Bluetooth chips. A high performance SIP 2G and 3G filter is implemented for use in mobile phones. Wi-Fi Certifications including 802.11b/g, WPA, WPA2, WMM, UMA support.



NRG831 - 802.11b/g/n single chip System in Package (SiP) for Mobile Devices

The NRG831 is 802.11b/g/n compliant Wireless LAN System-in-Package (SiP) solution. This ultra-low power circuit is optimized for use in mobile phones and supports full coexistence with Bluetooth chips. Wi-Fi Certifications including 802.11b/g/n, WPA, WPA2, WMM, UMA support.

NRG800 - Combo WLAN 802.11b/g/Bluetooth single chip System-in-Package (SiP) for mobile devices.

The NRG800 is a complete Wireless LAN/ Bluetooth® Combo System-in-Package (SiP) Solution for Mobile devices. The NRG800 delivers a complete and fully tested implementation of 802.11b/g and Bluetooth functionality. Best WiFi/BT coexistence on the market.

NRG850 - Combo WLAN 802.11b/g/n/Bluetooth single chip System-in-Package (SiP) for mobile devices.

The NRG850 is a complete Wireless LAN/Bluetooth® Combo System-in-Package (SiP) Solution for Mobile devices. The NRG850 delivers a complete and fully tested implementation of 802.11b/g/n and Bluetooth functionality. Best WiFi/BT coexistence on the market.

FIRMWARE (executing on the embedded CPU)

The firmware includes three parts:

- X-MAC which is the normal communication firmware downloaded to the baseband/MAC IC memory.
- X-Test, test firmware supporting easy bench testing. Detailed data response.
- X-TestP, test firmware for automated production testing. Simplified data response.

The Nanoradio SW is WiFi pre-certified.

Wi-Fi SW DRIVERS

The Nanoradio X-MAC is available for different HW platforms including Windows CE, Linux or Android OS and several known mobile platforms proprietary OS's.

DRF001/2/2

DRF001/2/2 is the SW development platform for porting to the customers platform in a Windows CE SW environment. The package includes necessary source code to enable full porting and development of customer defined functions and only submitted under a SLA (Software License Agreement).

DRF001/3/2

DRF001/3/2 is the SW development platform for porting to the customers platform in a Linux OS or Android OS environment. The package includes necessary source code to enable full porting and development of customer defined functions and is submitted under a SLA.

EVALUATION AND DEVELOPMENT TOOLS

NRA02X and ORA003/005 Evaluation kit

The ORA003 (with CardBus connector) and ORA005 (with USB connector) are motherboards that act as the base in the new modular evaluation kits. These boards accept both SD cards with different Wi-Fi solutions and more advanced test set up. ORA003 is equipped with a CardBus interface and ORA005 is equipped with USB interface for easy testing using laptop running Windows XP. The NRA02x are SD cards with various Wi-Fi solutions for easy testing. Available SD cards are:

- NRA020 with the NRX700/2 chipset reference design
- NRA023 with the NRG731 SiP module
- NRA024 with the NRG800 BT/WiFi Combo SiP module
- NRA033/034 with NRX600/605 True one chip WiFi.

Products

Product no	Brief Features	Pack. and order info.
NRX600	High performance 802.11 b/g true one chip for direct PCB mounting (COB).mobile phones.	Part No. NRX600: WL-CSP 99 Pins. Total Size 19.5 mm2 400um pitch
NRX605	High performance 802.11 b/g/n (2.4GHz) true one chip for direct PCB mounting (COB).	Part No. NRX605: WL-CSP 99 Pins. Total Size 19.5 mm2 400um pitch
NRX700/2	The NRX700/2 is a 2.4GHz Wi-Fi (802.11b/g) chipset consisting of the NRX511radio IC, including an integrated +21 dBm PA, and the NRX701 high performance baseband IC, intended for use in mobile phones.	NRX511 CSP WL-CSP 42 pins, 2x2 mm NRX701C CSP WL-CSP 102 pins, 4x4 mm
NRG731	The NRG731 is 802.11bg compliant Wireless LAN System/in/Package (SiP) solution for Mobile Phones. UMA support	Package 7,1x7,7x1,3 mm PoHs compliant QFN
NRG831	802.11 b/g/n compliant wireless LAN SiP solution for Mobile Phones. UMA support	6.8x7.3x1.2 mm RoHs compliant
NRG800	The NRG800 is a completed Wireless LAN/Bluetooth® Combo System/in/Package (SiP) Solution for Mobile devices.	Package 8.1x8.2x1.25 mm QFN
NRG850	Complete Wireless LAN/Bluetooth Combo SiP solution for Mobile devices.	7.7x9.2x1.25 mm RoHs compliant

Evaluation and development tools

NRA020	SD card using NRG740 PCB module. The SD card can be used for testing either with the ORA003 motherboard or a development platform.	Box (PCB, SW and manuals)
NRA023	SD card using NRG731 SiP module. The SD card can be used for testing either with the ORA003 motherboard or a development platform.	Box (PCB)
NRA024	SD card using NRG800 BT/WiFi Combo SiP module. The SD card can be used for testing either with the ORA003 motherboard or a development platform Q2-09.	Box (PCB)
NRA033/034	SD card using NRX600/605 true one chip for direct PCB mounting (COB). The SD card can be used for testing either with the ORA005 motherboard or a development platform Q2-2010.	Box (PCB)
ORA003	General test mother board for testing of both SD cards and more advanced test set up. The ORA003 uses a CardBus interface for communicating with a laptop computer.	CD
ORA005	General test mother board for testing of both SD cards and more advanced test set up. The ORA005 uses a USB interface for communicating with a laptop computer.	CD
DRF001/2/2	Windows CE Software Development Kit (SDK) for porting to customer specific HW platform. Note: Provided under Software License Agreement (SLA).	CD
DRF001/3/2	Linux Software Development Kit (SDK) for porting to customer specific HW platform. Note: Provided under Software License Agreement (SLA).	CD

Reference designs

NRG740	Chipset reference design on PCB using NRX700/2 chipset.	25 x 13 mm
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易迪拓培训(www.edatop.com)由数名来自于研发第一线的资深工程师发起成立,致力并专注于微波、射频、天线设计研发人才的培养;我们于 2006 年整合合并微波 EDA 网(www.mweda.com),现已发展成为国内最大的微波射频和天线设计人才培养基地,成功推出多套微波射频以及天线设计经典培训课程和 ADS、HFSS 等专业软件使用培训课程,广受客户好评;并先后与人民邮电出版社、电子工业出版社合作出版了多本专业图书,帮助数万名工程师提升了专业技术能力。客户遍布中兴通讯、研通高频、埃威航电、国人通信等多家国内知名公司,以及台湾工业技术研究院、永业科技、全一电子等多家台湾地区企业。

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课程网址: <http://www.edatop.com/peixun/rfe/110.html>

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该套课程全面讲授了当前手机天线相关设计技术,内容涵盖了早期的外置螺旋手机天线设计,最常用的几种手机内置天线类型——如 monopole 天线、PIFA 天线、Loop 天线和 FICA 天线的设计,以及当前高端智能手机中较常用的金属边框和全金属外壳手机天线的设计;通过该套课程的学习,可以帮助您快速、全面、系统地学习、了解和掌握各种类型的手机天线设计,以及天线及其匹配电路的设计和调试...

课程网址: <http://www.edatop.com/peixun/antenna/133.html>



WiFi 和蓝牙天线设计培训课程

该套课程是李明洋老师应邀给惠普 (HP)公司工程师讲授的 3 天员工内训课程录像,课程内容是李明洋老师十多年工作经验积累和总结,主要讲解了 WiFi 天线设计、HFSS 天线设计软件的使用,匹配电路设计调试、矢量网络分析仪的使用操作、WiFi 射频电路和 PCB Layout 知识,以及 EMC 问题的分析解决思路等内容。对于正在从事射频设计和天线设计领域工作的您,绝对值得拥有和学习!...

课程网址: <http://www.edatop.com/peixun/antenna/134.html>



CST 学习培训课程套装

该培训套装由易迪拓培训联合微波 EDA 网共同推出,是最全面、系统、专业的 CST 微波工作室培训课程套装,所有课程都由经验丰富的专家授课,视频教学,可以帮助您从零开始,全面系统地学习 CST 微波工作的各项功能及其在微波射频、天线设计等领域的设计应用。且购买该套装,还可超值赠送 3 个月免费学习答疑...

课程网址: <http://www.edatop.com/peixun/cst/24.html>



HFSS 学习培训课程套装

该套课程套装包含了本站全部 HFSS 培训课程,是迄今国内最全面、最专业的 HFSS 培训教程套装,可以帮助您从零开始,全面深入学习 HFSS 的各项功能和在多个方面的工程应用。购买套装,更可超值赠送 3 个月免费学习答疑,随时解答您学习过程中遇到的棘手问题,让您的 HFSS 学习更加轻松顺畅...

课程网址: <http://www.edatop.com/peixun/hfss/11.html>

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- ※ 经验丰富的一线资深工程师讲授,结合实际工程案例,直观、实用、易学

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