

NX5220

WEDGE Nona-Band CMOS Transceiver RFIC with Category 10 HSDPA, RX Diversity, Japan Band XI, and DigRF3G Interface



Features

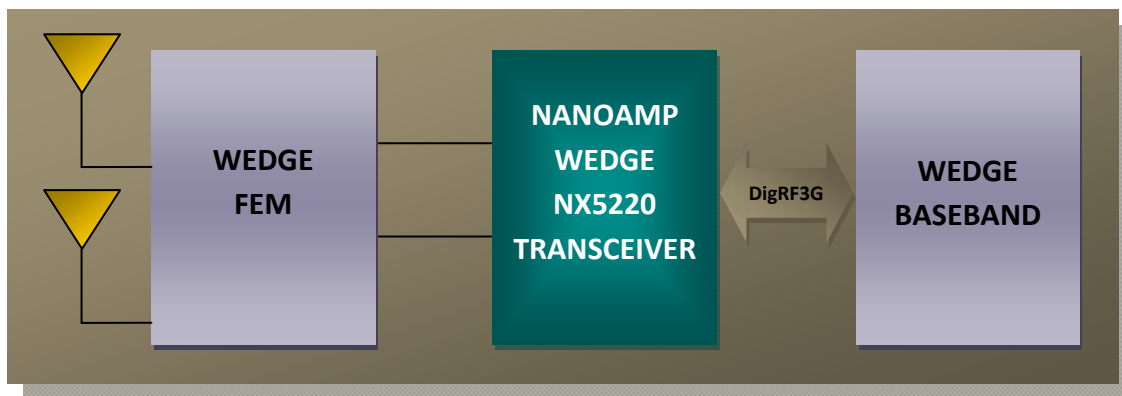
- True Nine-Band GSM/GPRS/WCDMA Capability
- Dedicated Band XI Support for Japan Market
- Category 10 HSDPA 14.4 Mbps Support
- Category 6 HSUPA 5.8 Mbps Support
- Class 12 Multi-Slot GPRS Support
- Fully Compliant DigRF3G Baseband Interface
- Simultaneous 2G/2.5G and 3.5G RX Processing
- Bidirectional 2G/2.5G and 3.5G Handoff Support
- Flexible Linear and Polar Compatible TX
- Ultra Low Deep-Sleep Mode Current
- 65 nm Mixed-Signal CMOS Technology
- Integrated Σ - Δ Synthesizer, VCO, and Loop Filter
- Dual Supply Operation with 2.7 V and 1.2 V
- 7 mm x 7 mm BGA ROHS Compliant Package

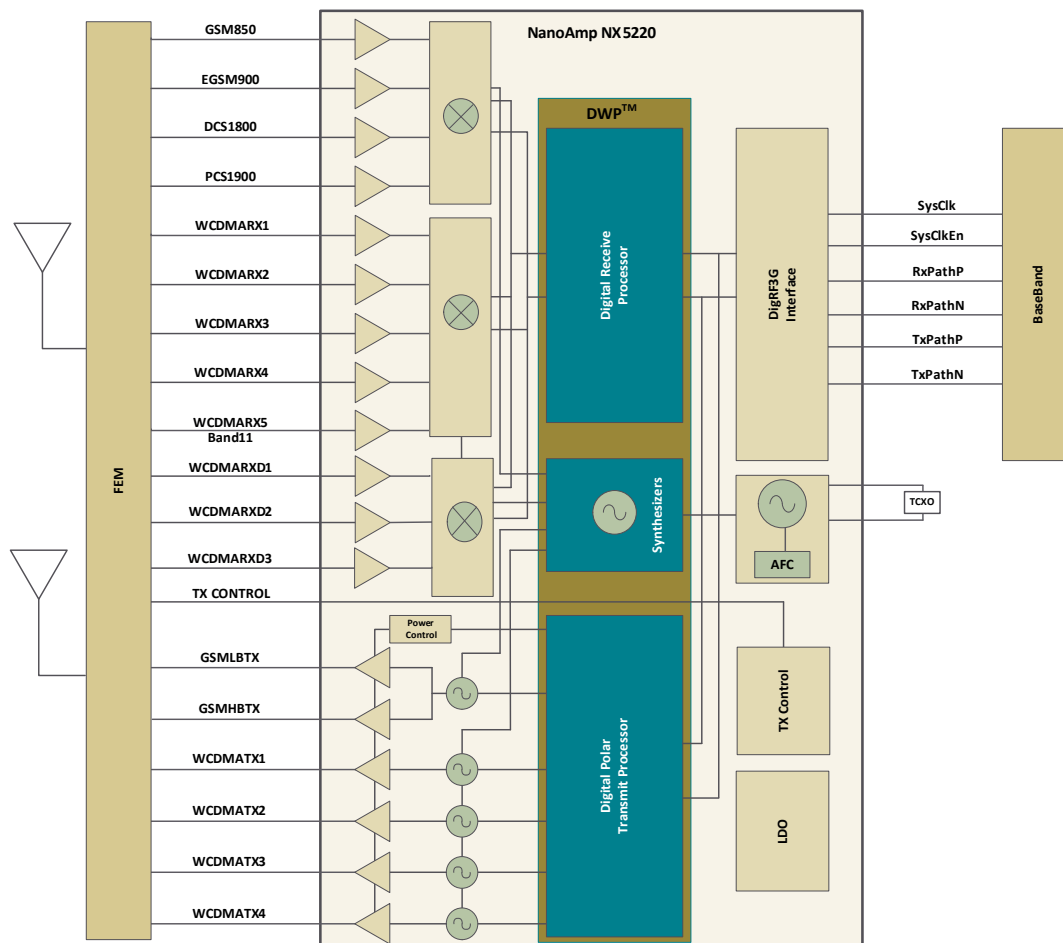
Benefits

- Enables Feature-Packed 3.5G Smart-Phones & Multimedia with Ultra-Broadband Capability
- Seamless Multi-Standard Ultra-Global Coverage Spanning Bands I, II, III, IV, V, VI, VIII, IX, X and XI
- Ultra-Low Power Consumption Provides Superior Voice and Streaming Mode Battery-Life
- Scalable 65 nm CMOS
- Removed WCDMA RX/TX SAW Filters for BOM Reduction
- DigRF3G Baseband Interface Simplifies Design
- Future-Proof TX Compatible with Both Linear and Polar Power Amplifiers and FEMs

Applications

- WEDGE Nona-Band Smart-Phones
- WEDGE Nona-Band Multimedia Appliances
- WEDGE Nona-Band USB Dongles and Laptops





Product Description

The NanoAmp Solutions NX5220 is a Non-Band CMOS WEDGE RFIC transceiver solution targeting smart-phones, multimedia appliances, and laptops offering ultra-broadband with GSM/EDGE and WCDMA Bands I, II, III, IV, V, VI, VIII, IX, X and XI connectivity. The NX5220 integrates a Class 12 GSM/GPRS/EDGE, Category 10 HSDPA, and Category 6 HSUPA WEDGE transceiver and DigRF3G interface providing seamless multi-standard multi-band global connectivity with superior battery-life.

Based on the patent-pending NanoAmp Solutions Digital Wireless Processor (DWP™) architecture, the NX5220 delivers superior performance while achieving power requirements far less than similar SiGe or BiCMOS processes, offering superior battery-life over all use models. Full integration of the transmitter, receiver, and synthesizer eliminates external SAW filters, several radio ICs, and up to 100 external components, lowering eBOM, minimizing board area, enhancing functionality, and maximizing performance.

The transceiver features the all-digital DWP standards-agnostic architecture that provides complete functionality in the digital-domain, finally placing radio chip design on the Moore's cost and scaling trajectory. Fully programmable and scalable radio processing enables the DWP to seamlessly process GSM, EDGE, and WCDMA signals with a common digital pipelined architecture with a fully compliant DigRF3G baseband interface.

The NX5220 is the ideal solution to lower eBOM costs, reduce board area, and increase battery-life while offering industry-leading seamless global mobility for feature-packed smart-phones, multimedia appliances, and laptops.

© 2009 NanoAmp Solutions, Inc. All rights reserved.

NanoAmp Solutions, Inc. and the NanoAmp logo are trademarks of NanoAmp Solutions, Inc. All other trademarks are the property of their respective owners. NanoAmp Solutions, Inc. ("NanoAmp") reserves the right to change or modify the information contained in this data sheet and the products described therein, without prior notice. NanoAmp does not convey any license under its patent rights nor the rights of others. Charts, drawings and schedules contained in this document are provided for illustration purposes only and they vary depending upon specific applications.

NanoAmp makes no warranty or guarantee regarding suitability of these products for any particular purpose, nor does NanoAmp assume any liability arising out of the application or use of any product or circuit described herein. NanoAmp does not authorize use of its products as critical components in any application in which the failure of the NanoAmp product may be expected to result in significant injury or death, including life support systems and critical medical instruments.

Stock No. 23310 - Rev. B 03/09