ADRV9026
Quad-Channel, Wideband RF Transceiver Platform

200 MHz Bandwidth Integrated Radio Transceiver Solution

Smallest Size, Lowest Power Transceiver Solution for Base Transceiver Stations (BTS)
- Smallest size reduces footprint and enhances form factor flexibility
- 50% power consumption reduction over previous generation ADRV9009 for increased radio density
- Enables ORAN small cell designs with lowest system power and cost

Highly Integrated, High Performance Software-Defined Radio
- 2x integration over ADRV9009
- Supports up to 200 MHz bandwidth and covers all bands from 650 MHz to 6 GHz

Common Platform Design for 3G/4G/5G Reduces Complexity, Development Costs, and Time to Market
- Single-chip FDD/TDD solution simplifies hardware and software development
- Common API across multiple applications
- Reduces product development cycles for band and power variants
- Enables modular architecture for scalable radio solutions

See page 3 for future enhancements in the ADRV902x family roadmap

Applications
- Macro base stations
- Massive MIMO
- Small cell designs

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ADRV9026 Quad-Channel, Wideband RF Transceiver Platform
ADRV9026 Overview

► Four differential transmitters
► Four differential receivers
► Two observation receivers with two inputs each
► Center frequency: 650 MHz to 6000 MHz
► Maximum receiver bandwidth: 200 MHz
► Maximum transmitter bandwidth: 200 MHz
► Maximum transmitter synthesis bandwidth: 450 MHz

See roadmap below for future enhancements

ADRV9026 Family Roadmap

Enhanced features and functions will be added to the ADRV9026 over time, including:

► 25 Gbps SERDES support
► Extending LO frequency range down to 75 MHz
► Support for an external LO
► Filter Wizard to generate custom profiles

An enhanced version from the ADRV902x family will be released in 2020 with integrated DPD and CFR, reducing FPGA requirements, as well as lowering total system power and cost.

RadioVerse Ecosystem and Partnerships

RadioVerse® is a design and technology ecosystem for advanced radio design and development. We offer market-leading integrated transceiver technology, software tools, evaluation and prototyping platforms, a range of reference designs, and radio solutions. RadioVerse is building up a global partnership network to provide customers all levels of design support. ADRV9026’s partner network and reference design ecosystem will be launched on analog.com/radioverse in 2020.

Evaluation System

The evaluation system comprises an FPGA carrier board ADS9-V2EBZ and a radio daughtercard, coming with two frequency bands of matching: –HB for 2.8 GHz to 6 GHz and –MB for 650 MHz to 2.8 GHz. Compatible evaluation software is provided for download, including API library, Windows GUI, and a binary image for FPGA configuration.

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<th>Radio Cards</th>
<th>Carrier Boards</th>
<th>Software and Driver</th>
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<td>ADRV902X-HB/PCBZ</td>
<td>ADS9-V2EBZ</td>
<td>Operating system-agnostic API source in ANSI C</td>
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<td>(for 2.8 GHz to 6 GHz)</td>
<td>(FPGA motherboard with Xilinx® UltraScale+™)</td>
<td>Windows GUI for transceiver configuration and data capture</td>
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<tr>
<td>ADRV902X-MB/PCBZ</td>
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<td>Binary image for FPGA configuration</td>
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Evaluation System

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