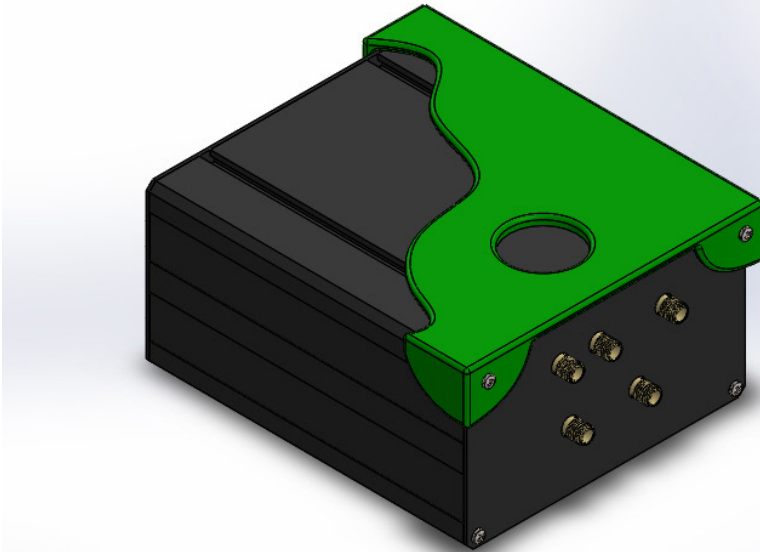


## RFX-9361-C2: DUAL CHANNEL, WIDEBAND RF TRANSCEIVER

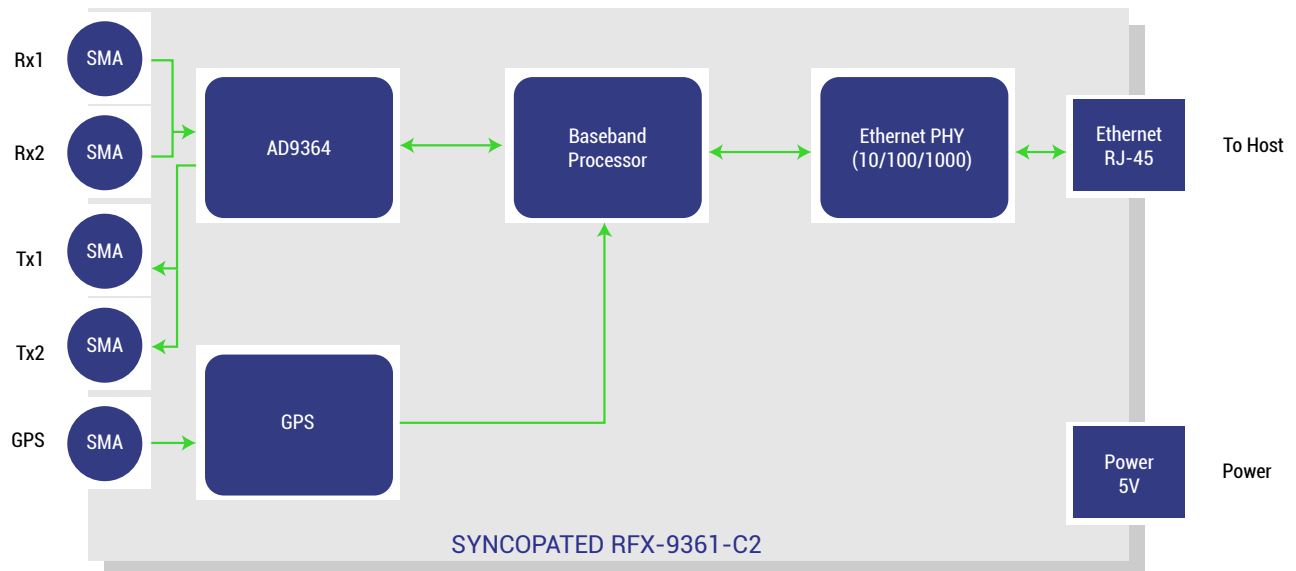


### PRODUCT OVERVIEW

As part of our CIELO Software Defined Radio (SDR) family of products, Syncopated is offering the RFX-9361-C2 dual channel, wideband RF transceiver that provides full-duplex wideband operation and MIMO support over an RF frequency range of 70MHz to 6GHz, with channel bandwidths up to 54 MHz. Our device includes GPS disciplined oscillators enabling improved frequency and timing accuracy, and the ability to create synchronized multi-device configurations. Device-to-host communications are provided via Ethernet including support for VITA49 to enable remote collection applications. Our device is fully integrated with REDHAWK and GNURadio SDR frameworks.

For SDR waveform developers developing custom wireless communications solutions, our wideband transceiver provides a flexible development platform fully integrated with open source SDR frameworks like REDHAWK and GNURadio enabling developers to quickly build applications that operate on live data and seamlessly incorporate existing waveform libraries. Our solution includes all the components necessary at the onset to enable a high-performance radio signal processing thread from RF to baseband – no daughter card, interface, or additional timing components necessary.

### BLOCK DIAGRAM



## SPECIFICATIONS

RF TRANCEIVER SPECIFICATIONS	
RF Input / Output	SMA (RX1, RX2, TX1, TX2) MIMO Support
RF Tuning	Range: 70 MHz to 6 GHz Min Step Size: 1kHz
RF Bandwidth	200 kHz to 54 MHz
Rx Gain	0-80dB, 1dB step size
Rx Noise Figure	< 8dB (typical)
Rx ADC (Analog-to-Digital converter)	Sample Rate: Up to 50 MHz Sample Width: 12 bits
Tx Gain	0-86dB, 0.25dB step size,
Tx Output Power	+10 dBm (typical)
Tx DAC (Digital-to-Analog converter)	Sample Rate: Up to 50 MHz Sample Width: 12 bits
GPS SPECIFICATION	
RF Input	SMA (GPS)
Number of Channels	50
Sensitivity	-162 dBm (navigation) -157 dBm (hot start) -148 dBm (cold start)
Accuracy	<2.5 meters
Hot Start / Cold Start	1 second / 26 seconds
SYSTEM REFERENCE CLOCK SPECIFICATION	
Type	Ovenized Voltage Controlled Crystal Oscillator (OCXO)
Frequency	10 MHz
Frequency Accuracy	±20 ppb
External Ref Clock Input	10 MHz (for phase locking)
External Synchronization	1PPS
POWER SPECIFICATIONS	
Power	5V DC
PHYSICAL SPECIFICATIONS	
Dimensions	4.8" x 4.1" x 2.36"
Environmental	Suitable for typical laboratory environment
HOST COMMUNICATIONS	
Ethernet	PHY: 10/100/1000 Ethernet Connector: RJ-45
SOFTWARE SPECIFICATIONS	
Device Driver	Linux CentOS
SDR Framework Support	REDHAWK GNU Radio

## ORDERING INFORMATION

You can order directly through the Syncopated Products web store at [www.SyncopatedProducts.com](http://www.SyncopatedProducts.com).

## ABOUT SYNCOPATED PRODUCTS

Syncopated Products, a Maryland Company, is a creative provider of custom products and solutions for Software Defined Radio (SDR) and hardware acceleration. Our products provide a flexible platform for engineers to use as a foundation for your system and application development efforts. Our solutions enable you to start further down the development path, reducing time-to-market and allowing you to focus on your innovative solution. Unlike large impersonal vendors, customization of our products for your specific needs is embraced not discouraged.

For Sales, please contact: [Sales@SyncopatedProducts.com](mailto:Sales@SyncopatedProducts.com) For Support, please contact: [Info@SyncopatedProducts.com](mailto:Info@SyncopatedProducts.com)

## CUSTOM APPLICATION DEVELOPMENT SERVICES

Unlike most product-only vendors, we are available and look forward to providing additional engineering development services to help you customize your wireless application and reduce time-to-market.

For Customization Services: [www.SyncopatedEngr.com](http://www.SyncopatedEngr.com) or [Info@SyncopatedEngr.com](mailto:Info@SyncopatedEngr.com)

*Note: Specifications are subject to change without notification.*

*Please consult the Syncopated Products website, ([www.SyncopatedProducts.com](http://www.SyncopatedProducts.com)) for the latest information.*