VANTEON®

WIRELESS SOLUTIONS

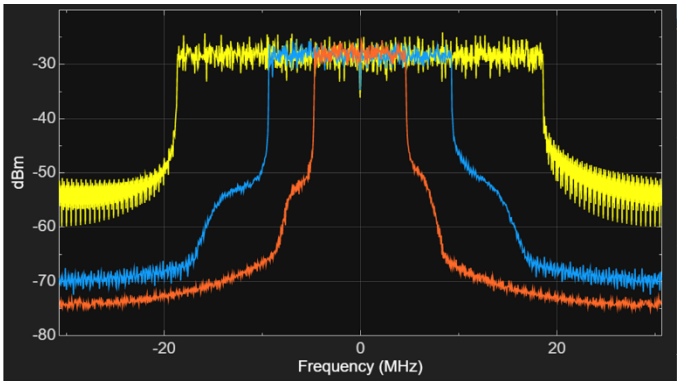
SOFTWARE

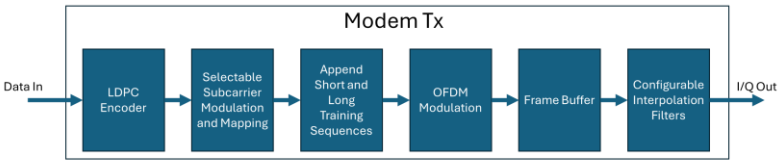
OFDM IP Core

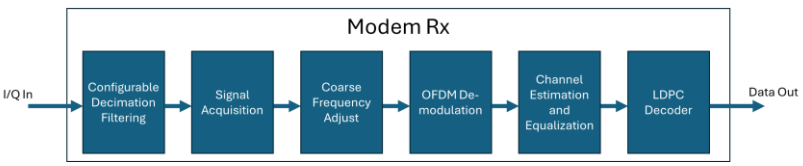
OFDM Modem IP Core

Orthogonal Frequency Division Multiplexing (OFDM) FPGA-based waveform IP core that supports both transmit and receive in a single instance of the core.

The OFDM Modem IP Core is an FPGA based waveform core that supports transmit and receive in a single instance of the core. The OFDM core is custom designed, not intended to comply with any wireless standard such as WiFi or LTE and can therefore offer diversity and security through obscurity. It is also intended to be further customized if needed.







Accelerate Your Design

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Use Cases

OFDM solutions offer multipath resistance, high spectral efficiency and scalability; making them optimal for a variety of applications:

- Defense and Military Applications
- Satellite Communication
- IoT and Industrial IoT Applications
- Vehicular Communications

Features

The fully licensable OFDM Modem IP Core offers the following key features:

- Compatible with Vanteon's vProtean+ and vProtean | M.2 SDR platforms.
- Also compatible with other FPGA-based SDR designs that utilize Analog Devices Transceivers or Xilinx RFSoCs
- Variable RF Bandwidth up to 40 MHz
- Variable modulation formats (BPSK, QPSK, & 16QAM) with bit rates up to 112 Mbps
- Custom configurations of subcarriers for data, pilot tones, and guard tones
- Simple and intuitive byte-level interface format for transmit and receive
- LPDC Forward Error Correction with ¾ Code Rate
- Short and long training sequences included
- Acquisition and synchronization logic built in
- Channel estimation and equalization included