

QAM MODULATION AND DEMODULATION KIT

Features

- The development board designed around a FPGA with associated circuitry, for the realization of QAM modulation/demodulation system.
- The system has facility for digital data inputs and outputs, along with switches.
- Facility for various test points must be provided.
- Facility of connector for FPGA programming through USB JTAG.

SPECIFICATIONS

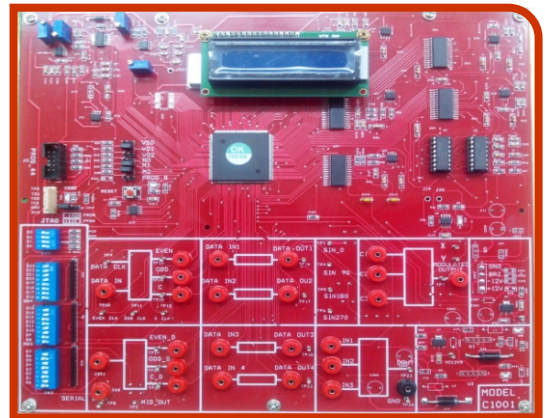
- Based on Xilinx Spartan 3E FPGA.
- 8MB SPI Flash for FPGA reconfiguration.
- Power supply with +1.2V,+ 2.5V,+3.3V,+ 5V,-5V.
- 8MHz Crystal oscillator.
- On board Hardware Reset switch.
- ADC (1 channel, 8 bit, 32MSPS).
- DAC(1 channel, 8 bit, 11MSPS).
- 16x2 LCD Display.
- Carrier Generation of 40KHz output with test point.
- Digital Clock Generation of 4KHz output
- Data Clock and serial data test point.
- Test points to measure and test signals
- On board programming facility through USB JTAG for development.
- 24 bit Data generator Switches.
- Tribit encoder with IQ Data generation.
- Sine wave generation with 0degree, 90degree, 180degree, 270degree phases.
- Selector switches for experiment selection.
- On board differential encoder and decoder.
- Facility for 8-QAM –modulator /Demodulation circuit using programmable FPGA

Experiments

- Digital data generation and simulation with data clock.
- Concept of Tribit encoding.
- Concept of differential encoding and decoding.
- Concept of 8QAM modulation & demodulation.
- Concept of differential 8QAM modulation and demodulation.

Useful

The same board facilitated with Programmable FPGA, ADC, DAC and power supply can be used for various digital communication system prototyping (SDR prototyping) without affecting the basic experiments of the board



All The Technology You need

ISO 9001:2008
Certified Company



ADVANCE TECH INDIA PVT. LTD

Website: www.atechindia.com. E-mail: atechindia@gmail.com