

**Features:**

- Quickly and easily introduces students to the world of Principles of Modern Communication with both software & real time hardware.
- It is Zero Installable " Simply Power On & Play "
- Includes Complete Linux on Board
- Unleash the Power of GNU Radio

**Specifications:****RF Agile Transceiver**

- Tuning Range: 350 MHz - 3.5 GHz
- LO Step Size: 2.4 Hz
- Tunable Channel Bandwidth: 200 KHz - 20 MHz
- Integrated DACs (Tx): 12 Bit
- Integrated ADCs (Rx): 12 Bit
- Variable Output Data Rates : 61.44 MSPS - 65.1 kSPS
- Modulation Accuracy (EVM) :  $\leq -40$  dB (typical)
- RX Gain Control : 0 to +74.5dB (800 MHz)
- Received Signal Strength: 100 dB (+-2 dB)
- Internal I/Q Correction and Calibration

**Antenna**

- Frequency Range: 824-894 MHz and 1710- 2170 MHz
- Connector Type: SMA

*Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.*



Export Sales: +91-9829132777  
India Sales: +91-9588842361



IT-2013, Ramchandrapura Industrial Area,  
Sitapura Extension, Jaipur-302022, India.



info@tesca.in  
www.tescaglobal.com

**FPGA**

- Logic Cells: 28 k
- Block RAM: 2.1 Mb
- DSP Slices: 80

**SDR Processing System**

- Single-core ARM® Cortex™-A9 MPCore™ @ 667 MHZ
- Streams up to 4MSPS with no dropped samples

**Embedded Processing System**

- Quad-core 64-bit @ 1.4GHz

**Memory**

- DDR3L
- 1066 Mbps (16-bit Interface)
- 512 Mbytes

**Serial Flash**

- 32 Mbyte
- Quad I/O provides throughput up to 54 Mbps

**RAM**

- 4 GB LPDDR2 SDRAM
- 2.0 USB Ports : 3 No.
- HDMI Port : 1 No.
- 14" Color Monitor
- Wireless Keyboard
- Wireless Mouse

**Experiments:****Analog Communication:**

- Amplitude Modulation & Amplitude Demodulation
- Double Side Band with Suppressed Carrier (DSBSC) Modulation & Demodulation
- Single Side Band with Suppressed Carrier (SSBSC) Modulation & Demodulation
- Frequency Modulation & Demodulation
- Pulse Amplitude Modulation & Demodulation

*Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.*



Export Sales: +91-9829132777  
India Sales: +91-9588842361



IT-2013, Ramchandrapura Industrial Area,  
Sitapura Extension, Jaipur-302022, India.



info@tesca.in  
www.tescaglobal.com

**Digital Communication:**

- Sampling and Quantization.
- Amplitude Shift Keying(ASK) Generation. & Detection.
- Frequency Shift Keying(FSK) Generation & Detection.
- Binary Phase Shift Keying (BPSK) Generation & Detection.
- Quadrature Phase Shift Keying(QPSK) Generation & Demodulation
- Differential Phase Shift Keying(DPSK) Generation & Demodulation
- Digital Quadrature Amplitude(DQAM) Modulation & Demodulation
- Bit Error Rate Measurement of DQAM
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation.
- Orthogonal Frequency Division Multiplexing (OFDM) Demodulation.
- Direct Sequence Spread Spectrum(DSSS) Signal Modulation & Demodulation
- Gaussian Minimum Shift Keying(GMSK) Modulation & Demodulation
- Bit Error Rate Measurement of BPSK
- Bit Error Rate Measurement of QPSK
- Bit Error Rate Measurement of 8PSK
- Bit Error Rate Measurement of 16PSK
- Analyzing impact of Pulse Shaping.

*Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.*



Export Sales: +91-9829132777  
India Sales: +91-9588842361



IT-2013, Ramchandrapura Industrial Area,  
Sitapura Extension, Jaipur-302022, India.



info@tesca.in  
www.tescaglobal.com