

CORA

SOFTWARE DEFINED RADAR WAVEFORM GENERATION



Common Radar Architecture (CORA) delivers Software-defined radar waveform generation, radar receiver and digital processing.

TSC leverages open architecture standards (SOSA-alignment), and COTS assemblies and components to enable rapid prototyping and development of new radar systems.

ADAPTABLE FORM FACTOR

CORA comes in a variety of form factors and can quickly be ported to a new form factor if required.

- 3U VPX
- 6U VPX
- 6U VME
- Air Cooled

FEATURES

- 10 GbE and 1 GbE interfaces for control and high-speed data transfers
- Low Phase-Noise Reference Generator
- C-Band Waveform Generator/Receiver (other bands supported)
- Supports Up to 15 Receive Channels, Up to 500 MHz instantaneous TX/RX bandwidth

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CORA HARDWARE

COTS HW

- VPX chassis and backplane
- Master Low Phase Noise Oscillator
- Power Supply

RECEIVER / DOWN CONVERTER

- Multi-Channel Receiver (up to 15 channels)
- Single stage down conversion
- 1.3 GHz 14-bit ADC

EXCITER

- Digital waveform synthesis
- 5.2 GHz 14-bit DAC
- RF Up conversion
- Programmable waveform output
- Clock distribution

CONNECTIVITY

- 10/1 Gb Ethernet
- Fiber (Optional)

SPECIFICATIONS

| | |
|-------------------------------|----------------------|
| Dimensions (WxDxH) | 17.2" x 19" x 8.7" |
| Weight | 30 lbs |
| TX/RX Bandwidth | 500 MHz |
| Simultaneous Receive Channels | 1 to 15 |
| C-Band Phase Noise | -134 dBc/Hz @ 10 kHz |

