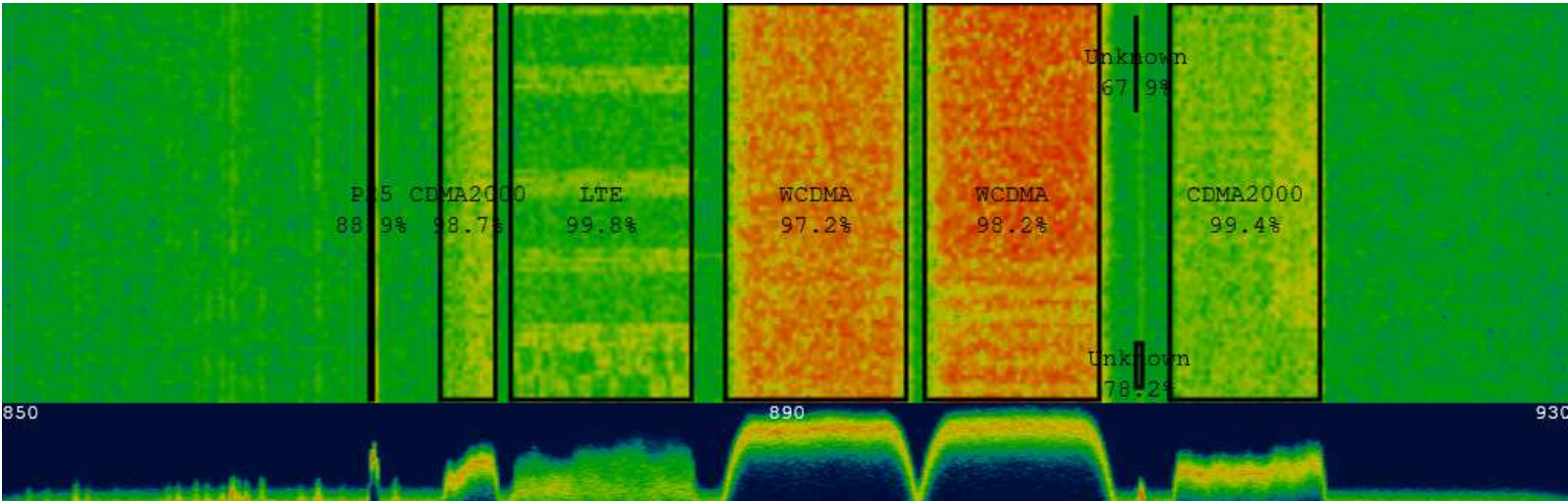


Automated Signal Detection and Classification Through Machine Learning



Machine Learning – Signal Classification Using Convolutional Neural Networks (CNN)

Data Driven – Detection Capabilities based on Neural Network Training

Receiver Independent – Utilizes both Vita 49 and/or Ettus CHDR Signal Packet Data

AVS-3020 Extreme Compute Node

Package Dimensions: 3.5"W X 8"L X 1.6"H



Over View

Strategic partnership between Avid Systems and DeepSig brings Machine Learning to the EDGE. Ruggedized hardware processing Vita 49 as well as Ettus CHDR radio packets provides a generic radio interface to all modern receivers.

The AVS-320 is able to perform detection and classification of RF emissions across very large bandwidths of spectrum on the order of milliseconds, giving it the ability to report anomalies, changes, or threats in near real-time.

Detection and recognition has been validated across a wide range of signal types including cellular and infrastructure signals (e.g., GSM, LTE, WiMAX), ISM-band signals (e.g., WiFi, BlueTooth), and mobile radio services (e.g., P25, GMR, PTT), and can be readily extended to include additional signals and protocols based on individual customer requirements and applications.

AVS-3020 Extreme Compute Node

AVS-3020 Compute Node

NVIDIA Jetson TX2 System on a Module

Featuring:

GPU: NVIDIA Pascal 256 Cuda

CPU: Quad ARM® A57/2 MB L2+ Dual Denver 2

Memory: 8 GB 128 bit LPDDR4 59.7 GB/s



Xilinx Kintex XC7K410T FPGA

1 GB DDR3 – 1600 Memory on FPGA

PCIe X4 Gen II Connection From FPGA to TX2 Module 5T transfers/sec

2 SFP+ Cages for 10 GbE

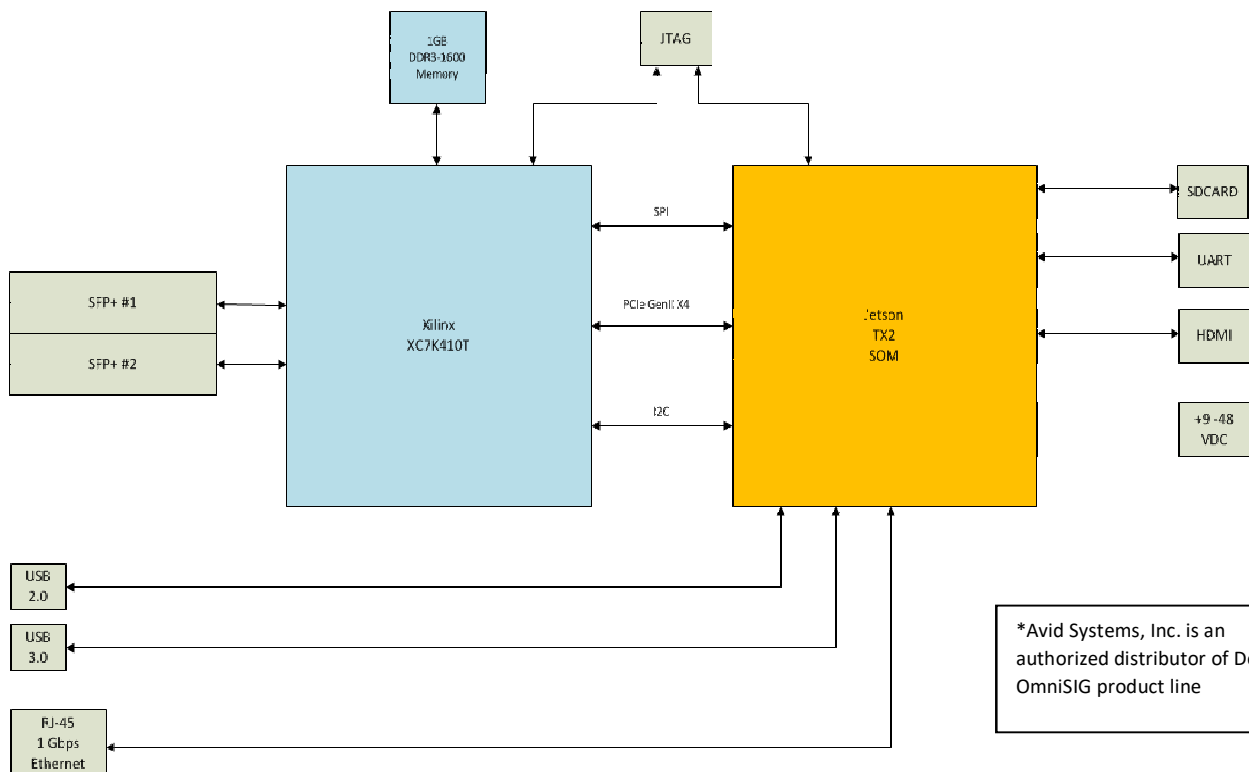
1 Gbps Ethernet Port

USB 3.0, USB 2.0, HDMI, SD Card and UART Interface

Power By:



Block Diagram



*Avid Systems, Inc. is an authorized distributor of DeepSIG OmniSIG product line