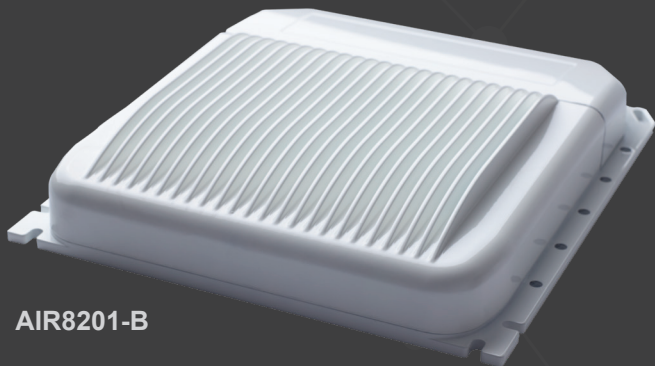




AIR-T Edge Series Product Line



AIR8201-B

Applications

Pre-trained
AI Cores

User Developed
Applications

AI
Frameworks

DSP
Frameworks

AIR-T Hardware Abstraction

AIR-T Hardware

Overview

Deepwave's AIR-T is the first software defined radio with embedded high performance computing. It contains three unique digital processors for any application:

- FPGA for strict real-time operations
- GPU for highly parallelized processing
- CPU for control, I/O, and software applications

The AIR-T allows users to easily incorporate artificial intelligence into their radio frequency and wireless technologies.

This versatile system can function as a highly parallel SDR, data recorder, or inference engine for deep learning algorithms. The embedded GPU allows for SDR applications to process bandwidths greater than 200 MHz in real-time.

Software Support



CUDA

GPU
Acceleration

HPC with CUDA
toolkit using
C/C++ or Python
interfaces



GNU Radio
THE FREE & OPEN SOFTWARE RADIO ECOSYSTEM

Signal
Processing

Support for
industry leading
SDR development
environment



TensorFlow

Deep
Learning

Train and deploy
AI systems using
standard
frameworks

Operating System

AirStack
(Derived from Ubuntu)



Mechanical

- Size - 12.2 x 11.0 x 2.4 inches
- IP56 Rating (pending)

Deepwave Digital, Inc.

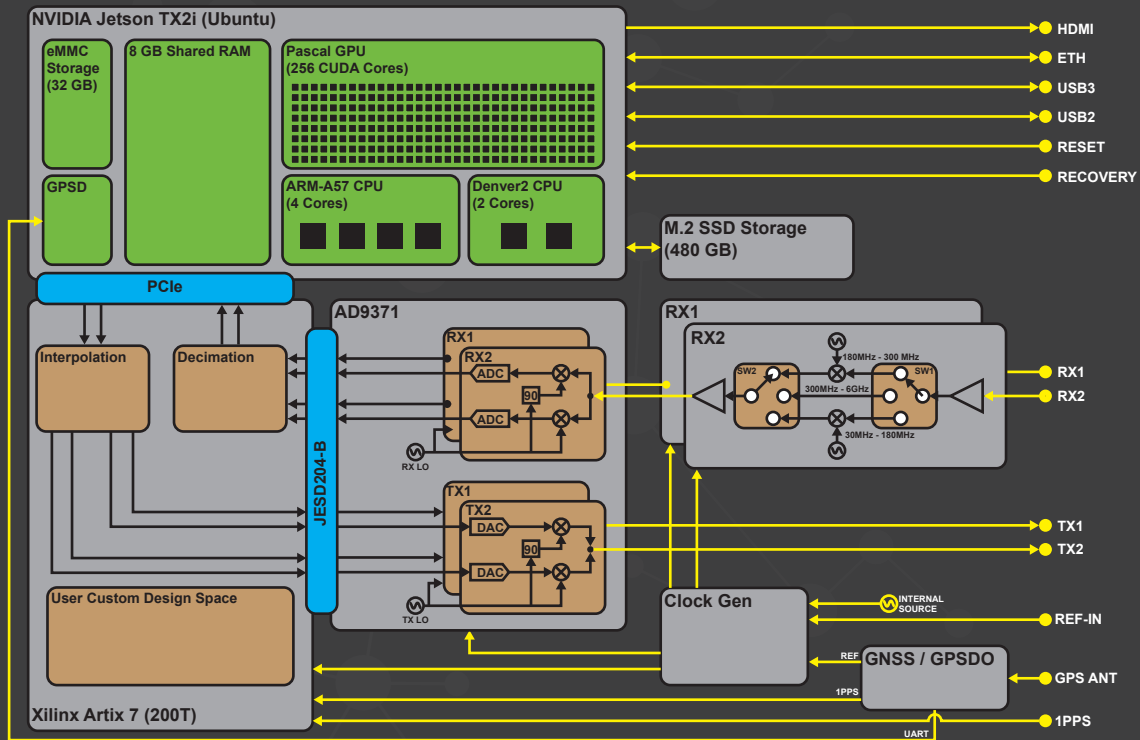
1429 Walnut St, Suite 1000, Philadelphia, PA 19102

www.deepwavedigital.com salesteam@deepwavedigital.com





AIR-T Edge Series Product Line



Key Specifications

- **Dual Channel MIMO Transceiver**
 - Receiver (2 channels):
 - 100 MHz bandwidth
 - 30 MHz to 6 GHz
 - 52 dB Gain (2.2 dB noise figure)
 - Transmitter (2 channels)
 - 100 MHz bandwidth Tx (per channel)
 - 300 MHz to 6 GHz
 - +6 dBm Max Output Power
- **Environmental:**
 - Temperature: -40C to +85C
- **GPSDO:**
 - 40 ns Timing Accuracy (to UTC)
 - 8 anti-jam countermeasures against CW
 - GPS, GLONASS, Galileo, QZSS, SBAS
- **Digital Signal / Deep Learning Processors**
 - NVIDIA Jetson TX2i
 - ARM Cortex-A57 CPU (4 core)
 - NVIDIA Denver2 CPU (2 core)
 - NVIDIA Pascal GPU (256 core)
 - 8 GB of memory
 - Xilinx Artix 7 200T FPGA
- **Data Recording / Storage:**
 - 512 GB Flash Storage
- **Connectivity**
 - GPS Sync via 1 PPS and 10 MHz
 - USB 3.0, USB 2.0/3.0
 - 1 Gbps Ethernet
- **Power Consumption:**
 - 25 Watts Max (14 Watts Typical)

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