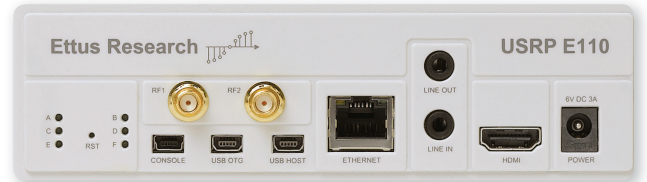


USRP™ E100/E110 EMBEDDED SERIES



FEATURES:

- Modular Architecture: DC-6 GHz
- Dual 64 MSPS, 12-bit ADC
- Dual 128 MSPS, 14-bit DAC
- DDC/DUC with 15 mHz Resolution
- Up to 4 MHz Streaming to CPU
- Auxiliary Analog and Digital I/O
- 2.5 ppm TCXO Frequency Reference
- 0.01 ppm with Optional GPDSO Module
- Embedded OMAP Overo Module
- 720 MHz ARM Cortex A8 + C64 DSP
- Angstrom Linux w/ GNU Radio Built-In
- 512 MB RAM/4 GB Flash
- USB Console, OTG, and Host
- 10/100 Base T Supports SSH Access
- Stereo In/Out
- DVI Output for Monitor

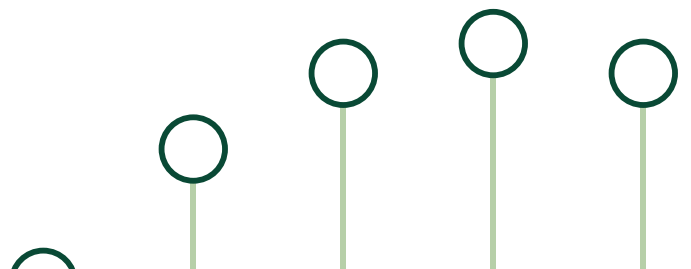
E100/E110 PRODUCT OVERVIEW:

The Ettus Research™ USRP™ E100 and E110 hardware is part of the USRP (Universal Software Radio Peripheral) family of products, which enables engineers to rapidly design and implement powerful, flexible software radio systems. The Embedded Series is targeted for deployable radio applications for users that require the software radio to run standalone. Both the E100 and E110 employ a uncore TI OMAP processor featuring an ARM Cortex A8 running at 720 MHz and a TI C64 DSP processor.

With the Embedded Series, users can develop and deploy their applications directly on an E100 or E110. Users can also develop their programs in a cross or non-cross compiled environment. The Embedded Series features shifting configurable reference clock, which allows clock reference frequencies to be selected based on power and sample rate requirements.

The Embedded Series comes with two different FPGA configurations with the E110 offering a larger size FPGA. Customers may also extend or customize the signal processing capabilities of the on-board FPGA to tailor the Embedded Series to meet individual application requirements. The Embedded E100/E110 hardware runs the same GNU Radio as on either the Bus or Networked Series with few modifications enabling access to full GNU Radio repository.

The USRP Hardware Driver™ is the official driver for all Ettus Research products, and supports rapid development in a comprehensive environment. The USRP Hardware Driver supports Linux, Mac OSX, Windows, NetBSD and FreeBSD.

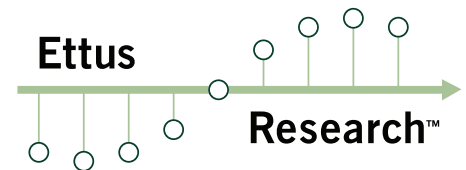
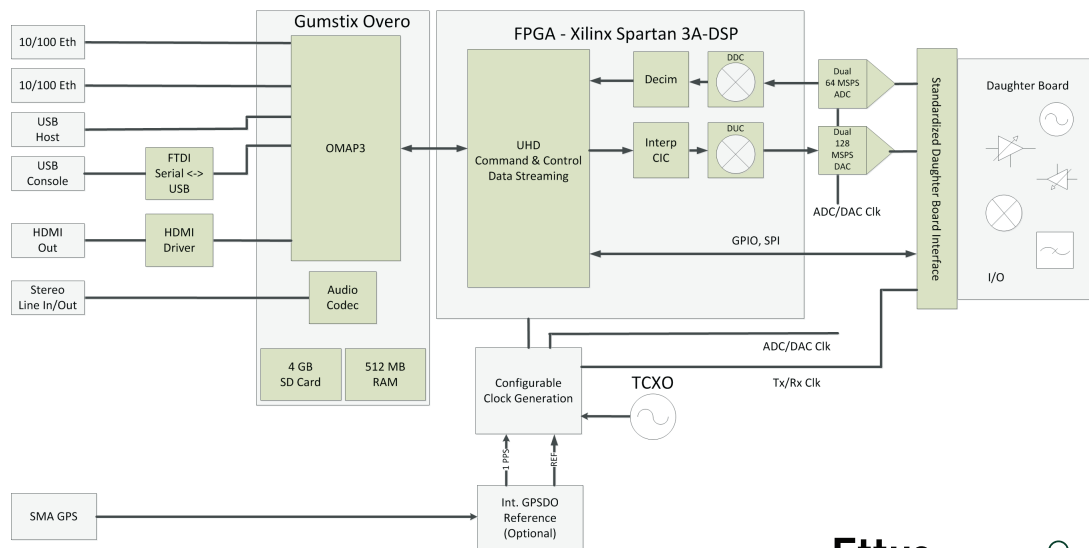


USRP™ E100/E110 EMBEDDED SERIES

SPECIFICATIONS

Spec	Typ.	Unit	Spec	Typ.	Unit
POWER			RF PERFORMANCE (W/ WBX)		
DC Input	6	V	SSB/LO Suppression	35/50	dBc
Current Consumption	1.5	A	Phase Noise (1.8 GHz)		
w/ WBX Daughterboard	2.5	A	10 kHz	-80	dBc/Hz
CONVERSION PERFORMANCE AND CLOCKS			100 kHz	-100	dBc/Hz
ADC Sample Rate	64	MSPS	1 MHz	-137	dBc/Hz
ADC Resolution	12	bits	Power Output	15	dBm
ADC Wideband SFDR	85	dBc	IIP3	0	dBm
DAC Sample Rate	128	MSPS	Receive Noise Figure	5	dB
DAC Resolution	14	bits	PHYSICAL		
DAC Wideband SFDR	83	dBc	Operating Temperature	0 to 55°	C
Sample Rate to/from Host	4	MSPS	Dimensions (l x w x h)	22 x 16 x 5	cm
Frequency Accuracy	2.5	ppm	Weight	1.1	kg
w/ GPSDO Reference	0.01	ppm			

* All specifications are subject to change without notice.



ABOUT ETTUS RESEARCH:

Ettus Research is an innovative provider of software defined radio hardware, including the original Universal Software Radio Peripheral (USRP) family of products. Ettus Research products maintain support from a variety of software frameworks, including GNU Radio. Ettus Research is a leader in the GNU Radio open-source community, and enables users worldwide to address a wide range of research, industry and defense applications. The company was founded in 2004 and is based in Mountain View, California. As of 2010, Ettus Research is a wholly owned subsidiary of National Instruments.

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