

PT-325 TUNER



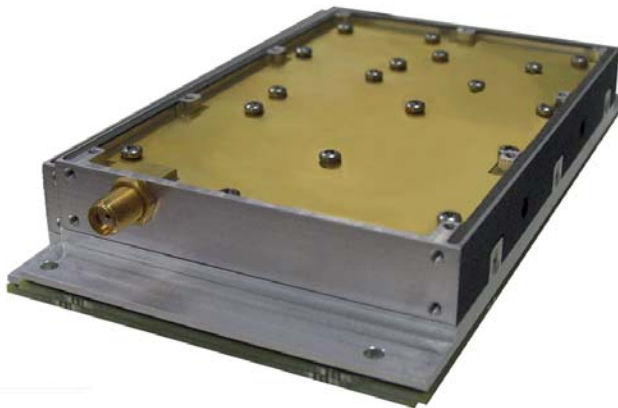
PT-325 HIGH-PERFORMANCE TUNER FOR USRP™ RADIO

The PT-325 is an RF Tuner card designed to be installed within the Ettus Research™ Universal Software Radio Peripheral (USRP™) N200 series chassis. The PT-325 allows UHD and GNU Radio users to experience the benefits of a high-performance RF tuner architecture that represents a major improvement over low-end, direct-conversion tuners. The PT-325 is ideal for moving software-defined radio applications from laboratory settings to real-world signal environments.

The PT-325 tunes from 23 to 3000 MHz with high linearity and excellent preselection for performance in harsh RF environments. It features a traditional superheterodyne architecture that outputs digitized IF data to the USRP's motherboard FPGA, where it can be downconverted and decimated to produce baseband I/Q data at a rate and format

compatible with UHD and GNU Radio. Each PT-325 is shipped with a CD ROM disk that contains modified UHD source code, GNU Radio source code (with example applications) and

USRP FPGA and firmware image files that are used to update the USRP's flash memory to operate with the PT-325.



The PT-325 is designed for full fit and compatibility with the USRP's internal interfaces. The PT-325 has its own aluminum chassis, which isolates it from external noise and maintains its high RF performance. Control is implemented via the PT-325's PIC microcontroller, which translates low-level tuner commands from

UHD and GNU Radio to sequences necessary to control the DRS tuner module.

PT-325 HIGH-PERFORMANCE TUNER FOR USRP™ RADIO

KEY FEATURES

- 23 to 3000 MHz tuning range with 25 MHz bandwidth
- Superior RF performance relative to direct conversion receivers
- Built-in 16-bit digitizer
- UHD and GNU Radio compatible
- Low cost and power
- RF tuner based on popular DRS Picoceptor™ RF front end
- Implement SDR applications in real-world signal environment
- Accepts standard USRP reference sources

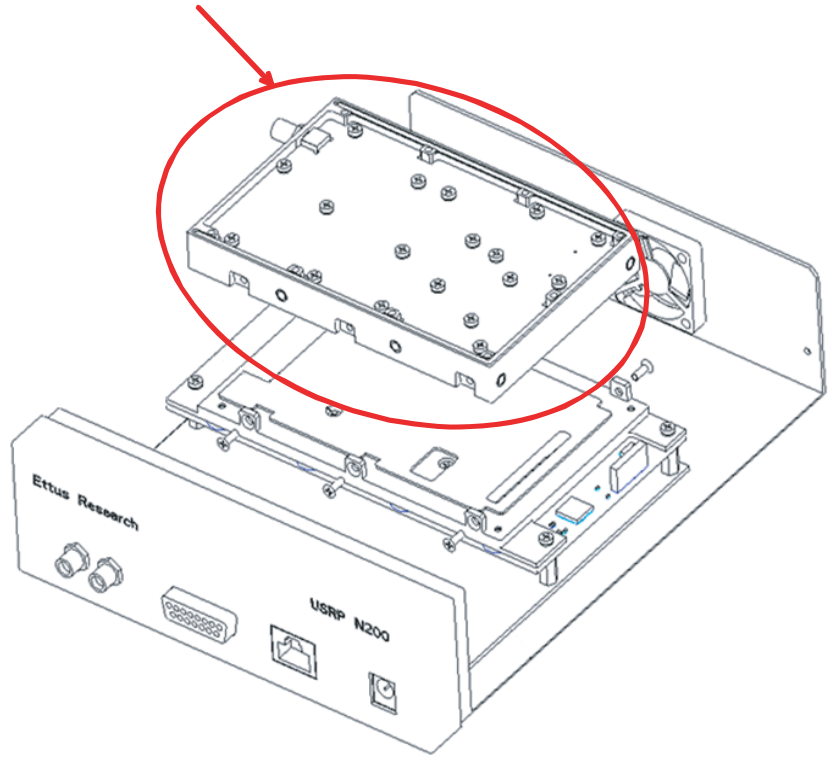
RF PERFORMANCE

Tuning Range	23 to 3000 MHz
Tuning Resolution	400 kHz
Bandwidth	25 MHz
Noise Figure	11 dB typical
Input Third Order Intercept Point	-5 dBm typical
Input Second Order Intercept Point	+30 dBm minimum
Preselection	Employs tracking and switched suboctave filters

ADC

Resolution	16 bits
Sample Rate	93.333333 MHz

PT-325 INSTALLS INTO USRP N200 OR N210



SWaP

Size	5.6 x 3.0 x 0.8 inches
Weight	12.8 ounces (363 grams)
Power	
Input Voltage	6 Vdc
Consumption	Less than 4 watts

ORDERING INFORMATION

PT-325	High-Performance RF Tuner for USRP Radio
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