

PERSEUS

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(Pretty Excellent Receiver for Software-Eager Unperceivable Signals)

10 KHz- 30 MHz Direct Sampling Software Defined Receiver

Preliminary Technical Specifications

Frequency Coverage:	10 KHz – 30 MHz
Modes:	SSB, CW, AM, FMNB, etc. (Software Defined)
Sensitivity:	0.39 μ V SSB (S+N)/N= 10 dB*
Selectivity:	Software Defined (>100 dB Stop Band Attenuation)
Image Rejection:	90 dB*
Input IP3:	31 dBm*
Dynamic Range:	103 dB (SSB, 2.4 KHz BW)* 107 dB (CW, 500 Hz BW)*
Blocking Dynamic Range:	125 dB*
MDS (Minimum Detectable Signal):	-131 dBm (500 Hz BW)* -124 dBm (2.4 KHz BW)*
Input Clipping Level:	-6 dBm (Att. 0 dB)*
Attenuators:	0, 10, 20, 30 dB
RF Preselection Filters Bank:	one 3-poles LPF Filter (0-1.7 MHz) nine 6-poles BPF filters (1.7-30 MHz) 0-1.7, 1.7-2.1, 2.1-3.0, 3.0-4.2, 4.2-6.0, 6.0-8.4, 8.4-12.0, 12-17, 17-24, 24-32, OFF (0- 40 MHz Wide-Band Mode)
ADC (Analog to Digital Converter):	14 bit, 80 Ms/s with internal dither generator
DDC (Digital Down Converter):	FPGA Based (Xilinx's Spartan IIIE C3S250E)
SFDR (Spurious Free Dynamic Range):	110 dB
PC Interface:	High-speed 480 Mbit/s USB2.0 port
Output Sampling Rate:	125 Ks/s, 250 Ks/s, 500 Ks/s
Output Bandwidth:	100/200/400 KHz (-110 dB Alias Rejection),
Output Signal:	24 bit/sample I-Q pair
Power Supply:	+5Vdc +/-5% 1 A (110/240 V wall adapter included)
Cabinet:	Heavy Duty Aluminium Enclosure 110 x 36 x 185 mm (W x H x L)
Operating Temperature Range:	0-40 C
Frequency Accuracy:	+/-1 ppm after calibration

(*Typical at 14.15 MHz)

Availability: September 2007
End User Price: 799,00 Euro VAT Included

