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About the Cover

Dave Harrison, W6IBC, describes a small stand-alone HF receiver using a SoftRock Ensemble II (HF) front end. It is optionally enhanced with low noise pre-amplification. An analog signal processor implements the phasing method for SSB detection, followed by audio amplification circuitry. A programmed Arduino Uno directly controls the Ensemble II Si570 PLL chip and other circuit functions. One goal was to reduce the power needs of a self-contained receiver to draw less than 200 mA at 12 V dc. Another goal was to construct the receiver from a series of modules, each of which could be individually constructed and tested before final assembly. This receiver can tune continuously from 1.8 MHz to 29.7 MHz.



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