



The journal of the American QRP Club ... for builders, experimenters, ham radio operators and low power enthusiasts everywhere.

Welcome!

We have an incredibly exciting issue of Homebrewer Magazine this time, as you may have already noticed. It contains seventy-two unique homebrew construction projects and even more great material in the form of reviews, contesting results and contributions from our regular columnists. All of this is provided in more than 400 full-color, high-resolution pages!

This is our second issue in the new CD-ROM format and most of the kinks now worked out. Most notably, all article material is in PDF format, allowing everyone to view the content on any computer, regardless of type or operating system. We even went back and re-formatted issue #4 this way to allow subscribers to also have that past issue in the nicer format.

We again included all previous issues of Homebrewer Mag on this CD. So you have the full set of issues 1-5 here on this disc making this issue additionally special; this is the last time these prior issues will be included.

I am particularly thrilled to have so many contributing authors from our QRP community this time. This is a testament to the value and usefulness of our efforts with the magazine. I urge you to especially see the articles by giants in our midst: Paul Harden NA5N, Mike Czuhajewski **WA8MCQ**, Joe Everhart **N2CX**, Jim Fitton **W1FMR**, Charlie Lofgren **W6JJZ**, and Wayne McFee **NB6M**. Some authors continue to pump out great material that I'm sure you will enjoy: Dave Ek **NK0E**, Dave Ottenberg **WA2DJN**, Ron Carr **WA1VGB**, Fred Bonavita **K5QLF**, Jerry Haigwood **W5JH**, Phil DeCaire **WB7AEI**, Terry Fletcher **WA0ITP**, Ron Stone **KA3J**, Jim Giammanco **N5IB**, and Doug Wilson **WA0SVL**. Our regular columnists also have great stuff this time: Richard Fisher **KI6SN**, Rich Arland **K7SZ**, Joe Everhart **N2CX**, and Ken Newman **N2CQ**. First-time author Frank Roberts, **VE3FAO**, has a terrific feature article you should see. Other first-time contributors offer a plethora of interesting projects to keep you busy in the shack this summer: Dar Piatt **W9HCZ**, Wade Lake **KR7K**, Verner Blindheim, Nancy Feeny **NJ8M**, Bob Hillard **WA6UFQ**, Mike Hasenfratz **WA6FXT**, Ron Pfeiffer **N1ZSW**, and others. We are so fortunate to have the involvement of such a fine group of authors, and I thank them all from the bottom of my heart.

This issue also contains extra material on the CD that is impossible to provide in other magazine formats. George Murphy **VE3ERP** graciously allowed us to distribute his wonderful collections of HamCalc software utilities, and Ron McConnell **W2IOL** allowed us to do the same with his Great Circle software. To help you in using these software tools, we have also included some instructional articles concerning them. Another "extra" is that we have the audio soundtrack from three of this year's Atlanticon presenters (**KK7P**, **K7SZ** and **K8IQY**), and you can listen to these hour-long **audio tracks** while viewing the slides we saw earlier this spring in Timonium, Maryland. Pretty neat!

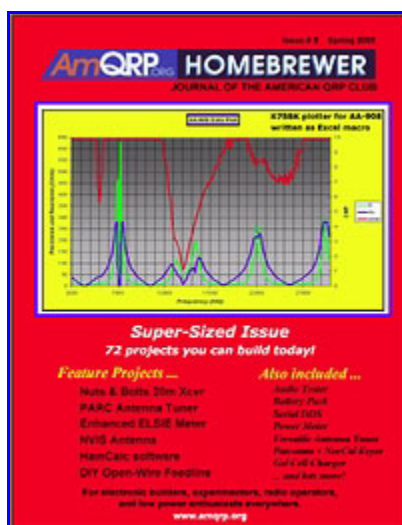
As with the last issue, we've included the recaps of all previous **Atlanticon QRP forums**, including this year's event and the massive photos albums of each of them in a nice easy-to-use photo browser. And remember that popular presentation many of us have used to explain what QRP is all about at local our clubs? This **Why QRP?** presentation has been updated and is included on this issue's CD.

So sit back in your computer chair and enjoy digging through Homebrewer #5 – it should take you several months to do it all! Print out selected articles and take them to the “reading room” or put the files on your PDA for remote study, as N2CX does. We believe Homebrewer CD Magazine is a unique and valuable contribution to our hobby and all of us writers and editors are very proud to produce it for you. We hope you enjoy it.

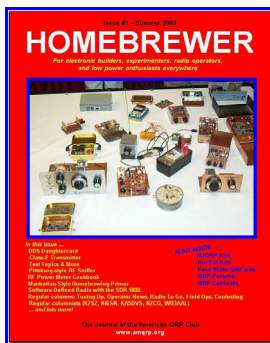
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www.amqrp.org/homebrewer

PS: Be sure to check out the great BONUS MATERIAL we've included below... all four previous issues, detailed sections on current Kits and past kits (aka "projects"), including all manuals, schematics, software, pcb layouts, etc. It's a great reference bank of technical homebrewing information!

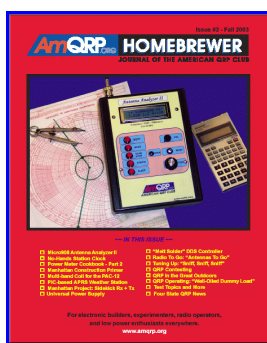
Homebrewer Articles



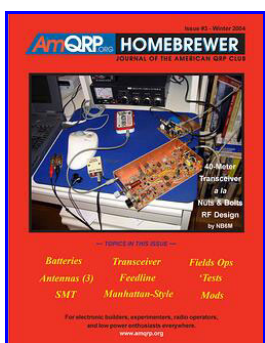
Homebrewer #5



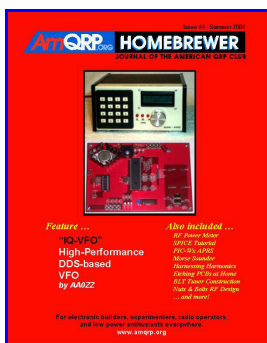
Homebrewer #1



Homebrewer #2



Homebrewer #3



Homebrewer #4

Atlanticon QRP Forums

General Information

2005 | [Recap](#) | [Photos](#) |

2N2/20 CW Transceiver presentation by Jim Kortge, K8IQY | [Slides](#) | [Audio](#) |

Digital Building Blocks for Analog Radios, by Lyle Johnson, KK7P ... | [Slides](#) | [Audio](#) |

Emergency Communications and QRP, by Rich Arland, K7SZ | [Slides](#) | [Audio](#) |

(Note: To hear audio files, your computer must have Windows Media Player, Real Audio Player or an equivalent audio player that can handle MP3 file format.)

2004 | [Recap](#) | [Photos](#) |

2003 | [Recap](#) | [Photos](#) |

2002 | [Recap](#) | [Photos](#) |

2001 | [Recap](#) | [Photos](#) |

2000 | [Recap](#) | [Photos](#) |

1999 | [Recap](#) | [Photos](#) |

Kits

| [Micro908](#) | [HC908](#) | [DDS Daughtercard](#) | [QuickieLab](#) | [I/O Expander](#) | [Halfer Antenna](#) |

Projects

[4017 Transverter](#)	[Rainbow Tuner](#)	[Tuner Add-On](#)	[Badger SmartBadge](#)		
[QRP Balun](#)	[PIC-EL](#)	[ELSIE Meter](#)	[Fireball 40 Tx](#)	[SOP Rx](#)	[MS-DDS VFO](#)
[Palm Serial Sender](#)	[PSK31 Beacon](#)	[Precision VXO](#)	[Regen Rx](#)		
[Sniffer FS Meter](#)	[Squirt Antenna](#)	[Tin Ear Rx](#)	[TipTapper Paddle](#)		
[Tuna Tin 2 Tx](#)	[Warbler PSK31 Xcvr](#)				

Why QRP?

A **presentation** on the joys of low power amateur radio. This is a series of about 50 slides in PDF format that may be used as the basis for a presentation at one's local ham club or hamfest describing what QRP is and the fun that can be had by all.

Software

The software presented in this section will best operate when copied to your computer's hard drive. To do this, you could right-click on the link and "Save as ..." a file on your computer. Otherwise, for software programs with many associated files (like HamCalc), you could use your file browser (like Windows Explorer, etc.) to navigate to the Software folder on the CD-ROM and copy the whole folder containing the software you want to use and place it onto your computer's hard drive.

HamCalc ... software utilities for Ham Radio, by George Murphy VE3ERP

GCGC (DOS, Linux, "Bearings") ... software utilities for computing great circle directions & distances (and more!), by Ron McConnell W2IOL

Conversion Utilities ... Visual BASIC programs by Doug Wilson WA0SVL: P-PVolts-Watts, SWRbyPWR2 and Xc_XI_Reso.

PC Signal Generator ... PC software application called "DDS Freq" controls the DDS Daughtercard over the parallel port, by Mike Hasenfratz, WA6FXT

PC DDS VFO ... PC software application to control the DDS Daughtercard over the parallel port, by Bob Hillard, WA6UFQ

CAPL ... software for the PIC-EL to measure capacitor values, by Ron Carr WA1VGB

Link908 ... software program for PC that collects Micro908 Antenna Analyst data files and plots the curves for SWR, R and X ... by Mike Hasenfratz, WA6FXT. **Source code** also provided.

AA908 Plotter ... Excel macro (and example data files) for taking Micro908 Antenna Analyst data files and plotting them in a colorfile chart format. (Result shown on cover of this issue.) ... by Al Gerbens, K7SBK

Palm-Link908 ... plink.prc is a program for the Palm PDA that collects Micro908 Antenna Analyst data files and plots the curves for SWR, R and X ... by Ron Pfeiffer, N1ZSW

PIC-WX Part 7 ... PIC software and source for Part 7 of the PIC-based APRS Weather Station article series ... by David Ek, NK0E.

PIC-WX Part 6 ... corrected software for the PIC-WX part 6 installment in the last issue.

Serial DDS ... PIC software and source to allow the PC to control a DDS Daughtercard, by N2APB, NK0E and AA0ZZ.

Advertisers

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