

## Test and Measurement Bibliography

The following articles on test and measurement are from *QEX* and *QST* between 1995 and April 2013. The list was compiled by Alan Bloom, N1AL.

Ahlstron, James, N2ADR, "Using a Digital Transceiver as a Vector Network Analyzer," *QEX*, Jan/Feb 2013, pp 3-6.

Alldread, Thomas M., VA7TA, "NimbleSig III - Part 1," *QEX*, Jan/Feb 2009, pp 3-20.

Alldread, Thomas M., VA7TA, "NimbleSig III - Part 2," *QEX*, Mar/Apr 2009, pp 16-24.

Alldread, Thomas M., VA7TA, "NimbleSig III - Part 3," *QEX*, May/June 2009, pp 10-20.

Baier, Thomas C., DG6SAQ, "A Low Budget Vector Network Analyzer for AF to UHF," *QEX*, Mar/Apr 2007, pp 46-54.

Baier, Thomas C., DG8SAQ, "A Small, Simple USB-Powered Vector Network Analyzer Covering 1 kHz to 1.3 GHz," *QEX*, Jan/Feb 2009, pp 32-36.

Baier, Thomas C., DG8SAQ, "A Simple S-Parameter Test Set for the VNWA2 Vector Network Analyzer," *QEX*, May/June 2009, pp 29-32.

Basilier, Erik, WU7O, "Build a Power Attenuator," *QST*, November 1996.

Bird, Trevor S., "Definition and Misuse of Return Loss," *QEX*, Sept/Oct 2010, pp 38-39.

Bloom, Alan, N1AL, "A Modern GDO - The 'Gate' Dip Oscillator," *QST*, May 2003, pp 54-58.

Bloom, Alan, N1AL, "Power Factor" (Technical Correspondence), *QST*, April 2004, pp 82-83.

Bloom, Alan, N1AL, "Some Thoughts on Crystal Parameter Measurement" (Letter), *QEX*, Sept/Oct 2008, pp 41-42.

Bloom, Alan, N1AL, "A Transistor Tester in a Tin," *QST*, January 2012, pp 30-31.

Bloom, Alan, N1AL, "A Spice Bottle Logic Probe," *QST*, June 2012, pp 41-43.

Bloom, Jon, KE3Z, "Measuring System Response with DSP," QEX, February 1995.

Bloom, Jon, KE3Z, "Measuring 9600-Baud Radio BER Performance," QEX, March 1995.

Bowker, Dave, K1FK, "An RF Phase Meter," QEX, November/December 2010, pp 25-31.

Bowman, Michael P., KG2MG, "A Simple Path to Complex Impedance," QEX, Sept/Oct 2010, pp 3-15.

Bradley, Mark, K6TAF, "What Can You Do with a Dip Meter?," QST, May 2002, pp 65-68.

Bramwell, Denton, K7OWJ, "AN RF Step Attenuator," QST, June 1995.

Bramwell, Denton, K7OWJ, "The Microwattter," QST, June 1997.

Bryce, Mike, WB8VGE, "A Universal Frequency Calibrator," QST, Nov 2009, pp 35-37.

Christensen, Paul, W9AC, "An SWR Null Meter," QST, Feb 2010, pp 30-32.

Cicchinelli, Larry, K3PTO, "A Homebrew Logic Analyzer," QEX, Jan/Feb 2000, pp 37-46.

Cicchinelli, Larry, K3PTO, "A PC-Based Digital Storage Oscilloscope and Logic Analyzer," QEX, July/Aug 2003, pp 13-29.

Cooper, Sid, K2QHE, "A Compensated, Modular RF Voltmeter," QEX, Mar/Apr 2001, pp 26-34.

Danzer, Paul, N1II, "A Simple Transformer to Measure Your Antenna Current," QST, Sept 2009, p 35.

Daretti, Andrew, IZ2OUK, "A Simple and Effective RF Power Reference," QEX, Sept/Oct 2010, pp 32-34.

Dildine, Bob, W6SFH, "A Sampling Down Converter for Low Frequency Oscilloscopes," QST, January 2012, pp 39-43.

Eichel, Klaus H., DL6SES, "Avoiding Pitfalls During Measurements of High-Performance HF Receivers" (Tech Notes), QEX, Jan/Feb 2004, pp 59-60.

Evans, Randy, KJ6PO, "A Laboratory-Grade 10-MHz Frequency Standard," QEX, May/Jun 2002, pp 13-21.

Fernandes, Rubens R., ex-PY2QE, "A Frequency Counter for the Experimenter," QEX, May/June 2010, pp 10-15.

Ford, Jim, N6JF, "Build a Return Loss Bridge," QST, September 1997, p34-36.

Forrer, Johann B., KC7WW, "A Low-Cost HF Channel Simulator for Digital Systems," QEX, May/June 2000, pp 13-22.

Franke, John M., WA4WDL, "Double Balanced Beat Indicator," QEX, Jan/Feb 2012.

Geissinger, Gary, WAØSPM, "Building Inexpensive HF Power Attenuators," QST, November 2012, pp 32-33.

Gilbert, Steve, K1SG, "An Expanded Scale Voltmeter for 120 or 240 V ac - With a Bonus," QST, November 2010, pp 43-44.

Glenn, Frederick, K9SO, "Repair and Calibrate Those Wattmeter 'Slugs' with Confidence," QST, Nov 2009, pp 50-52.

Grant, Ken, VE3FIT, "A Versatile Two-Tone Audio Generator for SSB Testing," QEX, Mar/Apr 2009, pp 25-28.

Green, Rod, VK6KRG, "Testing Receivers - Some Thoughts," QEX, Mar/Apr 2004, pp 53-55.

Green, Sam, WØPCE, "Fully Automated DDS Sweep Generator Measurement System," QEX, Nov/Dec 2008, pp 13-22.

Green, Sam, WØPCE, "Fully Automated DDS Sweep Generator Measurement System - Take 2," QEX, Sept/Oct 2012, pp 14-24.

Green, Sam, WØPCE, "An Oscilloscope Camera Mount," QEX, May/June 2010, pp 37-40.

Hageman, Steve, "Build Your Own Network Analyzer, Part 1," QST, January 1998.

Hageman, Steve, "Build Your Own Network Analyzer, Part 2," QST, February 1998.

Hageman, Steve, "Build this 250-MHz Synthesized Signal Source," QEX, Jan/Feb 2000, pp 3-15.

Hageman, Steve, "Build a Data Acquisition System for your Computer" (Tech Notes), QEX, Jan/Feb 2001, pp 52-57.

Hageman, Steve, "Build a 250-MHz Network Analyzer," QEX, Mar/Apr 2002, pp 3-10.

Hardcastle, Jack, G3JIR, "Quartz Crystal Parameter Measurement," QEX, Jan/Feb 2002, pp 7-11.

Hare, Ed, KA1CV, "Swept Receiver Dynamic Range Testing in the ARRL Laboratory," QEX, June 1996.

Hayward, Roger, KA7EXM, "A PIC-based HF/VHF Power Meter," QEX, May/Jun 2005, pp 3-10.

Hayward, Roger, KA7EXM, "Applications Using the PIC-Power Meter," QST, June 2005, pp 28-30.

Hayward, Wes, W7ZOI, et al, "A Spectrum Analyzer for the Radio Amateur, Part 1" QST, August 1998.

Hayward, Wes, W7ZOI, et al, "A Spectrum Analyzer for the Radio Amateur, Part 2" QST, September 1998.

Hayward, Wes, W7ZOI, et al, "A Tracking Signal Generator for Use with a Spectrum Analyzer," QST, November 1999, pp 50-52.

Hayward, Wes, W7ZOI, et al, "Simple RF-Power Measurement," QST, June 2001, pp 38-43.

Hayward, Wes, W7ZOI, "Oscillator Noise Evaluation with a Crystal Notch Filter," QEX, July/Aug 2008, pp 6-12.

Hontoria, James, W1JGH, "A 10 MHz to 6 GHz Power Meter," QEX, July/Aug 2011, pp 17-21.

Huyett, Martin, KØBXB, "Antenna Measurement for the Ham on a Budget," QST, Dec 2010, pp 38-39.

Isley, Cary T., "A Simple Frequency Deviation Meter Using Time-Domain Techniques," QEX, August 1995.

Jones, Bill, K8CU, "Using the HP Z3801A GPS Frequency Standard," QEX, Nov/Dec 2002, pp 49-53.

Karlsen, Kjell, LA2NI, "A Method of Measuring Phase Noise in Oscillators," QEX, Nov/Dec 2004, pp 55-59.

Kaune, Bill, W7IEQ, "A Modern Directional Power/SWR Meter," QST, January 2011, pp 39-43.

Kelley, Bert, AA4FB, "A PIC SWR Meter," QST, December 1999, pp 40-43.

Kincaid, Dwayne L., "The DWM4: A Microprocessor Controller Multichannel Wattmeter for HF, VHF and UHF," QST, July 1999, pp 42-46.

Koehler, Jim A., VA7DIJ, "An L-Q Meter", QEX, Mar/Apr 2006, pp25-34.

Koehler, Jim A., VE5FP, "Some Thoughts on Crystal Parameter Measurement", QEX, July/Aug 2008, pp36-41.

Koehler, Jim, VE5FP, "A DDS-Based Signal Generator," QEX, Nov/Dec 2009, pp 3-13.

Koehler, Jim, VE5FP, "The Shunt Method for Crystal Parameter Measurement," QEX, July/Aug 2010, pp 16-25.

Kopski, Bob, K3NHI, "An Advanced VHF Wattmeter," QEX, May/Jun 2002, pp 3-8.

Kopski, Bob, K3NHI, "A Simple RF Power Calibrator," QEX, Jan/Feb 2004, pp 51-54.

Littlefield, Rick, K1BQT, "A Wide-Range RF-Survey Meter," QST, August 2000, pp 42-44.

Lyndon, Dave, AK4AA, "Accurate Measurement of Small Inductances," QEX, Jan/Feb 2004, pp 47-50.

McDermott, Tom, N5EG, et al, "A Low-Cost 100 MHz Vector Network Analyzer with USB Interface," QEX, Jul/Aug 2004.

Miller, Bob, KE6F, "Atomic Frequency Reference for Your Shack," QEX, Sept/Oct 2009, pp 35-44.

Nash, Bob, KF6CDO, "An Event per Unit Time Measurement System for Rubidium Frequency Standards," QEX, November/December 2010, pp 3-17.

Nellis, Mert, WØUFO, "Build an Ampere-Hour Meter for Portable Operations," QST, May 2010, pp 44-45.

Nichols, Eric P., KL7AJ, "Keeping Current with Antenna Performance," QST, Feb 2009, pp 34-36.

Noakes, John D., VE7NI, "The 'No Fabin' RF Field Strength Meter," QST, August 2002, pp 28-29.

Noskowicz, Steve, K9DCI, "Keeping Current with Antenna Performance" (Technical Correspondence), QST, July 2010, pp 50-51. [see Nichols above]

Ostapchuk, Pete, N9SFX, "A Rugged, Compact Attenuator," QST, May 1998.

Pivnichny, John, N2DCH, "A Signal Generator for the VHF Operator," QST, October 2010, pp 34-36.

Pontius, Bruce E., NØADL, "Measurement of Signal-Source Phase Noise with Low-Cost Equipment," QEX, May/Jun 1998.

Rech, Henry J., "Receiver Performance Measurement and Front End Selectivity," QEX, Sept/Oct 2008, pp 26-30.

Reed, John C., "Spectral Measurements the Hard Way," QEX, July 1995.

Richardson, Gary, AA7VM, "A Low Cost DDS Function Generator," QST, November 2005, pp 40-42.

Rogers, Robert J. WA1PIO, "Mystery Inductor Box," QST, January 2011, pp 30-31.

Rohde, Ulrich L., KA2WEU, "Theory of Intermodulation and Reciprocal Mixing: Practice, Definitions and Measurements in Devices and Systems, Part I," QEX, Nov/Dec 2002, pp 3-15.

Rohde, Ulrich L., KA2WEU, "Theory of Intermodulation and Reciprocal Mixing: Practice, Definitions and Measurements in Devices and Systems, Part II," QEX, Jan/Feb 2003, pp 21-31.

Roos, John C., K6IQL, "Converting a Vintage 5 MHz Frequency Standard to 10 MHz with a Low Spurious Frequency Doubler," QEX, March/April 2011, pp 19-35.

Rumley, Stuart, KI6QP, "A Precision Two-Tone RF Generator for IMD Measurements," QEX, April 1995.

Sabin, William E., WØIYH, "The Lumped-Element Directional Coupler," QEX, March 1995.

Shera, Brooks, W5OJM, "A GPS-Based Frequency Standard," QST, July 1998.

Shrader, Bob, W6BNB, "Measuring Radio Frequencies," QST, Sept 2009, pp 36-39.

Silver, H. Ward, NØAX, "Test Equipment for the Ham Shack." QST, May 2005, pp 36-39.

Skelton, Ron, W6WO, "Measuring HF Balun Performance," QEX, November/December 2010, pp 39-41.

Smith, Doug, KF6DX, "Improved Dynamic-Range Testing," QEX Jul/Aug 2002, pp 46-52.

Smith, Doug, KF6DX, "Quantifying Measurement Uncertainty" (Tech Notes), QEX Jan/Feb 2006, pp54-56.

Smits, Harke, PAØHRK, "A Noise/Gain Analyzer," QEX, Nov/Dec 1999, pp 5-10.

Sparks, Steve L., N5SV, "An RF Current Probe for Amateur Use," QST, February 1999, p 34.

Stanley, John O., K4ERO, "The Beauty of Spectrum Analysis - Part 1", QST, June 2008, pp35-38.

Stanley, John O., K4ERO, "The Beauty of Spectrum Analysis - Part 2", QST, July 2008, pp33-35.

Stanley, Wayne J., W4RDG, "Check the Calibration of your Maxwell Bridge with an Inductance Simulator" (Technical Correspondence), QST, March 1997.

Stanley, Wayne J., W4RDG, "A Calibration Source for DC and AC Voltmeters," QEX, July/Aug 2000, pp 51-54.

Steber, George R., WB9LVI, "LMS Impedance Bridge," QEX, Sep/Oct 2005, pp 41-47.

Steber, George R., WB9LVI, "A Low Cost Automatic Impedance Bridge," QST, October 2005, pp. 36-39.

Steber, George R., WB9LVI, "I-V Curve Tracing With A PC," QEX, July/August 2006, pp. 3-9.

Steber, George R., WB9LVI, "Experimenter's RF Spectrum Analyzer," QST, October 2008, pp 36-40.

Steinbaugh, Gary, AF8L, "Pizzicato Pulse Generator", QEX, Mar/Apr 2006, pp3-8. [Time-domain reflectometer]

Steinbaugh, Gary, AF8L, "A Cybernetic Sinusoidal Synthesizer," QEX March/April 2009, pp 3-5.

Steinbaugh, Gary, AF8L, "A Cybernetic Sinusoidal Synthesizer: Part 2," QEX May/June 2009, pp 21-28.

Steinbaugh, Gary, AF8L, "A Cybernetic Sinusoidal Synthesizer: Part 3," QEX July/Aug 2009, pp 3-7..

Steinbaugh, Gary, AF8L, "A Cybernetic Sinusoidal Synthesizer: Part 4," QEX Sept/Oct 2009, pp 21-30.

Steinbaugh, Gary, AF8L, "An Inexpensive Laboratory-Quality RF Wattmeter," QEX, May/June 2010, pp 26-32.



Terwilliger, Curt, W6XJ, "Building a Modern Signal Tracer," QST, February 2011, pp 41-44.

Thompson, Tom, WØIVJ, "A High Power RF Sampler" (Technical Correspondence), QST, May 2011, pp 52-54.

Tipton, Ron, ex-K5UJC, "Build this Simple, High-Resolution DC Voltmeter," QEX, Sept/Oct 2001, pp 38-44.

Toal, Ed, N9MW, "A Peak Reading RF Power Meter", QST, March 2010, pp 41-43.

VanRemmen, Bill, KA2WFJ, "A Pocket-Size, Direct-Reading VHF SWR Meter," QST, February 1997.

van der List, Jos F. M., PAØJOZ, "Experiments with Phase-Noise Measurements," QEX, Jan/Feb 1999, pp 31-41.

von Valtier, Eric, K8LV, "Dual Directional Wattmeters," QEX, May/June 2006, pp 23-33.

Wade, Paul, N1BWT, "A UHF+ VSWR Bridge," QEX, February 1995.

Wade, Paul, N1BWT, "Noise Measurement and Generation," QEX, November 1996.

Wade, Paul, W1GHZ, "Microwave System Test" (Microwavelengths), QST, Aug 2010, pp 96-97.

Wade, Paul, W1GHZ, "Antenna Measurements - the Antenna Range" (Microwavelengths), QST, October 2012, pp 63-64.

Wade, Paul, W1GHZ, "Antenna Measurements: Methods and Equipment," (Microwavelengths), QST, January 2013, pp 66-67.

Whiteside, Steve, N2PON, "Pocket dBm RF Power Meter," QST, August 2008, pp 65-67.

Whiteside, Steve, N2PON, "A Linear Scale Milliohm Meter," QEX, July/Aug 2012, pp 33-38.

Zimmerman, Robert K., VE3RKZ, "An Inexpensive HF Power Meter with a Linear dB Scale," QEX, Mar/Apr 2010, pp 44-46.