

May-08	Home Construction, Modern Components and their sources, Modamps
Jul-08	Small DC/DC Converters, Phase comparators for PLLs, Solid State Relays
Sep-08	Decoupling Pitfalls, Simple Synthesizers
Nov-08	Modifying Plugtop PSUs, PLL Follow up
Jan-09	Digital Antenna Rotator controller
Mar-09	Designing a Wideband VHF Converter
May-09	Driving YIG Oscillators
Jul-09	Logarithmic Amplifiers, Current Monitoring
Sep-09	Self protection & fail-safe design, Remote control
Nov-09	I/Q Upconverter Chips, generating I/Q drive signals, Surplus synthesizers
Jan-10	Uses for the LM317 Voltage Regulator
Mar-10	The value of Noise, generators and testing
May-10	Ready-to-Go RF, Minicircuits range
Jul-10	MSF Timecode Modules, Pitfalls
	Change to Monthly Design Notes
Aug-10	SDR-IQ as test equipment, Helical Resonators in VCOs, Modern GPS modules
Sep-10	Old logic chips never die, Transverter interfacing
Oct-10	Classe E Tx for topband, Amplitude Modulator, RTTY/FSK Source, Ferrite Cores
Nov-10	Power Amplifier Modules, Transmission Line Transformers
Dec-10	Rotary Encoders, Diff Line receivers and their uses, Magnetic Sensor IC
Jan-11	Direct Quadrature Upconverter and use of allpass networks
Feb-11	RF Padboard, Transverter LO Locking, Integrated PLL and VCO
Mar-11	PLL Synthesizers
Apr-11	PIC Audio / LF DDS, more on Programmable Dividers
May-11	Wideband downconverter for SDRs
Jun-11	Doppler Scan DF, Butler Matrix,
Jul-11	LT5524, Protecting Voltage regulators, Salvaged Auto ATU
Aug-11	PCN2900 USB Codec and measurement idea
Sep-11	SDR2GO, MC13260 radio on a chip, Automobile Power Interface
Oct-11	Low Frequency Mixers, NE612 at DC
Nov-11	ALC Transverter Protection, Charging Pb/H+ Batteries, 2m/LF Transverter
Dec-11	Data Logger, Noise Figure alignment aid revisited
Jan-12	Bandpass Filter Design
Feb-12	Direct Upconversion chips (combined with Data). NF Indicator update
Mar-12	Direct Downconverter Chips
Apr-12	Fractional-N Synthesizers
May-12	Frequency Doubler, Testing Complex ICs, Sw-Mode constant current, Audio DDS mods.
Jun-12	PIC noise generator, MCP2210 USB/PCI, PIC Frequency Divider
Jul-12	Overvoltage transient protection, Active Antennas
Aug-12	SDR/DTV Dongle, Biassing Op-Amps, Frequency reference Distribution
Sep-12	Broadband active Loop antennas, Lo-Zin amplifiers, Direct sampling SDRs,
Oct-12	Low Z Meas Bridge, Off Air Calibrator, Retuning Commercial Diplexers
Nov-12	More on Fractional-N Synthesizers
Dec-12	Parallel MMICS, Simple Servo, Subharmonic Mixer
Jan-13	Frequency Standards
Feb-13	Low cost DDS Module, Commercial Handheld SDR, Alternative Water Cooling
Mar-13	Integrated Frequency Multiplier Chip, Phase Noise, VHF Beacon Driver,
Apr-13	VOGAD Chip, PIC PWM Source, Amplitude Calibrator for SDRs
May-13	Switch Mode Transmitters
Jun-13	Harmonic Mixers, 5.76GHz Freq Doubler, Low cost UHF Amp chip, Audio Trig Switch
Jul-13	Cancelled due to 100th anniversary
Aug-13	DC Balance Power Meter, A bit more on the SL6270.
Sep-13	More on Power Measurement, Modifying the Realtek Dongle, LNA Chip and SMT Tweezers
Oct-13	RF Power, LNBs, Uses for Old Rigs and Transverter Driver.
Nov-13	Powerpole connectors, Polarity protection in Transceivers, LTC6946 Microwave Synthesizer chip
Dec-13	PIN Diodes, FT817 Transverter Interface, Obtaining SMT Components
Jan-14	DDS at high frequencies, Reverse DDS, more on rig protection
Feb-14	Odd coax lengths and mismatches, Junkbox SSB generator
Mar-14	Using and driving Rradio Control servos, new GPS receiver module,
Apr-14	A look at various Custom ICs
May-14	Serial Control for AD9850 DDS Modules and Adding Phase mod to oscillators
Jun-14	Third Method SSB, Audio Interface for Notebooks, Diode Ring as variable attenuator
Jul-14	Driving "Wrong Voltage" relays, Switch Mode step up IC
Aug-14	Basic Filter Design concepts
Sep-14	Filter design continued - Bandpass filters
Oct-14	Return Loss defined, PIC pulse Generator, FT817 Keypad Controller,
Nov-14	SDR Play Module, High Side Current Monitor Chip, Matched Attenuators

Dec-14 Topband Class-E PA, High side current monitor chip

Jan-15 Hi Performance Rx front Ends, Ideal bridge rectifier Controller, Low Freq RF Switch, Old PCs

Feb-15 Powering Mains Chargers from DC, High Speed CMOS Divider, Linear Phase Filters

Mar-15 Inrush Current Limiter, Helical Antennas, Modifying Transformers for AM

Apr-15 Measuring Noise Figure, RxGen Noise Head

May-15 Log Power detector chips, use with noise figure meters

Jun-15 Blade Experimenter's platform, Homebrew BGA soldering, LED analogue display, GPS Receivers failing

Jul-15 SWR Bridges and Microstrip Coupled Lines

Aug-15 Airspy SDR, wideband glitches on SI530, A2200 GPS module changes, PLL with Internal VCOs,

Sep-15 SMD Breadboarding. Homebrew Printed Circuit Boards

Oct-15 Homebrew PCBs continued. SMD construction and IC mounting

Nov-15 Resistive Automatic SWR Bridge / power monitor with line of LEDs display

Dec-15 Coherent Receivers at LF, Phase locking and soundcards

Jan-16 SMT Soldering update, Safe Probing, Bandpass Digitiser in a PIC with timestamp

Feb-16 More on Clicklock and PPS injection, measuring unknown twin feeder

Mar-16 Mosfet reverse Polarity Protection, Mosfet RF Amplifier basics

Apr-16 Diode Mixer as a PSK modulator, more on Transmission Line measurement

May-16 More on DC Power protection, Third Method SSB, Third Method downconverter

Jun-16 High Performance receiver design, Fast Serial Comms

Jul-16 Switch Mode Transmitters, Dorji V/UHF Transceiver Modules for DTMF remote control

Aug-16 Transmitter Filtering and LPF Design

Sep-16 FT817 Transverter interface update, PTT interfacing, Art Film for PCBs, DCPro Software upgrade

Oct-16 Test Equipment Remote Control, GPIB, Diode Power meter with serial interface, DC Isolation

Nov-16 Tuneable Measurement Receiver

Dec-16 Gain Stages, Photovoltaic Isolators

Jan-17 SMPSU Overview and how they work

Feb-17 SMPSU Filtering, more on Mosfets as power switches

Mar-17 Phase Locked Loops, Lop Filter, Pitfalls with onboard VCOs

Apr-17 Weaver / Third Method in DSP, DSPICS, ADL5375 RF Upconverter

May-17 G3OTK's Novel Homebrew CW Transceiver

Jun-17 SMT Connections, Fract-N synthesizer register values

Jul-17 Serial interfacing Standards, RS232, I2C etc.

Aug-17 Transverter Interfacing, using ALC, adding extra protection

Sep-17 Antenna Rotator feedback ideas, Digital Compass module, Two-wire serial interface

Oct-17 Spurious in DDS and Fract-N synths. Display for compass module

Nov-17 Component Substitution and the Junk box; salvaging a Nixie Display.; PIN attenuators

Dec-17 Active antennas, broadband loops. Toroidal cores

Jan-18 Reader Feedback; measuring RF match with directional couplers; cascaded return loss; Network Analyser

Feb-18 Quadrature Networks; Arduino Radio Project; Reader Input

Mar-18 Noise from Voltage regulators.

Apr-18 Magnetics and Ferrites; transformer design

May-18 Matching Networks

Jun-18 ICOM CAT Interface; shielding materials.

Jul-18 Wideband noise as a test source; wideband noise sources

Aug-18 Mosfet Switches, RF Networks Wilkinson & 180 deg hybrid

Sep-18 90 deg Hybrid, Hacking a PC keyboard, Phase noise in synthesizers

Oct-18 Synchronous Buck Mode SMPSU

Nov-18 The way forward. Distance, bearing height and terrain plotting software

Dec-18 Fract-N Synths, Cleaning up the ADF5355

Jan-19 Nyquist and aliasing in Direct Sampling Radios. Keypad for the Elad FDM Duo

Feb-19 144MHz and 70MHz interfaces for the FDM-Duo

Mar-19 PCB Short circuit locator (G8EZE), calculating air-wound coils, coherent 74x74 divider for SDR Rx

Apr-19 Adaptive Noise Canceller (G3ZIL), coax cable at LF & skin depth

May-19 Care needed with on-off keyed Tx sources, Aligning phase shift networks (M0SJK), 2.4GHz Direct Upconverter Tx

Jun-19 Float Charging Pb/H+ batteries, Simpler Frequency Synthesizers, RS32 and COM ports revisit.

Jul-19 Quadrature downconverter for wideband receive, RF quad networks, Excel tools for calibration tables, modifying coaxial relays

Aug-19 Tx Amplitude shaping, optimum pulse shapes, pulse width modulation, PWM audiochirp generator

Sep-19 GNSS Vulnerabilities and Spoofing, Fourier and antennas, antenna near field measurement

Oct-19 Arduino Sequencer, Battery backup and management,

Nov-19 Basic of Digital Radio - wideband front end

Dec-19

Jan-20

Feb-20

Mar-20