

Technical Articles Published in WATTS

06-2003 to 12-2013

Title and date only. Full articles can be extracted from our WATTS webpage

2003

- 04 The effect of cable loss (nomogram)
- 08 Efficient and reliable drilling
- 08 The G4HCL duplexer homebrew
- 10 Power, dBm and RMS voltage conversion chart
- 11 The ZS2LR air cored balun
- 11 An introduction into solar indices
- 12 Ground wave propagation – any use to hams?
- 12 Stralingsgevaare

2004

- 01 Linearity and the 10% rule
- 02 Time synchronization via GPS
- 03 What is a trunked radio system?
- 04 Junkbox multipurpose solar power regulator
- 05 Hearing aids and RF
- 05 Square conductor twin open lines
- 06 U 2m radio en herhaler spesifikasies
- 06 A home brew rotator
- 07 EMC regulations, acceptance testing and CE mark significance
- 07 Vehicle rig minder
- 08 An electronically linked pushbutton switch
- 09 Echolink vir die gewone mens. Deel 1
- 10 Echolink vir die gewone mens. Deel 2
- 11 RF rectifier bridge for field strength measurements
- 11 Simple circuit measures battery drain
- 11 Motor reversal
- 12 The PAOHMV dual band antenna home brew

2005

- 02 Toroidal transformers
- 03 Coping with lead-free soldering
- 04 Are we inventive? What is an invention. Part 1
- 05 Is your logic somewhat fuzzy?
- 06 Are we inventive? What is an invention. Part 2
- 07 A radio protection scheme easily applied to any DC PSU
- 08 Static electricity at petrol stations
- 08 Build a 12-15V supply tester
- 11 Sourcing 2 TX's to one antenna system
- 12 Pakket radio

2006

- 01 The possible impractical impossible circuit
- 02 Measuring very low resistance
- 04 Tuning your tube linear
- 04 Inductor (microchoke) colour coding
- 05 Let's go complex. Part 1
- 05 2m Omni-directional high gain coaxial antenna
- 06 Let's go complex. Part 2
- 06 Phonetic alphabet in various countries
- 07 Let's go complex. Part 3
- 08 Let's go complex. Part 4
- 08 Concerns over lead-free solder
- 09 Let's go complex. Part 5
- 10 Let's go complex. Part 6
- 10 160m mobile whip antenna
- 11 Let's go complex. Part 7
- 11 The cloud warmer NVIS beam
- 12 Soldering tips for lead-free soldering
- 12 Zig-zag wire antenna

2007

- 01 Let's go complex. Part 9
- 01 Iambic keyer mode A and B explained
- 01 What is a transistor's Gain-Bandwidth product/
- 02 Let's go complex. Part 10
- 02 Build a curve tracer using a PC and soundcard
- 02 Calibration of Fluke model 75 and 77 multimeters
- 03 Let's go complex. Part 11 (final)
- 03 Solid state relays
- 03 A guide to metric or decimalized time
- 03 Exothermic bonding – Cu-Cu welding
- 04 RF magnetic materials explained
- 04 Solenoid and toroidal core inductance formulas
- 04 An accurate on-air frequency standard
- 04 Build an earth tuner
- 05 Gelcel charger using a MAX 712
- 05 Blown fuse indicator
- 05 Short 40m/80m dipole
- 06 Notes on home-built antenna hardware
- 06 Ruthroff and Guanella baluns
- 07 VHF/UHF folded colinear aerial array
- 08 What is the grey line?
- 09 Folded dipole matching
- 10 Two stack match for yagi antennas
- 10 What is QSLing and how to QSL

2008

- 01 Autoplex and vibroplex
- 01 Adapting dynamic microphones to electret microphone inputs and vice-versa
- 02 Soft starting a power supply
- 02 Simple balun for portable QRP stations
- 02 Extremely low frequency (ELF)
- 04 Tetra – a new era in wireless communication
- 05 Wire antenna for 75 and 80m
- 06 Transistors 60 years old
- 06 Simple ICOM CI-V interface
- 07 G5RV multiband antenna and ZS6BKW improvements
- 08 Mobile wiring protection
- 09 True power
- 10 Mobile antenna matching and coil adjustment procedure
- 10 Fuse indicator
- 11 Understanding MFJ analyzer readings

2009

- 01 Bonding
- 02 A lightweight mast and antenna
- 02 FM land mobile radio and the amateur radio service – a brief history
- 02 Knots for your guys and dipoles etc.
- 05 Rally trap antenna for 160, 80, 40m – ZS6TL design
- 06 RF burns
- 07 Inductors and loading coil current in mobile antennas
- 08 Vertical and horizontal antennas – a performance comparison
- 09 The nature and properties of wireless waves
- 10 Corner reflector antenna design
- 11 Relay contacts in DC service
- 12 Home brew tuner for confined spaces
- 12 Build a QRN squasher

2010

- 01 Hex beams and spider beams – part 1
- 01 TTL frequency doubler rejects harmonics without tuned circuits
- 02 Building the broadband version of a 6 band (6-20m) Hex beam. Part 2
- 03 Interessante feite omtrent Aard-Maan-Aard (EME) kommunikatie
- 04 The German Quad
- 05 A practical antenna for 160m

05 Building the broadband version of a 6 band (6-20m) Hex beam. Part 3
 06 Electronic waste
 07 dBm-V-Watts conversion table
 07 Hustler mod for increased gain
 08 Optimum wire size for RF coils
 08 70cm Bazooka dipole
 09 Controlled feeder radiation
 10 One-knob coupler for long antennas
 11 250-400uH variometer
 12 How to operate 24V relays on 12V
 2011
 01 Everything about baluns but were afraid to ask
 01 The ZS6BKW antenna – 6 bands
 02 Tape measure beam optimized for RDF
 03 This antenna is too good to be true (HF)
 03 Want to run a DC fan very slow?
 04 My feedline tunes my antenna!
 05 Coiled coax as a balun
 05 220V wire-in-wall scanner
 06 ALC adjustment procedure
 07 Battery discharge monitor
 07 Power and SWR at the bandwidth limits
 08 Rotary electronic switch
 09 Semiconductor device numbering systems
 09 Battery internal resistance tester
 10 Short anthology of 50+ years of CDE-HyGain “bell” rotators
 10 Use beacons to spotlight band openings
 12 Military phonetic alphabet
 12 Your VSWR meter may not tell the truth
 2012
 01 Field strength vs radiated power
 02 Solar powered regulator charges battery efficiently
 03 It’s about TIME
 03 Simple Balun testing
 04 Automating second antenna choice on one-antenna output systems
 06 IARU Region 1 HF Bandplan
 06 Earth and moon to scale
 07 Resistor values
 07 HD TV – Some definitions
 08 Soviet Woodpecker signals – alternative purpose?
 08 Starfish Prime lesson to humanity
 09 Thermoelectricity
 11 Digital modes frequency list
 12 Mobile Radio Regulations update
 2013
 01 The Semaphore Alphabet
 02 Battery disposition and disposal
 02 Short 80m antenna
 03 Repairing a CDE/Hy-Gain rotator
 04 G4FEK limited space antenna
 04 Aluminium alloys
 05 Resonant listening antennas
 06 Grounding systems in the ham shack. Part 1
 07 Grounding systems in the ham shack. Part 2
 09 SD Electrostatic discharge tutorial
 09 PIN diode RF switch
 10 Salt water dummy load
 10 Refraction, diffraction, Doppler
 11 Dynamic microphones for ham radio
 11 Run your laptop on 12V DC
 12 Four types of DVD’s
 12 How many hams?