

C.D.A.R.S.

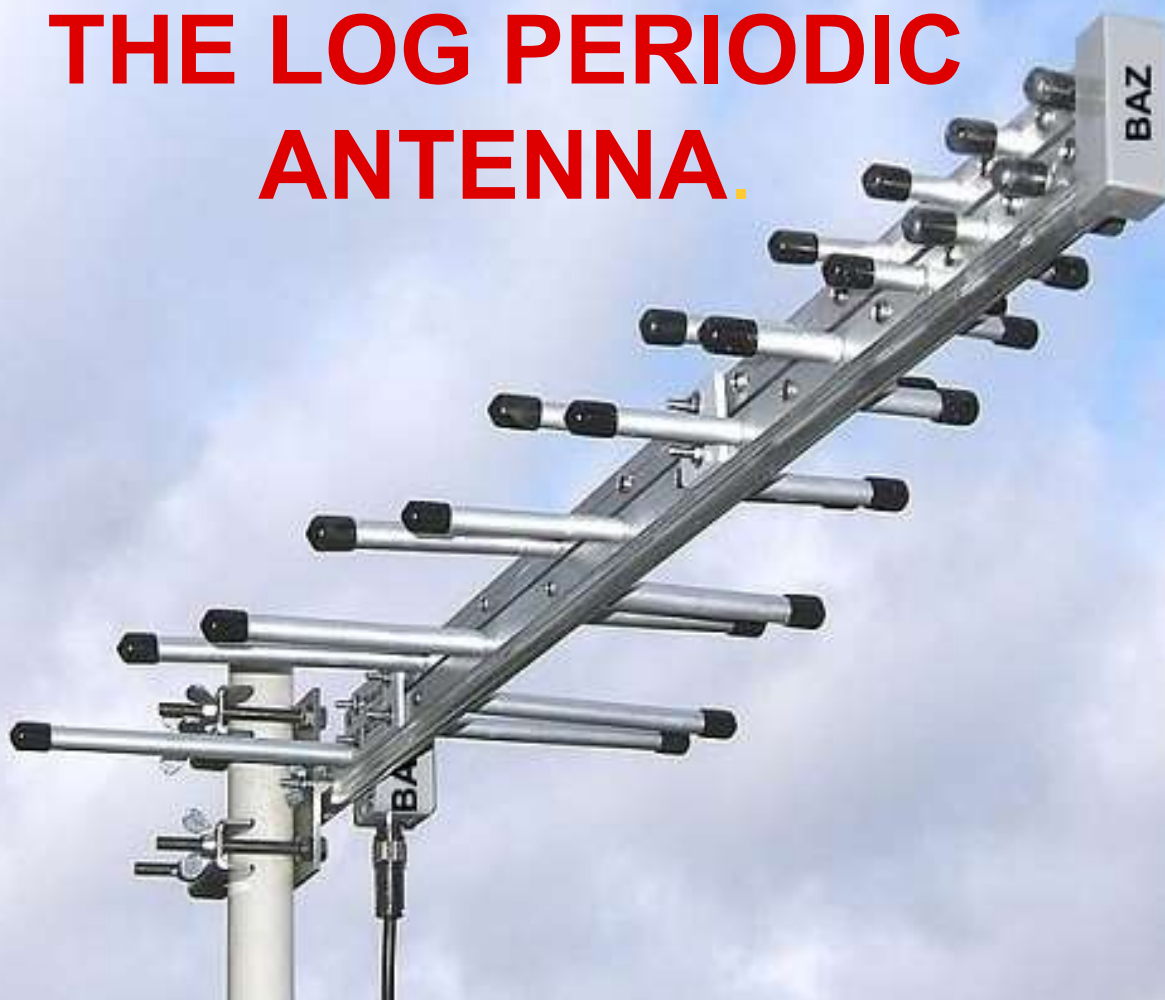
October 2024

CHEHAM & DISTRICT AMATEUR RADIO SOCIETY MONTHLY NEWSLETTER

All About Antenna's - New Series

We meet the 2nd Wednesday each month at The Golden Eagle Pub in Ashley Green and every 4th Wednesday each month at the Ashley Green Memorial Hall, Ashley Green, HP5 3PP

THE LOG PERIODIC ANTENNA.



Technical

Motion Detection
Radar Module

For Sale and Wanted

SK Sale of Brian M0IHV

Want to write something for the newsletter?
Then you can contact me on
cdarsnews@gmail.com

Can't find that elusive part or have anything for sale?
Why not drop me an email and put it in
'For sale and wanted'.

Morse links

If you're interested in Morse code, here are a few useful links:



FISTS CW Club

Promoting Morse Code for 36 years 1987-2023

<https://fists.co.uk>

WIKIHOW

How to learn Morse Code

<https://www.wikihow.com/Learn-Morse-Code>

The Ham Whisperer

Morse Code Course

<http://www.hamwhisperer.com/p/morse-code-course.html>

LEARN MORSE CODE

LEARN MORSE CODE in one minute !

<http://www.learnmorsecode.com/>

Welcome to LCWO.net

Learn Morse Code (CW) Online!

<https://lcwo.net/>



Tools for learning Morse Code

<https://www.aa9pw.com/morsecode/>



Celebrating the unique art form of Morse Code

<https://cwops.org/>



Morse Code by Ray Burlingame-Goff (SK - 29th July 2021)

<http://www.g4fon.net/>

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Cover Photo By BAZ Antennas - BAZ Spezialantennen, Germany.

Chairman - Dave Keston (G8FMC) **Secretary** - Malcolm Appleby (G3ZNU) **Treasurer** - Matt Whitchurch (M1DTG)
- Guy Plunkett (M0GUY) - John Hall (G0ODQ) - Peter Holliday (2E0PTH)
- Roger Fellows (M7RMF)

All the above are members of the committee and can be contacted on cdars-committee@googlegroups.com
Newsletter Editor - RogerFellows (M7RMF)

Welcome

Welcome to this months CDARS Newsletter.

After a couple of months with a lot going on we are back to a more manageable newsletter.

We start a new series, All About Antennas, this month and you've guessed it, its all about antennas. This is more about how they came to being, the inventor and where they were initially designed for.

Peter 2E0PTH gives us an insight into miniature radar technology with his project of radar motion detection.

There is all the usual contesting news from Dave G8FMC and also the upcoming contests for October and November.

The 'for sale' pages still have a number of items available from the SK sale of Bryan M0IHY. Remember if you have anything for sale then why not offer it here for club members before going the Ebay route.

Thats all for this month. Enjoy.

Roger M7RMF/2E0TGU



**Roger
M7RMF/2E0TGU**

Chairmans Ramble

What has happened, or not happened, in the last month?

Unfortunately the club Bar-B-Q was not just re-scheduled, but cancelled. We could not sort a date where significant members were able to attend; so rather than excluding some members, we have reluctantly cancelled, with hopes for maybe late spring next year? (As it turned out the weather was rubbish, so we probably would have had to cancel anyhow?)



Dave G8FMC

A few of us visited the National Hamfest at Newark on Saturday (I got back a few hours ago). I combined it with a first visit, for a couple of nights, to my eldest daughters new house in Wragby, Lincolnshire (just 38mins away from the Newark Show Ground). Some will know that Sally & Simon have been in farthest N.W. Cumbria for at least 15years. 130 mls & about 2.5 hrs is a lot more appealing than the 300 mls and 6 hr slog up the M6! Since the 'New' house is actually about 1960's and needs a lot of work I was instructed to bring my overalls! In the event it was mainly a garage clear-out and a couple of tip runs on Friday. Since the house is a 'building-site' at the moment I stayed in a local hotel, which was very nice. Also VERY local, such that I left my car at the hotel car park and walked the 2 minutes to Sally's house! Wragby seems quite a nice friendly small town.

I have a shiny new 70cm antenna at the top of my mast! I have treated myself to a kit-of-bits from Richard G6HKS for the latest version of 16 element Powabeam Antenna for 70cm, designed by Derek G4CQM. This is a small improvement on Derek's previous 15 element offering, with an even cleaner pattern. I am hoping this will allow me to work the more distant stations due-North, whilst still rejecting some dire local noise, that peaks at about + 10-15dB above other noise to the NNE, that has always been present, day and night! I think it may be a local (rather early) Solar Panel installation? I did some careful measuring, marking, cutting and drilling recently. Roger M7RMF (now 2E0TGU) then helped me swap-out my old 18 element Tonna on a 2.7m boom, for the new Powabeam, which is 3.3m long. It looks like I may have about another +2dB of gain plus much better rejection of unwanted signals? I can't wait until the next 70cm UKAC contest All this 70cm antenna activity has spurred Roger M7RMF/2E0TGU on with my old 15 element kit of bits, which he had from me and will shortly replace his (fairly pathetic?) short-boom ZL special!

The RSGB has just announced that in future Contest Trophies awarded at the annual Convention, will NOT be engraved and also will NOT be able to be taken away by the winners! A certificate and a photo is all winners will get to hold. This seems to have gone down like the proverbial 'lead-balloon' in most quarters and seems to have been done purely to save a very modest amount of money? I see parallels with our new governments decision to scrap the 'Winter Fuel Payment' for most old folks? Both brilliant and very popular (NOT) decisions for very modest savings?

That is about it for this month.

73 all, Dave K, G8FMC (Chairman and Contest Coordinator)

Contests/Operating

VHF Field day seems a slightly distant memory now, although the fact that we won in such a convincing manner leaves a warm glow!

The UKAC's 2024

As I write this the September 70cm results have just been published, where we have comfortably beaten Hereford & are now well ahead of them on this band. Overall we are still 3rd but only by a whisker. We had a good showing on the September 23cm, so may well overhaul Hereford when those results are published?

VHF Championship 2024 (AFS section)

As mentioned last month, a decision was made that for this year we would pass on the HF SSB Field-Day and put all our efforts (as individuals) towards the 144MHz Trophy. With our fairly extensive band of 'Friends' (Associate members) we fielded a large team of no less than 12, headed up by Phil M0N (M0NVS), operating from his new site on a Bovingdon farm with a claimed 210 QSO's; closely followed by Matt G0XDI (camping-out in his new QTH, which is still an uninhabitable building site!) with a claimed 192 QSO's. Great effort chaps. Since Hereford only fielded 7 & David G4ASR (unusually) trailing behind our top 2, we can almost guarantee to have thrashed Hereford on this one? (What also helped us was that Steve G1YYB, operating as MW1B/P, was busy winning the SSB FD QRP section. Results not yet published, but he had more QSO's than all other entrants added together in his category!) So, at the time of going to press, the points situation is exactly the same as last month: Hereford back in front having now got 6838, against our 6510. 1.3GHz & 2.3GHz to go on Sat 8th October, so still a chance we can make it, with our extra helpers?

Other Contests:

2024/25 AFS Superleague series.

We made a decision to NOT give this top priority this year, as last years 3rd place behind the usual teams of Camb-Hams & Grimsby, was probably as good as we were ever likely to achieve? Those interested to enter if they want & are available, but no 'three-line-whip'.

The first round was the 70MHz where 8 of us did enter. To my great surprise it looks like Grimsby are not entering at all this year & the entries from Camb-Hams was a bit 'token' by their normally very high standards, with only 2 stations potentially ahead of our leads? (Teams of 4 are selected by the adjudicators in this series) We may revise our priorities/policy if we actually end up winning (or almost) this 70MHz round? Watch this space. (Yet another result anxiously awaited!

The next session in this 'Superleague' is the 50MHz on Sunday 20th October.

73, Dave K, G8FMC

All About Antenna's - The Log Periodic.

A log-periodic antenna (LP), also known as a log-periodic array or log-periodic aerial, is a multi-element, directional antenna designed to operate over a wide band of frequencies. It was invented by John Dunlavy in 1952.

The most common form of log-periodic antenna is the log-periodic dipole array or LPDA. The LPDA consists of a number of half-wave dipole driven elements of gradually increasing length, each consisting of a pair of metal rods. The dipoles are mounted close together in a line, connected in parallel to the feedline with alternating phase. Electrically, it simulates a series of two- or three-element Yagi-Uda antennas connected together, each set tuned to a different frequency.

LPDA antennas look somewhat similar to Yagi antennas, in that they both consist of dipole rod elements mounted in a line along a support boom, but they work in very different ways. Adding elements to a Yagi increases its directionality, or gain, while adding elements to an LPDA increases its frequency response, or bandwidth.

One large application for LPDAs is in rooftop terrestrial television antennas, since they must have large bandwidth to cover the wide television bands of roughly 54–88 and 174–216 MHz in the VHF and 470–890 MHz in the UHF while also having high gain for adequate fringe reception. One widely used design for television reception combined a Yagi for UHF reception in front of a larger LPDA for VHF.

Basic concept

The LPDA normally consists of a series of half wave dipole “elements” each consisting of a pair of metal rods, positioned along a support boom lying along the antenna axis. The elements are spaced at intervals following a logarithmic function of the frequency, known as d or σ . The length of the successive elements and the spacing between them gradually decrease along the boom. The relationship between the lengths is a function known as τ . σ and τ are the key design elements of the LPDA design. The radiation pattern of the antenna is unidirectional, with the main lobe along the axis of the boom, off the end with the shortest elements. Each dipole element is resonant at a wavelength approximately equal to twice its length. The bandwidth of the antenna, the frequency range over which it has near-maximum gain, is approximately between the resonant frequencies of the longest and shortest elements.

Every element in the LPDA antenna is a driven element, that is, connected electrically to the feedline. A parallel wire transmission line usually runs along the central boom, and each successive element is connected in opposite phase to it. The feedline can often be seen zig-zagging across the support boom holding the elements. Another common construction method is to use two parallel central support booms that also acts as the transmission line, mounting the dipoles on the alternate booms. Other forms of the log-periodic design replace the dipoles with the transmission line itself, forming the log-periodic zig-zag antenna.

Many other forms using the transmission wire as the active element also exist.



Log-periodic antenna, 400–4000 MHz



Log-periodic antenna, 250–2400 MHz

The Yagi and the LPDA designs look very similar at first glance, as they both consist of a number of dipole elements mounted along a support boom. The Yagi, however, has only a single driven element connected to the transmission line, usually the second one from the back of the array, the remaining elements are parasitic. The Yagi antenna differs from the LPDA in having a very narrow bandwidth.

In general terms, at any given frequency the log-periodic design operates somewhat similar to a three-element Yagi antenna; the dipole element closest to resonant at the operating frequency acts as a driven element, with the two adjacent elements on either side as director and reflector to increase the gain, the shorter element in front acting as a director and the longer element behind as a reflector. However, the system is somewhat more complex than that, and all the elements contribute to some degree, so the gain for any given frequency is higher than a Yagi of the same dimensions as any one section of the log-periodic.

However, a Yagi with the same number of elements as a log-periodic would have far higher gain, as all of those elements are improving the gain of a single driven element. In its use as a television antenna, it was common to combine a log-periodic design for VHF with a Yagi for UHF, with both halves being roughly equal in size. This resulted in much higher gain for UHF, typically on the order of 10 to 14 dB on the Yagi side and 6.5 dB for the log-periodic. But this extra gain was needed anyway in order to make up for a number of problems with UHF signals.

It should be strictly noted that the log-periodic shape, according to the IEEE definition does not align with broadband property for antennas. The broadband property of log-periodic antennas comes from its self-similarity.

A planar log-periodic antenna can also be made self-complementary, such as logarithmic spiral antennas (which are not classified as log-periodic per se but among the frequency independent antennas that are also self-similar) or the log-periodic toothed design. Y. Mushiake found, for what he termed “the simplest self-complementary planar antenna,” a driving point impedance of $Z_0/2=188.4 \Omega$ at frequencies well within its bandwidth limits.

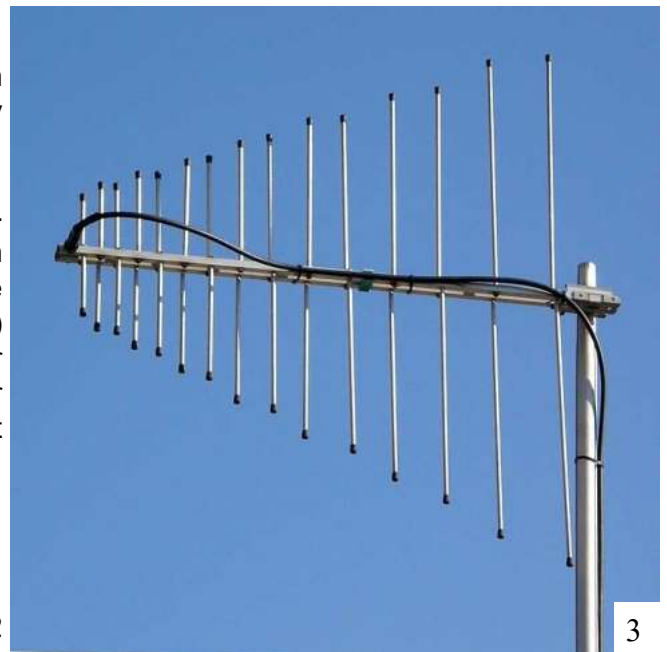
History

John Dunlavy invented the log-periodic antenna in 1952 while working for the United States Air Force but was not credited with it due to its “Secret” classification.

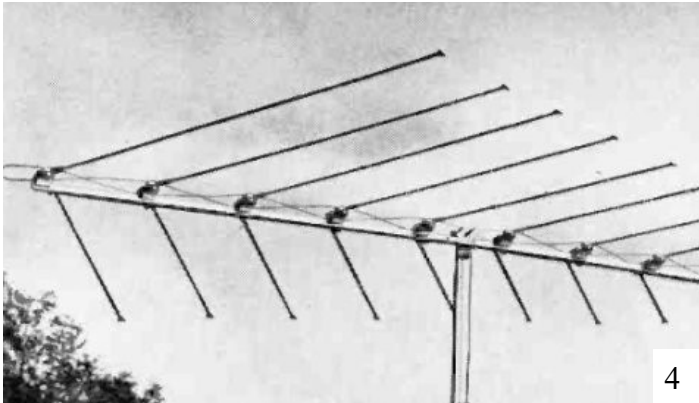
The University of Illinois at Urbana–Champaign had patented the Isbell and Mayes–Carrel antennas and licensed the design as a package exclusively to JFD Electronics in New York. Channel Master and Blonder Tongue Labs ignored the patents and produced a wide range of antennas based on that design. Lawsuits regarding the antenna patent, which the U.I. Foundation lost, evolved into the 1971 Blonder-Tongue Doctrine. This precedent governs patent litigation.

Short wave broadcast antennas

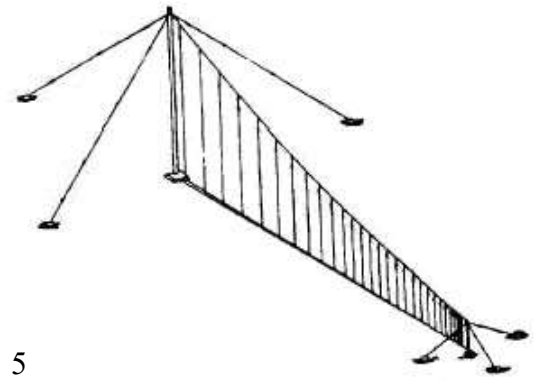
The log-periodic is commonly used as a transmitting antenna in high power shortwave broadcasting stations because its broad bandwidth allows a single antenna to transmit on frequencies in multiple bands. The log-periodic zig-zag design with up to 16 sections has been used. These large antennas are typically designed to cover 6 to 26 MHz but even larger ones have been built which operate as low as 2 MHz. Power ratings are available up to 500 kW. Instead of the elements being driven in parallel, attached to a central transmission line, the elements are driven in series, adjacent elements connected at the outer edges. The antenna shown here would have about 14 dBi gain. An antenna array consisting of two such antennas, one above the other and driven in phase has a gain of up to 17 dBi. Being log-periodic, the antenna’s main characteristics (radiation pattern, gain, driving point impedance) are almost constant over its entire frequency range, with the match to a 300 Ω feed line achieving a standing wave ratio of better than 2:1 over that range.



Log-periodic mounted for vertical polarization, 140–470 MHz



LP television antenna 1963. Covers 54–88 MHz and 174–218 MHz. Slanted elements were used because on the upper band they operate at the third harmonic.



Wire log-periodic monopole antenna



Wire log-periodic transmitting antenna at international shortwave broadcasting station, Moosbrunn, Austria. Covers 6.1–23 MHz.

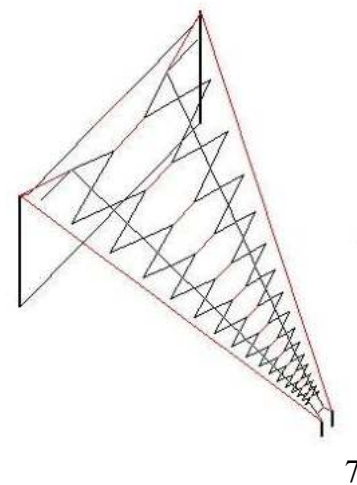


Diagram of a zig-zag shortwave LPA antenna. Black shows metallic conductors; red shows insulating supports.

Source: Wikipedia.

Photo acknowledgements.:

1. By BAZ Antennas - BAZ Spezialantennen, Germany, CC BY-SA 3.0,
2. By Schwarzbeck Mess-Elektronik - Own work, CC BY-SA 3.0,
3. By Original work: K. Krallis, SV1XV Derived work: Chetvorno - Derived from VHF UHF LP-antenna.JPG, Attribution,
4. By Edward Finkel - Retrieved July 5, 2015 from Edward Finkel, "Log Periodic V" in Radio-Electronics magazine, Gernsback Publications, Inc., New York, Vol. 34, No. 6, June 1963, p. 24 on <http://www.americanradiohistory.com> archive, Public Domain,
5. By Naval Electronic Systems Command - Retrieved July 7, 2015 from NAVELEX 0101,104 - HF Radio Antenna Systems, Naval Shore Electronics Criteria, June 1970, published by Naval Electronic Systems Command, Dept. of the Navy, p. 4-8, fig. 4-4 on <http://www.navy-radio.com>, Public Domain,
6. By wdwd - Own work, CC BY-SA 4.0,
7. By JNRSTANLEY - Drawn by myself based on common generic designs, CC BY-SA 3.0,

Motion Detection Radar Module.

Introduction

Recently a number of motion detection modules based on radar have become available. Unlike PIR detectors which detect heat being emitted from the target these use a variety of radar techniques to detect a moving target. The prices of these detectors vary from £1.50 to over £60. The cheapest module available is the RCWL-0516 which uses doppler radar to detect a moving target. It has a simple digital output which goes high when motion is detected.

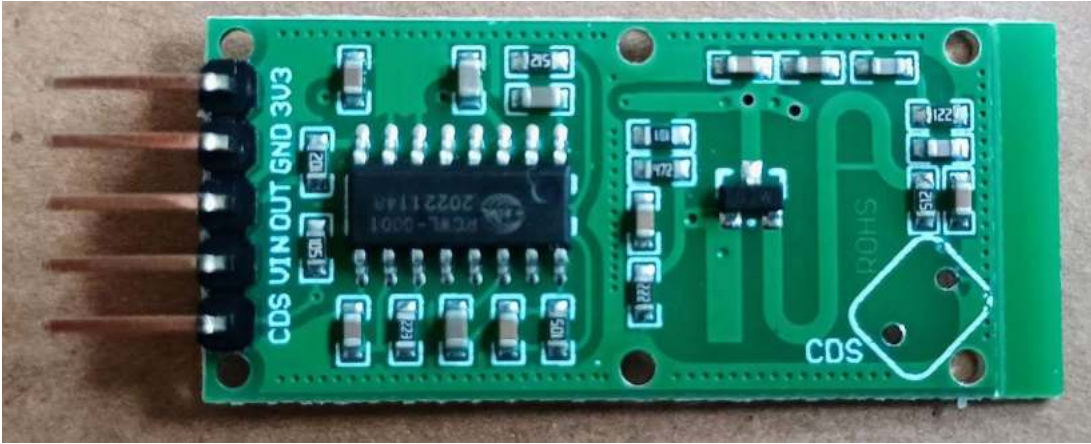
The more expensive modules have a serial input/output giving range and speed information. Their sensitivity can be configured as well as the range over which they will recognise a target. Modules operating at 60GHz claim to be able to detect breathing and heart rate of a stationary human.

What's in it?

The cheapest module has three connections: ground, a positive supply voltage of between 4 and 28 volts and a digital output. The module consumes approximately 3mA at 5V supply. There are two parts to the module, a single transistor configured as an oscillator running at 3.1GHz and an IC similar to the ones used in PIR detectors.

The frequency of the oscillator is determined by an inductor and capacitors constructed from PCB traces. The transistor acts as a transmitter, receiver and mixer. The received signal, which has been reflected off the target, will be a slightly different frequency from the transmitted signal due to the Doppler effect. The received signal mixes with the original signal to produce the usual sum and difference signals. The difference signal is filtered and passed to the IC. **See <https://www.snapeda.com/parts/rcwl-9196/RCWL/datasheet/> for a schematic and other details.**

The module must be kept clear of other objects to avoid capacitive coupling which affects the oscillator. A wire within a couple of cm will trigger a stream of false detections, larger items can stop the oscillator completely.



Sensitivity

I have read that these devices can't be used outdoors since they can detect the turbulence caused by strong winds. If that's true I then wondered if it could detect rainfall if I placed the module near a window. As luck would have it we have had some heavy downpours in the last few days, an ideal test environment. Unfortunately it didn't detect the rain but it did detect me going to the bathroom in the early hours of the morning. These devices are sensitive enough to detect movement in an adjacent room. In my case the signal crossed a room 9ft wide, through a breeze block wall, bounced off me and then back through the wall and across the room.

Would I recommend or use it as a replacement for a PIR detector? NO, I found it difficult to get it to work reliably due to it's dislike of close objects and it generated a number of false detections even when it was clear of other objects. Although it is possible these false detections were caused by people moving around in other parts of the house.

Undeterred I'm going to try a slightly more expensive module costing £4.50. Hopefully it has a more stable and robust oscillator.

Peter 2E0PTH.

October - HF

Day	Date (2024)	Time (UTC)	Contest Name
Mon	07 Oct	1900-2030	Autumn Series CW
Wed	16 Oct	1900-2030	Autumn Series DATA
Thu	24 Oct	1900-2030	Autumn Series SSB
Mon	28 Oct	2000-2130	RSGB FT4 Contest

October - VHF

Day	Date (2024)	Time (UTC)	Contest Name
Tue	01 Oct	1800-1855	144MHz FMAC
Tue	01 Oct	1900-2130	144MHz UKAC
Wed	02 Oct	1700-2100	144MHz FT8 AC (4 hours)
Wed	02 Oct	1900-2100	144MHz FT8 AC (2 hours)
Sat	05 Oct	1400-2200	1.2GHz Trophy
Sat	05 Oct	1400-2200	2.3GHz Trophy
Sat-Sun	05-06 Oct	1400-1400	Oct 432MHz-245GHz Contest
Tue	08 Oct	1800-1855	432MHz FMAC
Tue	08 Oct	1900-2130	432MHz UKAC
Wed	09 Oct	1700-2100	432MHz FT8 AC (4 hours)
Wed	09 Oct	1900-2100	432MHz FT8 AC (2 hours)
Thu	10 Oct	1900-2130	50MHz UKAC
Tue	15 Oct	1900-2130	1.3GHz UKAC
Thu	17 Oct	1900-2130	70MHz UKAC
Sun	20 Oct	900-1300	50MHz AFS Contest
Tue	22 Oct	1830-2130	SHF UKAC

November - HF

Day	Date (2024)	Time (UTC)	Contest Name
Mon	04 Nov	2000-2130	Autumn Series DATA
Sat	09 Nov	2000-2300	Club Calls (1.8MHz AFS)
Wed	13 Nov	2000-2130	Autumn Series SSB
Sat	16 Nov	1900-2300	2nd 1.8MHz Contest
Mon	18 Nov	2000-2130	RSGB FT4 Contest
Thu	28 Nov	2000-2130	Autumn Series CW

November - VHF

Day	Date (2024)	Time (UTC)	Contest Name
Sat-Sun	02-03 Nov	1400-1400	144MHz CW Marconi
Tue	05 Nov	1900-1955	144MHz FMAC
Tue	05 Nov	2000-2230	144MHz UKAC
Wed	06 Nov	1700-2100	144MHz FT8 AC (4 hours)
Wed	06 Nov	1900-2100	144MHz FT8 AC (2 hours)
Tue	12 Nov	1900-1955	432MHz FMAC
Tue	12 Nov	2000-2230	432MHz UKAC
Wed	13 Nov	1700-2100	432MHz FT8 AC (4 hours)
Wed	13 Nov	1900-2100	432MHz FT8 AC (2 hours)
Thu	14 Nov	2000-2230	50MHz UKAC
Tue	19 Nov	2000-2230	1.3GHz UKAC
Thu	21 Nov	2000-2230	70MHz UKAC
Tue	26 Nov	1930-2230	SHF UKAC

2024 Club (Team) Contests

Note: Contests in Bold are Sat or Sat-Sun Contests

2024 Club (Team) Contests (i.e. AFS, Championship & CCs)

*Weekend events in **BOLD** highlight (get clearance from XYL/SM/SWIMBO?)*

Day	Date	Time UTC	Contest Name	Sections	CHAM-SHP
Sat	5 Oct	1400-2200	2.3/1.3GHz Trophy	O, SF	YES CDARS
Mon	7 Oct	1900-2030	Autumn Series CW	100W-A & U, 10W-A & U	NRC
Wed	16 Oct	1900-2030	Autumn Series Data	100W-A & U, 10W-A & U	NRC
Sun	20 Oct	0900-1300	50MHz Trophy	O, SF	CDARS-AFS
Thurs	24 Oct	1900-2030	Autumn Series SSB	100W, 10W	NRC
Mon	4 Nov	1900-2030	Autumn Series Data	100W-A & U 10W-A & U	NRC
Sat	9 Nov	2000-2300	C-calls (1.8MHz AFS)		CDARS-AFS
Wed	13 Nov	1900-2030	Autumn Series SSB	100W, 10W	NRC
Thur	28 Nov	1900-2030	Autumn Series Data	100W-A & U, 10W-A & U	NRC
Sun	8 Dec	1000-1400	144MHz AFS	SF, O	CDARS-AFS
Fri	27 Dec	1500-1700	6m Xmas Cumulative	AR, AO, AL	SOLO
Sat	28 Dec	1500-1700	4m Xmas Cumulative	AR, AO, AL	SOLO
Sun	29 Dec	1500-1700	2m Xmas Cumulative	AR, AO, AL	SOLO
Mon	30 Dec	1500-1700	70cm Xmas C'lative	AR, AO, AL	SOLO

SK sale of the shack contents of the late Bryan M0IHY (Items with Dave G8FMC)

ITEM	ASKING PRICE or O.V.N.O.
1. Yaesu FT818 TCVR + soft carry case + LDG Z-817 auto-Tuner - As new	£675
2. CG3000 remote auto ATU (<i>Provisional: Suffered water ingress</i>)	Sold
3. Power Mag 145 – large magnetic mount + cable (new £62) New & boxed.	£40
4. Comet CHA-250HD/BXII Multi-Band HF Vertical Antenna (new £350) 250W SSB 75W Data. See March 2024 PW review. As new, unused	£220
5. Moonraker MRQ750 2m/70cm Mobile whip (new £35) Unused as new	£25
6. HF Mobile/portable antenna PL259 fitting e.g. large mag-mount? Unused	Offers
7. Modified Cobweb antenna (Polish) (new £200)	£70
8. DX Commander Pole about 12.4m, 12 section, heavy duty. Weight 3.7Kg With a rotating guy plate & 3 guys, that fits about 3m up. (New £139) (New Unused)	Sold
9. Halo antenna for 50MHz (£50 new)	Sold

Please initially contact Dave G8FMC if interested:- g8fmc547@gmail.com, or 07928-426553

SK sale of the shack contents of the late Bryan M0IHY (Items with Angie)

	<u>ITEM</u>	<u>ASKING PRICE or O.V.N.O.</u>
1	Sangean ATS-909X2 all-band portable receiver £225 ish new boxed	£150
2	QRM Eliminator X-phase 1-30MHz - £45 new	£25
3	L C Meter Juntek - £35 new	Sold
4	TYT DMR Hand-Held MD-UV380 -£65 ish new.	Sold
6	Begali Simplex Pro paddle key (£160 new)	Sold
7	Kent Straight key	£65
8	CW Keyer TC 701 - £70 new	£45
9	Soldering Station (basic) 60W	Offers
10	BNOS LPM432 – 10 – 50 Linear Amp - £150 new	Sold
11	IGEN Max regenerative receiver. eBay US has an unbuilt kit at £160.	£50
12	Lead-free solder & cleaner (in bag)	Offers
13	Kenwood HS-6 small headphones - £40 new	£20
14	SWR meter 1.8MHz to 50MHz 120W	Sold
15	SWR meter Moonraker SWR-300 120-500MHz £35 new	£15
16	Austcol Radiation Meter MT525 -£25 online average price new.	£10
17	Signalink USB sound Card 8pm. £120 new	£70
18	Metro VNA in case (£270 new)	£175
19	Prepp Comm multi-band morse transceiver. Approx £358 new.	£225
20	ATU 100 Kit by N7DDC	Sold
21	MFJ Super Hi-Q Loop Remote Control . Unknown model.	?
22	Morse Tutor D70 G0PJO	Sold
23	QRP Kits EFHW Tuner	Offers
24	RF Comms Wideband Matching Unit	Sold

Please initially contact Dave G8FMC if interested:- g8fmc547@gmail.com, or 07928-426553

Dates For Your Diary



Listed below are dates of RSGB, UK and International contests for 2024/25.

Worked All Germany Contest - 1500Z, Oct 19 to 1459Z, Oct 20, 2024

Logs due: 0000Z, Oct 28

CQWW DX SSB Contest - 26th/27th October 2024.

CQWW DX CW Contest - 23/th24th November 2024.

ARRL 160-Meter Contest - 2200Z, Dec 6 to 1600Z, Dec 8, 2024

ARRL 10m DX Contest - 14th/15th December 2024

Hungarian DX Contest - 1200Z, Jan 18 2025 to 1200Z, Jan 19 2025

European Union DX Contest - 1200Z, Feb 1 2025 to 1200Z, Feb 2 2025

CQ WW RTTY WPX Contest - 0000Z, Feb 8 2025 to 2400Z, Feb 9 2025

Dutch PACC Contest - 1200Z, Feb 8 2025 to 1200Z, Feb 9 2025

Please double check dates, start/end times etc in good time prior to the event.

Full details and more contests at: <https://www.contestcalendar.com/contestcal.html>

Radio Rally Dates.

Full details of the events are available at: g4gra.org.uk/All

October 2024

6th - 49th Welsh Amateur Radio Rally, Newport, S. Wales, NP18 2YE

11th-13th - The 2024 RSGB Convention, Kents Hill Park, Milton Keynes, MK7 6BZ.

Alternative postcode for SatNav: MK7 6TT

13th - Dartmoor Autumn Rally 2024 Yelverton War Memorial Hall, Meavy Lane, Yelverton, Devon, PL20 AL.

26th - BATC Convention For Amateur TV Online Only.
Talks about ATV-related topics from 10:00 until 15:00.
<http://batc.org.uk/live>

26th - Essex CW Boot Camp, Powers Hall End, Witham, Essex, CM8 2HE.
Further information:<https://essexcw.uk>

November 2024

3rd - Holsworthy Radio Rally, Holsworthy Leisure Centre, Holsworthy, Devon. EX22 6DH.

December 2024

1st - Wiltshire Radio Winter Rally, Kingston Langley, Village Hall, Kingston Langley, Wilts. SN15 5NJ.

8th - Mid-Devon Amateur Radio & Electronics Fair. Winkleigh Sports Centre, Winkleigh, Devon. EX19 8HZ

(All information courtesy of g4gra.org.uk)



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