An Amateur Radio publication for the Microwave Enthusiast

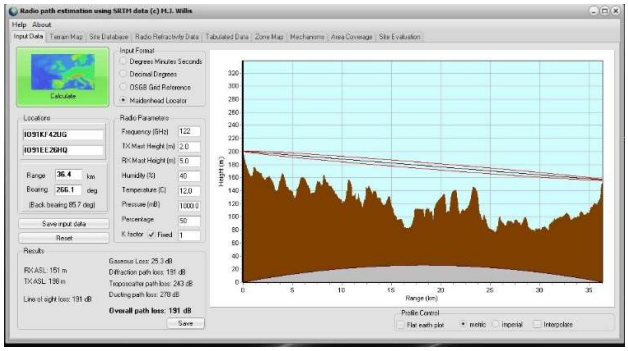
scatterpoint

February 2022

Published by the UK Microwave Group

In This Issue

Noel G8GTZ/P near Thruxton 122GHz UK Record



A nice clear path for the 122GHz contact

UK Microwave Group

Subscription Information

The following subscription rates apply

UK £6 00 US $12 00 Europe €10 00

This basic sum is for **UKuG membership** For this you receive Scatterpoint for **FREE** by electronic means (now internet only) via

https://groups.io/g/Scatterpoint and/or Dropbox Also, **free access to the Chip Bank**

Please make sure that you pay the stated amounts when you renew your subs next time If the amount is not correct your subs will be allocated on a pro-rata basis and you could miss out on a newsletter or two!

You will have to make a quick check with the membership secretary if you have forgotten the renewal date Please try to renew in good time so that continuity of newsletter issues is maintained Put a **renewal date reminder** somewhere prominent in your shack

Please also note the payment methods and be meticulous with PayPal and cheque details

PLEASE QUOTE YOUR CALLSIGN!

Payment can be made by: PayPal to

payukug@microwavers.org

or a cheque (drawn on a UK bank) payable to 'UK Microwave Group' and sent to the membership secretary (or, as a last resort, by cash sent to the Treasurer!)

Articles for Scatterpoint

News, views and articles for this newsletter are always welcome

Please send them to

editor@microwavers org

The CLOSING date is

the FIRST day of the month

if you want your material to be published in the next issue

Please submit your articles in any of the following formats:

Text: txt, rtf, rtfd, doc, docx, odt, Pages

Spreadsheets: Excel, OpenOffice, Numbers

Images: tiff, png, jpg

Schematics: sch (Eagle preferred)

Please send pictures and tables separately, as they can be a bit of a problem.

Thank you for you co-operation

Roger G8CUB

Reproducing articles from Scatterpoint

If you plan to reproduce an article exactly as in Scatterpoint then please contact the Editor – otherwise you need to seek permission from the original source/author.

UKµG Project support

The UK Microwave Group is pleased to encourage and support microwave projects such as Beacons, Synthesiser development, etc. Collectively UKuG has a considerable pool of knowledge and experience available, and now we can financially support worthy projects to a modest degree.

Note that this is essentially a small scale grant scheme, based on 'cash-on-results'. We are unable to provide ongoing financial support for running costs – it is important that such issues are understood at the early stages along with site clearances/licensing, etc.

The application form has a number of guidance tips on it – or just ask us if in doubt! In summary:-

- Please apply in advance of your project
- We effectively reimburse costs - cash on results (e.g. Beacon on air)
- We regret we are unable to support running costs

Application forms below should be submitted to the UKuG Secretary, after which they are reviewed/ agreed by the committee

www.microwavers.org/proj-support.htm

UKµG Technical support

One of the great things about our hobby is the idea that we give our time freely to help and encourage others, and within the UKuG there are a number of people who are prepared to (within sensible limits!) share their knowledge and, what is more important, test equipment. Our friends in America refer to such amateurs as “Elmers” but that term tends to remind me too much of that rather bumbling nemesis of Bugs Bunny, Elmer Fudd, so let’s call them Tech Support volunteers.

While this is described as a “service to members” it is not a “right of membership!”

Please understand that you, as a user of this service, must expect to fit in with the timetable and lives of the volunteers. Without a doubt, the best way to make people withdraw the service is to hassle them and complain if they cannot fit in with YOUR timetable!

Please remember that a service like our support people can provide would cost lots of money per hour professionally and it’s costing you nothing and will probably include tea and biscuits!

If anyone would like to step forward and volunteer, especially in the regions where we have no representative, please contact the committee.

The current list is available at

www.microwavers.org/tech-support.htm

UKµG Chip Bank – A free service for members

By Mike Scott, G3LYP

Non-members can join the UKµG by following the non-members link on the same page and members will be able to email Mike with requests for components. All will be subject to availability, and a listing of components on the site will not be a guarantee of availability of that component.

The service is run as a free benefit to all members of the UK Microwave Group. The service may be withdrawn at the discretion of the committee if abused. Such as reselling of components.

There is an order form on the website with an address label which will make processing the orders slightly easier.

Minimum quantity of small components is 10.

These will be sent out in a small jiffy back using a second class large letter stamp. The group is currently covering this cost.

As many components are from unknown sources. It is suggested values are checked before they are used in construction. The UKµG can have no responsibility in this respect.

The catalogue is on the UKµG web site at www. microwavers.org/chipbank.htm

UK Microwave Group Contact Information

Chairman: Position vacant	General Secretary: John Quarmby G3XDY	Membership Secretary: Bryan Harber G8DKK
email: chairman@microwavers.org	secretary@microwavers.org Suffolk JO02OB Tel: 01473 717830	membership@microwavers.org Hertfordshire IO91VX
Treasurer: David Millard M0GHZ	Scatterpoint Editor: Roger Ray G8CUB	Beacon Coordinator: Denis Stanton G0OLX
email: treasurer@microwavers.org	editor@microwavers.org Wiltshire IO91DK Tel: 07900 261121	beacons@microwavers.org

Scatterpoint Activity news: John G4BAO scatterpoint@microwavers.org
Contests & Awards Manager: G3XDY as above g3xdy@btinternet.com

Assistants

Murray Niman	Webmaster	G6JYB	g6jyb@microwavers.org
Kent Britain	USA	WA5VJB/G8EMY	wa5vjb@flash.net
Mike & Ann Stevens	Trophies	G8CUL/G8NVI	trophies@microwavers.org
Noel Matthews	ATV	G8GTZ	noel@noelandsally.net
Robin Lucas	Beaconspot	G8APZ	admin@beaconspot.uk
Chris Whitmarsh	mmWaves	G0FDZ	chris@g0fdz.com
Mike Scott	Chip Bank	G3LYP	g3lyp@btinternet.com
Paul Nickalls	Digital	G8AQA	g8aqa@microwavers.org
Heather Lomond	SDR	M0HNO	m0hno@microwavers.org
Neil Smith	Tech Support	G4DBN	neil@g4dbn.uk
Barry Lewis	RSGB uWave Manager	G4SJH	barryplewis@btinternet.com

UK Regional Reps

Martin Hall	Scotland	GM8IEM	martinhall@gorrell.co.uk
Gordon Curry	Northern Ireland	GI6ATZ	gi6atz@qsl.net
Peter Harston	Wales	GW4JQP	pharston@gmail.com

International

Kent Britain	USA	WA5VJB/G8EMY	wa5vjb@flash.net

Loan Equipment

Don't forget, UKuG has loan kit in the form of portable transceivers available to members for use on the following bands: **Contact Neil G4DBN for more information**

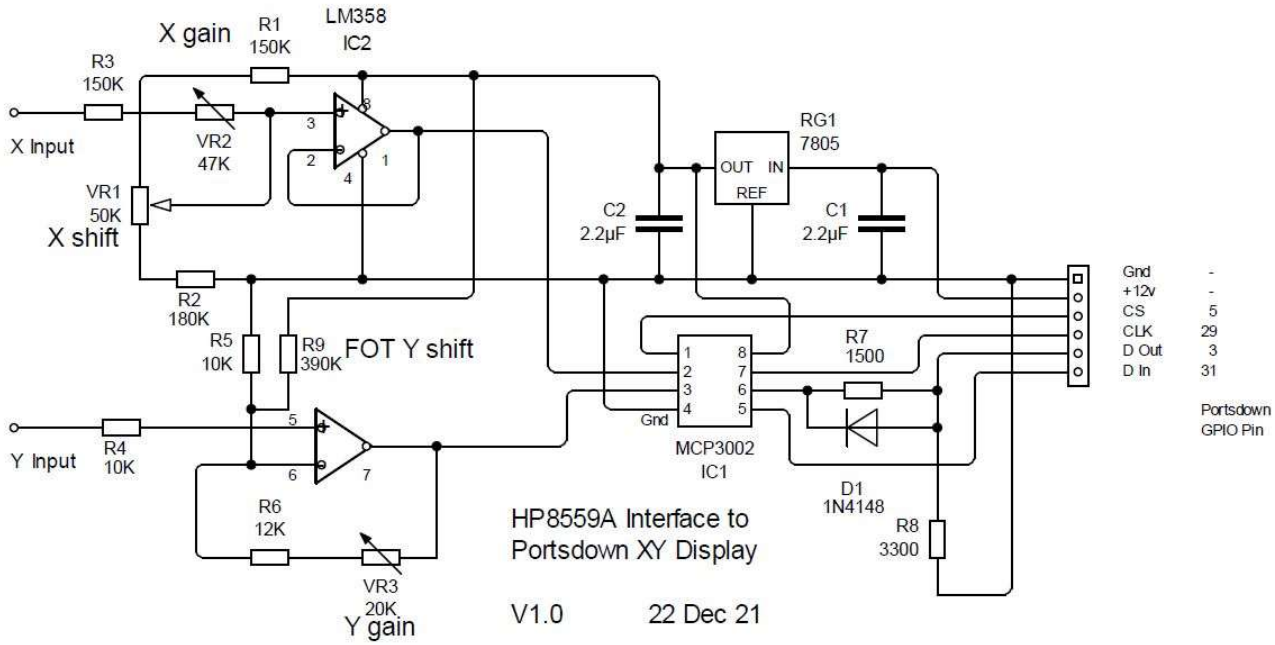
5.7GHz 10GHz 24GHz 47GHz 76GHz

An HP8559A Display Interface for the Portsdown System

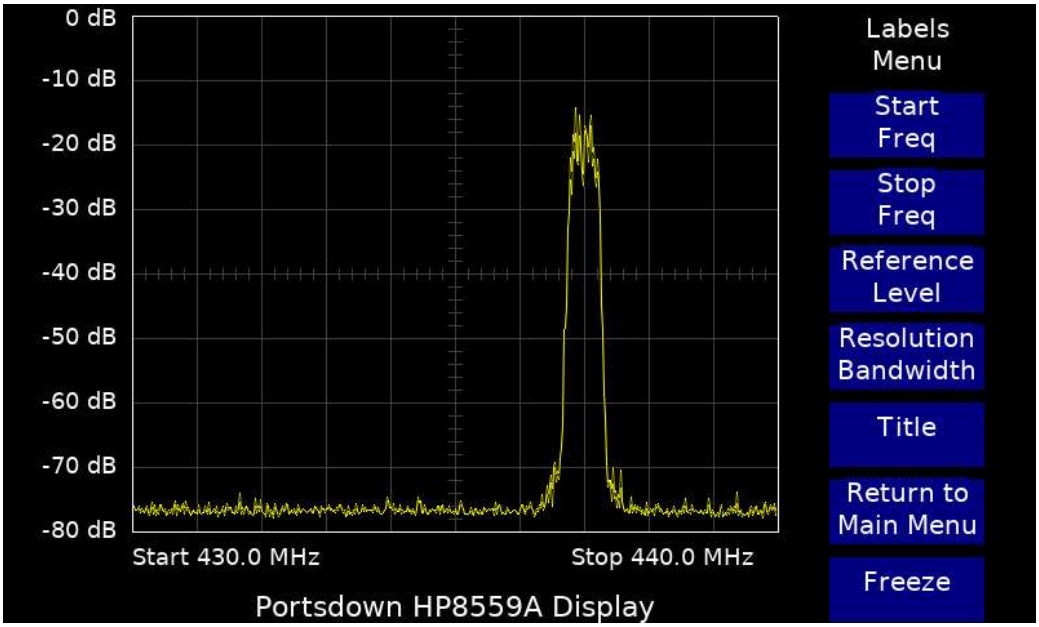
Dave Crump G8GKQ

In the December 2021 issue of Scatterpoint, I described how the Portsdown DATV Transceiver could be used as an alternative display for the HP141T Spectrum Analyser. The added capabilities include infinite persistence for slow scans, and the ability to capture and easily label screenshots.

With suitable analogue circuitry, the display can be made to work with most analog spectrum analysers. Here is the circuit to make it work with an HP8559A spectrum analyser which has a positive-going Y output.



There are more preset adjustments in this circuit than the original to allow for easier calibration to exactly reproduce the CRT image.



DATV on 437 MHz

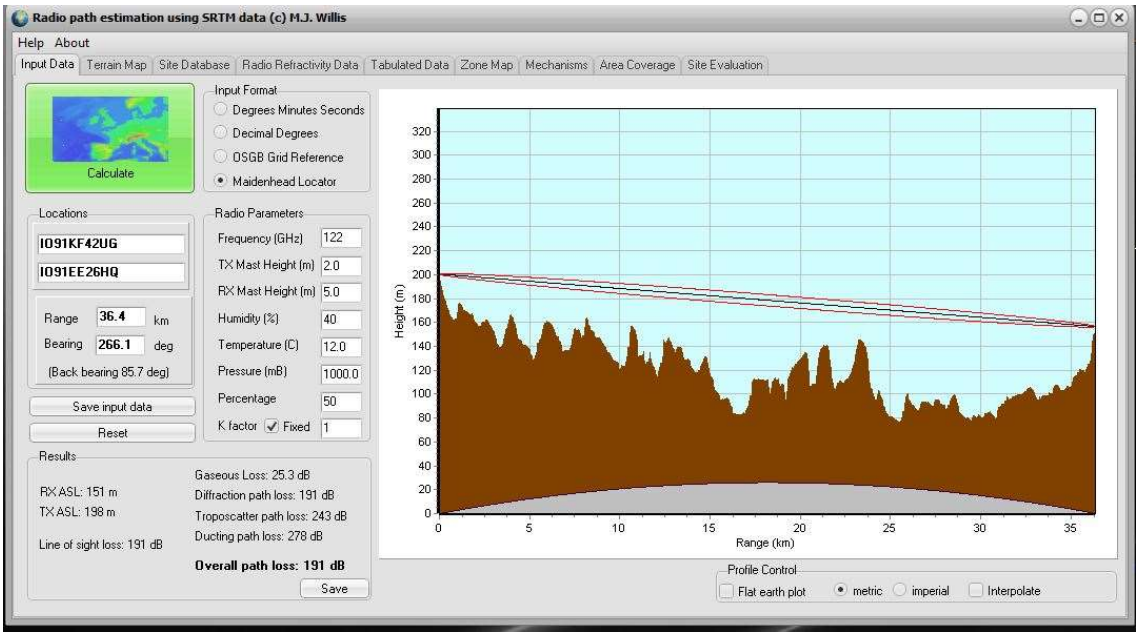
122GHz New UK Record

122GHz QSO report –25th February 2022

Noel Matthews G8GTZ with further input from Dave G1EHF, and John G8ACE

Wanting to build on our successful 26km QSO on 122GHz and very aware that the warmer weather is hopefully on its way, Dave G1EHF, John G8ACE and I decided to go out and do more tests on what was forecast to be a low humidity in late February. We had repeated the 26km path earlier in the month and so decided to be brave and go for a 36.44km path which if successful would be a new UK record for the band.

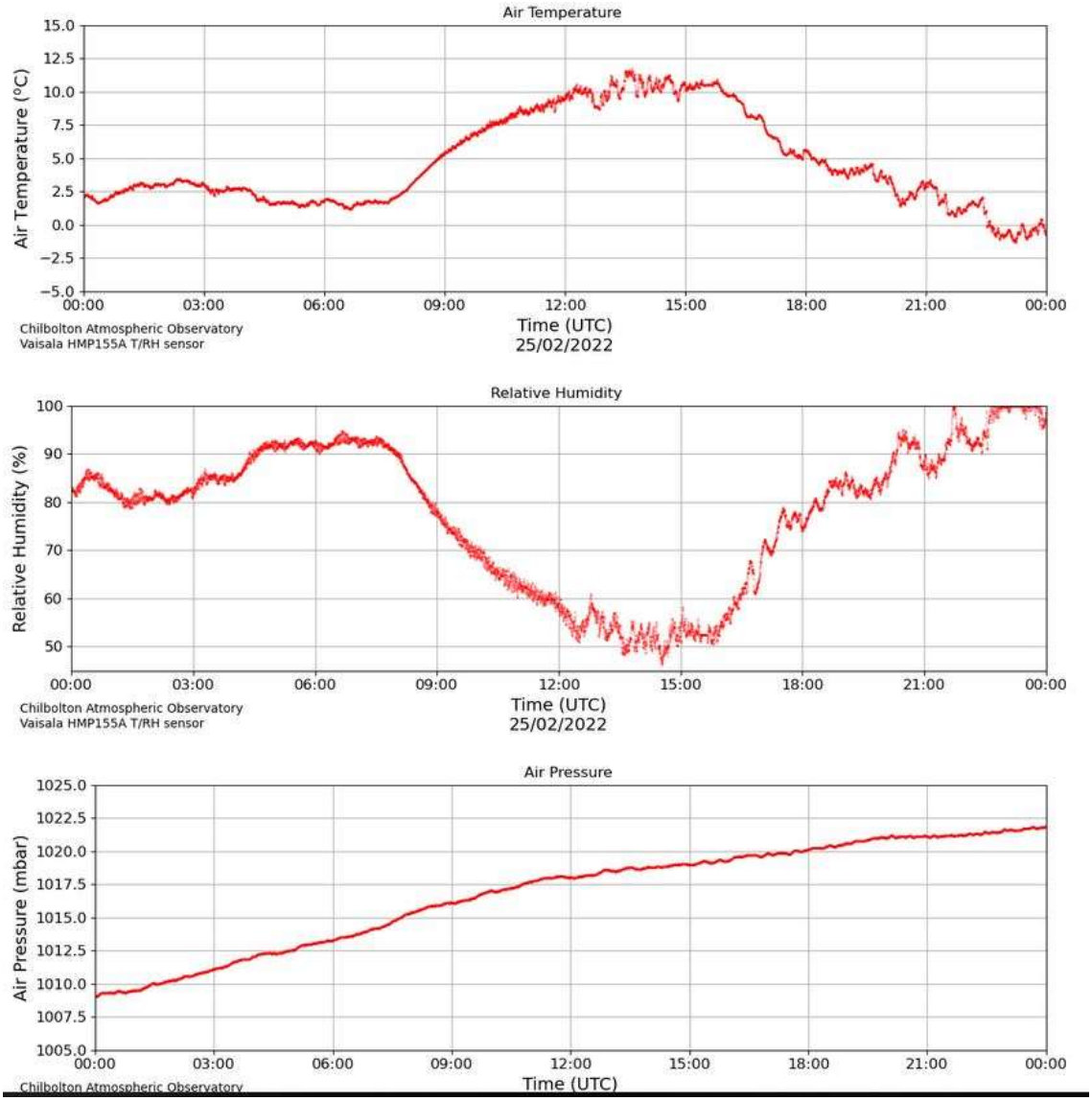
Dave and John went to IO91KF42UG near junction 7 of the M3 and I ventured out to IO91EE26HQ near the Thruxton race track.



The weather was dry with good visibility and the G8ACE weather box had the following readings at 3pm:

RH 47.1%
Temp 9.1 degrees
Pressure 1005 mBar
Water 4.1 g/m3
Gas loss 23 dB for the path
The Dew Point was calculated at –1.6 degrees

The Chilbolton weather station is almost on the halfway point and had the following readings.



G8GTZ was in bright sunshine and so a bathroom mirror was used for initial path alignment after which it was easy to align the dish on John's very strong 122GHz signal from his homebuilt multiplier.

Noel G8GTZ at Thruxton

G8ACE and G8GTZ easily completed a one-way FM voice QSO however John was unable to find Noel's signal from his VK3CV transmitter.
G1EHF was able to copy G8GTZ and using his VK3CV equipment made a 2-way QSO using Hellschreiber and CW to complete.
A recording of the signals received by G8GTZ can be seen here.
https://www.youtube.com/watch?v=TR4k7L52A_I

from Dave G1EHF

I can add that I was again using my unmodified VK kit, with standard TCXO and no additional image rejection for the 144 MHz RX IF. The antenna was the NEC Pasolink dish, fed with the VK 21 dBi horn, Noel's Hellschreiber had been perfectly audible earlier but the signals dropped towards 2pm and that's why we had to resort to (very!) slow morse characters to get the returned report and locator. The distant horizon occupied by Noel was definitely hazy throughout the operating period, so I suspect that the record could be extended slightly using the VK kit with mod's and larger dishes.

Optical and 122GHz Setup of Dave G1EHF/P and John G8ACE/P IO91KF42UG

G1EHF VK 122GHz system using Pasolink dish

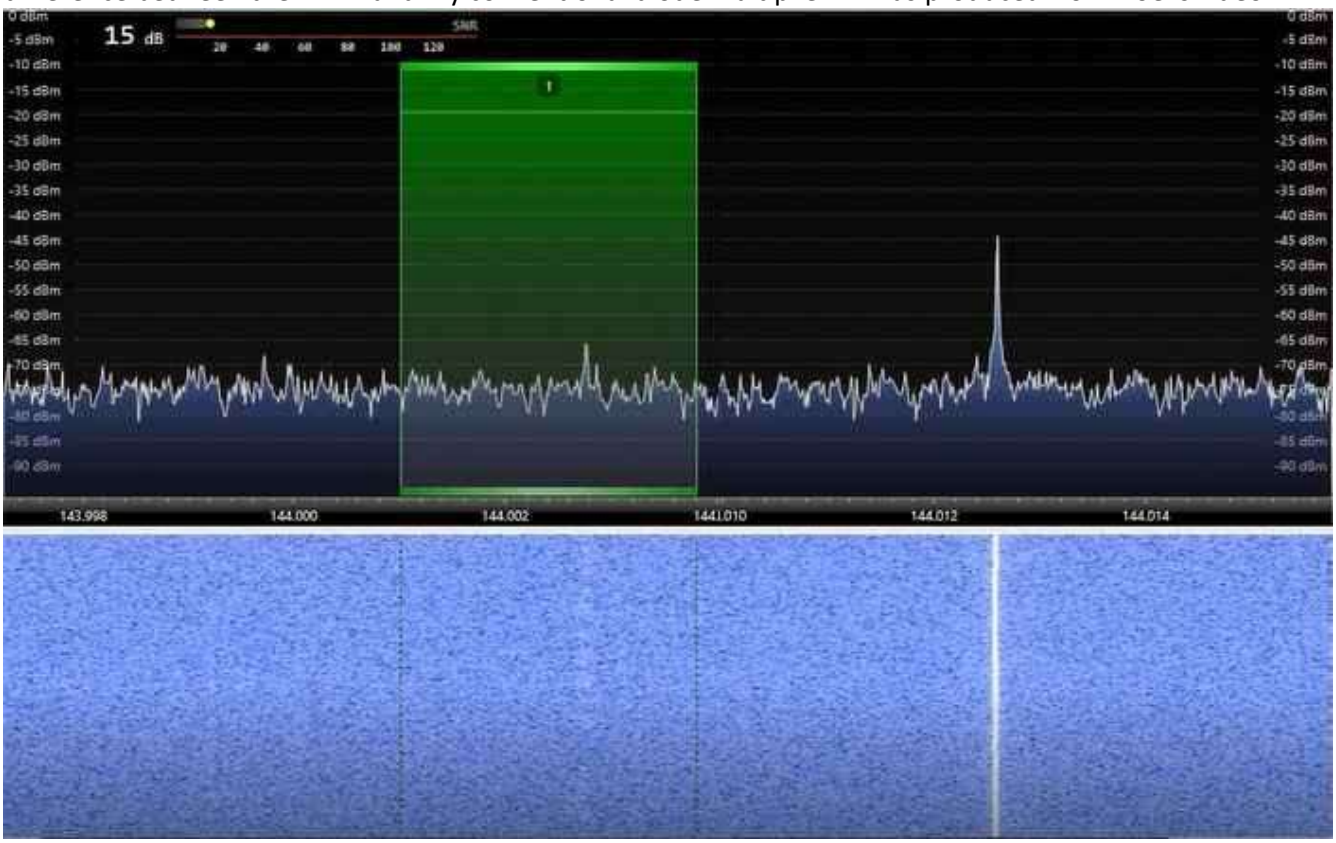
Setting up dish alignment on 122 GHz for a long path.

John Hazell G8ACE

With 122 GHz dish antennas having a 3db beamwidth of between 0.5 and 1 degree to achieve a successful dx contact more than just a compass is required for alignment. A misalignment of 1 degree at both ends with an expectation of a minimal C/N signals means it's unlikely even with repeated new trial headings at each end of the path anything will be found. Added to the problem is that of frequency, although stable OCXO references help in this aspect. The use of a waterfall display will also help to identify and eliminate the frequency dimension.

It's fairly unusual with UK weather to be able to spot visual landmarks beyond 25km and its made worse if stations are not able to locate on the highest hill top points. Preparatory work for attempting a long path such as the recent 36km between Noel G8GTZ and David G1EHF starts at G8ACE by using Google Earth Pro. A path can be drawn between the two sites and a height profile created. In the terrain view the mouse can then be moved along the height profile which gives a marker on the terrain path. Tall trees and buildings can be identified which might protrude into the Fresnel zone causing signal reduction or loss. Visual dish heading points can be established looking at this Google terrain view. In the case of our recent test all the usable local visual markers were in valleys. The nearest good bearing marker was the Sun PH hidden in the first valley on the A30 a few km away. Some isolated trees across the field looked to be the best alternative alignment marker. The problem is the best Google Earth image available was from 2018 and trees grow making heading points difficult to identify when on site. Isolated trees across the field would be the best starting bearing. The G8ACE Phlatlight led beacon was setup on this bearing. Using a 30 cm Fresnel lens with the led pulsed at 16 amps the beacon could be seen remotely in daylight at the G8GTZ site near Thruxton at 36km. This set the bearing one way. G8GTZ had a large mirror plus sunlight at a favourable angle to reflect his location back in the reverse direction. That set the bearings. The mirror flash was photographed.

Switching on my 122 GHz transmitter its signal was found almost instantly by Noel. David found a return signal from Noel whereas I did not. David proceeded with the contact. Investigation showed that the alignment telescope on my receiver was perhaps up to a degree out of alignment. Just a small adjustment needed on the rifle scope cross hairs to correct it. Total reliance has to be made on the telescope setup coinciding with the dish heading and I believe due to my telescope protruding beyond the dish face and with the dish travelling face down the alignment had suffered. Whilst David was in qso I also checked my waveguide coupling from my VK receiver to my commercial dish I use. I could not find any defined signal polarisation which I am assuming was caused by the two couplers connecting the VK chip to the antenna waveguide. The signal from Noel seemed to be declining in strength as time went on and not being a CW op I did not try for a contact as the UK record had been created. An image of the 20dB signal reception difference between the VK Tx and my conventional diode multiplier Tx was produced from Noel's video.



Reception by Noel G8GTZ of John's signal on the right, and Dave's highlighted on the left

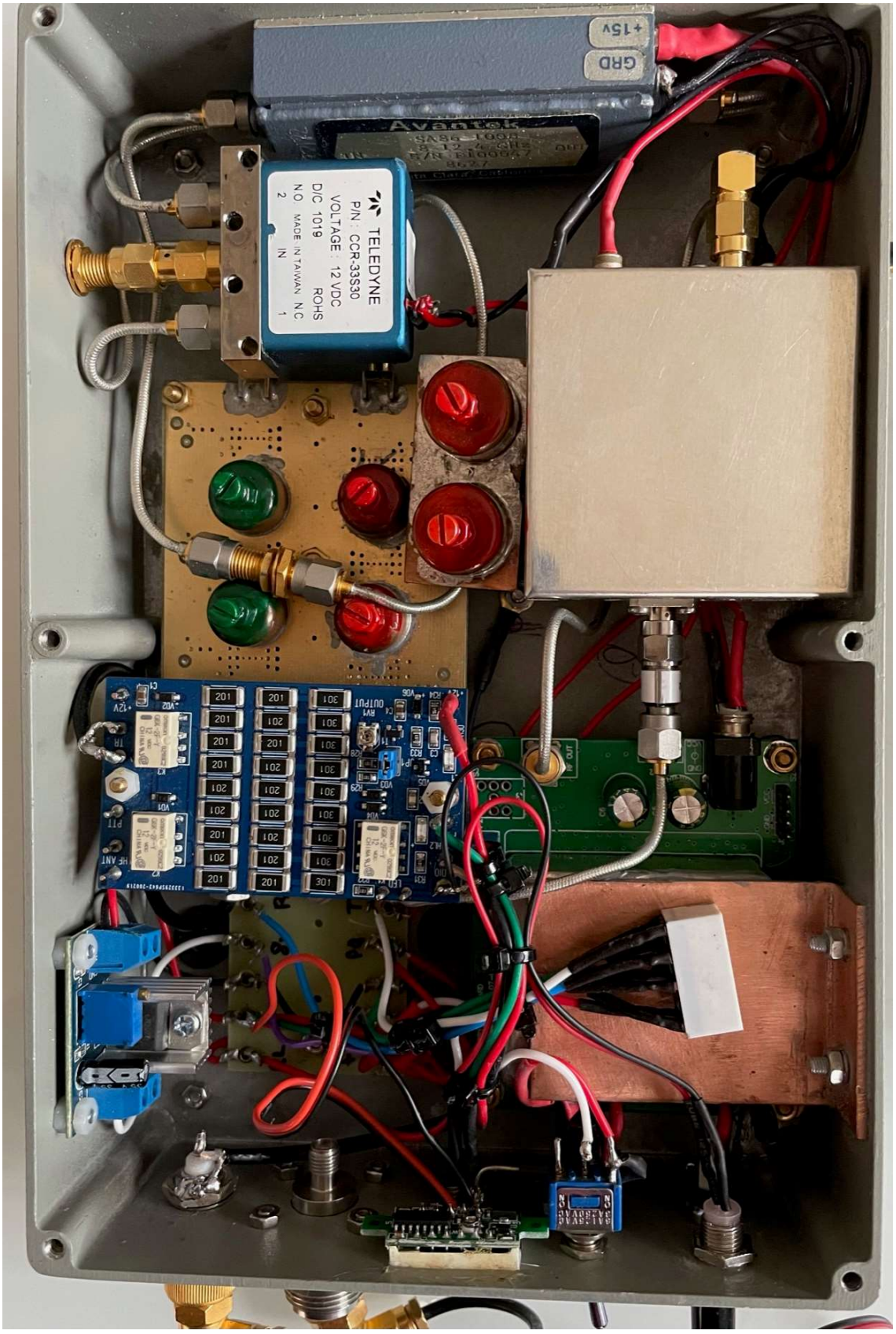
Whilst the Phlatlight was available I connected fldigi Hellschreiber software to the led beacon audio input. The second mode of the Phlatlight is 48kHz carrier 50:50 duty cycle again at 16 amps. Noel was able to decode some text from the software built in fldigi messages. Since this event took place and with the usefulness of red light for alignment and communication, I have written Arduino code to modulate the Phlatlight. That is with 1kHz key down and 800Hz key up directly from the Hellschreiber keyboard which can then be coupled from the Rx (Finningley) to the fldigi software for Hellschreiber decoding.

Phlatlight and Hellschreiber keyboard software courtesy of G8AGN.

Operation on 10GHz by Paul GW0MDQ

A recent 10Ghz test from my QTH near Mold North Wales across to Yorkshire. (Sunday 13th February)


YAESU
FT-818
HOME
FUSE


+15V
GRD
Avantek
TELEDYNE
P/N : CCR-33S30
VOLTAGE : 12 VDC
D/C 1019
ROHS
N.O MADE IN TAIWAN N.C
2 IN 1
OUTPUT
RF OUT

I decided to test out my recently constructed W1GHZ transverter and set the gear up in the front bedroom pointing through the window and arranged a test with Neil G4DBN on 10368.140. I started calling CQ and Neil immediately copied my QRP CW signal, we exchanged an easy 52S both ways. I've attached a picture of the transverter for your interest, it runs 120 milliwatts into a 25dB horn or a 20dB horn as shown. Just for fun I did a final test with Neil with the tiny 6" long 20dB horn and me could still see my signal clearly over the 165km path.
Paul Firmstone GW0MDQ

Editors Comments

Again, many thanks to the contributors this month. The exhibition at European Microwave Week coming up next month, is well worth a visit, if you are not too far from London. There is usually some free stuff, like plastic sma 'torque' spanners etc, or maybe just a coffee mug.

Very well done to Noel G8GTZ and Dave G1EHF, with help from John G8ACE, in establishing a new 122GHz record. The record also being for a VK to VK system, is even more impressive!
The 2022 contest season is already underway with the first Low band event recently. By the next issue we should have some 2022 results to include.

Scottish Microwave Round Table Date confirmed for 22nd October 2022

https://www.gmroundtable.org.uk/

Brian Howie GM4DIJ

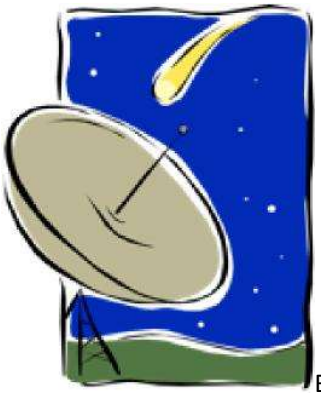
This Month I have been…….

Building a bench amplifier to drive multipliers, and relearning an old lesson….
Needing an amplifier to go beyond 20GHz, I found a Quinstar one on Ebay, that worked 14-26+GHz, with plenty of output.
Putting it into a suitable box, with re-purposed directional coupler. I needed to display the output power in dBm.
Thinking of a digital display, I needed an isolated supply for the digital indicator, as the directional coupler output was negative going volts. Then the display was not sensitive enough, so I needed an amplifier. That just gave me a voltage, so I need some conversion to display power. Maybe a PIC or Arduino?
This was getting complex. How about a simple meter, with re-marked display. Meter installed and marked up against a power meter, job done, KISS!

Roger G8CUB

Scatterpoint activity report

Activity News: February 2022


By John G4BAO

Please send your activity news to: **scatterpoint@microwavers.org**

From Dave G0DJA

Over the last month I've only been active on 1.3GHz for the UKAC and UKuG contests. The February UKAC wasn't good for me as conditions seemed flat and the bad weather didn't help as it seemed a number of people, quite understandably, decided not be out portable. I worked 8 stations, in 4 squares and 1 country, but I was only active for about the last hour and a half.
The UKuG contest was better for me. I was on for the first couple of hours and then from 14:30 until the end. I worked 15 stations in 11 squares and 4 countries. Obviously, this contest doesn't have a squares multiplier, but it was nice to work a bit further afield, including one contact into Belgium.
I've started looking round for the 1.3GHz beacons again. GB3MHZ is a reliable signal and I have managed to decode JT4g signals from both GB3CSB and GB3NGI and JT65c from G8MBU at times.
I'm planning on being more active on 24GHz as soon as I get the waveguide feed for the small dish sorted. A friend has offered to help with this, so hopefully I'll be able to go out and try the gear out. It's an old narrowband unit built for G4BYV from early DB6NT boards that G4BAO realigned some 12 years ago for me!

From Denis G0OLX

I've been busy the last few weeks upgrading my Spid Ras to high resolution for EME and now have 0.2 degree control instead of 1 degree. It has been tested in the shack and now is mounted back onto the mast and new wiring fed into the shack. It seems to move much slower than before and more often, so looking good. I now plan to get the dish back up and hope to be back on 10GHz EME soon.

From Andy G4JNT

All the Bell Hill beacons were placed back on air on Friday 4 March, in time for the first low band activity day. Poor weather had put paid to an intended earlier date for this. The GPSDO and NMEA timing modules were replaced with more modern GPS units. GB3SCS on 2.3GHz has been rebuilt using a new direct up conversion architecture. Full details of that can be found at http://g4jnt.com/DirectUpconversionBeaconSource.pdf

That beacon now transmits the Q65-D60 data mode. At first listen it may sound not totally unlike JT65C, which remains the data mode in use on the 3.4GHz co-sited beacon, GB3SCF. The higher frequency ones, GB3SCC, GB3SCX, and GB3SCK will continue to transmit the wider tone-spaced JT4G mode.

From Dave G1EHF

Our local group have had two further outings on 122GHz. On 11th February, I went to IO91GC68 near Stockbridge with John G8ACE/P. Noel G8GTZ/P with Barry G4SJH/P went to IO91GI25 at Combe Gibbet. The weather was fine with 45% RH at 11.2°C, giving a calculated dew point of -0.3°C and path gas loss of 18dB (overall 179dB from Mike G0MJW's

s/w). Knowing the horizon fairly well, John and I were able to align our dish telescopes visually with no need for Phlatlight LEDs this time. I managed to work Noel and Barry on NBFM over the 26.5km path using my unmodified VK3CV kit, with 30cm NEC Pasolink dish and a Langstone SDR as the 144MHz IF. Neil G4LDR also paid us a welcome visit during this outing.
On 25th February I was with John G8ACE/P again but at IO91KF42 at Farleigh Wallop this time. Noel G8GTZ/P ventured to IO91EE26 near Thruxton. The weather was fine with 47.1% RH at 9.1°C, giving a calculated dew point of -1.6°C and path gas loss of 23dB (overall 187dB from Mike G0MJW's s/w). This time we needed a mirror at Noel's end to reflect the sun and give us a target and he could see John's Phlatlight with large Fresnel lens. I worked Noel with Hellschreiber from me and slow CW back. I had been able to hear Noel's Hellschreiber earlier but conditions were deteriorating during the session. At 36.4km we think this is the current UK distance record for the band and quite pleasing for VK-to-VK kit. I suspect this record won't stand for too long and we ourselves will be looking to break 40km soon!
Finally, I've been in contact with Dave G4EPX, who is the repeater/beacon keeper for GB3FM. A number of people reported it being weaker than usual. This was his response. "The transmit aerial looks to have died. I swapped the aerials today, so it's still on air but will be weaker than usual. I don't know whether it will be accessible at all. Access to the antennas on the mast needs a qualified rigger with all the usual safety kit, so it may be some time before normal service can be resumed.

From John G4BAO

I managed to get on for the last half hour of the low bands contest and noted the very low scores being exchanged, so I coincide with GM4BYF's observation on conditions. In that short time, I worked 7 stations on 1.3GHz and 2 on 3.4GHz, ODX on that band was a (somewhat surprised sounding!) G4BRK who gave me 559. I run around 60Watts at the feed of a 60cm dish on 3.4GHz, so that was the reason. He was a good 519/529 with his 10 W at the feed. Still to air test the 24GHz EME system, but the WX has just been too variable to try putting something with 5kV on it, outside!

From GM4BYF

During the first low bands contest I was active on 1.3GHz as 2.3GHz is currently under repair. I ran 100W to a 55 element Yagi. Conditions were poor and aircraft scatter was similarly affected. I had hoped the high pressure would have helped. Many attempts with large planes in the right place failed. This longer contest offers an opportunity for extended attempts to work stations. Eventually I worked 4 stations G3SQQ took over 30 minutes to complete - but got there.

From Neil G4DBN

Main activity from here has been more tests with Paul GW0MDQ over the hills to his indoor 10 GHz station, lots of testing and re-engineering of 122 GHz Cassegrain antennas, and comparisons of the various Q65 variants on the 10 GHz path to Mow Cop WebSDR as previously reported. The video about those tests is eight minutes of silliness on the Machining and Microwaves YouTube channel at https://www.youtube.com/watch?v=Y9qyj5Ko6pM

In related news, that video I did about machining some 122 GHz antenna coupler bodies has now been viewed 143,000 times. Pretty amazing for some hugely niche machining content of parts for an even more niche mmWave radio application.

I've been making some more of the 1.3GHz coaxial LPFs, this time with N connectors, so not as QRO as usual. The PA3GCO beacon in JO21EU has been appearing on occasions, sometimes via aircraft scatter, but there has been a little tropo at times. GB3KBQ at 340 km from IO80LX is usually not a brilliant signal at this time of year, but it's JT4G transmission has been decoded in IO93NR on six days in February, and aircraft scatter traces have appeared on two other days. The drizzly weather on the path to JO01MT has resulted in nine days in the month with no detectable signal from GB3PKT at 250 km, even by A/S. Lab work has mostly been confined to testing a waveguide relay on the 47 GHz kit and trying to finish the new masthead control box which will allow concurrent use of the 10 and 5.7 GHz masthead units.

Overall Low Band Championship 2021

The overall winners of the Low Band Championship were the Combe Giberlets, M0HNA/P who won 1296MHz and 2300MHz, and were second on 2320MHz and third on 3400MHz.
In second place was John G4ZTR, who placed second on 1296MHz and won the 2320MHz and 3400MHz bands.

Overall Result Low Band Championship 2021

Position	Callsign	1296MHz	2300MHz	2320MHz	3400MHz	Overall
1	M0HNA/P	3000	3000	2731	2411	11142
2	G4ZTR	2499		2909	3000	8408
3	G8CUL	1557	2844	2228	1672	8301
4	M0GHZ	1727		2617	2466	6810
5	G7LRQ	2049		2714		4763
6	G4LDR	945		1727	1549	4221
7	G4BRK	825		1720	979	3524
8	G3SQQ	1188		2269		3457
9	G8AIM	524		819	1137	2480
10	G3UKV	609		806	770	2185
11	G4BXD	621			1508	2129
12	G3TCT	1825				1825
13	G0HIK/P	1225		152	211	1588
14	G3YJR	494	604	167		1265
15	G1PPA/P	519			515	1034
16	GW4JQP	981				981
17	GM4BYF	829		37		866
18	PE1EWR	347		405		752
19	GI6ATZ	559				559
20	G6GVI	431				431
21	G3TCU	418				418
22	G4KUX	404				404
23	GM8IEM	323		45		368
24	G4GFI	328				328
25	G1DFL/P		42	9	251	302
26	GD1MIP	269				269
27	G4TJC/P	241				241
28	G4BAO				224	224
29	GM4DIJ(/P)	98		111		209
30	G4KZY	149				149
31	M0AFJ/P	138				138
32	G3WJG	8		120		128
33	G0LGS	95				95
34	G8EOP	11		62		73
35	G0FCU/P			53		53
36	G0NZI	46		6		52
37	G4GUG	45				45
38	G1JPV	41				41
39	G4KNZ				40	40
40	GW7HJN	16				16

Congratulations to the winners and runners up mentioned above.
73
John G3XDY
UKuG Contest Manager

European Microwave Week '2021' at ExCel London

Exhibition is open Monday 4th – Wednesday 6th April 2022
The Exhibition Registration to the exhibition is FREE! • Over 300 International Companies - meet the industry's biggest names and network on a global scale • Cutting-edge Technology - exhibitors showcase their latest product innovations, offer hands-on demonstrations and provide the opportunity to talk technical with the experts • Industrial Workshops - get first hand technical advice and guidance from some of the industry's leading innovators • MicroApps - attend our annual European Microwave Week Microwave Application Seminars (MicroApps) Be There Exhibition Dates Opening Times Monday 4th April 2022 09:30 - 18:00 Tuesday 5th April 2022 09:30 - 17:30 Wednesday 6th April 2022 09:30 - 15:00
Register at www.eumw2021.com

UKuG MICROWAVE CONTEST CALENDAR 2022

Dates, 2022	Time UTC	Contest name
6-Mar	1000 - 1600	1st Low band 1.3/2.3/3.4GHz
10-Apr	1000 - 1600	2nd Low band 1.3/2.3/3.4GHz
8-May	0800 - 1400	3rd Low band 1.3/2.3/3.4GHz
15-May	0900 – 1700	1st 24GHz Contest
15-May	0900 – 1700	1st 47GHz Contest
15-May	0900 – 1700	1st 76GHz Contest
29-May	0600 - 1800	1st 5.7GHz Contest
29-May	0600 - 1800	1st 10GHz Contest
5-Jun	1000 - 1600	4th Low band 1.3/2.3/3.4GHz
26-Jun	0600 - 1800	2nd 5.7GHz Contest
26-Jun	0600 - 1800	2nd 10GHz Contest
10-Jul	0900 – 1700	2nd 24GHz Contest
10-Jul	0900 – 1700	2nd 47GHz Contest
10-Jul	0900 – 1700	2nd 76GHz Contest
31 -Jul	0600 - 1800	3rd 5.7GHz Contest
31 -Jul	0600 - 1800	3rd 10GHz Contest
28-Aug	0600 - 1800	4th 5.7GHz Contest
28-Aug	0600 - 1800	4th 10GHz Contest
11-Sep	0900 - 1700	3rd 24GHz Contest & 24GHz Trophy
12-Sep	0900 - 1700	3rd 47GHz Contest
12-Sep	0900 - 1700	3rd 76GHz Contest
25 -Sep	0600 - 1800	5th 5.7GHz Contest
25 -Sep	0600 - 1800	5th 10GHz Contest
16 -Oct	0900 - 1700	4th 24GHz Contest
16 -Oct	0900 - 1700	4th 47GHz Contest
16 -Oct	0900 - 1700	4th 76GHz Contest
13 -Nov	1000 - 1400	5th Low band 1.3/2.3/3.4GHz

MICROWAVE CONTESTS - 2022

Month	Contest name	Certificates	Date 2022	Time GMT	Notes
Jan	1.3GHz Activity Contest	*Arranged by RSGB*	18-Jan	2000 - 2230	RSGB Contest
Jan	2.3GHz+ Activity Contest	*Arranged by RSGB*	25-Jan	1930 - 2230	RSGB Contest
Feb	1.3GHz Activity Contest	*Arranged by RSGB*	15-Feb	2000 - 2230	RSGB Contest
Feb	2.3GHz+ Activity Contest	*Arranged by RSGB*	22-Feb	1930 - 2230	RSGB Contest
Mar	Low Band 1296/2300/2320/3400MHz	F, P,L	6-Mar	1000 - 1600	First 4 hours coincide with IARU event
Mar	1.3GHz Activity Contest	*Arranged by RSGB*	15-Mar	2000 - 2230	RSGB Contest
Mar	2.3GHz+ Activity Contest	*Arranged by RSGB*	22-Mar	1930 - 2230	RSGB Contest
Apr	Low Band 1296/2300/2320/3400MHz	F, P,L	10-Apr	1000 - 1600	
Apr	1.3GHz Activity Contest	*Arranged by RSGB*	19-Apr	1900 - 2130	RSGB Contest
Apr	2.3GHz+ Activity Contest	*Arranged by RSGB*	26-Apr	1830 - 2130	RSGB Contest
May	REF/DUBUS EME 1.2GHz	*Arranged by REF/DUBUS*	7-May to 8-May	0000 - 2400	REF/DUBUS EME 1.2GHz
May	*432MHz & up*	*Arranged by RSGB*	*7-May to 8-May*	*1400 -1400*	RSGB Contest
May	*10GHz Trophy*	*Arranged by RSGB*	*8-May*	*0800 - 1400*	Sunday, to coincide with IARU
May	Low Band 1296/2300/2320/3400MHz	F, P,L	8-May	0800 - 1400	Aligned with IARU event
May	24GHz/47/76GHz		15-May	0900-1700	
May	1.3GHz Activity Contest	*Arranged by RSGB*	17-May	1900 - 2130	RSGB Contest
May	2.3GHz+ Activity Contest	*Arranged by RSGB*	24-May	1830 - 2130	RSGB Contest
May	REF/DUBUS EME 10GHz & Up	*Arranged by REF/DUBUS*	28-May to 29-May	0000 - 2400	REF/DUBUS EME 10GHz & up
May	5.7GHz/10GHz	F, P,L	29-May	0600-1800	
Jun	REF/DUBUS EME 2.3GHz	*Arranged by REF/DUBUS*	4-Jun to 5-Jun	0000 - 2400	REF/DUBUS EME 2.3GHz
Jun	Low Band 1296/2300/2320/3400MHz	F, P,L	5-Jun	1000 - 1600	Aligned with some Eu events
Jun	1.3GHz Activity Contest	*Arranged by RSGB*	14-Jun	1900 - 2130	RSGB Contest
Jun	2.3GHz+ Activity Contest	*Arranged by RSGB*	21-Jun	1830 - 2130	RSGB Contest
Jun	5.7GHz/10GHz	F, P,L	26-Jun	0600-1800	
Jul	REF/DUBUS EME 5.7GHz	*Arranged by REF/DUBUS*	2-Jul to 3-Jul	0000 - 2400	REF/DUBUS EME 5.7GHz
Jul	VHF NFD (1.3GHz)	*Arranged by RSGB*	2-Jul to 3-Jul	1400 - 1400	RSGB Contest
Jul	24GHz/47/76GHz		10-Jul	0900-1700	
Jul	1.3GHz Activity Contest	*Arranged by RSGB*	19-Jul	1900 - 2130	RSGB Contest
Jul	2.3GHz+ Activity Contest	*Arranged by RSGB*	26-Jul	1830 - 2130	RSGB Contest
Jul	REF/DUBUS EME 3.4GHz	*Arranged by REF/DUBUS*	30-Jul to 31-Jul	0000 - 2400	REF/DUBUS EME 3.4GHz
Jul	5.7GHz/10GHz	F, P,L	31-Jul	0600-1800	
Aug	1.3GHz Activity Contest	*Arranged by RSGB*	16-Aug	1900 - 2130	RSGB Contest
Aug	2.3GHz+ Activity Contest	*Arranged by RSGB*	23-Aug	1830 - 2130	RSGB Contest
Aug	5.7GHz/10GHz	F, P,L	28-Aug	0600-1800	
Sep	24GHz/47/76GHz		11-Sep	0900-1700	
Sep	ARRL Microwave EME	*Arranged by ARRL*	17-Sep to 18-Sep	0000 - 2359	ARRL EME 2.3GHz & Up
Sep	1.3GHz Activity Contest	*Arranged by RSGB*	20-Sep	1900 - 2130	RSGB Contest
Sep	5.7GHz/10GHz	F, P,L	25-Sep	0600-1800	
Sep	2.3GHz+ Activity Contest	*Arranged by RSGB*	27-Sep	1830 - 2130	RSGB Contest
Oct	*432MHz & up*	*Arranged by RSGB*	*1-Oct to 2-Oct*	*1400 - 1400*	IARU/RSGB Contest
Oct	*1.3 & 2.3GHz Trophies*	*Arranged by RSGB*	*1-Oct*	*1400 - 2200*	RSGB Contest
Oct	ARRL EME 50-1296MHz	*Arranged by ARRL*	15-Oct to 16-Oct	0000 - 2359	ARRL EME Contest
Oct	24GHz/47/76GHz		16-Oct	0900-1700	
Oct	1.3GHz Activity Contest	*Arranged by RSGB*	18-Oct	1900 - 2130	RSGB Contest
Oct	2.3GHz+ Activity Contest	*Arranged by RSGB*	25-Oct	1830 - 2130	RSGB Contest
Nov	ARRL EME 50-1296MHz	*Arranged by ARRL*	12-Nov to 13-Nov	0000 - 2359	ARRL EME Contest
Nov	Low Band 1296/2300/2320/3400MHz	F, P,L	13-Nov	1000 - 1400	
Nov	1.3GHz Activity Contest	*Arranged by RSGB*	15-Nov	2000 - 2230	RSGB Contest
Nov	2.3GHz+ Activity Contest	*Arranged by RSGB*	22-Nov	1930 - 2230	RSGB Contest
Dec	1.3GHz Activity Contest	*Arranged by RSGB*	20-Dec	2000 - 2230	RSGB Contest

Sections		
	F	Fixed / home station
	P	Portable
	L	Low-power <10W 1.3/2.3/3.4GHz, <1W 5.7GHz)

Main changes from 2021 calendar

122GHz+ events removed (no fixed dates in 2022)

EVENTS 2022

For the latest information please see: https://microwavers.org

2022

March 26	CJ-2022 Seigy Cancelled	cj.r-e-f.org
April 2-7	European Microwave Week, London, ExCeL - revised date	www.eumw2021.com
April 23	RSGB AGM – 0nline	www.rsgb.org.uk/agm
April 24	Martlesham Roundtable	
April / May	UKuG AGM – Online, date TBC	
May 20-22	Hamvention, Dayton	www.hamvention.org
June 24-26	Ham Radio, Friedrichshafen	www.hamradio-friedrichshafen.de
August 7	BATC Convention, Midland Air Museum, Coventry	www.batc.org.uk
August 12-14	EME 2022, Prague - rescheduled 2021 event	www.eme2020.cz
September 25-30	European Microwave Week, Milan, Italy	www.eumweek.com
October 22	Scottish Round Table	https://www.gmroundtable.org.uk
December 3	Midlands Round Table	

80m UK Microwavers net

Tuesdays 08:30 local on 3626 kHz (+/- QRM)

73 Martyn Vincent G3UKV