An Amateur Radio publication for the Microwave Enthusiast

scatterpoint

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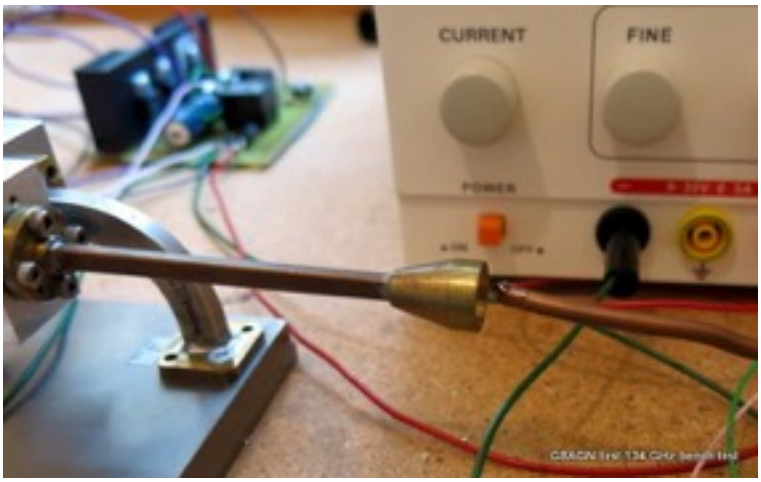
134 GHz construction
See page 9
Barry Chambers, G8AGN



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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 the Yahoo group and/or Dropbox.

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

ukug@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)

I can extract text and pictures from pdf files but tables can be a bit of a problem so please send these as separate files in one of the above formats.

Thank you for you co-operation.

Martin G8BHC

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UKµG Chip Bank – A free service for members

The catalogue is now on the UKµG web site at www.microwavers.org/?chipbank.htm *Latest Stock Update was May 2015 – so do take a look!*

Non members can join the UKuG 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 a component on the site will not be a guarantee of availability of that component. The service is run as a free benefit to all members and the UK Microwave Group will pick up the cost of packaging and postage.

Minimum quantity of small components supplied is 10. Some people have ordered a single smd resistor!

The service may be withdrawn at the discretion of the committee if abuse such as reselling of components is suspected.

There is an order form on the website with an address label which will slightly reduce what I have to do in dealing with orders so please could you use it. Also, as many of the components are from unknown sources, if you have the facility to check the value, particularly unmarked items such as capacitors, do so, and let me know if any items have been miss-labelled. G4HUP's Inductance/capacitance meter with SM probes is ideal for this (Unsolicited testimonial!!)

Don't forget it is completely free, you don't even have to pay postage!

Mike G3LYP

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 (eg 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: http://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, more importantly, 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 email john@g4bao.com

The current list is available at

www.microwavers.org/tech-support.htm

0.1 dB noise figure at 10 GHz: impossible without cryogenics!

André Jamet F9HX agit@wanaddo.fr

The PLL LNB

An interesting PLL LNB, available at a low price, makes a significant improvement over previous: PLL with reference quartz provides much improved frequency stability over the DRO oscillator used before.

We all more or less used any part of these LNBs, to extract the input stages or complete block. The major default was the frequency instability with temperature and ageing. But their sensitivity was acceptable for QSOs not seeking the extreme.

These new PLL LNB were studied, measured and modified by several OM's for example G4JNT and bitterest HB9AFO I believe that fills much of its website by its work for two years at least.

The adaptations to our 3 cm band

Make SMA or WR waveguide input is a first important task because you may lose a lot in a bad adaptation. A second point to be solved is to reduce the image frequency which can degrade the noise factor. Stability can be made almost perfect with an external reference.

They are racing PLL LNB they have obtained.

Regret seems to limit their enthusiasm: the noise factor. Indeed, the manufacturer's data of these LNB announces extremely attractive value as we shall see, while the measurements are far from the manufacturers' assertions!

Data

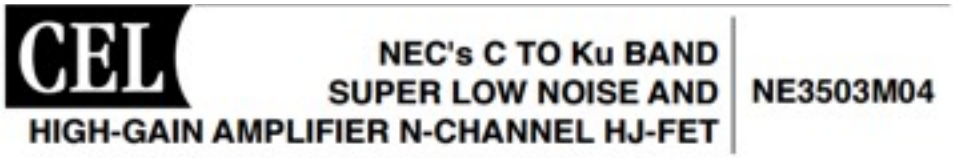
The best known manufacturer is AVENGER and OCTAGON clone.

Both proudly announce a noise figure of 0.1 dB:

Avenger PLL321S-2	OCTAGON
Input freq: 10.70 - 12.75 GHz	Input: 10.70 – 12.75 GHz
L.O.freq: 9.750 & 10.600 GHz	LO: 9.75 /10.6 GHz
Noise figure: 0.1 dB	Gain: 60 – 65 dB
Made in China	0.1 dB Noise ratio

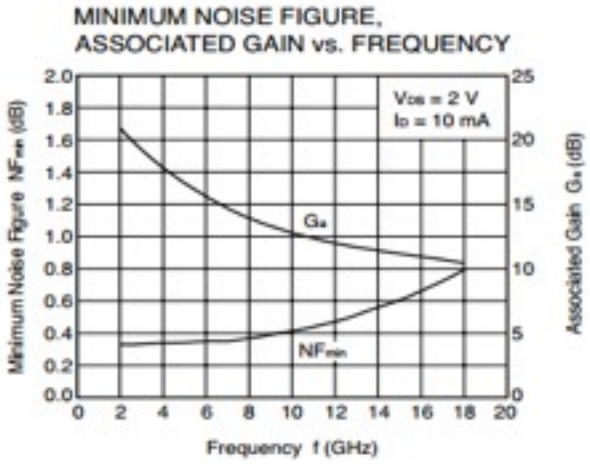
This noise factor can not be achieved using the standard noise figure definition as we all understand it; it is IMPOSSIBLE. Here are three reasons:

A: The most efficient transistors are given for 0.4 dB at room temperature



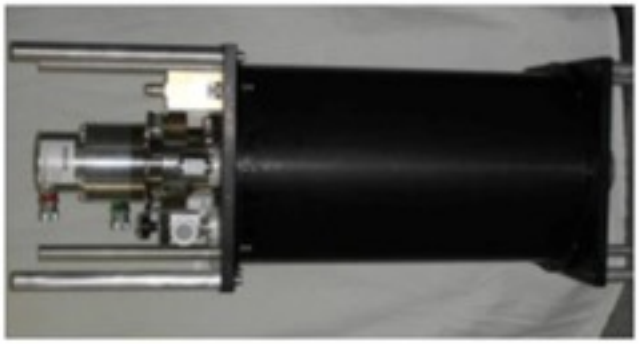
During the transistor measurements made by the manufacturers, they use a test fixture first configured without the transistor. Auxiliary elements thus not being taken into account, only the noise made by the transistor is measured. It already exceeds, by itself, the 0.1 dB alleged. In one LNB, the power connections and any input and output adaptation lines provide losses which necessarily adds to the inherent noise factor of the transistor.

A laboratory was able to obtain about 0.5 dB using transistors, capacitors and resistors made directly on a ceramic support (die), gold tracks and gilded interior to the cavity.



B: Radio astronomers who watch extremely weak signals are forced to use cryogenic LNA cooled with liquid helium. For the best, noise temperature can drop to 11K or 0.16 dB noise figure at 10 GHz for a helium temperature of - 269 ° C.

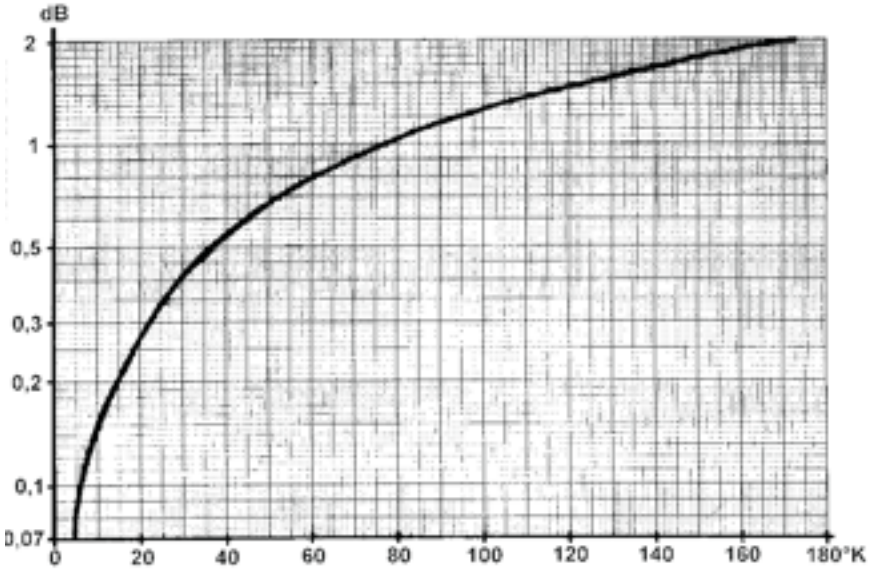
Parameters	Specifications		
Frequency Band	S-Band (2.2-2.3GHz)	X-Band (8.4-8.5GHz)	Ka-Band (31.8-32.3 GHz)
Noise Temperature	10K	11K	30K
Gain	> 55dB		
Cooldown Time	5hrs		
Warmup Time	2hrs		
Service Interval	13 000hrs		



CALLISTO

The specialists commonly use degrees Kelvin: T (K) = T (° C) + 273.15 ° C.

For example: 290 K = 16.85 ° C, 17 ° C in practice. The curve below shows the conversion between the noise temperature and noise factor.



You should also know that we must work with very low temperatures for the thermal noise reduction is significant. Liquid nitrogen (- 195.79 ° C) does not allow the performance obtained with helium. The use of dry ice (- 78.5 + C) saves one or two tenths of a decibel. Peltier modules consume much energy which complicates the implementation for a good insufficient cooling.

C: Honest PLL LNB manufacturer gives credible values:

Input Frequency	Low Band	10.70 to 11.70	GHz	
	High Band	11.70 to 12.75	GHz	
Output Frequency	Low Band	950 to 1950	MHz	
	High Band	1100 to 2150	MHz	
Local Oscillator Frequency	Low Band	9.75	GHz	
	High Band	10.6	GHz	
Phase Noise	At 10 kHz offset	-75	dBc/Hz	
Conversion Gain		55 to 70	dB	Depends on which TFF IC used
Gain Ripple		3	dB	
Noise Figure	Low Band	1.1	dB	Comparable with the discrete US LNB in the market

Noise temperature

It states that its noise figure is comparable with those of the US market which confirms the futility of 0.1 dB.

The measurements made by OM

They show that, at best, often after a sustained work, the noise factor does not drop below 0.7 dB. It is nonetheless significant because this is what gets DB6NT in its best LNA waveguide

Conclusion

These PLL LNBs are small wonders but they are not extraordinary in the literal sense, in terms of their noise factor. But at this price, compete with professionals devices that cost much, much more expensive, it's one of the challenges of the amateur radio.

Sales and Wants

For Sale

Adrian Whatmore

After many happy years on 3cms I have decided that it's time for the 'White Box' to come off the mast!

I am sure that there will be someone out there looking for a high power base station. The complete setup..tested this morning with John G0API is in full working condition and comprises the following:-

Andrews professional 30 inch dish with integral goose neck feed.

Whitebox , housing 2m -10 GHz transverter input / output changeover relays and sequencer, 10 watt TWT ....all enclosed in a weather-proof White box which has been successfully mast mounted for over 10 years!

In the shack :- mains to 24 Volt 30A PSU supplying the matching TWT PSU with full metering. plus 50 volt AC supply for the white box tranverter, 50 + feet of connecting / control cables.

Additionally available two spare W3MV19A TWTs..one full spec the other outputting 3 watts and spare TWT supply for spares.

I am looking for £650 for the complete setup ...If someone wants a TWT on its own I am happy to discuss

I will be advertising all this in Rad Comm in due course but thought that I would let the professional amateurs have first shout!

Adrian Whatmore

01823 421 751, 07778 523 832

For Sale on behalf of Doug VK4OE.

Elcom CDFSL-1201 11.2 – 12.0GHz synthesiser. With PIC programmed on pcb fitting to D-type on the synth. The synthesiser has been modified for external 10MHz reference. It can be supplied with pic programmed for any 2 frequencies in 3.333MHz steps in the range 11.2 – 12.0GHz.

2 of available at £40 each plus £6.80 p&p.

Contact Roger via email g8cub@yahoo.co.uk

This month I 'ave mostly been building…

A column (idea borrowed from the SBMS Newsletter and with a hat tip to Mark Williams' character Jesse of the Fast Show) designed for those of you who don't want to write a full technical article – but also those of you who do but only have a snippet to contribute such as a new project or a progress report.

Eddie Ashburner, G0EHV

I visited the Finningley RT this month and took along a few bits to be measured. My Sky zone 2 minidish was measured on the antenna range and was found to be 4 dB down on Rob M0DTS similar dish and feed. Removing the flexible wave guide from the system and retesting put the gain within 0.5 dB of Rob's dish – result! I've now used a piece of semi rigid cable instead of the waveguide! The offending item can now go in the box marked "Attenuators".

Barry Chambers, G8AGN

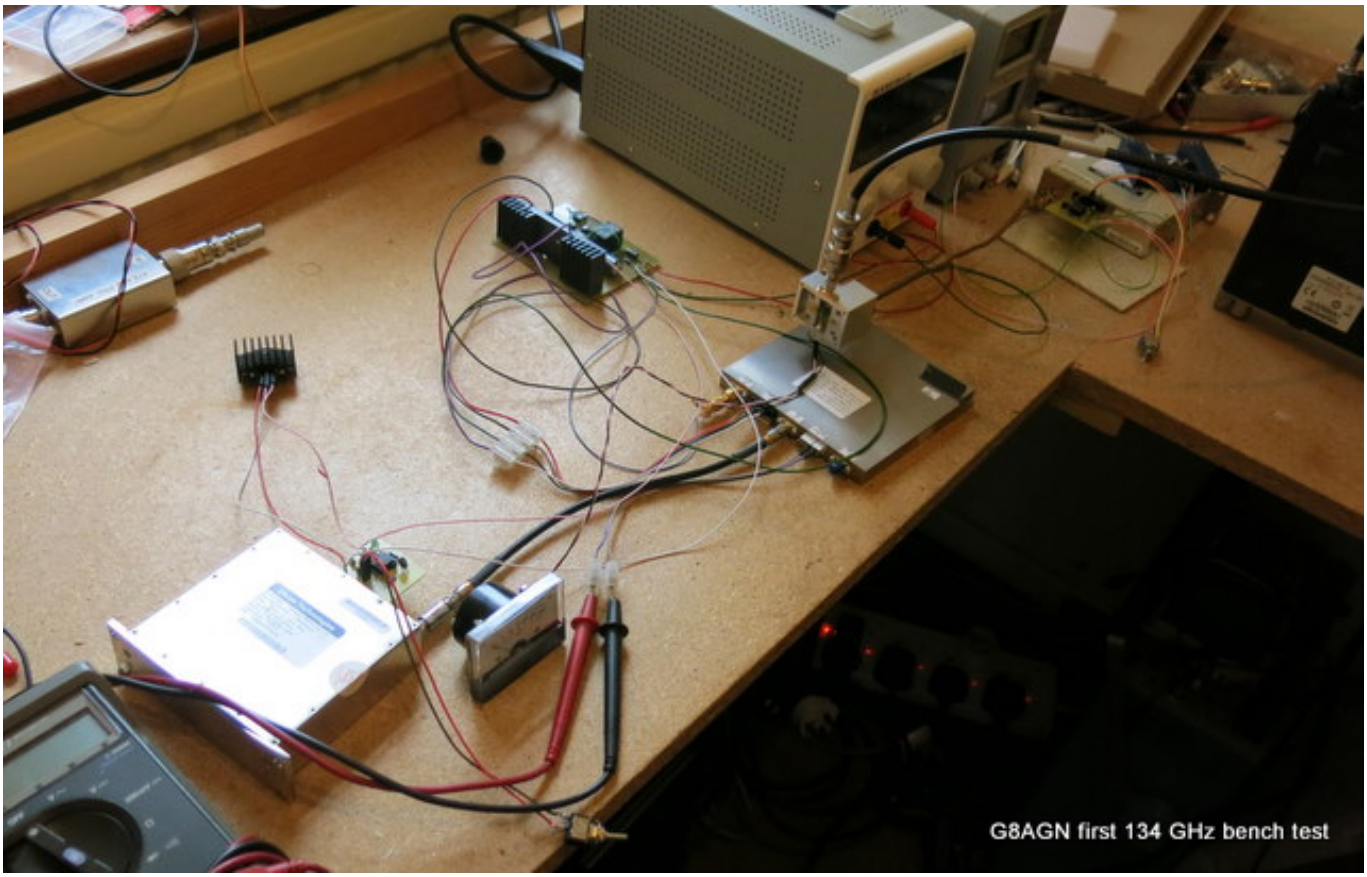
I have now heard my first signal on 134 GHz, although only over a dx of a few cm. I'm using a DFS1201 on 11.2 GHz plus a TV LNB mixer diode as a harmonic generator to give a test signal on 134.4 GHz. My other DFS1201 on 11.23666 GHz is driving the Broadern module. I'm not sure about the output on 33.6 GHz but the Broadern detector is showing about 2.6 V and my 26.5 GHz HP power meeting is showing just under 50mW, so it must be more than this.

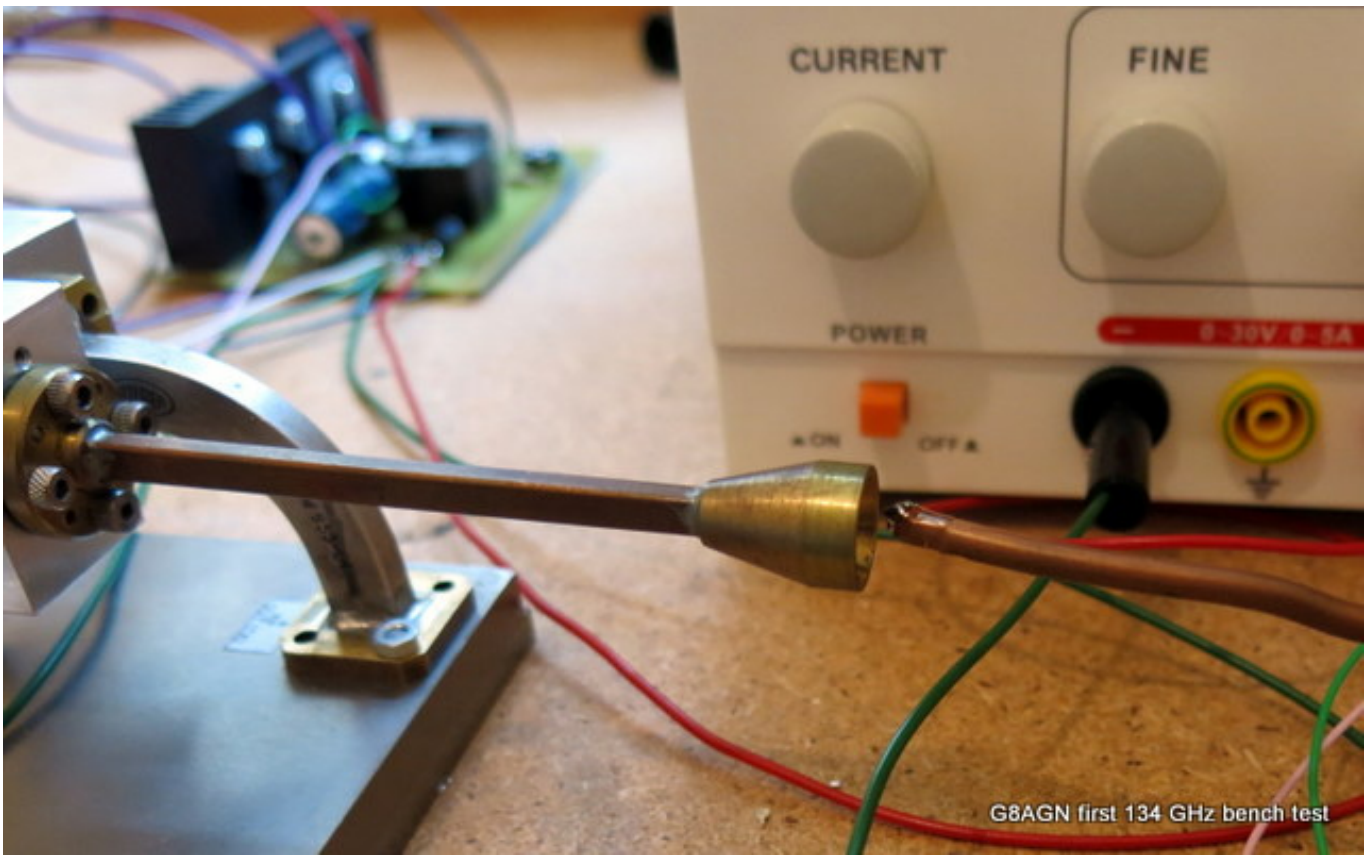
The 134 GHz mixer block screws (many thanks to Roger for mounting the diode) are not yet optimised and there is no IF preamp before the FT817 (I have one but not yet fitted). I can hear a S2 signal on 440.03 MHz which is

remarkably stable and goes away when the test source is switched off. The mixer block has a 1.6mm hole as the input waveguide and I have a very small horn in front of that. See photos of the set up.

This is really encouraging and means I can now start to optimise things.

I have a gas canister ready to be converted into a 10cm dish (f/D = 0.34) but have yet to build the feed.





I can now easily hear the signal from my 134GHz satTV mixer diode test source (driven at 11.2GHz by a Elcom DFS1201 synth) at about 1 m (the length of my work bench!).

The 134 GHz rig is similar to G8CUB's as discussed at this year's Martlesham RT. It comprises a DFS1201 at 11.2GHz driving a Broadern 33.6GHz module (essentially x3 + amp). This is followed by a DL2AM harmonic mixer block.

At present, the test source has a 100mm dish made from the bottom of a camping gas canister (one with a resealable valve). The rig has a small conical horn, originally meant for 90GHz but this will soon be replaced by another camping gas canister with a splash-plate feed. This type of antenna is not ideal but much cheaper than one made by Procom (this is Yorkshire after all!)

I suggest using the camping gas canisters with a resealable valve as the threaded version exactly fits a TNC plug. For waveguide at 134 GHz I'm trying a standard K&S 1/16" ID copper tube. I found mine at Macc Models (Macclesfield see WWW for other sizes). The ferrule on the crimp-style TNC plug can be drilled to allow the K&S tubing to pass through. For dish mounting, the plug ferrule passes through and is soldered to a mounting plate. A 1p coin is 2cm in diameter and may be OK for use as a splash-plate for the "dish"

73 Barry, G8AGN

Not microwave but some VHF/UKF activity in Suffolk pp RSGB Chairman

How many radio hams does it take to build an antenna?

G4HUP(QA), G4FSG(testing – note instructions!), G3XDY & G4FAW (assembly), G3NYK (spannerman) and G8BHC (UHF assembly).

Activity News : July 2015

By Bob Price G8DTF

Please send your activity news to:

scatterpoint@microwavers.org

Introduction

This month there are some reports of activity in the UKACs and Microwave Group Contests, plus some other activity outside contest periods. Activity in some contests has been down – holidays I am guessing.

VHF NFD

From Peter G1DFL

During VHF NFD I was active on the Saturday from home (IO91) with 10W and a 23Y Tonna. A number of UK and ON stations were contacted on 23cm. Conditions improved around 10pm when EI9E/P (IO62) was worked after several attempts, for my best DX at 442km.

From John G3XDY JO02

4/5 July (VHF NFD)

In Europe this event includes the bands from 13cm upwards. Highlights were:

1.3GHz

GW2OP/P	IO71
EI9E/P	IO62
DL0GTH	JO50
OZ1ALS	JO44
OK2A	JO60
DK2ZF/P	JO43

2.3GHz

PI4GN	JO33
DF0MU	JO32
DK2MN	JO32
DK2ZF/P	JO43
PA0BAT	JO31

3.4GHz

DK2MN	JO32

5.7GHz

DK2MN	JO32
PI4Z	JO11
DL0GTH	JO50 (RS)
PA0BAT	JO31
DF0MU	JO32

10GHz

PA0S	JO21
ON4HCC	JO20
DK2MN	JO32
PI4Z	JO11
PA0PLY	JO22
DL0GTH	JO50 (RS)
DL3IAE	JN49 (RS)
DK7QX	JO42 (RS)
DK2ZF/P	JO43 (RS)
DL0LN	JO31
PA0BAT	JO31
DF0MU	JO32

Signals were exchanged with OK2A (JO60) on 3cm RS on Sunday morning, but signals faded before the QSO could be completed.

Activity from Jersey/Guernsey

From Keith GW3TKH in IN89

Pete G4HQX, Robin G3TKF and Keith, GW3TKH made the annual trip to Jersey for the IOTA contest. This year we brought gear with us for 5.7,10, 24 & 47GHz, plus HF. Weather was atrocious with high winds and rain most of the time. On Friday 24th July Pete took a day trip to Guernsey, we worked on:

47GHz:

GU4HQX/P <> GJ3TKH/P	59/59	IN89RK/IN89WG	37km LOS.
GU4HQX/P <> GJ3TKF/P	59/59	IN89RK/IN89WG	37km LOS.

10GHz:

GU4HQX/P <> GJ3TKH/P	59++/59++	IN89RK/IN89WG

Open waveguide at the GJ end, no dish due to the high wind.

Further tests had to be abandoned due to rain at the GU end.

For G3TKF, a dyed in the wool HF operator this was his first µWave contact!

The 5.7/10GHz Cumulative was lost to wind and rain, in a very brief drier spell, GJ4HQX/P worked G4LDR on 5.7GHz for the only qso of the contest.

The Monday ferries were cancelled so we had 3 extra days to wait.

Wednesday was sunny, dry and very windy.

Contacts using a 60cm dish on 10GHz:

G4LDR <> GJ3TKH/P	59/59	IO91EC/IN89WG
G4NNS <> GJ3TKH/P	52/53	IO91FF/IN89WG
F6DKW <> GJ3TKH/P	59/59	JN18CS/IN89WG

Attempts with many others failed due to poor RF and WX conditions.

Thursday was sunny, dry and calm. Contacts using a 1m dish:

5.7GHz:

G4NNS <> GJ3TKH/P	559/559	IO91FF/IN89WG

10GHz:

F6DKW <> GJ3TKH/P	57/57	JN18CS/IN89WG

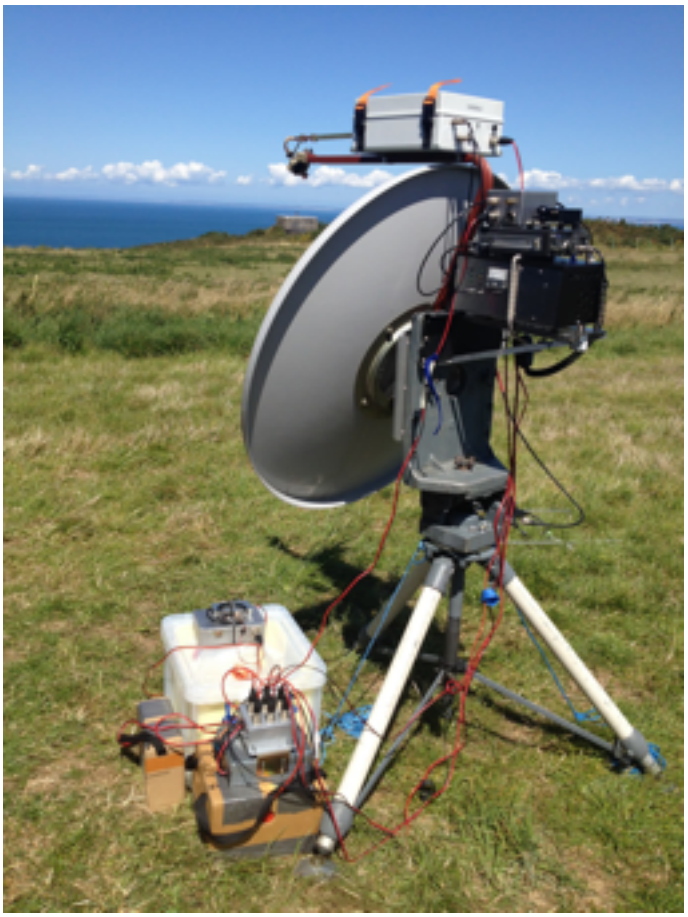
Heard but no QSO, PA0BAT. Heard by ON4IY but no QSO. Failed attempts with many others.

24GHz:

G4LDR/P <> GJ3TKH/P	569/549	IO80WP01/IN89WG80	154km
G4LDR/P <> GJ3TKH/P	57/53	IO80WP01/IN89WG80	154km

Neil drove to Povington car park for the attempt. First tried with my 50cm prime focus dish, nothing was heard. A feed horn was fitted to the 1m dish, a last minute construction that had never been tested. GB3SCK could now be discerned but not identified, but it gave me a bearing. Moving the dish 4.5 degrees further East, Neil was immediately heard. With small adjustments at both ends good exchanges were made in CW and SSB with deep erratic QSB.

The 2m talkback rig failed early on, mobile phones could not decide which network they were going to use but the JT mobile broadband connexion worked flawlessly for the whole duration enabling us to use ON4KST. There has to be a first for everything!



24GHz 1m Dish @ GJ3TKH/P

47GHz takeoff from GU4HQX/P

47GHz at GJ3TKH/P

July 23cm UKAC

From John G3XDY JO02

21 July 1.3GHz UKAC

Good activity for this event. A total of 29 locator squares were worked.

Highlights included:

SK7MW	JO65
DL0VV	JO64
DJ5AR	JN49
OZ1FF	JO45
PA0FEI	JO33
DK7QX	JO42
DL3IAE	JN49
DF2IAX	JN48
GU6EFB	IN89
GI6ATZ	IO74
GM4AFF/P	IO86
OZ3Z	JO45
G0EHV/P	IO84
GM4JTJ	IO86

From Bob G8DTF IO83

I worked 10 local stations in IO83 - G3UVR, G8HXE/P, G8PEF/P, G3TDH, G4HGI, G4JLG, G6GVI/P, G4NTY, G3WRS, M0VAA, 2E0BMO.

GW4IGF/P	IO82
G0ODQ	IO91
M0COP/P	IO82
M0RSD	IO82
G3VKV	IO81
G3UKV	IO82
G3TCU/P	IO91
GM4CXM	IO75
G3PYE/P	JO02
G7LRQ	IO91
G4CLA	IO92
M1MHZ	IO92
G8SFI/P	IO93
G6KWA	JO02
G8DOH	IO92
G8CUL	IO91
G4YHF/A	IO92

From Eddie G0EHV IO84

The UKAC contest this month seemed to be a mediocre affair for me. Out /P as usual in IO84, but QSO total down at 37, best of the bunch being a difficult QSO with M0GHZ @ 376km. Conditions at start seemed quite good with good beacon signals, but as the cold front and rain came over band died quite quickly for me. Also got very wet taking it all down again!

UKµWave Group 24/47GHz contest

From Neil G4LDR IO91

During the 24GHz and up contest on 19th July I operated portable from Chute Causeway (IO91FH) north of Andover in Hampshire. I completed five QSO on 24GHz, the best DX being to G8KQW/P on the Isle of Wight at about 80km. Interestingly had I operated from home I would have worked exactly te same stations, several over easier paths. I also had the UK Microwave Group's 76GHz loan system (built by the late G4EAT). Unfortunately no contacts were made despite attempts with G8KQW/P and G0FDZ/P with G8CUB/P near Winchester. Unfortunately I suffered considerable IF breakthrough on the 76GHz receiver (S9 plus) which may have contributed to the lack of contacts (although my signals were not heard by the other stations anyway), alternatively it was probably partly due to inexperience of 76GHz. It is hoped to attempt some shorter paths (a few km) with G8ACE to build up experience before attempting longer paths.

From Brian G4NNS IO91

G4NNS/P July 24GHz contest from Walbury Hill IO91GI44

The weather forecast was not promising, with rain forecast for much of the day but in the event the rain blew trough overnight and the day was dry but very windy. The main problem was holding on to the log book, microphone and headphones and chair which blew over frequently unless sat upon.

Access to the top (trig point) on Walbury hill has been difficult in recent years due to locked gates, but a chance meeting with one of the farm's workers last winter has solved that problem provided the correct procedure is followed.

I made 7 QSOs on 24GHz with the best DX G3ZME/P on Brown Clee at about 149km. The nearest station was Neil G4LDR/P 9km away on Chute Causeway but with a hedge in the way his end, this was a weak QSO. Later in the contest we realised that we could both see a PMR mast to his east, and when we both beamed at that 59 FM signals were exchanged.

Most of the activity was to the south with G3FDZ,G8CUB and G8ACE concentrating on the higher bands across the Solent to G8KQW/P on the Isle of Wight..

The attached photo shows the gear pointing towards G3ZME/P after moving the car which would have been in the way. On the right is a 4m dipole. As there was a contest on that band and I thought I might have time on my hands I decided to give some points away on the IF band. I ended up with the same number of contacts, seven, as on 24GHz.

July SHF UKAC

From Bob G8DTF IO83

13cm

I worked 5 local stations in IO83 - G3UVR, G6GVI/P, G4JLG/P, G8PEF/P, GW8ASD

M0UFC/P	IO93
G4ODA	IO92
G3VKV	IO81
G4LDR	IO91
G8SFI/P	IO93
M0GHZ	IO81
G8BUN	IO93
G4WLC/P	IO81

9cm

I worked 3 local stations in IO83 G4JLG/P, G6GVI/P, G8PEF/P

M0UFC/P	IO93

I failed with G3UKV IO82. My transverter is still very deaf.

From John G3XDY JO02

28 July SHF UKAC

Some RS on 10GHz gave the following:

G4KUX	IO94
PE1ITR	JO21
G4LDR	IO91 (also on 9 and 6cm)
M0GHZ	IO81 (also on 13,9,6cm)
ON4HCC	JO20
G4WLC/P	IO81
G4ODA	IO92

Activity and conditions on 13cm seemed down, best DX was G8SFI/P in IO93

From Ross G6GVI IO83

Dave G4JLG/P on Winter Hill was using his new Kuhne transverters on 9 & 13cm, and John had set up the WBFM gear for 6 & 3cm which I've lent him.

It was a chilly evening, with a few light showers but not too windy (although we had taken the precaution of tying down our tripods to prevent them blowing over). We easily managed our microwave contacts with "the usual suspects" (Bob G8DTF & Mark M0UFC/P, taking care to leave 15-minute gaps as is required when sharing each others' station equipment), although at one point Mark's 3cm signal disappeared as a heavy rain shower passed between us.

Then for the second month running, we made contact with Denis G3UVR on 3cm - he leaves his 3cm transmit running so that we can hear what's going on in his shack and know when he's not busy with QSOs on 6m or 13cm before calling him on 3cm!

Once again Dave G4JLG tried to work his namesake M0GHZ in Trowbridge on 9cm: we could hear his 7W, but he couldn't make out our 0.4W (not even when Dave got out his Morse-key and sent some CW!) But then we had a big surprise around 9:20 - we were just about to pack away the 9cm system and get ready for the start of the 13cm session, when I heard a strong signal on 3400.150: it was Martyn G3UKV in Telford working G3VKV in Cheltenham! Dave called him when he'd finished that QSO and to our delight he heard our 400mW signal straight away, even though he was beaming South. In fact when I worked him a little later, we did a test and found that the signals were much weaker when he was beaming North. He explained that he has trees in that direction, whereas his view is much better to the South, and his signal probably reflects off The Wrekin (a nearby hill). Martyn had not been active on 9cm for a while, but had been up his ladder at the weekend to set up his station ready for this UKAC session. His efforts were certainly well rewarded with at least six QSOs. And it was fortunate that I'd taken my own FT817 along with me, so that we could use it as an IF for the second transverter, thus allowing me and John to work Martyn on 9cm whilst Dave was busy on 13cm.

UKµWave Group 5.7/10GHz Contest

From Neil G4LDR IO91

The 5.7 and 10.3 GHz contest on the 25th July suffered from lack of activity due to heavy rain crossing the UK during the day. The best DX was with G0EHV/P in IO85XE. It was good to work GJ4HWX/P on Jersey who ventured out after the rained cleared his location.

From Eddie G0EHV IO84

I took my 3cms system out /P to fill in time during the RSGB 70 MHz Trophy contest to a new site for me at IO85XF. Spent some time beacon searching and was pleased to hear GM8FFX (204 Km) at fair strength as well as GB3CSB (151 Km). No other beacons audible but happy that my OCXO locking was spot on frequency display with no drift. Only 1 QSO locally with G4KUX, but happy with system re-engineering!

Spurred on with this success, I was out /P for the UK Microwave Group 10 GHz contest. I had intended to possibly cover both IO85 and IO95 but the weather dictated only IO85. Beacon search also bagged GB3FNY (weak) and GB3MAN (fair and scattered). Only 4 contacts, G4LDR @ 460Km being the best. Was activity lower than normal I wonder?

From Peter G1DFL

In the 10GHz Cumulative on 26th July, I tried 3cm (0.2W, 60cm Offset) from two local sites: West Wycombe Hill and Knowl Hill, but failed to make contact with Neil G4LDR in Salisbury at 75km, both paths being obstructed. I did hear GB3SEE at good strength, which was encouraging! If anyone else is active on 3cm within 50 miles of me (I'm in Wargrave, Berkshire) it would be great to have a few local folks to test with when I'm /P. Please contact me via email (details at QRZ.com).

Other Activity

From Jim GM3UAG IO87

Late (2259) on the 30th June 2015 GB3MHZ on 23cm and GB3MHS on 13cm were received in IO87XJ at good strength.

About 0600 on the 1st July I logged PI7ALK on 23 and 13cm both about S3, PI7QHN at S7, ON0NR S6 (899km) and DB0JO S2 (903km) on 23cm.

Frequent monitoring of 3cm produced no result.

Despite several CQ calls on 23 and 13cm no stations were heard until I hooked up with PA0BAT on KST at 0800 when we had an S2 QSO on CW.

By 0900 things were back to the usual white noise.

From Neil G4LDR IO91

On the 30th July at around 1400 UTC I completed what is probably the first two way contact on 24GHz with GJ3TKH/P. I was on the Purbecks in Dorset IO80WP and Keith was at IN89WG on the north coast of Jersey. (I think Keith has already sent you a report about this contact).

From John G3XDY JO02

2 July

A good RS opening on 10GHz:

DL5EBS	JO31
DL5EAG	JO31
DL7QY	JN59
DK7QX	JO42
DJ6JJ	JO31
DJ2QZ/P	JO31
ON4CDU	JO20

...and finally

I want to encourage you get on the air as often as possible and report your activity to clearly document use of the amateur microwave bands. This means not just DX and EME, but also local activity with ATV, low power or WB equipment. Please send your reports to Scatterpoint@microwavers.org, remember the deadline is the 1st of the month.

73 Bob Price G8DTF

Contest Results

John G3XDY, UKuG Contest Manager

June 5.7GHz Contest 2015

There was a slight increase in numbers for the second contest in the series. Congratulations go to Ian G8KQW/P, operating from Dunkery Beacon in Devon, as winner of this event. Neil G4LDR takes the runner up spot.

5.7GHz Contest June 2015						
Section All						
Pos	**Callsign**	**Locator**	**QSOs**	**Score**	**ODX Call**	**ODX km**
1	G8KQW/P	IO81FD	4	555	M0HNA/P	147
2	G4LDR	IO91EC	5	429	G8KQW/P	134
3	M0HNA/P	IO91GI	3	194	G8KQW/P	147
4	G3VKV	IO81XV	1	134	G8KQW/P	134
5	GW3TKH/P	IO81LS	1	124	G4LDR	124

June 10GHz Contest 2015

Limited activity and few entrants made this a rather drab contest for many.

Congratulations go to Ian G8KQW/P operating from Dunkery Beacon, who had a commanding lead over second placed station Neil G4LDR in the Open section.

Stewart G0LGS/P won the Restricted section with Rob G0PEB/P as runner up.

10GHz Contest June 2015						
Section Open						
Pos	**Callsign**	**Locator**	**QSOs**	**Score**	**ODX Call**	**ODX Kms**
1	G8KQW/P	IO81FD	12	2766	F1HNF/P	501
2	G4LDR	IO91EC	12	1667	F6DKW	378
3	G4BAO	JO02CG	8	1511	F6DKW	415
4	G8CUB/P	IO92XA	10	1347	G8KQW/P	261
5	GW3TKH/P	IO81LS	5	998	F6DKW	501
6	G3VKV	IO81XV	4	281	G8KQW/P	134
Section Restricted						
Pos	**Callsign**	**Locator**	**QSOs**	**Score**	**ODX Call**	**ODX Kms**
1	G0LGS/P	IO81XW	9	999	G3LRP	191
2	G0PEB/P	IO90JO	6	750	G4BAO	210

High Bands Champions

5.7/10GHz Championship Tables

Positions after two events, the best three count to overall total

5.7GHz

Pos	Callsign	5/31/14	6/28/14	**TOTAL**
1	G4LDR	784	773	1557
2	M0HNA/P	736	350	1086
3	G3ZME/P	1000		1000
4	G8KQW/P		1000	1000
5	G3VKV		241	241
6	GW3TKH/P		223	223

10GHz Open

Pos	Callsign	5/31/14	6/28/14	TOTAL
1	G4LDR	1000	603	1603
2	G8KQW/P		1000	1000
3	G4BAO		546	546
4	G8CUB/P		487	487
5	GW3TKH/P	117	361	478
6	G4KUX	382	0	382
7	G3ZME/P	355	0	355
8	G3VKV	130	102	232
9	G3UKV	225	0	225

10GHz Restricted

Pos	Callsign	5/31/14	6/28/14	TOTAL
1	G0LGS/P		1000	1000
2	M0HNA/P	1000		1000
3	G0PEB/P		751	751

The 2015 Crawley Roundtable, Sunday 20 September

We will be holding a heat for the UK Microwave Group annual project contest for the G3VVB trophy. Please do bring along your constructed equipment or project and enter. Entries do not necessarily need to have been finished during the last year. This year the contest will also accept software entries as well as hardware. The winner of this round will go on to be considered together with entries from all the other roundtables over the past year after this event.

The morning will feature the usual 'bring and buy' sale, so if you have something to sell then please bring it along.

The program this year offers the microwaver something different - come along and support the construction contest and hear the talk(s).

WANTED: talks for the Crawley RT

At the moment I only have one talk scheduled and really need two more. I'd really like to fill all three slots of either 30 or 45 mins if possible, so if you are able to present a talk on any aspect of microwaves or a related subject then please contact me direct at chris@g0fdz.com

As I said last time you do not have to be an “expert” to give a talk – for example it could be about your recent portable activity or similar and not necessarily of a technical nature. We can supply a projector and laptop if required so please don't be shy and do come forward.

Thanks and regards
Chris G0FDZ

Please contact Chris G0FDZ if you have a talk!

Location: Crawley Amateur Radio Club

http://www.carc.org.uk/

10:00AM	Venue opens
12:00	UKuG Project contest round judging commences
13:00	Lunch (rolls, sandwiches, tea/coffee available)
14:00	Opening address and the results of the Project contest heat
14:15	Talk-1 - tbc
15:00	Talk-2 - tbc
15:30	Break (tea & coffee available)
16:00	Talk-3 - tbc
16:30	End of meeting

If you need further information, contact Chris Whitmarsh G0FDZ or Derek Atter G3GRO

Access to Site:

The access road into Tilgate Recreational Centre and the CARC Clubhouse (Hut18) is via the sliproad at the new traffic lights on the southbound carriageway of the A23 (Brighton Road), just south of Crawley heading towards Brighton, and about 200m from the Broadfield Football Stadium roundabout which is well signposted.

The Clubhouse is accessed via a fairly narrow track for about 200m. Watch out for anti-traveller caravan chicanes then turn right at the 3rd sleeping policeman!

More Directions: CARC Directions

UKuG Microwave Contest Calendar 2015

Contest results are also published online - please follow the link from the UKuG Contests Page at:

www.microwavers.org/?contesting.htm

Events calendar

2015

Sept 5–6	BATC CAT-15, Finningley	www.batc.org.uk/forum/viewforum.php?f=93
Sept 6 – 11	European Microwave Week, Paris	www.eumweek.com/
Sept 11 – 13	60.UKW Tagung Weinheim	www.ukw-tagung.de/
Sept 20	Crawley Round Table	www.microwavers.org/cra-prog.htm
Sept 25 – 26	National Hamfest	www.nationalhamfest.org.uk/
Oct 9–11	RSGB Convention	rsgb.org/convention/
Oct 15–18	Microwave Update, San Diego	www.microwaveupdate.org/
Nov 7	Scottish Round Table	www.gmroundtable.org.uk/

2016

Jan 23	Heelweg	www.pamicrowaves.nl/
Apr 9	CJ-2016, Seigy	http://cj.ref-union.org/
Apr 16–17	Martlesham Microwave Round Table & UKμG AGM	
Apr 23	RSGB AGM, Scotland	
May 20 – 22	Hamvention, Dayton	www.hamvention.org/
Jun 24 – 26	Ham Radio, Friedrichshafen	www.hamradio-friedrichshafen.de/
Aug 19–21	EME2016, Venice	www.eme2016.org/
Oct 3 – 7	European Microwave Week, London	www.eumweek.com/
Oct 7 – 9	RSGB Convention	rsgb.org/convention/

2017

Jun 23 – 25	Ham Radio, Friedrichshafen	www.hamradio-friedrichshafen.de/
Oct 8 – 13	European Microwave Week, Nurembourg	www.eumweek.com/

Loan Equipment

Don't forget, UKμG has loan kit in the form of portable transceivers available to members for use on the following bands:

5.7GHz **10GHz** **76GHz**

Contact John G4BAO for more information.