

**Baldock Radio Station  
Royston Road, Baldock  
Herts SG7 6SH**



**Mobile Phone  
Base-Station Audit**

**Audit Site: Windsor House  
High Street  
Kings Heath  
Birmingham  
B14 7BB**

Work Performed by		Distribution List	
James Loughlin Field Manager	3G measurements & Report	Lloyd Tailby	1
Mike Reynolds Field Officer	3G measurements	Ajmal Hussain	2
John Taylor T.I. Officer	2G measurements & 2G Report	John Taylor	1
		Technical Manager	1
		Case/Year file	2

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## Report Summary

As the radio spectrum is continually changing, these measurements can only provide information on the radio frequency (RF) conditions for the specific locations at the time of the survey.

The Office of Communications (Ofcom) performed this survey of the RF emission environment in the vicinity of Windsor House, Kings Heath, Birmingham on the 5th October 2005. Both second generation (2G) and third generation (3G) base station emissions were measured separately and the signal levels combined to give the Total Band Exposure as detailed below.

The table, sorted in descending order of signal level, summarises the total results obtained at each measurement location.

Summary of results:

Location	3G Exposure Quotient	2G Exposure Quotient	TOTAL 3G + 2G Exp. Quot.	Related to ICNIRP limit
Car Park at rear of Clearlight Mount Pleasant	2.85E-05	1.80E-04	2.09E-04	1/4796
Junction of Station Rd and High St	1.17E-05	1.94E-04	2.06E-04	1/4861
Findley Rd Retail Park by Topps Tiles	2.33E-05	1.70E-04	1.93E-04	1/5173
Footpath outside Windsor House	2.09E-05	6.48E-05	8.57E-05	1/11669
Kings Heath Primary School staff car park	1.03E-05	2.31E-05	3.34E-05	1/29940
	2.17E-06	9.57E-06	1.17E-05	1/85179

The Peterborough office carried out the 2G audit, while mobile team 2 from Baldock completed a concurrent 3G survey. The results from both have been combined to provide the summary of results on page 3.

Initially the base station was scanned to ascertain the extent of 3G activity.

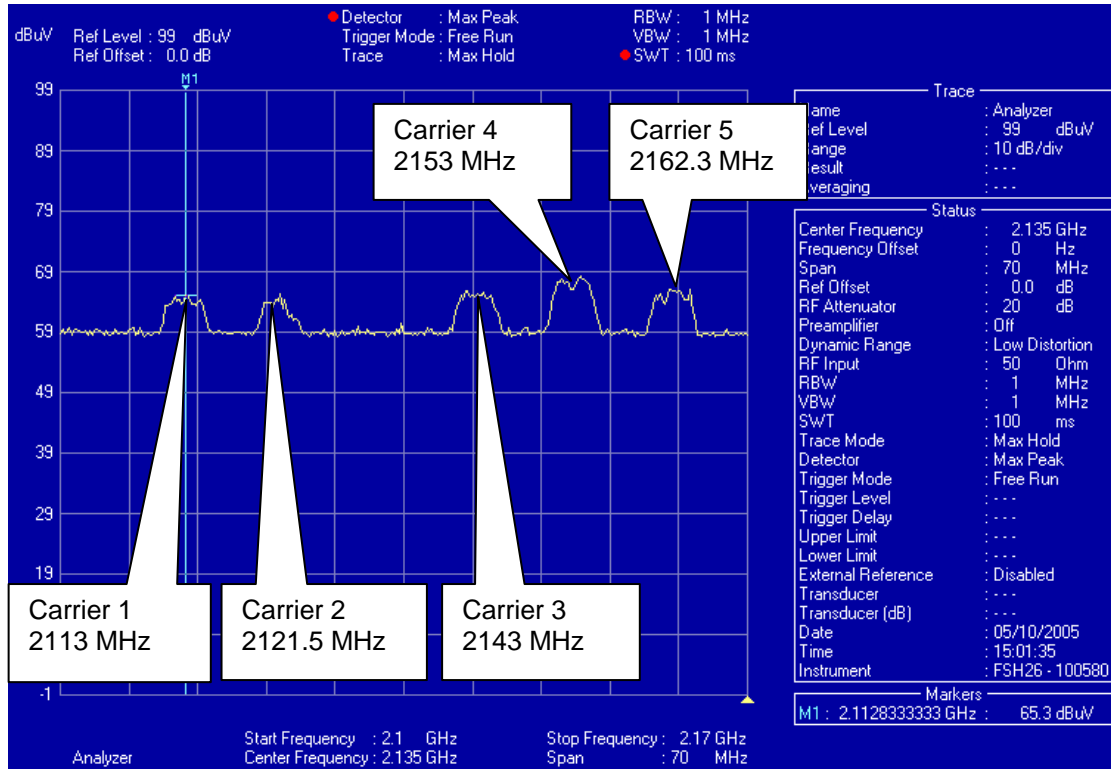


Figure 1

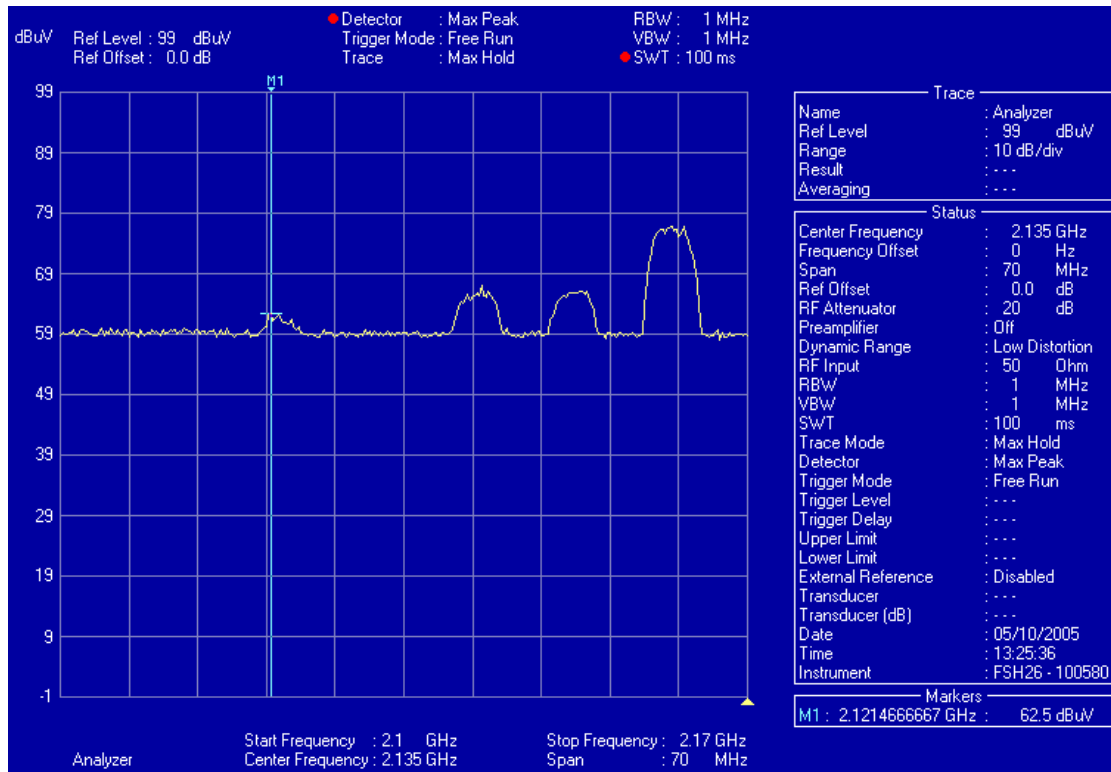
Figure 1 shows that a maximum of five transmissions were active in this area. At each measurement location the measuring antenna was then set up on a tripod 1.5m above ground level. In this position each of the carriers field strengths were recorded.

For each measurement location the 3G exposure quotient was then calculated for the individual carriers and then the total exposure quotient for all five carriers was calculated. This in turn was added to the 2G exposure quotient before calculating the Total Exposure Quotient for each survey site.

All the 3G measurement data is given on pages 5 to 10, while the 2G data is contained in the annex to this report.

Equipment:	serial number:	CEMS number
FSH6 Spectrum Analyser	100580	200103
EMCO DRG 3115 horn Antenna	2153	200005
Garmin GPS75 receiver	37524369	200011
Reynolds cable type 219-0088 0201 067		-

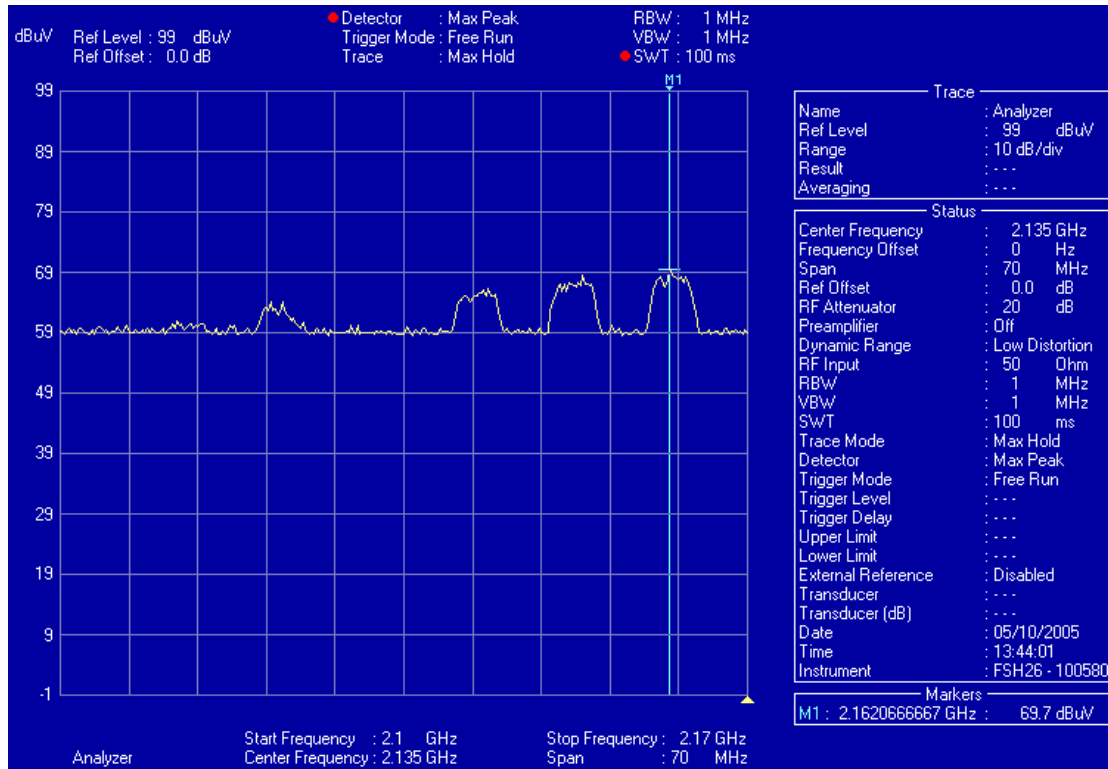
Location 1: Car Park at rear of Clearlight



Location 1: Car Park at rear of Clearlight

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	2121.5	95	56,234.1	0.056234	0.0000083880	8.388E-06	10	0.00000838800	8.39E-07
2	2143	99.8	97,723.7	0.097724	0.0000253315	2.533E-05	10	0.000002533150	2.53E-06
3	2153	98.8	87,096.4	0.087096	0.0000201213	2.012E-05	10	0.000002012130	2.01E-06
4	2162.3	109.4	295,120.9	0.295121	0.0002310249	0.000231	10	0.000023102490	2.31E-05
									<b>TOTAL</b> 2.85E-05

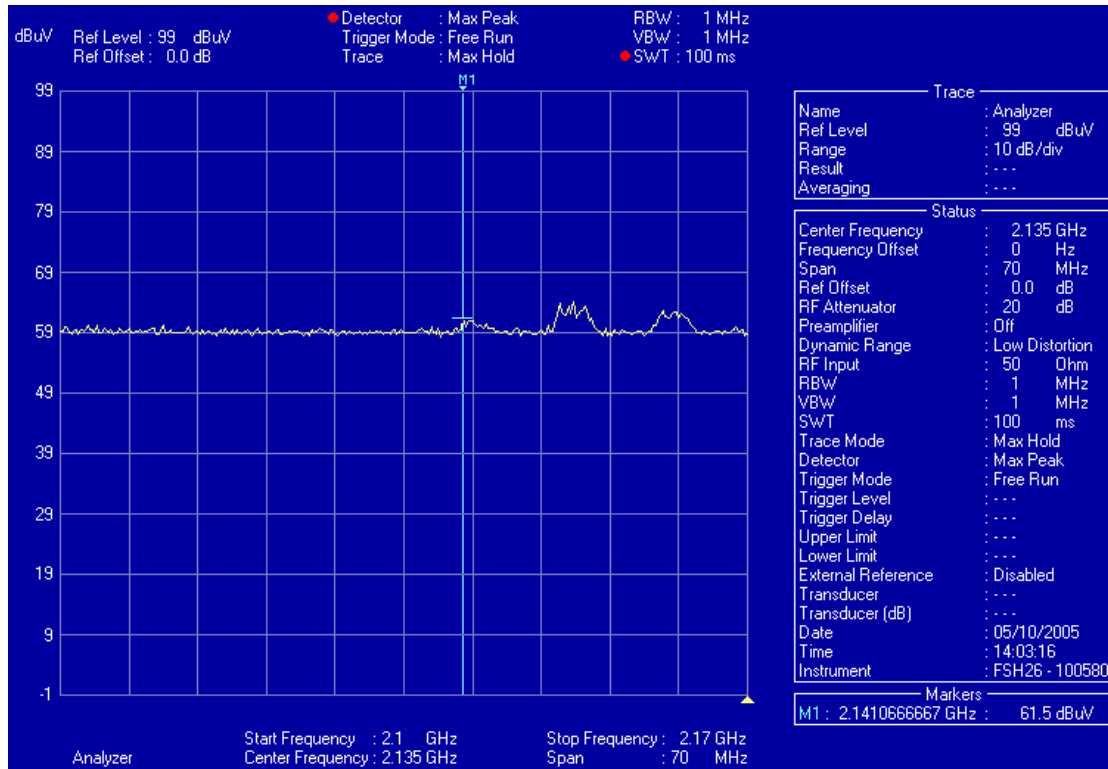
Location 2: Mount Pleasant



Location 2: Mount Pleasant

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	2121.5	96.8	69,183.1	0.069183	0.0000126957	1.27E-05	10	0.000001269570	1.27E-06
2	2143	98.9	88,104.9	0.088105	0.0000205902	2.059E-05	10	0.000002059020	2.06E-06
3	2153	101.8	123,026.9	0.123027	0.0000401476	4.015E-05	10	0.000004014760	4.01E-06
4	2162.3	102.2	128,825.0	0.128825	0.0000440209	4.402E-05	10	0.000004402090	4.40E-06
<b>TOTAL</b>									<b>1.17E-05</b>

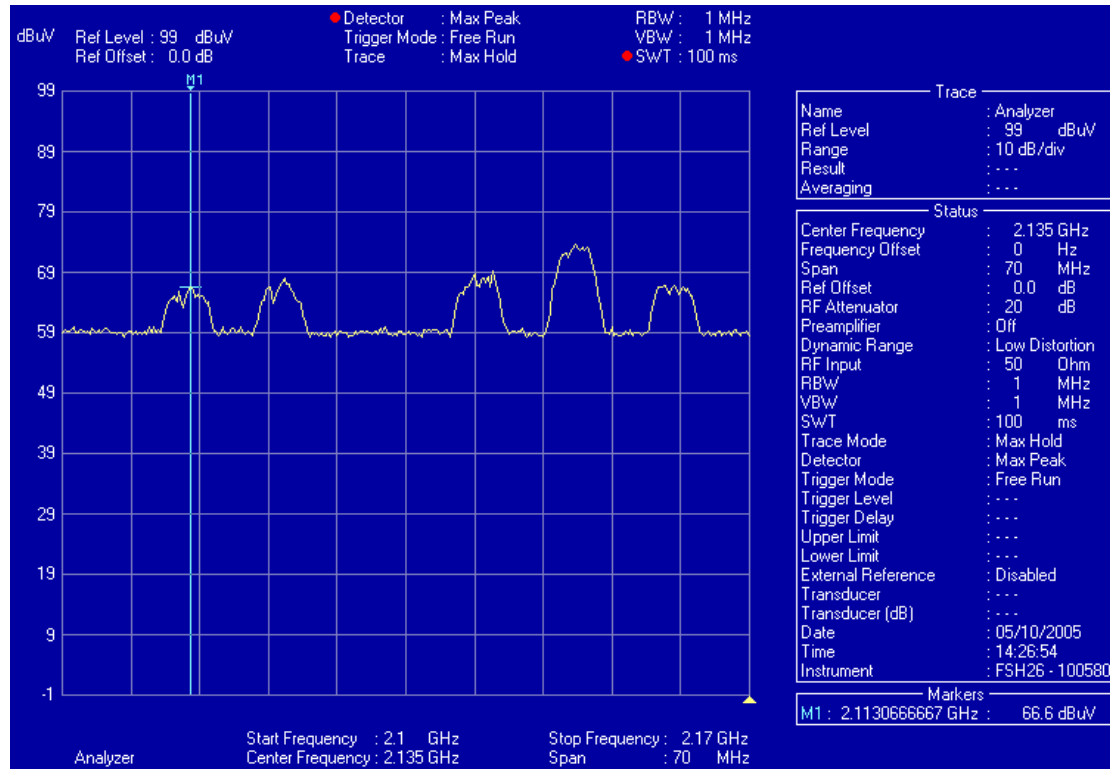
Location 3: Kings Heath Primary School staff car park



Location 3: Kings Heath Primary School staff car park

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	not seen		1.0	0.000001	0.0000000000	0	10	0.000000000000	0.00E+00
2	not seen		1.0	0.000001	0.0000000000	0	10	0.000000000000	0.00E+00
3	2153	96.8	69,183.1	0.069183	0.0000126957	1.27E-05	10	0.000001269570	1.27E-06
4	2162.3	95.3	58,210.3	0.058210	0.0000089878	8.988E-06	10	0.000000898780	8.99E-07
<b>TOTAL</b>									<b>2.17E-06</b>

Location 4: Junction of Station Rd and High St

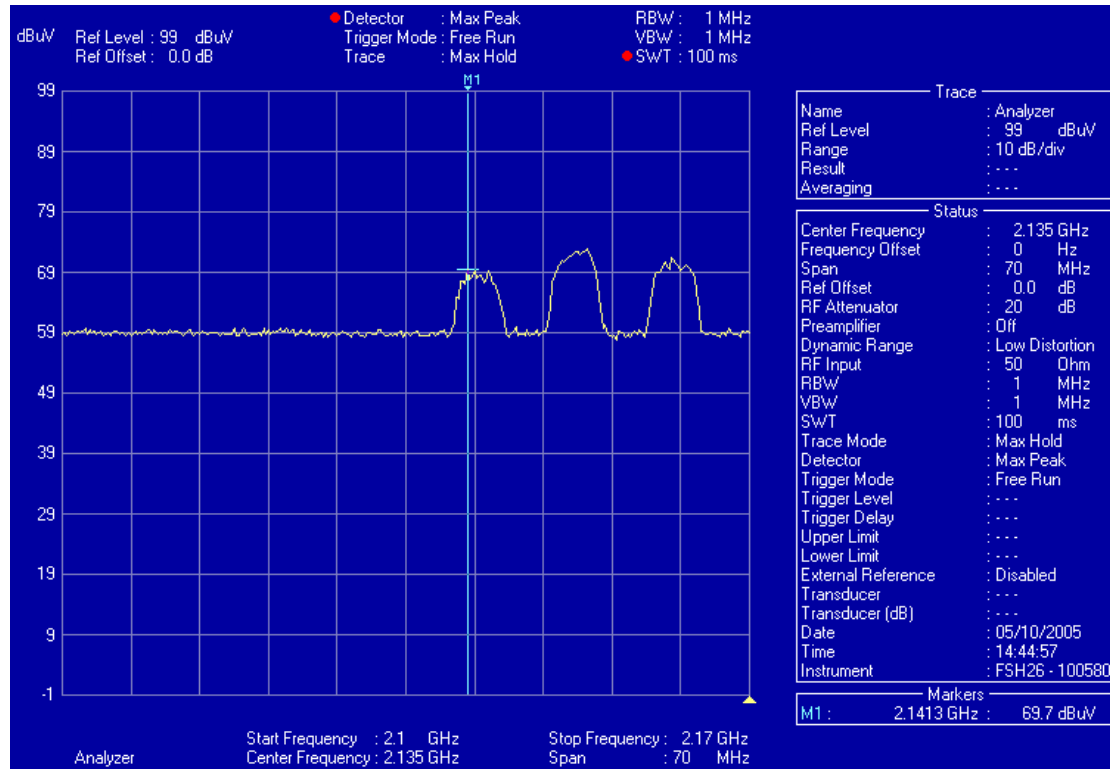


Location 4: Junction of Station Rd and High St

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	2121.5	99.8	97,723.7	0.097724	0.0000253315	2.533E-05	10	0.000002533150	2.53E-06
2	2143	102	125,892.5	0.125893	0.0000420399	4.204E-05	10	0.000004203990	4.20E-06
3	2153	106.6	213,796.2	0.213796	0.0001212433	0.0001212	10	0.000012124330	1.21E-05
4	2162.3	99.4	93,325.4	0.093325	0.0000231023	2.31E-05	10	0.000002310230	2.31E-06
5	2113	99.1	90,157.1	0.090157	0.0000215604	2.156E-05	10	0.000002156040	2.16E-06
									<b>TOTAL</b> 2.33E-05



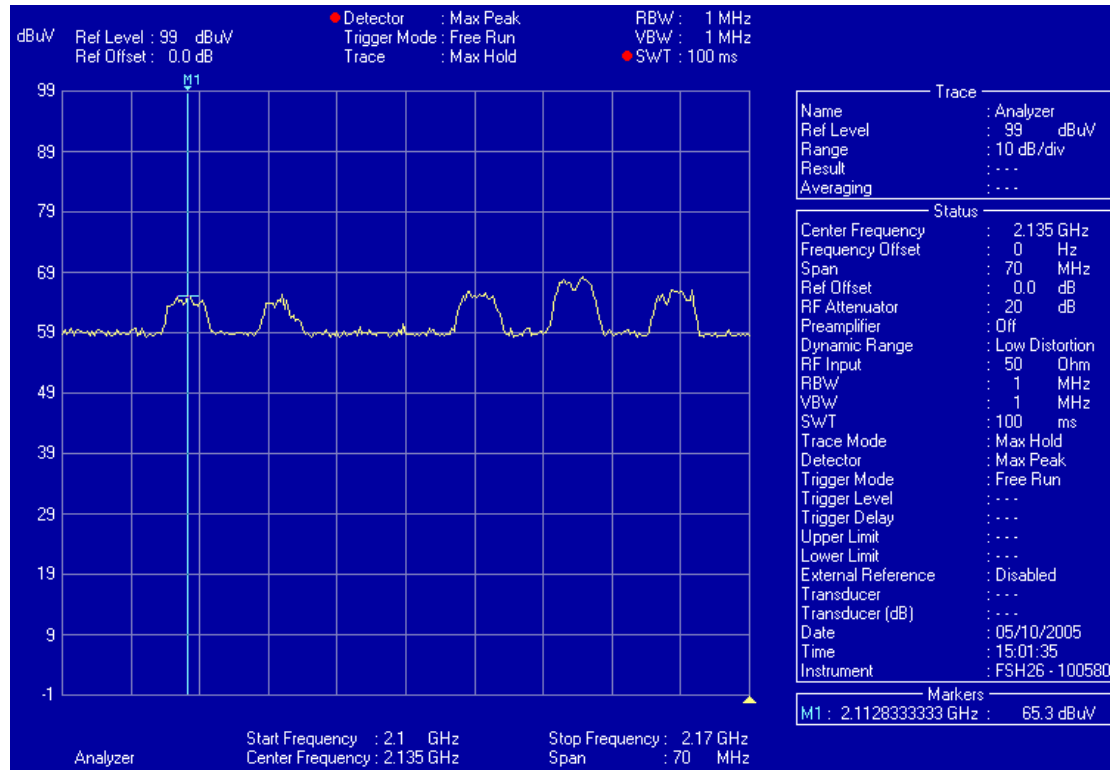
Location 5: Findley Road Retail Park by Topps Tiles



Location 5: Findley Rd Retail Park by Topps Tiles

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	not seen		1.0	0.000001	0.0000000000	0	10	0.000000000000	0.00E+00
2	2143	102.2	128,825.0	0.128825	0.0000440209	4.402E-05	10	0.000004402090	4.40E-06
3	2153	105.6	190,546.1	0.190546	0.0000963071	9.631E-05	10	0.000009630710	9.63E-06
4	2162.3	104.1	160,324.5	0.160325	0.0000681807	6.818E-05	10	0.000006818070	6.82E-06
<b>TOTAL</b>									<b>2.09E-05</b>

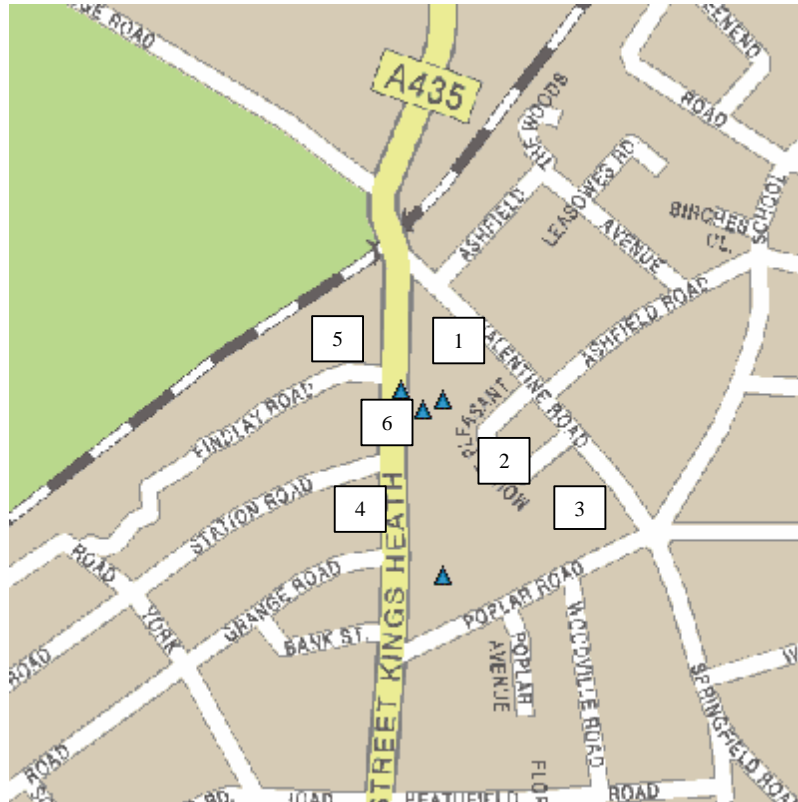
Location 6: Footpath outside Windsor House



Location 6: Footpath outside Windsor House

Channel	Frequency MHz	Fieldstrength dBuV/m	Fieldstrength uV/m	Fieldstrength V/m	Power W/m <sup>2</sup>	Power W/m <sup>2</sup>	ICNIRP W/m <sup>2</sup>	3G Exposure Quotient	3G Exposure Quotient
1	2121.5	98	79,432.8	0.079433	0.0000167363	1.674E-05	10	0.000001673630	1.67E-06
2	2143	98.4	83,176.4	0.083176	0.0000183508	1.835E-05	10	0.000001835080	1.84E-06
3	2153	100.8	109,647.8	0.109648	0.0000318904	3.189E-05	10	0.000003189040	3.19E-06
4	2162.3	98.8	87,096.4	0.087096	0.0000201213	2.012E-05	10	0.000002012130	2.01E-06
5	2113	97.8	77,624.7	0.077625	0.0000159831	1.598E-05	10	0.000001598310	1.60E-06
									<b>TOTAL</b> 1.03E-05

Measurement Locations



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## **Annex**

### **2G Mobile Phone Base-Station Audit**

## **Mobile Phone Base-Station Audit**

**Audit site: Area around Windsor House  
High Street  
Kings Heath  
Birmingham  
B14 7BB**

In 2000 the Government asked the Radiocommunications Agency to implement a national measurement programme to ensure that emissions from cellular base stations do not exceed the guidelines for public maximum exposure set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Ofcom took over the functions of the Radiocommunications Agency, along with those of the Independent Television Commission, Radio Authority, OfTel and Broadcasting Standards Commission, on 29 December 2003.

Electric field strength measurements made in various bands are referenced to and presented alongside the relevant ICNIRP public maximum exposure levels. On the left hand side of the results page(s) is a graphical representation of the radio spectrum surveyed at each location on the site. The green line on each graph indicates the ICNIRP guideline exposure level for that frequency band. To the right hand side of each graph is a table showing the ten highest level emissions recorded within a band.

Further explanation of the results and their context within the ICNIRP guidelines can be provided by the Ofcom officers at the time of the audit or by contacting Ofcom on 0845 456 3000, or by email at [contact@Ofcom.org.uk](mailto:contact@Ofcom.org.uk). Results taken from all audit sites and further information on the audit programme can be found on the Ofcom website at [www.ofcom.org.uk](http://www.ofcom.org.uk).

## Report Summary

As the radio spectrum is continually changing, these measurements can only provide information on the radio frequency (RF) conditions for the specific locations at the time of the survey.

Ofcom performed this survey of the RF emission environment prevailing in the vicinity of Area around Windsor House on 5 October 2005.

The following table, sorted in descending order of signal level, summarises the results obtained at each measurement location.

Summary of results:		
Location	Total Band Exposure	Relationship to ICNIRP Limit
Mount Pleasant	1.94E-04	1/5162
Car Park at rear of Clearlight	1.80E-04	1/5548
Junction of Station Road and High Street	1.70E-04	1/5879
Findley Road Retail Park by Topps Tiles	6.48E-05	1/15430
Footpath outside Windsor House	2.31E-05	1/43312
Kings Heath Primary School staff car park	9.57E-06	1/104462

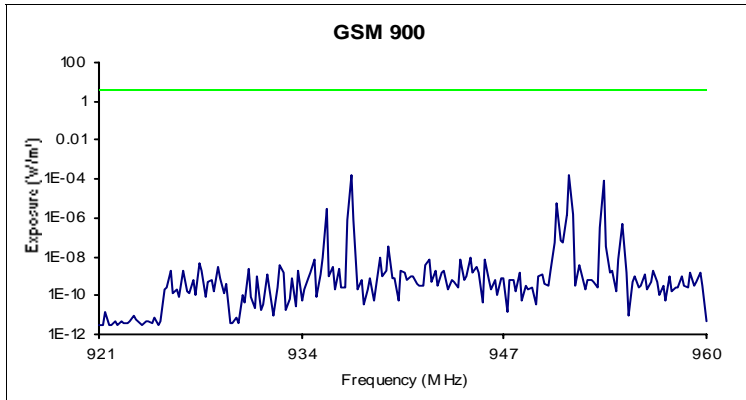
Issued on behalf of Ofcom.

Issued by:

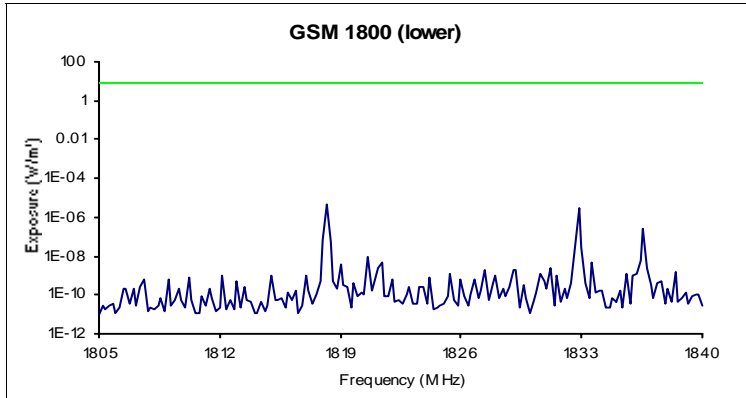
Received by:

John Taylor  
Technical Investigation Officer

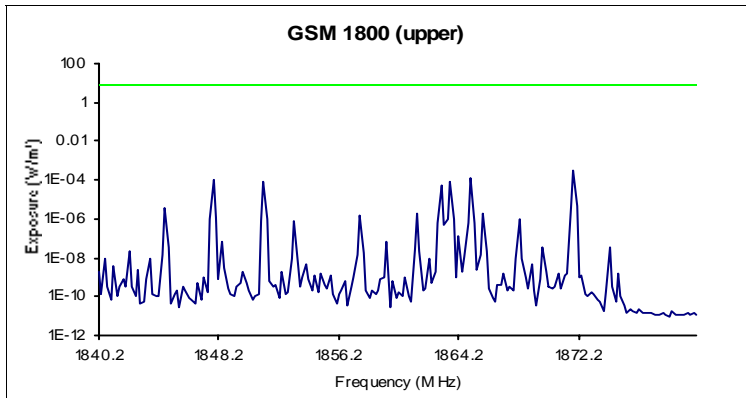
<b>Site:</b> Area around Windsor House	<b>Receiver:</b>
<b>Location:</b> Car Park at rear of Clearlight	Manufacturer: ROHDE&SCHWARZ
<b>NGR:</b> SP 0745 8230 Taken from GPS	Model: EB200
<b>Start Time:</b> 05 October 2005 13:11:55	Serial Number: 837.752/003
<b>Officer:</b> John Taylor	<b>Antenna:</b>
	Manufacturer: Rohde & Schwarz
	Model: HE200
	Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
937.200	1.66E-04	4.69	3.55E-05
951.200	1.60E-04	4.76	3.37E-05
953.400	9.07E-05	4.77	1.90E-05
950.400	6.09E-06	4.75	1.28E-06
935.600	2.75E-06	4.68	5.88E-07
951.000	1.68E-06	4.75	3.53E-07
951.400	1.57E-06	4.76	3.30E-07
937.000	7.60E-07	4.68	1.62E-07
937.400	7.44E-07	4.69	1.59E-07
954.600	5.35E-07	4.77	1.12E-07
<b>Band Exposure Quotient:</b>			<b>9.14E-05</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,818.200	4.98E-06	9.09	5.48E-07
1,832.800	2.81E-06	9.16	3.07E-07
1,836.600	2.76E-07	9.18	3.01E-08
1,818.000	6.42E-08	9.09	7.06E-09
1,818.400	5.73E-08	9.09	6.30E-09
1,832.600	3.15E-08	9.16	3.44E-09
1,833.000	2.68E-08	9.16	2.93E-09
1,820.600	9.11E-09	9.10	1.00E-09
1,836.400	6.18E-09	9.18	6.74E-10
1,821.400	4.79E-09	9.11	5.26E-10
<b>Band Exposure Quotient:</b>			<b>9.13E-07</b>



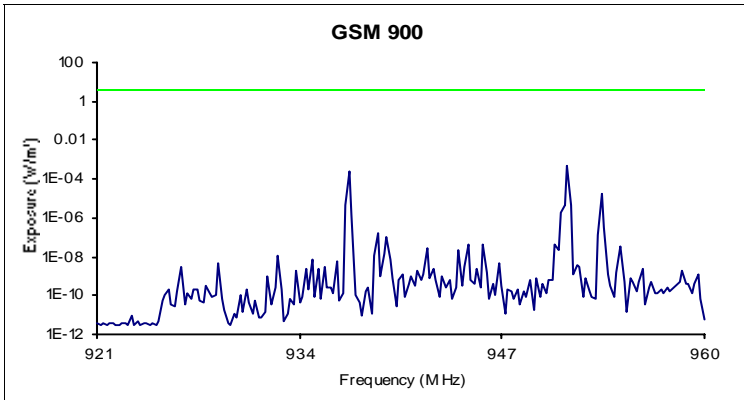
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,871.800	3.29E-04	9.36	3.52E-05
1,865.000	1.42E-04	9.32	1.52E-05
1,847.800	1.02E-04	9.24	1.11E-05
1,863.600	8.54E-05	9.32	9.17E-06
1,851.200	7.63E-05	9.26	8.24E-06
1,863.000	5.64E-05	9.31	6.05E-06
1,872.000	4.15E-06	9.36	4.43E-07
1,871.600	3.96E-06	9.36	4.23E-07
1,844.600	3.45E-06	9.22	3.74E-07
1,861.400	1.95E-06	9.31	2.10E-07
<b>Band Exposure Quotient:</b>			<b>8.79E-05</b>

Total number of measurements: 572

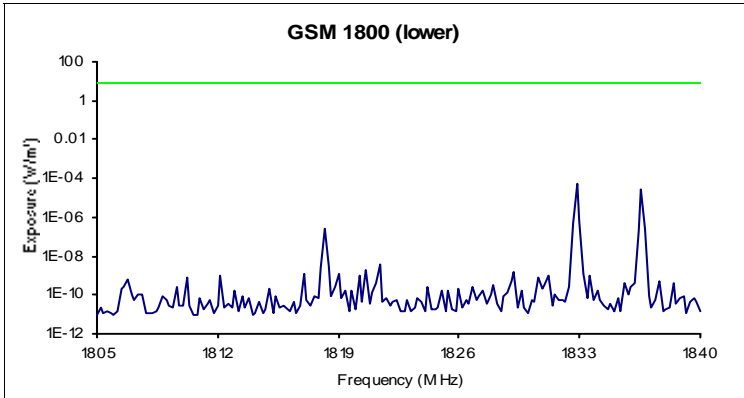
**Total Band Exposure Quotient:** 1.80E-04



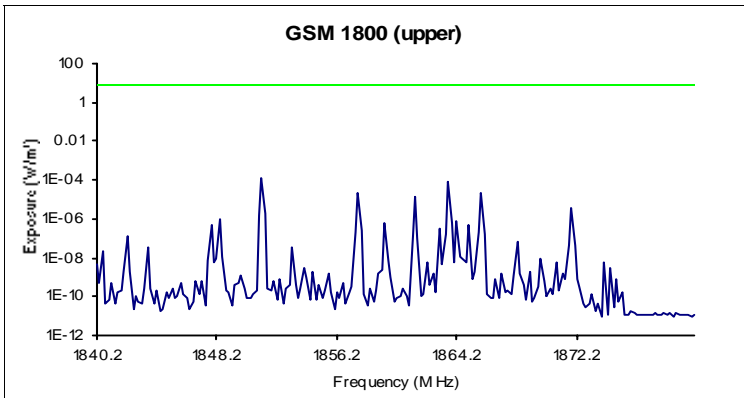
<b>Site:</b> Area around Windsor House	<b>Receiver:</b>
<b>Location:</b> Mount Pleasant	Manufacturer: ROHDE&SCHWARZ
<b>NGR:</b> SP 0750 8219 <b>Taken from GPS</b>	Model: EB200
<b>Start Time:</b> 05 October 2005 13:30:35	Serial Number: 837.752/003
<b>Officer:</b> John Taylor	<b>Antenna:</b>
	Manufacturer: Rohde & Schwarz
	Model: HE200
	Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
951.200	4.42E-04	4.76	9.29E-05
937.200	2.46E-04	4.69	5.25E-05
953.400	1.58E-05	4.77	3.30E-06
937.000	5.02E-06	4.68	1.07E-06
951.000	4.84E-06	4.75	1.02E-06
951.400	4.22E-06	4.76	8.87E-07
950.800	1.72E-06	4.75	3.61E-07
937.400	1.66E-06	4.69	3.55E-07
953.600	2.93E-07	4.77	6.16E-08
939.000	1.60E-07	4.70	3.40E-08
<b>Band Exposure Quotient:</b>			<b>1.53E-04</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,832.800	5.61E-05	9.16	6.12E-06
1,836.600	2.52E-05	9.18	2.74E-06
1,833.000	6.90E-07	9.16	7.53E-08
1,832.600	5.23E-07	9.16	5.71E-08
1,818.200	2.74E-07	9.09	3.01E-08
1,836.800	2.64E-07	9.18	2.87E-08
1,836.400	2.14E-07	9.18	2.34E-08
1,821.400	3.72E-09	9.11	4.08E-10
1,818.400	2.94E-09	9.09	3.23E-10
1,818.000	2.62E-09	9.09	2.88E-10
<b>Band Exposure Quotient:</b>			<b>9.08E-06</b>

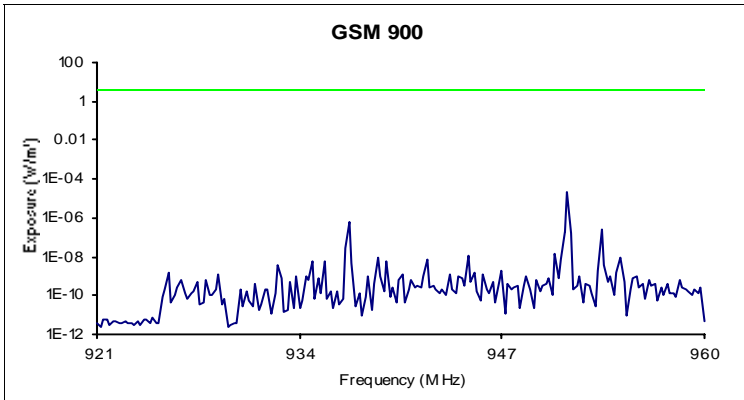


Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,851.200	1.42E-04	9.26	1.53E-05
1,863.600	8.54E-05	9.32	9.17E-06
1,865.800	2.26E-05	9.33	2.42E-06
1,857.600	2.03E-05	9.29	2.18E-06
1,861.400	1.38E-05	9.31	1.48E-06
1,871.800	3.53E-06	9.36	3.77E-07
1,851.400	1.75E-06	9.26	1.89E-07
1,851.000	1.52E-06	9.26	1.64E-07
1,848.400	9.56E-07	9.24	1.03E-07
1,864.200	7.62E-07	9.32	8.18E-08
<b>Band Exposure Quotient:</b>			<b>3.20E-05</b>

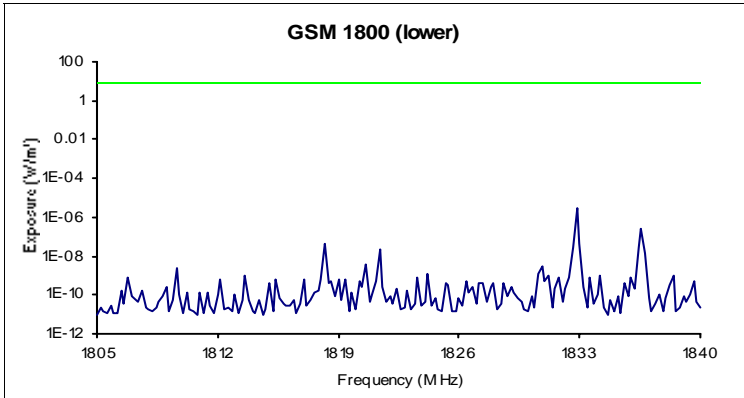
Total number of measurements: 572

**Total Band Exposure Quotient:** 1.94E-04

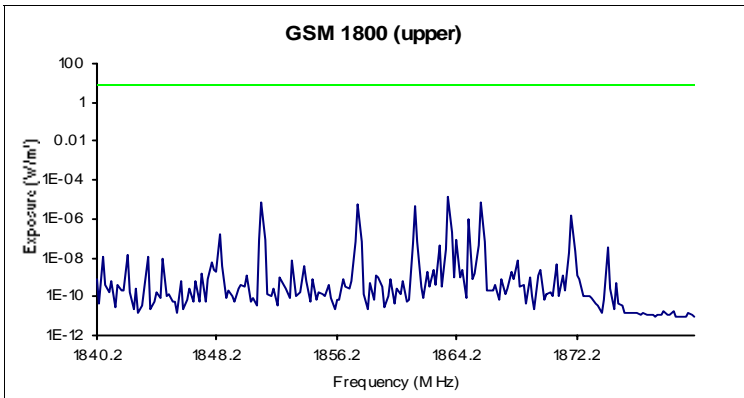
<b>Site:</b> Area around Windsor House	<b>Receiver:</b>
<b>Location:</b> Kings Heath Primary School staff car park	Manufacturer: ROHDE&SCHWARZ
<b>NGR:</b> SP 0758 8216 Taken from GPS	Model: EB200
<b>Start Time:</b> 05 October 2005 13:50:56	Serial Number: 837.752/003
<b>Officer:</b> John Taylor	<b>Antenna:</b>
	Manufacturer: Rohde & Schwarz
	Model: HE200
	Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
951.200	2.02E-05	4.76	4.25E-06
937.200	6.78E-07	4.69	1.45E-07
953.400	2.50E-07	4.77	5.24E-08
951.000	2.16E-07	4.75	4.55E-08
951.400	1.76E-07	4.76	3.70E-08
937.000	2.82E-08	4.68	6.03E-09
950.400	1.46E-08	4.75	3.07E-09
944.800	1.07E-08	4.72	2.26E-09
954.600	9.74E-09	4.77	2.04E-09
939.000	8.57E-09	4.70	1.83E-09
<b>Band Exposure Quotient:</b>			<b>4.56E-06</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,832.800	2.94E-06	9.16	3.21E-07
1,836.600	2.41E-07	9.18	2.62E-08
1,833.000	4.06E-08	9.16	4.43E-09
1,818.200	3.96E-08	9.09	4.36E-09
1,832.600	2.87E-08	9.16	3.14E-09
1,836.400	2.58E-08	9.18	2.81E-09
1,821.400	2.40E-08	9.11	2.63E-09
1,836.800	1.42E-08	9.18	1.54E-09
1,820.600	4.16E-09	9.10	4.57E-10
1,830.800	2.74E-09	9.15	2.99E-10
<b>Band Exposure Quotient:</b>			<b>3.70E-07</b>



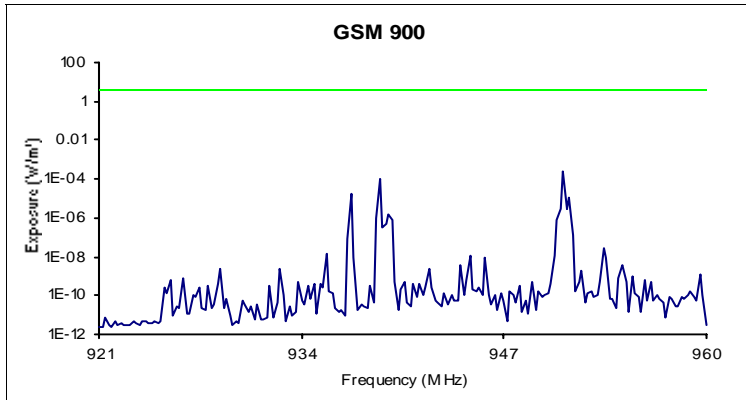
Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,863.600	1.42E-05	9.32	1.52E-06
1,851.200	7.28E-06	9.26	7.87E-07
1,865.800	7.13E-06	9.33	7.65E-07
1,857.600	5.85E-06	9.29	6.30E-07
1,861.400	4.90E-06	9.31	5.26E-07
1,871.800	1.61E-06	9.36	1.72E-07
1,865.000	9.61E-07	9.32	1.03E-07
1,863.800	2.05E-07	9.32	2.20E-08
1,848.400	1.55E-07	9.24	1.68E-08
1,851.400	8.56E-08	9.26	9.25E-09
<b>Band Exposure Quotient:</b>			<b>4.64E-06</b>

Total number of measurements: 572

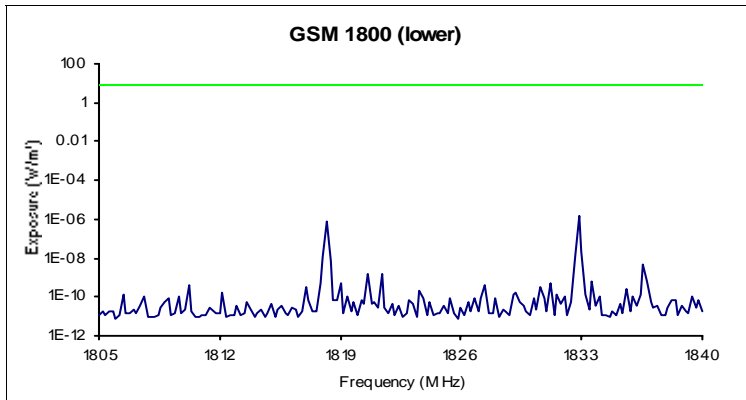
**Total Band Exposure Quotient:** 9.57E-06

**Site:** Area around Windsor House  
**Location:** Junction of Station Road and High Street  
**NGR:** SP 0737 8217 **Taken from GPS**  
**Start Time:** 05 October 2005 14:18:54  
**Officer:** John Taylor

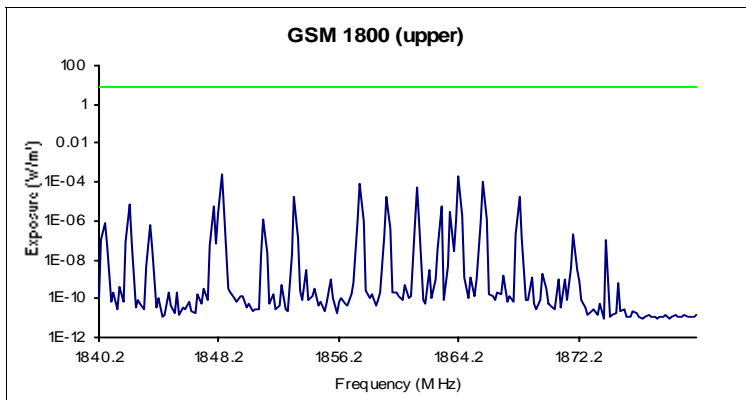
**Receiver:**  
 Manufacturer: ROHDE&SCHWARZ  
 Model: EB200  
 Serial Number: 837.752/003  
**Antenna:**  
 Manufacturer: Rohde & Schwarz  
 Model: HE200  
 Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
950.800	2.72E-04	4.75	5.72E-05
939.000	1.13E-04	4.70	2.41E-05
937.200	1.59E-05	4.69	3.39E-06
951.200	1.22E-05	4.76	2.56E-06
950.600	3.05E-06	4.75	6.42E-07
951.000	2.79E-06	4.75	5.86E-07
939.600	1.49E-06	4.70	3.17E-07
938.800	1.05E-06	4.69	2.25E-07
939.800	7.83E-07	4.70	1.67E-07
950.400	7.49E-07	4.75	1.58E-07
<b>Band Exposure Quotient:</b>			<b>8.96E-05</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,832.800	1.47E-06	9.16	1.61E-07
1,818.200	8.47E-07	9.09	9.31E-08
1,833.000	2.28E-08	9.16	2.49E-09
1,818.000	1.25E-08	9.09	1.38E-09
1,832.600	1.23E-08	9.16	1.34E-09
1,818.400	7.04E-09	9.09	7.75E-10
1,836.600	4.18E-09	9.18	4.55E-10
1,821.400	1.62E-09	9.11	1.78E-10
1,820.600	1.38E-09	9.10	1.51E-10
1,833.600	6.59E-10	9.17	7.19E-11
<b>Band Exposure Quotient:</b>			<b>2.62E-07</b>

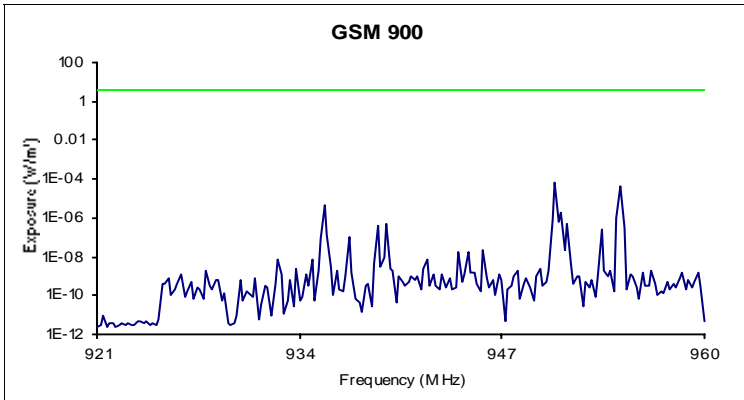


Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,848.400	2.29E-04	9.24	2.48E-05
1,864.200	1.83E-04	9.32	1.96E-05
1,865.800	1.10E-04	9.33	1.18E-05
1,857.600	8.26E-05	9.29	8.90E-06
1,861.400	4.90E-05	9.31	5.26E-06
1,859.400	1.86E-05	9.30	2.00E-06
1,868.200	1.72E-05	9.34	1.84E-06
1,853.200	1.64E-05	9.27	1.77E-06
1,842.200	6.85E-06	9.21	7.44E-07
1,847.800	5.25E-06	9.24	5.68E-07
<b>Band Exposure Quotient:</b>			<b>8.02E-05</b>

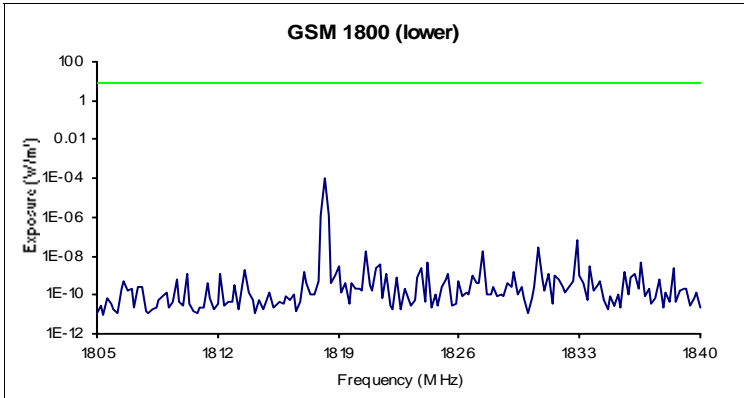
Total number of measurements: 572

**Total Band Exposure Quotient:** **1.70E-04**

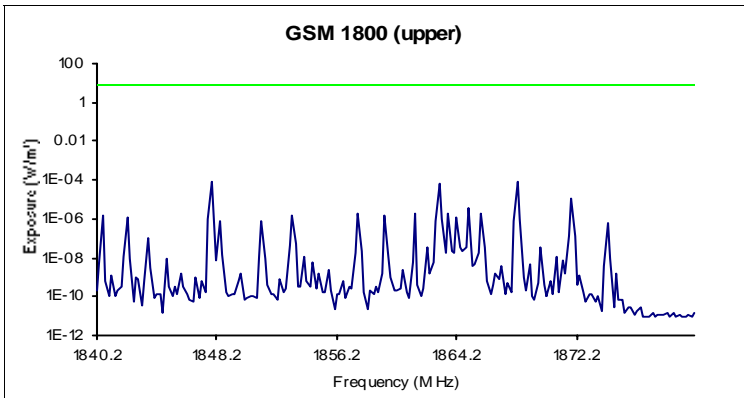
<b>Site:</b> Area around Windsor House	<b>Receiver:</b>
<b>Location:</b> Findley Road Retail Park by Topps Tiles	Manufacturer: ROHDE&SCHWARZ
<b>NGR:</b> SP 0735 8227 Taken from GPS	Model: EB200
<b>Start Time:</b> 05 October 2005 14:38:22	Serial Number: 837.752/003
<b>Officer:</b> John Taylor	<b>Antenna:</b>
	Manufacturer: Rohde & Schwarz
	Model: HE200
	Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
950.400	6.09E-05	4.75	1.28E-05
954.600	4.25E-05	4.77	8.91E-06
935.600	4.89E-06	4.68	1.05E-06
950.800	1.97E-06	4.75	4.15E-07
954.400	9.09E-07	4.77	1.90E-07
950.200	7.15E-07	4.75	1.50E-07
950.600	6.09E-07	4.75	1.28E-07
939.600	5.54E-07	4.70	1.18E-07
951.200	4.96E-07	4.76	1.04E-07
939.000	3.83E-07	4.70	8.15E-08
<b>Band Exposure Quotient:</b>			<b>2.42E-05</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,818.200	1.07E-04	9.09	1.17E-05
1,818.000	1.22E-06	9.09	1.35E-07
1,818.400	1.17E-06	9.09	1.29E-07
1,832.800	6.90E-08	9.16	7.53E-09
1,830.600	2.49E-08	9.15	2.73E-09
1,820.600	1.74E-08	9.10	1.91E-09
1,827.400	1.60E-08	9.14	1.75E-09
1,824.200	4.49E-09	9.12	4.92E-10
1,836.600	4.48E-09	9.18	4.88E-10
1,821.400	3.72E-09	9.11	4.08E-10
<b>Band Exposure Quotient:</b>			<b>1.20E-05</b>

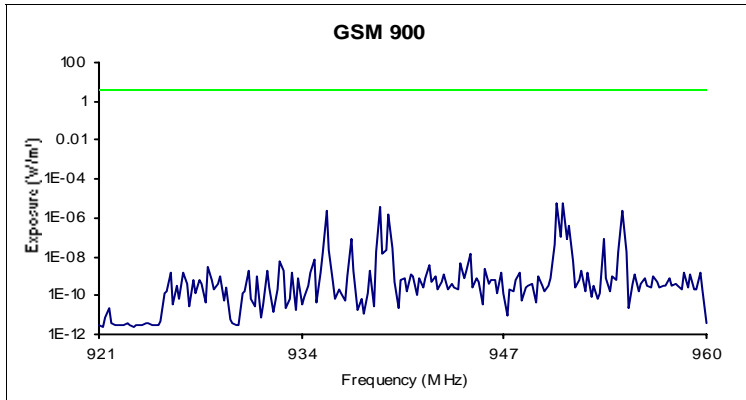


Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,868.200	7.86E-05	9.34	8.41E-06
1,847.800	7.76E-05	9.24	8.40E-06
1,863.000	7.27E-05	9.31	7.80E-06
1,871.800	1.04E-05	9.36	1.11E-06
1,865.000	3.65E-06	9.32	3.92E-07
1,863.600	2.10E-06	9.32	2.25E-07
1,865.800	2.06E-06	9.33	2.21E-07
1,861.400	1.91E-06	9.31	2.05E-07
1,857.600	1.89E-06	9.29	2.04E-07
1,859.400	1.54E-06	9.30	1.66E-07
<b>Band Exposure Quotient:</b>			<b>2.86E-05</b>

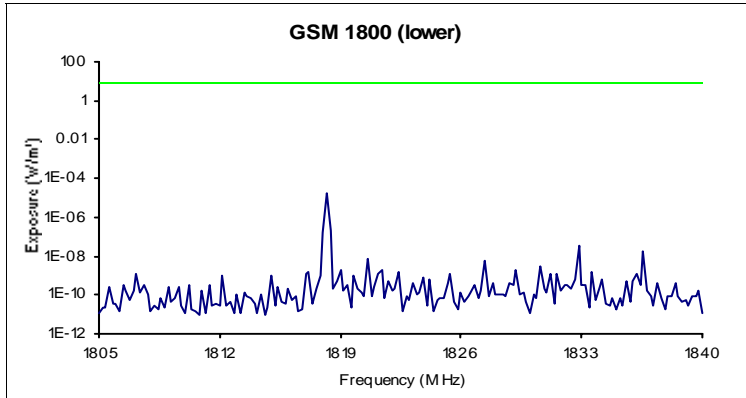
Total number of measurements: 572

**Total Band Exposure Quotient: 6.48E-05**

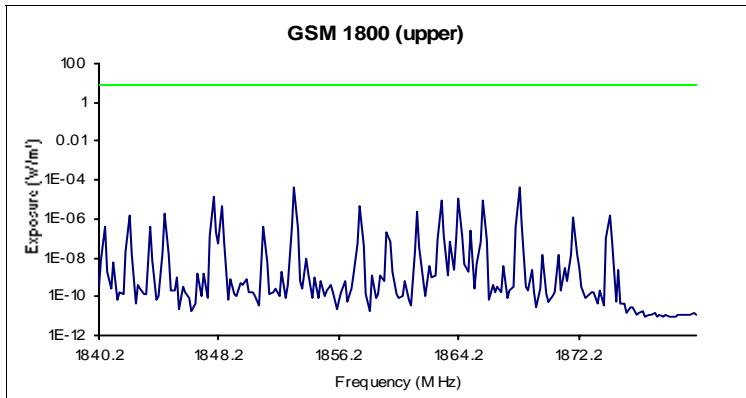
<b>Site:</b> Area around Windsor House	<b>Receiver:</b>
<b>Location:</b> Footpath outside Windsor House	Manufacturer: ROHDE&SCHWARZ
<b>NGR:</b> SP 0741 8223 Taken from GPS	Model: EB200
<b>Start Time:</b> 05 October 2005 14:55:17	Serial Number: 837.752/003
<b>Officer:</b> John Taylor	<b>Antenna:</b>
	Manufacturer: Rohde & Schwarz
	Model: HE200
	Serial Number: 728264/025



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
950.800	6.23E-06	4.75	1.31E-06
950.400	5.68E-06	4.75	1.20E-06
939.000	3.49E-06	4.70	7.44E-07
935.600	2.45E-06	4.68	5.24E-07
954.600	2.34E-06	4.77	4.90E-07
939.600	1.64E-06	4.70	3.48E-07
951.200	4.32E-07	4.76	9.08E-08
950.600	9.43E-08	4.75	1.98E-08
951.000	8.22E-08	4.75	1.73E-08
937.200	7.78E-08	4.69	1.66E-08
<b>Band Exposure Quotient:</b>			<b>4.84E-06</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,818.200	1.65E-05	9.09	1.82E-06
1,818.400	2.08E-07	9.09	2.29E-08
1,818.000	1.73E-07	9.09	1.90E-08
1,832.800	3.30E-08	9.16	3.60E-09
1,836.600	1.78E-08	9.18	1.94E-09
1,820.600	7.58E-09	9.10	8.32E-10
1,827.400	6.38E-09	9.14	6.98E-10
1,830.600	3.14E-09	9.15	3.43E-10
1,819.000	2.13E-09	9.10	2.34E-10
1,821.400	2.04E-09	9.11	2.24E-10
<b>Band Exposure Quotient:</b>			<b>1.87E-06</b>



Frequency (MHz)	Maximum Exposure (W/m²)	ICNIRP Limit (W/m²)	Frequency Exposure Quotient
1,868.200	4.52E-05	9.34	4.84E-06
1,853.200	4.40E-05	9.27	4.75E-06
1,847.800	1.26E-05	9.24	1.36E-06
1,864.200	1.08E-05	9.32	1.16E-06
1,865.800	9.19E-06	9.33	9.85E-07
1,863.000	8.94E-06	9.31	9.60E-07
1,848.400	4.27E-06	9.24	4.62E-07
1,857.600	4.14E-06	9.29	4.46E-07
1,861.400	2.29E-06	9.31	2.46E-07
1,844.600	1.77E-06	9.22	1.92E-07
<b>Band Exposure Quotient:</b>			<b>1.64E-05</b>

Total number of measurements: 572

**Total Band Exposure Quotient:** 2.31E-05

## Glossary

- Site:** The building or area around which sets of measurements are taken
- Location:** The position within a site at which a single set of measurements is taken. A set of measurements consists of multiple scans of many frequencies within a number of bands
- Band:** A portion of the electromagnetic spectrum reserved for specific radio services
- NGR:** The Ordnance Survey national grid reference coordinates of the location. In this survey NGRs are specified to 8-digit (10-metre) resolution. E.g. SJ 9755 9888
- GPS:** The Global Positioning System
- Start Time:** The date and time at which the receiver started taking its measurements at a location
- Officer:** The name of the RA representative who carried out the audit
- Receiver:** The receiver used to perform the measurements
- Antenna:** The antenna used to perform the measurements
- Exposure:** The maximum measured electric field strength (dB( $\mu$ V/m)) converted to an equivalent power density (W/m<sup>2</sup>)
- Power Density:** The electromagnetic energy flowing through a unit area normal to the direction of propagation in a unit time. Measured in Watts per square metre (W/m<sup>2</sup>)
- ICNIRP Limit:** The reference level given by the International Commission for Non-Ionizing Radiation Protection (ICNIRP) for general public exposure to electromagnetic fields

<i>Frequency</i>	<i>ICNIRP limit</i>
10MHz to 400 MHz	2 W/m <sup>2</sup>
400MHz to 2GHz	f / 200 W/m <sup>2</sup>
2GHz to 300GHz	10 W/m <sup>2</sup>

(where f is frequency in MHz)

**Frequency Exposure Quotient:**

The ratio of the measured maximum power density to the ICNIRP limit at a given frequency. A value close to 1 signifies that exposure levels could be near to the ICNIRP limit for that frequency

**Band Exposure Quotient:**

The sum of the frequency exposure quotients for a single band at a location

**Total Band Exposure Quotient:**

The sum of the frequency exposure quotients for all of the measured bands at a location

- GSM:** Global System for Mobile communication
- ETACS:** Extended Total Access Communications
- TETRA:** Terrestrial Trunked Radio
- 3G:** Third Generation mobile-phone services

- 1.00E-03:** Exponential (or 'scientific') number format. Equal to one thousandth
- 1.00E-06:** Equal to one millionth
- 1.00E-09:** Equal to one thousand-millionth
- 1.00E-12:** Equal to one million-millionth