

**Assessment Notes by BABT as TCB for SEMS Portable Unit R8060****For E2V Technologies under FCC ID number PW9R8060****BABT file number US/000014**

Email dated 5<sup>th</sup> November 2002 from Alan Binks to Mark Jenkins and Alex Miller of TÜV regarding RF Exposure report number WSOO608900.

Query on calibration of power meter and Hygrometer – resolved see email dated 13<sup>th</sup> November 2002 from Mark Jenkins (attached)

Query on EIRP as set for SAR test. Resolved – was 0.130 Watts as per radio report, not adjustable.

Query on excessive boilerplate related to Vertical phantom and 900 and 1800 MHz calibration. Resolved – not relevant but added as per other reports filed with FCC to show system and calibration techniques for vertical phantom SARA2 system. However tests performed using box phantom using UKAS calibrated 450MHz probes and fluid.

Important note to FCC reviewer:

Threshold below which SAR assessment is not required for 450 MHz is 0.133Watts device is factory set at 0.130 Watts. Too Close!!! Do SAR assessment.

Only an occupational user – The Fire Service, uses this device. However, the SAR levels are 0.972 W/Kg for 1g averaging, which is well less than the partial body exposure limits for the whole (general) population. No special training is required to use the device to limit RF exposure therefore this equipment has been handled as a general population device even though in practice it is for professional use.

I confirm that I have undergone SAR awareness training by the FCC at the TCB Council workshops in August 2001, February 2002, April 2002 and October 2002.



Alan Binks  
Certification Manager, BABT  
5<sup>th</sup> December 2002

**From:** Alan Binks  
**Sent:** 05 November 2002 16:43  
**To:** Mark Jenkins; Alex Miller  
**Subject:** E2V Reds 2 device

Mark, Alex,

I am reviewing the SAR test report WS608900B for this device contrary to my previous email I know understand that the box phantom was used and not the vertical phantom so I can in theory TCB it however I have a couple of queries.

- The power meter and the hygrometer appears to have been out of calibration at the time of test is there any justifying data for the calibration being valid elsewhere?
- The EIRP for the test is not readily apparent in the test report. Can you indicate its location. It should be greater or equal to the EMC/RF reports but not exceed the tune up tolerance.
- There is a lot of standard script in the report related to the vertical phantom and calibration at 900 and 1800MHz. This will confuse the FCC as it is not relevant to the tests at 450MHz in the box phantom. Can this be removed readily or do you want me to risk a filing.

This may not be all but could you check these things in the meanwhile. I'm trying to do this quick for the customer.

Cheers,

AB

**Alan Binks**

**From:** Mark Jenkins  
**Sent:** 13 November 2002 16:59  
**To:** Alan Binks  
**Cc:** Alex Miller  
**Subject:** E2V SAR test report WS608900B

Dear Alan,

Further to your email regarding the SAR testing of the E2V Reds2 device (WS608900B), here is the answers to your enquires:

Item 1 regarding calibration dates of equipment:

|             |                   |     |      |            |                |
|-------------|-------------------|-----|------|------------|----------------|
| Power Meter | Rohde and Schwarz | NRV | 2472 | 860327/025 | 20/05/03 (due) |
| Hygrometer  | Rotronic          | A1  | 4186 | N/A        | 23/11/02 (due) |

Item 2 EIRP data.

The output power for the unit during SAR testing was 130 mW.

Item 3

I believe this has been discussed with Alex and needs no further action.

I hope this is the info you require, but don't hesitate to give me a call should you need any more.

regards

*Mark Jenkins*

Wireless Group Leader

BABT, an accredited UK Certification/Notified Body and company of TÜV Product Service Ltd.,  
Segensworth Road - Fareham - Hampshire - PO15 5RH - United Kingdom Tel: +44 (0) 1329  
443530 Fax: +44 (0) 1329 443500

Website: <http://www.tuvps.co.uk> <http://www.babt.com> Email: <mailto:mark.jenkins@babt.com>

To request BABT certification and/or regulatory conformance services by email, please click here  
<http://www.babt.com/request-for-certification>

Total Compliance Solutions - Consultancy, Testing, Certification, International Compliance  
Management, Quality Assurance, Regulatory Services, Billing System Assessment, Training

15/11/2002