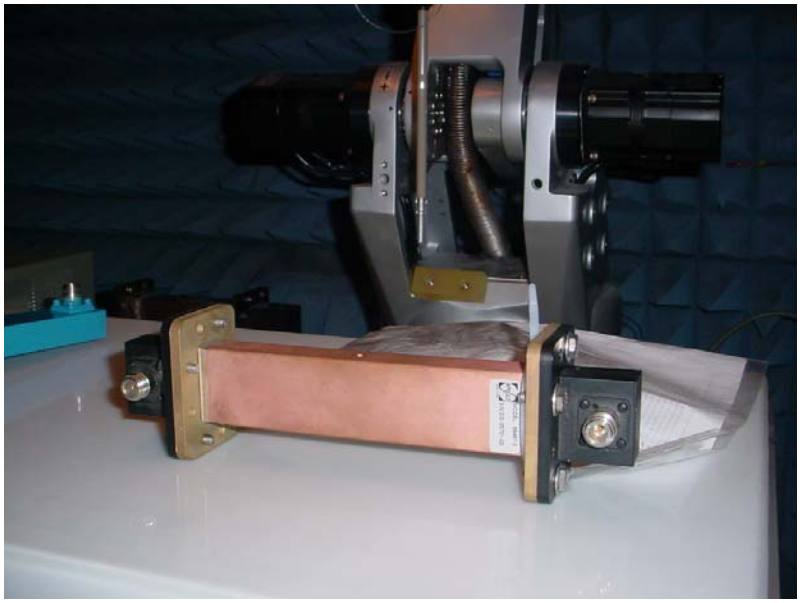
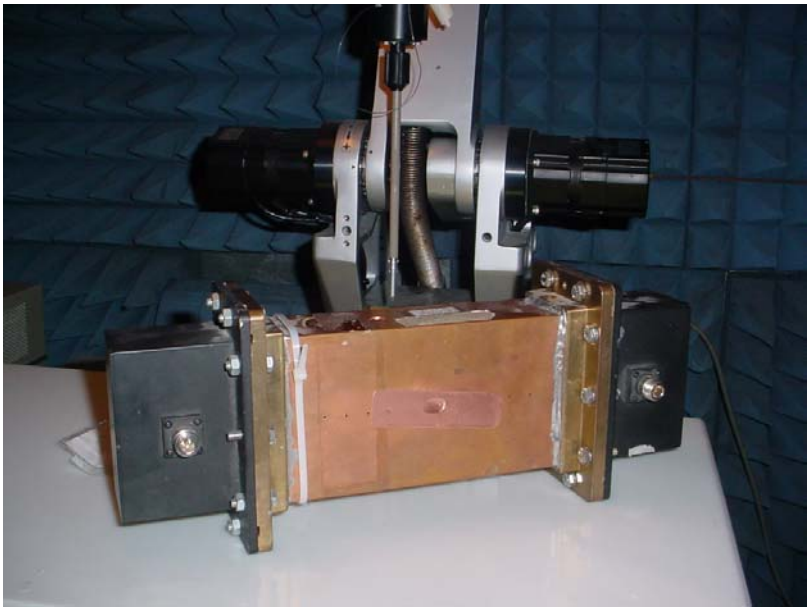
Re:	FCC ID RGS39200C
Applicant:	GlobespanVirata B.V. (Netherlands)
Correspondence Reference Number:	26320/26343

1) SAR sect. 8.5.4 what is setup and frequency for isotropy test?

The Probe Isotropy test of Section 8.5 is conducted in free space using a waveguide and is carried out at 2.45GHz, 5.24GHz and 5.8GHz. The probe isotropic response shown in section 8.5.4 of the report is the worst case plots taken at 5.8GHz.



Waveguide used in Free Space Probe Isotropy Measurements
for 5.24GHz and 5.8GHz



Waveguide used in Free Space Probe Isotropy Measurements for 2.45GHz

2) SAR report lists several different probe calibration and liquid parameter test setups, but it is not clear which setups were used for each. Please clarify.

All Calibrations for Probe Factor determination were carried using the waveguide method for 2.45GH, 5.24GHz and 5.8GHz Brain and Muscle Tissues. The brain tissue was used in the 2.45GHz dipole verification. The 5.24GHz and 5.8GHz muscle tissue was used in the waveguide system verification measurements. Only the 2.45GHz, 5.24GHz and 5.8GHz muscle tissue simulants were used in the SAR measurement performed on the EUT. In all cases, probe factor calibration is determined on the actual muscle tissue employed for the SAR measurements using the waveguide method.

3) SAR 5.10.1 table header states SAR for handset test - please submit uncertainty budget for laptop test, including any special considerations and analyses for 2.4ghz vs 5ghz bands.

The Table header has been revised to take out the reference to handset test as this is a typo in the report format and the table does not only cover the case for handset positioning which is actually more challenging as it involves specific angular rotation about undefined axis against a non-flat phantom. Changes in ZOOM scan parameters for the 5GHz case are required in order to keep the uncertainties within the measurement uncertainty stated. Further development work is still ongoing to incorporate any recent recommendations by the IEEE SCC-34.2 committee and the Cenelec T209 workgroup on the uncertainty analysis for the 5GHz band.

4) SAR report pg 21 typo noted - should be 802.11b not 802.11b

Acknowledged. Pg 21 802.11a has been corrected to 802.11b

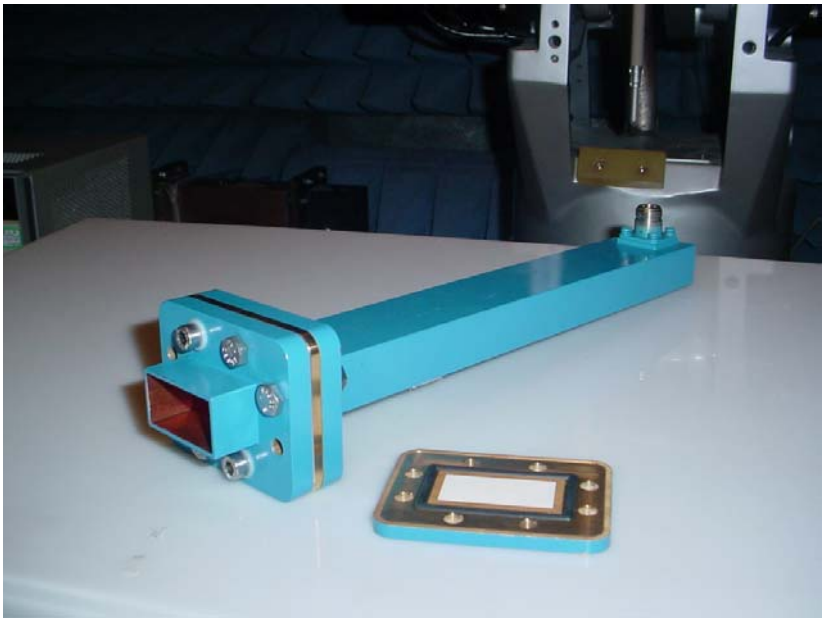
6) Gandhi SCC34 paper uses 47.5 x 22.1 mm waveguide - please comment how the Gandhi target values are applicable to 40 x 20 mm waveguide setup used here, including possible reasons for difference between measured and target at 5.8ghz

We have made the assumption that the 1 gram average SAR is fairly insensitive to the waveguide dimensions so long as the return loss on the waveguide feed is kept below 15dB. This is a reasonable assumption since at 5GHz, the 1g average SAR volume is located well within the one centimetre cubic volume used in the SAR averaging process. At a skin depth of under 6mm, the 99% occupancy volume of the SAR will always be located within the averaging volume so that a small change in aperture of the exciter device 10mm away, will not significantly affect the 1g SAR average. The main parameters which affects this verification is the forward power measurements, the tissue parameters and the displacement distance positioning of the waveguide normal to the phantom.

The difference between the measured and target values stated may possibly be as a result of the tissue conductivity in the measured samples being 6 to 8% higher than target values and the dielectric constant being 9-11% lower than targets. Since there has been no studies in tissue parameter sensitivities on SAR at these frequencies, we are not sure how steeply the 1g average SAR will vary with tissue parameters.

7) 5ghz waveguide and separator dims. appear to be based on head liquid - please comment how this is applicable to calibration and verification for body liquid, including any possible change in return loss shown in table 8.6.1.2

The return loss measured in muscle stimulant was found to be better than 15dB thus ensuring a sufficient transfer of power into the tissue stimulant for the calibration measurements. The attenuation vs. depth measurements were in excellent agreement with the predicted theoretical curves.



Indexsar 5GHz Waveguide Calibration jig with insert option for 5.24GHz (installed) and 5.8GHz (not installed)