Assessment Notes by BABT as TCB for the Newgen S510 Mobile telephone.

For Newgen Telephone Co. Ltd. under FCC ID number R5W NGTS510T

BABT file number US/000088

I have reviewed the HCT SAR test report HCT-SAR04-1004 in respect of the above product and I have the following comments:

The expanded measurement uncertainty is shown on page 15 of the report at 27.10%, which is acceptable for this kind of measurement. The head and body simulant fluids were correctly calibrated within 5% of the target values and the measurements were taken within 100MHz of the calibrated frequency of the fluids.

Important note to FCC reviewer:

The device is a dual-band mobile telephone intended to be normally held close to the head but a body worn mode is also examined. The device is intended to work on the 850 MHz and 1900 MHz GSM bands. The testing programme was performed using both head and body (box) phantoms and includes a full set of head and body-worn test configurations. A standard battery only was used.

Summary of highest measured SAR Values

Band	Position	Channel	Frequency (MHz)	1g SAR (W/kg)	SAR drift dB	Area Scan (Figure #)
GSM 850 MHz	Head SAR Right ear - touch	251	849.8	1.02	-0.01	Supplement 1 of 3 plot 6
GSM 1900 MHz	Head SAR Right ear - touch	661	1880.0	0.765	-0.14	Supplement 2 of 3 plot 2
GSM 850 MHz	Body SAR – no holster, 1.5 cm	190	836.60	0.343	-0.01	Supplement 3 of 3 plot 1
GSM 1900 MHz	Body SAR – no holster, 1.5 cm	661	1880.0	0.199	0.09	Supplement 3 of 3 plot 3
Limit for General Population (uncontrolled exposure) 1.6 W/kg (1g)						

Justification:

The maximum measured SAR value for the mobile telephone is obtained at 849.8 MHz for the right ear "touch" position and is 1.02 W/kg for 1g averaging. This is less than the limit for the general population of 1.6W/kg averaged over 1g.

The device will normally be hand-held but could be worn on a belt. Measurements results for a body worn configuration were obtained and were found to be substantially lower than the maximum head SAR value. No special training is required to use the device to limit RF exposure therefore this equipment has been tested for general population usage. When carrying the device the user will either hand carry the device or use a belt-clip, which must **not** contain metal parts and maintains a distance of 1.5 cm from the user's body. The user manual correctly reflects the SAR values and belt clip requirements. It is viewed that this device **DOES MEET** the SAR requirements for a portable head held and body-worn device for use by the general population even allowing for worst-case measurement uncertainties. Appropriate Grant conditions have been applied to this submission.

I confirm that I have undergone SAR awareness training by the FCC at the TCB Council workshops in August 2001, February 2002, April 2002, October 2002 and May 2004.

Alan Binks
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25th October 2004