

January 22, 2003

American Telecommunications Certification Body, Inc.
 6731 Whittier Avenue
 Suite C110
 McLean, VA 22101

RE: FCC Part 24 Certification Application
 FCC ID: AB6S12000

Dear Sir/Madam,

This letter is an explanation of the steps taken to ensure :

- The S12000 Indoor and Outdoor PCS base station systems configured with 60Watt He Pa's meet the band edge requirements (section 4.5.5 for PCS1900 of "Exhibit -- Radio Test Report" for details of this issue).
- The Band 850 MHz S12000 system meets the band edge requirements (see Section 5.5 for GSM 850 of "Exhibit - Radio Test Report" for details of this issue).

GSM 1900 System Information:

GSM 1900 band operates in the following band:
 1930 MHz to 1990 MHz uplink, 1850 MHz to 1910 MHz downlink.

That correspond to ARFCN in the [512; 810] range.

GSM 1900 band is divided in following sub bands below, defined in frequency and corresponding ARFCN, as:

sub band	Mobile TX MHz (UL)	BTS TX MHz (DL)	ARFCN
A	1850.2 – 1864.8	1930.2 – 1944.8	512 to 585
D	1865.2 – 1869.8	1945.2 – 1949.8	587 to 610
B	1870.2 – 1884.8	1950.2 – 1964.8	612 to 685
E	1885.2 – 1889.8	1965.2 – 1969.8	687 to 710
F	1890.2 – 1894.8	1970.2 – 1974.8	712 to 735
C	1895.2 – 1909.8	1975.2 – 1989.8	737 to 810

The condition to be met is that the edge channels (ARFCN 512, 585, 587, 610, 612, 685, 687, 710, 712, 735, 737 and 810) shall not emit at maximum power in order to meet the spurious emissions at the antenna terminals requirements.

With Nortel S12000 Band 1900 MHz BTS, max power for these channels has to be reduced by 6 dB to be compliant with requirements. In order to accomplish this the OMC-R software that controls the output power of the system has been modified so that the maximum output power of the system is limited so that if one edge channel belongs to a cell and the max power of this cell is greater than the max power authorized for an edge channel, the cell creation or modification is forbidden. In this way the spurious emissions cannot exceed the limit required. This limitation is done at the software level.

GSM 850 System Information:

GSM 850 band operates in the following band:
 824 MHz to 849 MHz uplink, 869 MHz to 894 MHz downlink.

That correspond to ARFCN in the [128;251] range.

GSM 850 band is divided into two non-contiguous sub bands A and B, defined in frequency and corresponding ARFCN, as :

sub band	Mobile TX MHz (UL)	BTS TX MHz (DL)	ARFCN
A''	824.2 – 824.8	869.2 – 869.8	128 to 131
A	825.2 – 834.8	870.2 – 879.8	133 to 181
B	835.2 – 844.8	880.2 – 889.8	183 to 231
A'	845.2 – 846.2	890.2 – 891.2	233 to 238
B'	846.8 – 848.8	891.8 – 893.8	241 to 251

The edge channels (ARFCN 238 and 241) shall emit at maximum power and meet the spurious emissions at the antenna terminals requirements.

The condition to be met is that the edge channels (ARFCN 128, 131, 133, 181, 183, 231, 233 and 251) shall not emit at maximum power in order to meet the spurious emissions at the antenna terminals requirements.

With Nortel S12000 850 MHz Band BTS, max power for these channels has to be reduced by 2 dB to be compliant with requirements. In order to accomplish this the OMC-R software that controls the output power of the system has been modified so that the maximum output power of the system is limited so that if one edge channel belongs to a cell and the max power of this cell is greater than the max power authorized for an edge channel, the cell creation or modification is forbidden. In this way the spurious emissions cannot exceed the limit required. This limitation is done at the software level.

Sincerely,

A. de Lannoy
 GSM & GPRS BSS Architect