

Original comments by ATCB in black text.

Applicant responses in red text.

1) Section 8 of the test report SC\_TR02\_A refers to power density. The EIRP is listed in dBm. For our records, please confirm that this unit should be dBm/MHz.

EIRP listed in section 8 of SC\_TR02\_A should be dBm/MHz.

2) Section 9 of the test report SC\_TR02\_A shows the device to have a maximum output power of 35.5 dBm EIRP in 5 MHz channels and 35.4 dBm in 10 MHz channels. However, section 5.2.2 (page 23) of test report RFI/RP77581JD01A shows the device to have a maximum output power of 37.7 dBm in 5 MHz and 37.2 dBm in 10 MHz. This is only about 2 dB variation but it can have an effect on the reported power and on the certification of this device. For example, RFI's output power of 37.7 dBm is above your tune up procedure's maximum power of 36.0 dBm. Further to this, the maximum output power in the RFI test report is shown as 52.2 dBm ERP, which is 166 Watts. Your application form states a maximum power of 112.2 Watts. Please bear in mind that this could also affect your MPE calculation.

- SC\_TR02\_A contains WiMAX "Burst Power" data – this is the power of the WiMAX data being transmitted and is the power level set by Netspan management software. This "burst power" can only be measured using specialised test equipment such as an FSQ8 with WiMAX option. The FSQ can extract accurate burst power measurement for any length of burst.
- In accordance with FCC rules, RFI measured "Spectral Power" which includes the short duration WiMAX "pre-amble". This pre-amble contain management information and is always transmitted at a higher level than the traffic. This is the level reported in test reports and used to demonstrate compliance with spectrum limits.
- The power level measured using a power meter / spectrum analyser is always higher than that obtained when just measuring "burst power" with suitable equipment as the former includes the "pre-amble".
- The EUT is an FDD device. Power meters and Spectrum Analysers need to be given a duty cycle offset to allow them to report FDD power levels. The duty cycle for test was set at 33%, and an offset was used to then calculate the reported TX power, as noted on pages 15 and 16 of report RFI-RPT-RP77581JD01A.
- In line with other FCC certifications of Airspan WiMAX basestations (FCC ID: O2J-SCRT-1-49T and FCC ID: O2J-365T) the stated transmit power is the Burst power which is the power level set by the Netspan management software and not the actual measured power.

During normal operation, the base-station may be expected to operate with continually varying duty cycle depending on uplink and downlink traffic demands at that point in time. But if we take 50% as being a fair duty cycle for a heavily used system, we can see that a time average EMF value would actually be lower than that calculated using nominal power.

3) Please note that section 9 of test report RFI/RP77581JD01A shows a conducted output power and an antenna gain expressed in dBi. The report sums the two values and reports the result as ERP. I suggest that the result is actually EIRP. As we could assume a difference of 2.2 dB between ERP and EIRP, it could cause further confusion to the issue above. Please confirm that the result in the test report should be EIRP, not ERP.

I confirm that Test report should be EIRP