Airsynergy basestation, FCC ID: O2J-365AS, operating in the 3650-3675 MHz Band.

Federal Communications Rules for operation in USA

To ensure compliance FCC rules and regulations, the following should be observed:

- The 3650-3675 MHz frequency range is a licensed band in the USA and operators must have a valid spectrum license to operate Airsynergy equipment using this band.

- The Airsynergy base station requires operation using an Airspan FCC-specific version of Netspan. This management software only permits operation in the 3650-3675 MHz band.

- The unit and must be professionally installed.

- Any attempt to alter these parameters outside those permitted by the Netspan software or the operator license could be a violation of that license

- The correct setting of the following Base Station parameters in Netspan, are critical to the correct operation of equipment in compliance with the rules detailed in 47CFR90 subpart Z (Wireless Broadband Services in the 3650–3700 MHz Band):
  - Transmit Power
  - Transmit Frequency
  - Channel Bandwidth

Transmit Power

Transmit power is set using the Netspan management software during install /commissioning.

For 5MHz channel operation, the maximum permitted EIRP is 5 W. Due to the additive effect of the MIMO antenna, the power setting in Netspan must be set such that:

TX power (dBm) + Antenna gain (dBi) ≤ 36.5

For 10 MHz channel operation, the maximum permitted EIRP is 10 W. Due to the additive effect of the MIMO antenna, the power setting in Netspan must be set such that:

TX power (dBm) + Antenna gain (dBi) ≤ 39.5

RF Exposure

FCC Maximum Permissible Exposure (MPE) limits for equipment operating in the frequency range 1500 – 100,000 MHz is 1.0 mW/cm^2.

Following installation and commissioning, the safe distance from the antenna is the greater of:

20cm

Or

r cm, where r = $\sqrt{(PG/4\prod S)}$

P: power input to antenna(s) in mW

G: numeric gain of antenna relative to isotropic radiator

S: power density in mW/cm2 = 1 mW/cm2

The device has two antenna ports, so safe distance from the antenna shall be the greater of:

20 cm or $\sqrt{(2*PG/4\prod S)}$

Which gives

20 cm or $\sqrt{(0.16*P*G)}$ cm.