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Applicant:	Aruba Networks, Inc.
FCC ID	Q9DAP70SDR
Correspondence Reference Number	33777
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Question:

1) If not in filing already, as part of op desc exhibit, please describe transmit operations of each antenna configuration option (location and type for all antenna elements, diversity, beamforming, MIMO, etc)

Response:

1) The Aruba Model AP-70 is shipped from the factory with four integral antennas. These antennas are located in the articulating section shown in Figure 1.



Figure 1: Integrated Articulating Antennas

The factory default setting is for the integral antennas to be enabled. When operating as a dual radio access point, 2 antennas are assigned to 802.11BG operation and 2 antennas are assigned to 802.11A operation. When using the integral antennas, the antennas operate in diversity mode with no other modes or antenna assignments possible.

The access point also has four RP-SMA connectors, which allow connection of up to 4 external Aruba antennas as described in the filing. When operating as a dual radio access point, 2 of the external antennas are assigned to 802.11BG operation and 2 external antennas are assigned to 802.11A operation. When using the external antenna RP-SMA connectors, the integral antennas in the articulating panel are disabled. The antennas operate in diversity mode with no other modes or antenna assignments possible.

Question:

2) RF exposure exhibit indicates distances closer than 20 cm - note that FCC RF exposure limits at closer than 20 cm are in terms of SAR not field strength or power density. Please revise RF exposure exhibit accordingly.

Response:

2) The RF exposure exhibit in the test report indicates calculation distances closer than 20cm. However in the same page of the report under Note: in the Specification, Maximum Permissible Exposure Limits it specifies that the “minimum separation distance is 20cm”, see highlighted area below.

Specification
Maximum Permissible Exposure Limits

Devices are subject to the radio frequency radiation exposure requirements specified in §1.1307 (b), 2.1091 and 2.1093 as appropriate. All equipment shall be considered to operate in a “general population/uncontrolled” environment.

Limit S = $1\text{mW} / \text{cm}^2$ from 1.310 Table 1

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

It is understood that this presentation may be subject to misinterpretation and therefore MiCOM Labs will amend how it reports the 20cm limit.