

Operational Description

AP7662/AP3917 will be based on the Qualcomm-Atheros (QCA) IPQ4029 “Dakota” System-on-Chip (SoC) WLAN network communications processor. The IPQ4029 SoC features a quad-core ARM Cortex A7 processor with 802.11a Wi-Fi radios. Wi-Fi radios is 4.9GHz band-locked

Model Name	AP3917i/AP7662i
Power Supply	37VDC to 57VDC, <25W for AT Maximum power consumption at the input of the RJ45
Modulation Technology	WiFi - Qualcomm Atheros IPQ4029 SoC - Radio band locked to 4.9GHz
Operating Frequency	WLAN: 4940 MHz to 4990 MHz
Transmitter	Chip IPQ4029 with 717MHz CPU clock
Antenna Type	PIFA
Antenna Connector	IPEX

10 channels are provided for 802.11a at 4.9GHz by 5MHz Bandwidth:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	4942.5	6	4967.5
2	4947.5	7	4972.5
3	4952.5	8	4977.5
4	4957.5	9	4982.5
5	4962.5	10	4987.5

9 channels are provided for 802.11a at 4.9GHz by 10MHz Bandwidth:

Frequency	Frequency (MHz)	Channel	Frequency (MHz)
11	4945	16	4970
12	4950	17	4975
13	4955	18	4980
14	4960	19	4985
15	4965	--	--

7 channels are provided for 802.11a at 4.9GHz by 20MHz Bandwidth:

Frequency	Frequency (MHz)	Channel	Frequency (MHz)
20	4950	24	4970
21	4955	25	4975
22	4960	26	4980
23	4965	--	--

The other instruction, please have a look at the user's manual.

FCC Part 90y states: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met"

Data transmission is always initiated by software, which is then pass down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets (ACKs, CTS, PSpoll, etc...) are initiated by the MAC. There are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets are being transmitted.