

Samsung WLAN Device Channel Plan and Technical Description

1. 2.4 GHz WLAN

- a. For devices that do not have cellular connectivity, i.e., Wi-Fi only models, and Channels 12/13 for 20MHz BW and Channel 10 for 40MHz BW are tested, the following software design is employed:

20MHz BW (802.11b/g, 11n HT20)

Channel	Freq.(MHz)	Scanning	Channel	Freq.(MHz)	Scanning
1	2412	Active	8	2447	Active
2	2417	Active	9	2452	Active
3	2422	Active	10	2457	Active
4	2427	Active	11	2462	Active
5	2432	Active	12	2467	Active
6	2437	Active	13	2472	Active
7	2442	Active			

- i. Channels 12/13 for 20MHz BW use power setting in compliance with FCC or IC limits as reported in the filing. The power levels are fixed regardless location of use.
- ii. Ad-hoc and Wi-Fi Direct are supported.

2. 5 GHz WLAN

a. The channel plan and software design are described below:

20MHz BW Mode (BPSK, QPSK, 16QAM, 64QAM)

CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan
36	5180	Active	104	5520	Passive	140	5700	Passive
40	5200	Active	108	5540	Passive	144	5720	Passive
44	5220	Active	112	5560	Passive	149	5745	Active
48	5240	Active	116	5580	Passive	153	5765	Active
52	5260	Passive	120	5600	Passive	157	5785	Active
56	5280	Passive	124	5620	Passive	161	5805	Active
60	5300	Passive	128	5640	Passive	165	5825	Active
64	5320	Passive	132	5660	Passive			
100	5500	Passive	136	5680	Passive			

40MHz BW Mode (BPSK, QPSK, 16QAM, 64QAM)

CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan
38	5190	Active	102	5510	Passive	134	5670	Passive
46	5230	Active	110	5550	Passive	142	5710	Passive
54	5270	Passive	118	5590	Passive	151	5755	Active
62	5310	Passive	126	5630	Passive	159	5795	Active

80MHz BW Mode (BPSK, QPSK, 16QAM, 64QAM, 256QAM)

CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan	CH	Freq. (MHz)	Scan
42	5210	Active	106	5530	Passive	138	5690	Passive
58	5290	Passive	122	5610	Passive	155	5775	Active

- b. The device operates strictly as a client in DFS channels (with passive scan). It does not support ad-hoc, Wi-Fi Direct Group Owner, Hotspot or any other peer-to-peer modes that may initiate a network in DFS channels.
- c. Wi-Fi Direct operates only in associated mode under the control of a master device.
- d. Channels 120-128 are used only if permitted by a master device
- e. The device's processor constantly monitors each data session and automatically discontinues transmission in the absence of information to transmit within 4 ms or when operational failure is detected by the CPU watchdog timers
- f. The device employs a transmit power control scheme that meets 15.407(h)(1) requirement.
- g. Frequency stability – Fundamental emission maintained within the band of operation under all conditions
(Temperature variation of -20° to +50°C at normal supply voltage, voltage variation of low voltage to high voltage at a normal temperature)