

Revolution Wi-Fi™

Wi-Fi SSID Overhead Calculator

VARIABLES:	
Beacon Data Rate (Mbps)	802.11a 12 Mbps
Beacon Frame Size (Bytes)	330
Beacon Interval (ms)	102.4

ASSUMPTIONS:
802.11b Long Preamble used for 1 Mbps; Short Preamble used for 2, 5.5, 11 Mbps
802.11g short slot time is assumed, with no 802.11b clients within range
WMM is enabled and beacons are transmitted using Best Effort AC

Amount of Overhead:		0-10% Low	10-20% Medium	20-50% High	>50% Very High	
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Number of APs on Channel*	Number of SSIDs									
	1	2	3	4	5	6	7	8	9	10
1	0.28%	0.56%	0.84%	1.12%	1.40%	1.68%	1.96%	2.24%	2.52%	2.80%
2	0.56%	1.12%	1.68%	2.24%	2.80%	3.36%	3.92%	4.48%	5.04%	5.61%
3	0.84%	1.68%	2.52%	3.36%	4.20%	5.04%	5.89%	6.73%	7.57%	8.41%
4	1.12%	2.24%	3.36%	4.48%	5.61%	6.73%	7.85%	8.97%	10.09%	11.21%
5	1.40%	2.80%	4.20%	5.61%	7.01%	8.41%	9.81%	11.21%	12.61%	14.01%
6	1.68%	3.36%	5.04%	6.73%	8.41%	10.09%	11.77%	13.45%	15.13%	16.82%
7	1.96%	3.92%	5.89%	7.85%	9.81%	11.77%	13.73%	15.70%	17.66%	19.62%
8	2.24%	4.48%	6.73%	8.97%	11.21%	13.45%	15.70%	17.94%	20.18%	22.42%
9	2.52%	5.04%	7.57%	10.09%	12.61%	15.13%	17.66%	20.18%	22.70%	25.22%
10	2.80%	5.61%	8.41%	11.21%	14.01%	16.82%	19.62%	22.42%	25.22%	28.03%
11	3.08%	6.17%	9.25%	12.33%	15.42%	18.50%	21.58%	24.66%	27.75%	30.83%
12	3.36%	6.73%	10.09%	13.45%	16.82%	20.18%	23.54%	26.91%	30.27%	33.63%
13	3.64%	7.29%	10.93%	14.57%	18.22%	21.86%	25.50%	29.15%	32.79%	36.44%
14	3.92%	7.85%	11.77%	15.70%	19.62%	23.54%	27.47%	31.39%	35.31%	39.24%
15	4.20%	8.41%	12.61%	16.82%	21.02%	25.22%	29.43%	33.63%	37.84%	42.04%
16	4.48%	8.97%	13.45%	17.94%	22.42%	26.91%	31.39%	35.88%	40.36%	44.84%
17	4.76%	9.53%	14.29%	19.06%	23.82%	28.59%	33.35%	38.12%	42.88%	47.65%
18	5.04%	10.09%	15.13%	20.18%	25.22%	30.27%	35.31%	40.36%	45.40%	50.45%
19	5.33%	10.65%	15.98%	21.30%	26.63%	31.95%	37.28%	42.60%	47.93%	53.25%
20	5.61%	11.21%	16.82%	22.42%	28.03%	33.63%	39.24%	44.84%	50.45%	56.05%
21	5.89%	11.77%	17.66%	23.54%	29.43%	35.31%	41.20%	47.09%	52.97%	58.86%
22	6.17%	12.33%	18.50%	24.66%	30.83%	37.00%	43.16%	49.33%	55.49%	61.66%
23	6.45%	12.89%	19.34%	25.79%	32.23%	38.68%	45.12%	51.57%	58.02%	64.46%
24	6.73%	13.45%	20.18%	26.91%	33.63%	40.36%	47.09%	53.81%	60.54%	67.27%
25	7.01%	14.01%	21.02%	28.03%	35.03%	42.04%	49.05%	56.05%	63.06%	70.07%
26	7.29%	14.57%	21.86%	29.15%	36.44%	43.72%	51.01%	58.30%	65.58%	72.87%
27	7.57%	15.13%	22.70%	30.27%	37.84%	45.40%	52.97%	60.54%	68.11%	75.67%
28	7.85%	15.70%	23.54%	31.39%	39.24%	47.09%	54.93%	62.78%	70.63%	78.48%
29	8.13%	16.26%	24.38%	32.51%	40.64%	48.77%	56.90%	65.02%	73.15%	81.28%
30	8.41%	16.82%	25.22%	33.63%	42.04%	50.45%	58.86%	67.27%	75.67%	84.08%
31	8.69%	17.38%	26.07%	34.75%	43.44%	52.13%	60.82%	69.51%	78.20%	86.88%
32	8.97%	17.94%	26.91%	35.88%	44.84%	53.81%	62.78%	71.75%	80.72%	89.69%
33	9.25%	18.50%	27.75%	37.00%	46.25%	55.49%	64.74%	73.99%	83.24%	92.49%
34	9.53%	19.06%	28.59%	38.12%	47.65%	57.18%	66.71%	76.23%	85.76%	95.29%
35	9.81%	19.62%	29.43%	39.24%	49.05%	58.86%	68.67%	78.48%	88.29%	98.10%
36	10.09%	20.18%	30.27%	40.36%	50.45%	60.54%	70.63%	80.72%	90.81%	100.00%
37	10.37%	20.74%	31.11%	41.48%	51.85%	62.22%	72.59%	82.96%	93.33%	100.00%
38	10.65%	21.30%	31.95%	42.60%	53.25%	63.90%	74.55%	85.20%	95.85%	100.00%
39	10.93%	21.86%	32.79%	43.72%	54.65%	65.58%	76.51%	87.45%	98.38%	100.00%
40	11.21%	22.42%	33.63%	44.84%	56.05%	67.27%	78.48%	89.69%	100.00%	100.00%
41	11.49%	22.98%	34.47%	45.96%	57.46%	68.95%	80.44%	91.93%	100.00%	100.00%
42	11.77%	23.54%	35.31%	47.09%	58.86%	70.63%	82.40%	94.17%	100.00%	100.00%
43	12.05%	24.10%	36.16%	48.21%	60.26%	72.31%	84.36%	96.41%	100.00%	100.00%
44	12.33%	24.66%	37.00%	49.33%	61.66%	73.99%	86.32%	98.66%	100.00%	100.00%
45	12.61%	25.22%	37.84%	50.45%	63.06%	75.67%	88.29%	100.00%	100.00%	100.00%
46	12.89%	25.79%	38.68%	51.57%	64.46%	77.36%	90.25%	100.00%	100.00%	100.00%
47	13.17%	26.35%	39.52%	52.69%	65.86%	79.04%	92.21%	100.00%	100.00%	100.00%
48	13.45%	26.91%	40.36%	53.81%	67.27%	80.72%	94.17%	100.00%	100.00%	100.00%
49	13.73%	27.47%	41.20%	54.93%	68.67%	82.40%	96.13%	100.00%	100.00%	100.00%
50	14.01%	28.03%	42.04%	56.05%	70.07%	84.08%	98.10%	100.00%	100.00%	100.00%

*All APs must be within range of one another, as determined by the AP transmit power and ability to properly decode the frame's PHY preamble and header at the PHY data rate:

- 1 Mbps (802.11b Long Preamble)
- 2 Mbps (802.11b Short Preamble)
- 6 Mbps (802.11g and 802.11a)