

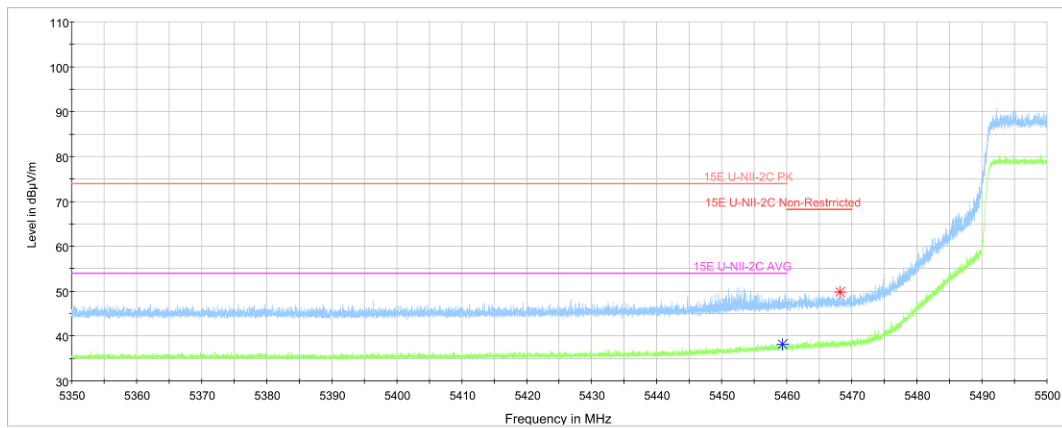


Fig. 77 Band Edges (802.11ax-HE80 , full RU, MIMO,Ch106, 5530MHz)

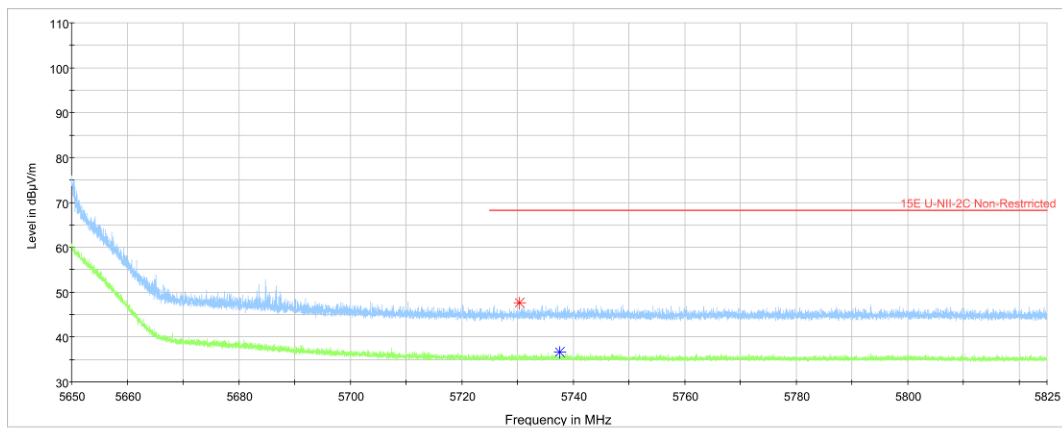


Fig. 78 Band Edges (802.11ax-HE80 , full RU, MIMO,Ch122, 5610MHz)

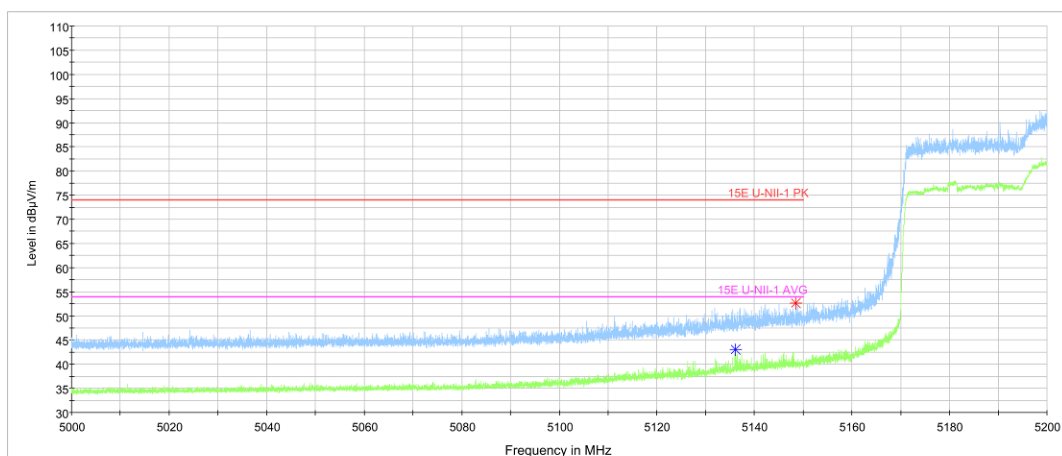


Fig. 79 Band Edges (802.11ax-HE160 , full RU, MIMO,Ch50, 5250MHz)

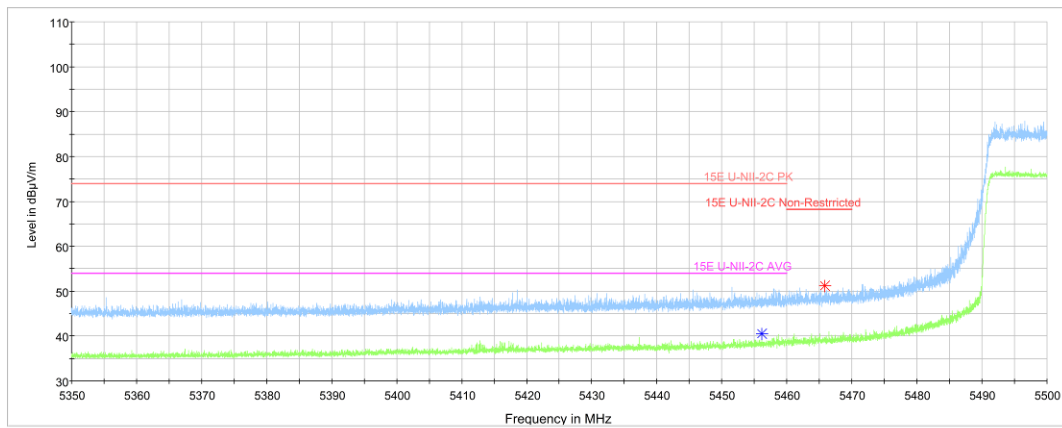


Fig. 80 Band Edges (802.11ax-HE160 , full RU, MIMO,Ch114, 5570MHz)

C.2. AC Power-line Conducted Emission

Specification Reference

FCC 47 CFR Part 15.207, 15.107

Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

Method of Measurement

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver:
Quasi-Peak / Average Detector.

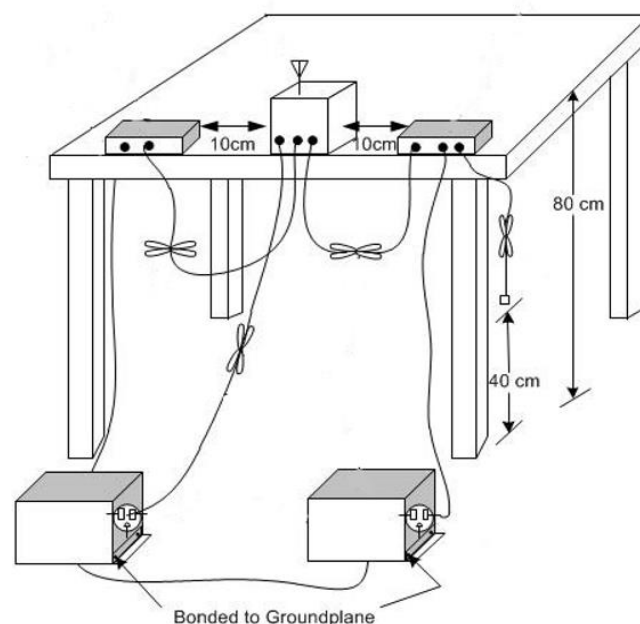
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

Test Condition

Voltage (V)	Frequency (Hz)
120	60

Measurement Setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 1 With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.C.2.1	Fig.C.2.2	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Average Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 1 With charger		
		802.11b	Idle	
0.15 to 0.5	67 to 56	Fig.C.2.1	Fig.C.2.2	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 2 With charger		
		802.11b	Idle	
0.15 to 0.5	68 to 56	Fig.C.2.3	Fig.C.2.4	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Average Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 2 With charger		
		802.11b	Idle	
0.15 to 0.5	69 to 56	Fig.C.2.3	Fig.C.2.4	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Note: all modes have been tested and the worst results shown here.

Conclusion: Pass

Test graphs as below:

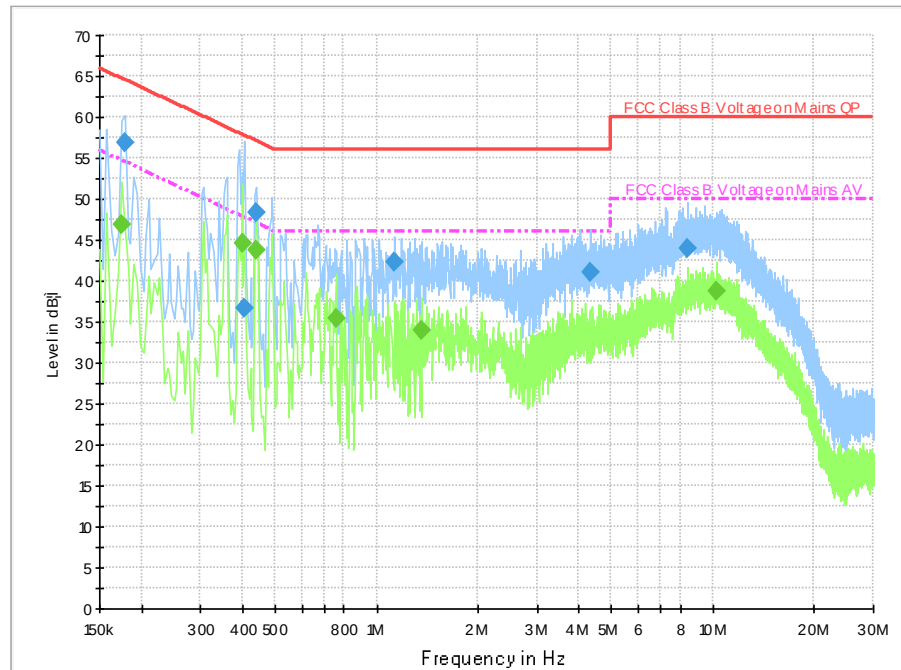


Fig.C.2.1 AC Powerline Conducted Emission-802.11a

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.178000	57.0	2000.0	9.000	On	L1	19.7	7.6	64.6	
0.406000	36.7	2000.0	9.000	On	N	19.7	21.1	57.7	
0.438000	48.4	2000.0	9.000	On	N	19.7	8.7	57.1	
1.134000	42.3	2000.0	9.000	On	N	19.6	13.7	56.0	
4.338000	41.0	2000.0	9.000	On	N	19.6	15.0	56.0	
8.422000	43.9	2000.0	9.000	On	L1	19.7	16.1	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.174000	47.0	2000.0	9.000	On	N	19.7	7.8	54.8	
0.398000	44.7	2000.0	9.000	On	N	19.6	3.2	47.9	
0.438000	43.7	2000.0	9.000	On	N	19.7	3.4	47.1	
0.758000	35.5	2000.0	9.000	On	N	19.7	10.5	46.0	
1.362000	34.0	2000.0	9.000	On	N	19.6	12.0	46.0	
10.286000	38.8	2000.0	9.000	On	L1	19.7	11.2	50.0	

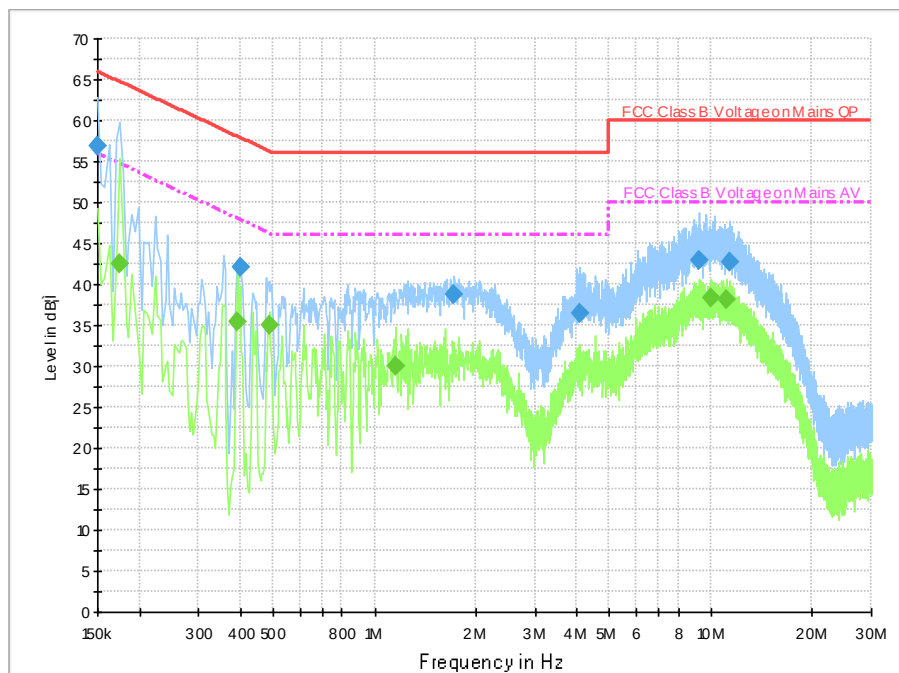


Fig.C.2.2 AC Powerline Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.150000	57.0	2000.0	9.000	On	N	20.0	9.0	66.0	
0.398000	42.1	2000.0	9.000	On	N	19.6	15.8	57.9	
1.726000	38.8	2000.0	9.000	On	L1	19.6	17.2	56.0	
4.070000	36.5	2000.0	9.000	On	L1	19.6	19.5	56.0	
9.234000	42.9	2000.0	9.000	On	L1	19.7	17.1	60.0	
11.442000	42.7	2000.0	9.000	On	L1	19.7	17.3	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.174000	42.5	2000.0	9.000	On	L1	19.7	12.2	54.8	
0.390000	35.5	2000.0	9.000	On	N	19.7	12.6	48.1	
0.486000	34.9	2000.0	9.000	On	N	19.7	11.3	46.2	
1.154000	29.9	2000.0	9.000	On	L1	19.7	16.1	46.0	
10.058000	38.2	2000.0	9.000	On	L1	19.7	11.8	50.0	
11.082000	38.1	2000.0	9.000	On	L1	19.7	11.9	50.0	

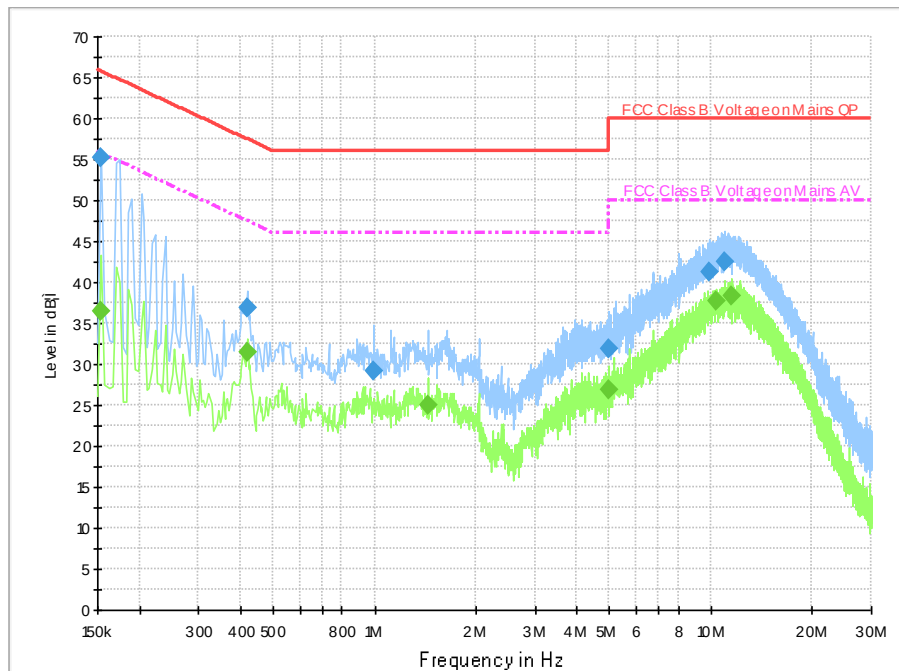


Fig.C.2.3 AC Powerline Conducted Emission-802.11a

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.154000	55.2	2000.0	9.000	On	L1	19.9	10.6	65.8	
0.418000	36.8	2000.0	9.000	On	L1	19.7	20.7	57.5	
0.994000	29.1	2000.0	9.000	On	L1	19.7	26.9	56.0	
4.978000	31.9	2000.0	9.000	On	L1	19.6	24.1	56.0	
9.918000	41.3	2000.0	9.000	On	L1	19.7	18.7	60.0	
10.970000	42.5	2000.0	9.000	On	L1	19.7	17.5	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.154000	36.6	2000.0	9.000	On	L1	19.9	19.2	55.8	
0.418000	31.4	2000.0	9.000	On	L1	19.7	16.0	47.5	
1.442000	25.0	2000.0	9.000	On	L1	19.7	21.0	46.0	
4.970000	26.9	2000.0	9.000	On	L1	19.6	19.1	46.0	
10.326000	37.7	2000.0	9.000	On	L1	19.7	12.3	50.0	
11.586000	38.3	2000.0	9.000	On	L1	19.7	11.7	50.0	

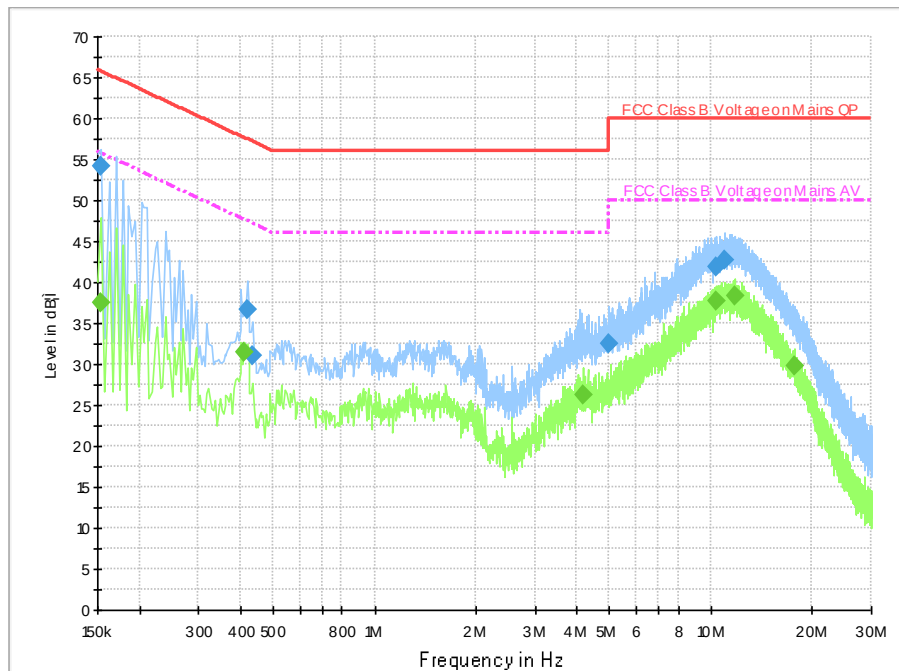


Fig.C.2.4 AC Powerline Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.154000	54.2	2000.0	9.000	On	L1	19.9	11.6	65.8	
0.418000	36.6	2000.0	9.000	On	L1	19.7	20.9	57.5	
0.434000	31.1	2000.0	9.000	On	L1	19.7	26.1	57.2	
4.958000	32.4	2000.0	9.000	On	L1	19.6	23.6	56.0	
10.314000	41.9	2000.0	9.000	On	L1	19.7	18.1	60.0	
10.998000	42.6	2000.0	9.000	On	L1	19.7	17.4	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.154000	37.5	2000.0	9.000	On	L1	19.9	18.3	55.8	
0.410000	31.5	2000.0	9.000	On	L1	19.7	16.2	47.6	
4.182000	26.2	2000.0	9.000	On	L1	19.6	19.8	46.0	
10.314000	37.7	2000.0	9.000	On	L1	19.7	12.3	50.0	
11.774000	38.3	2000.0	9.000	On	L1	19.7	11.7	50.0	
17.682000	29.8	2000.0	9.000	On	L1	19.7	20.2	50.0	

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