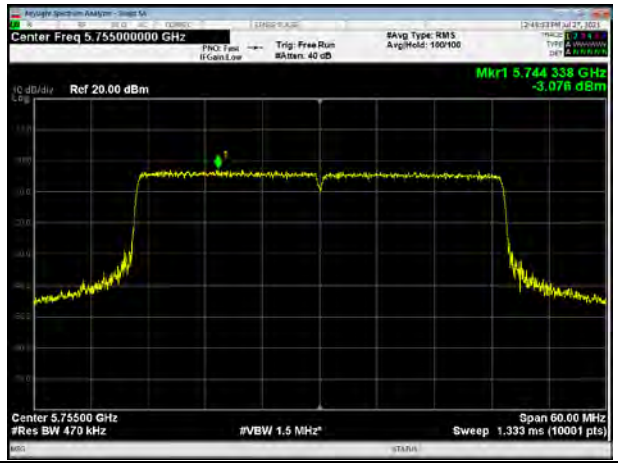
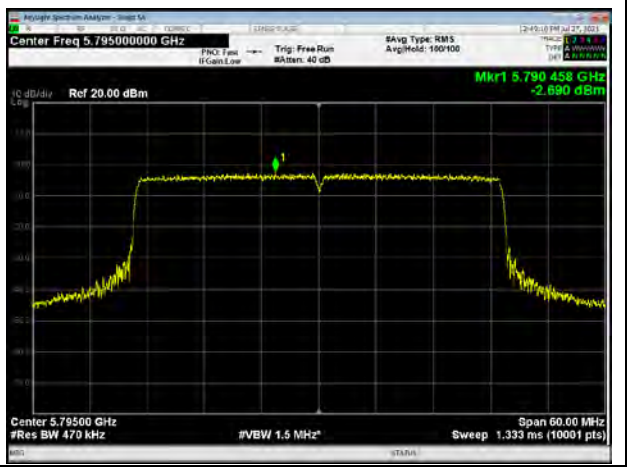
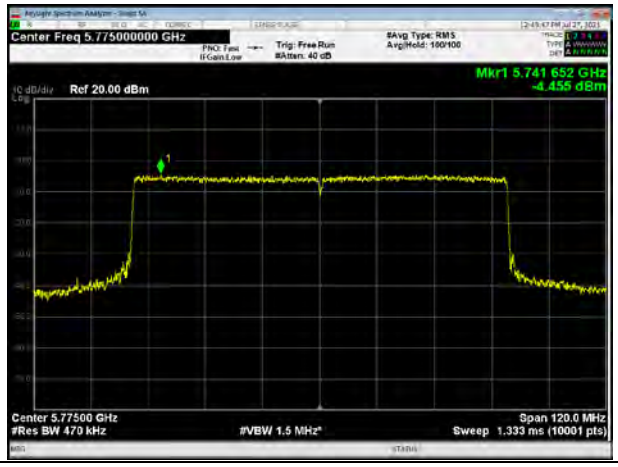
802.11ax HE40 484Tone: 5755



802.11ax HE40 484Tone: 5795



802.11ax HE80 996 Tone: 5775

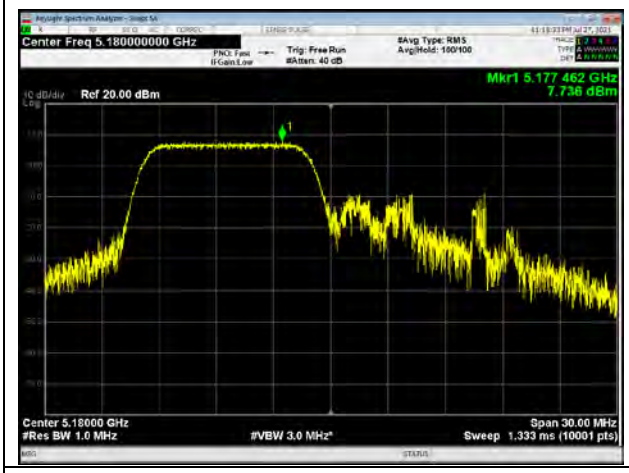


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

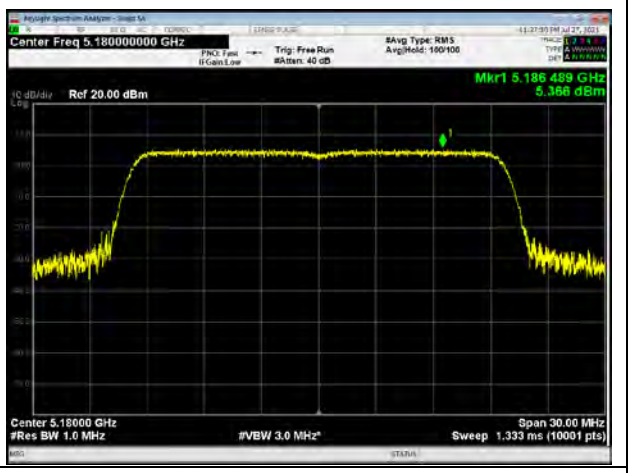
SISO Antenna 2

UNII-1

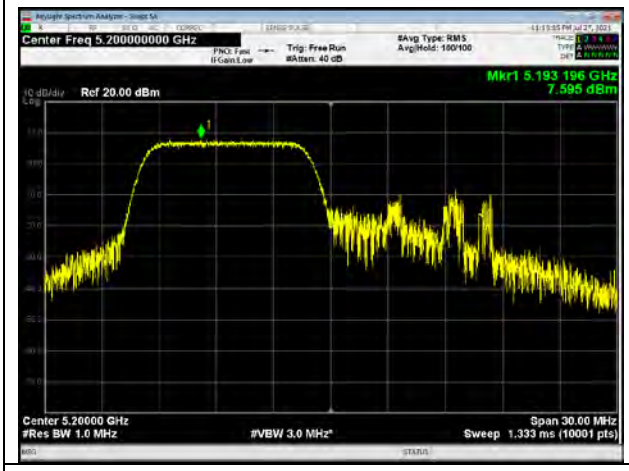
802.11ax HE20 HE20 106Tone:5180



802.11ax HE20 242Tone: 5180

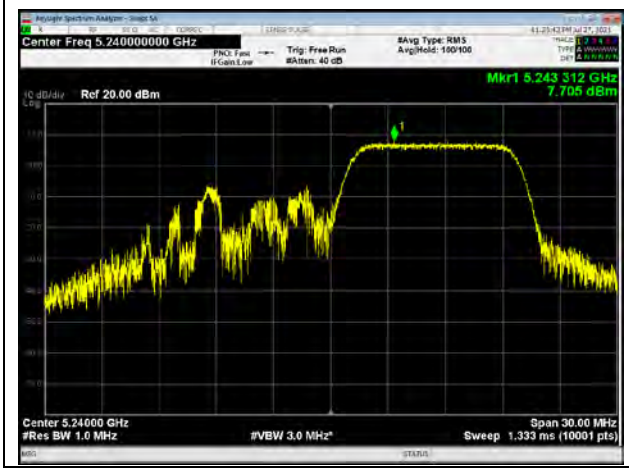


802.11ax HE20 HE20 106Tone:5200

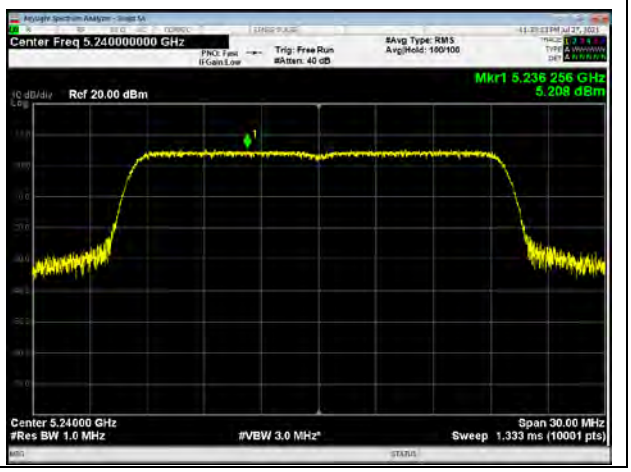


802.11ax HE20 242Tone: 5200

802.11ax HE20 106Tone: 5240

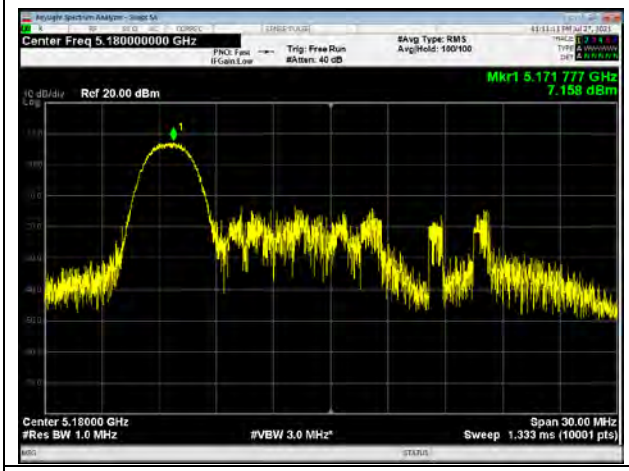


802.11ax HE20 242Tone: 5240

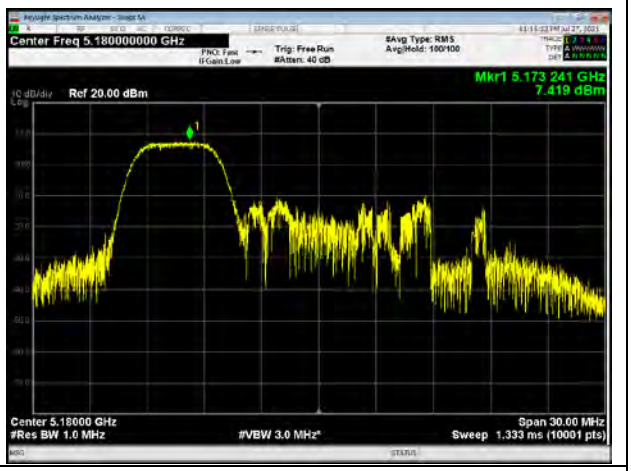


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

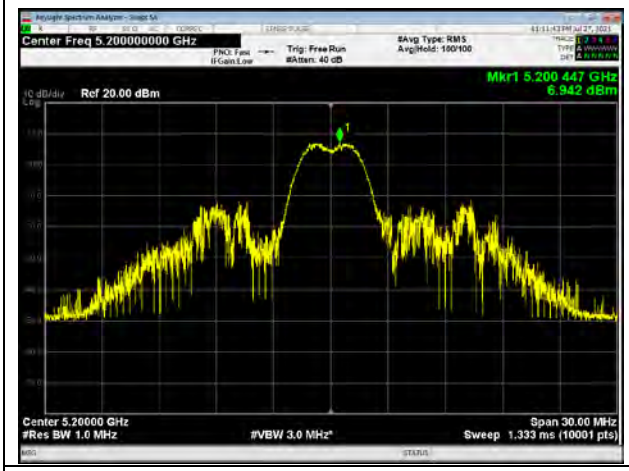
802.11ax HE20 26Tone:5180



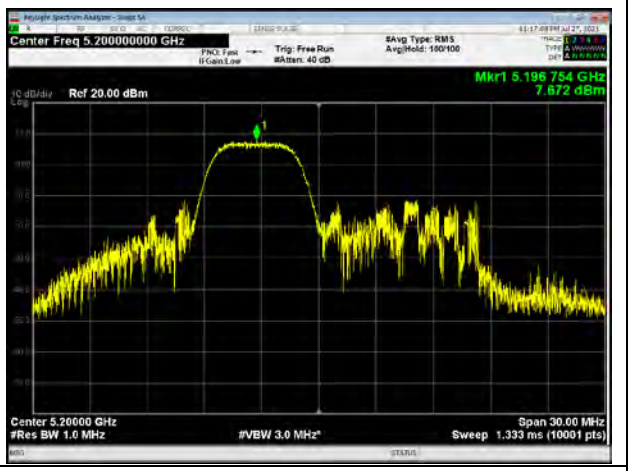
802.11ax HE20 52Tone: 5180



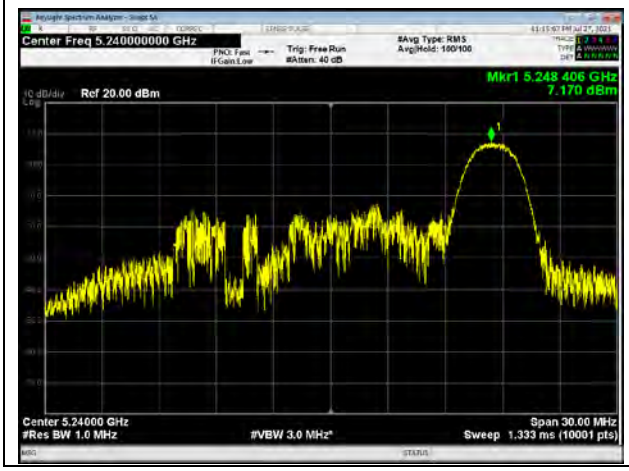
802.11ax HE20 26Tone:5200



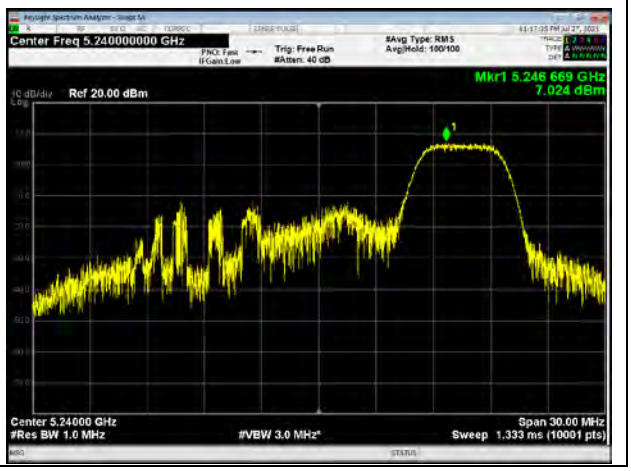
802.11ax HE20 52Tone: 5200



802.11ax HE20 26Tone: 5240

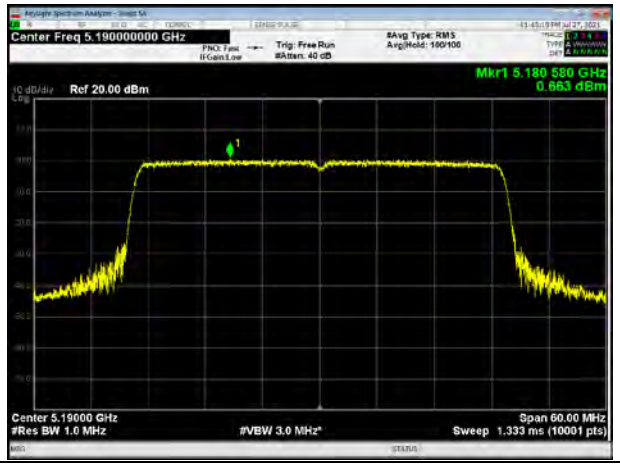


802.11ax HE20 52Tone: 5420

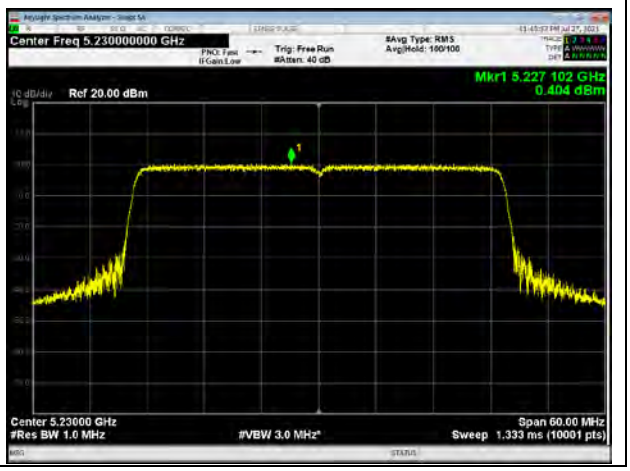


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

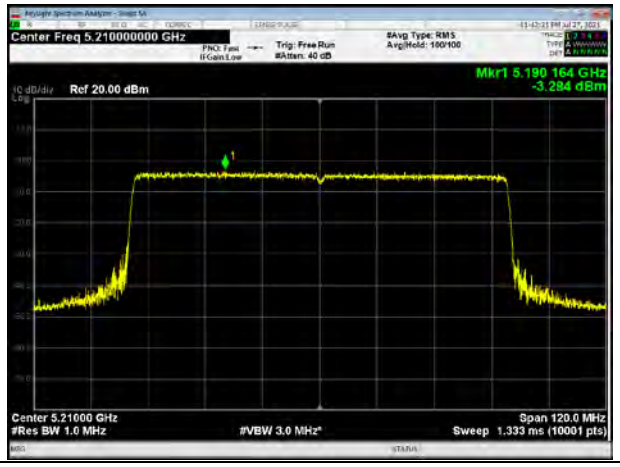
802.11ax HE40 484Tone: 5190



802.11ax HE40 484Tone: 5230



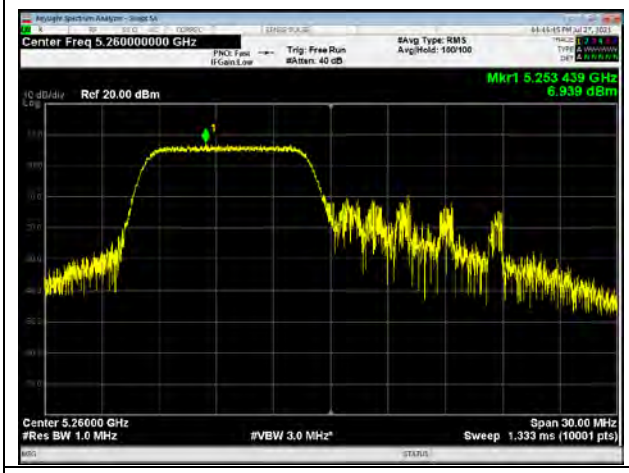
802.11ax HE80 996 Tone: 5210



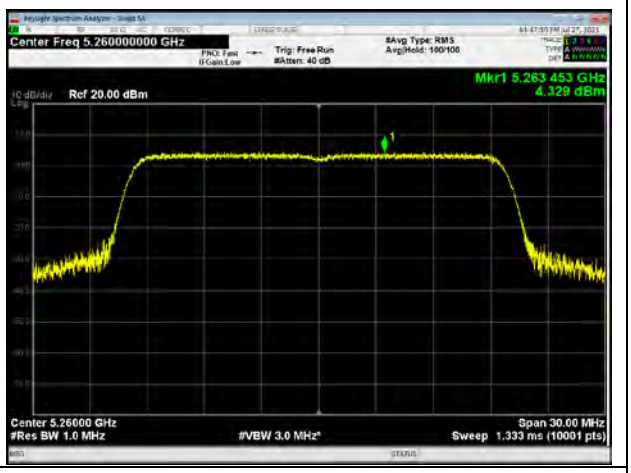
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-2A

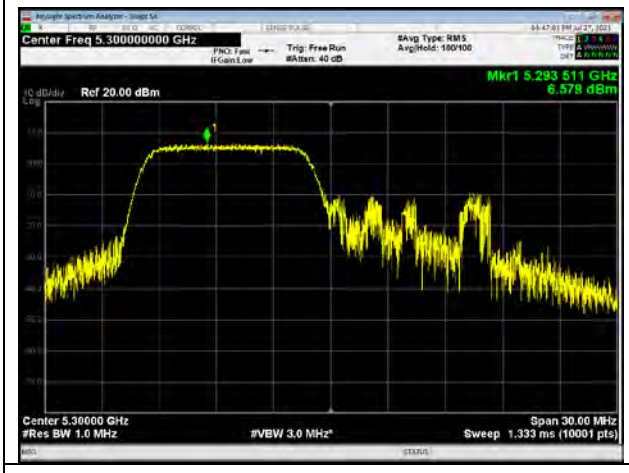
802.11ax HE20 106Tone: 5260



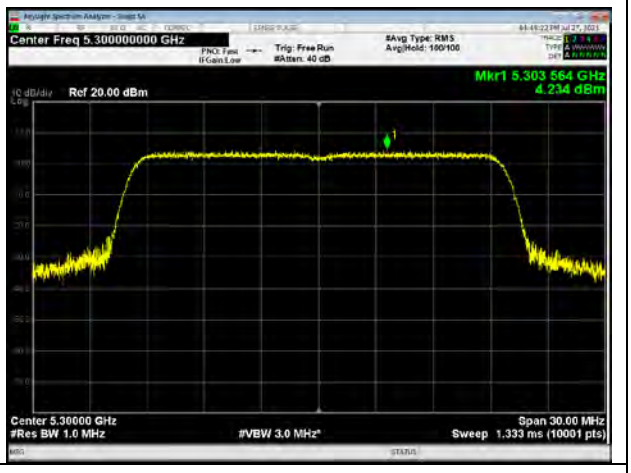
802.11ax HE20 242Tone: 5260



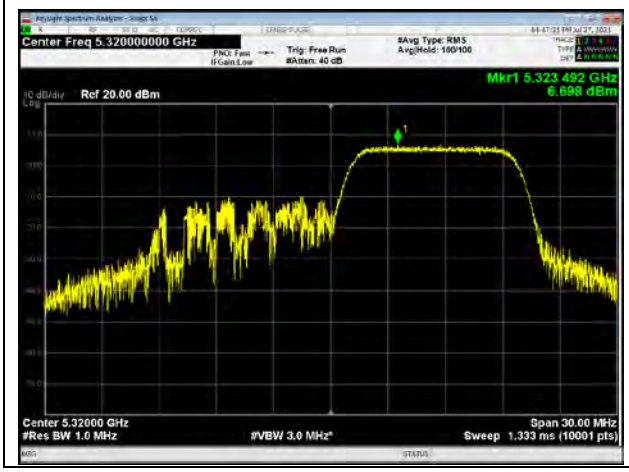
802.11ax HE20 106Tone:5300



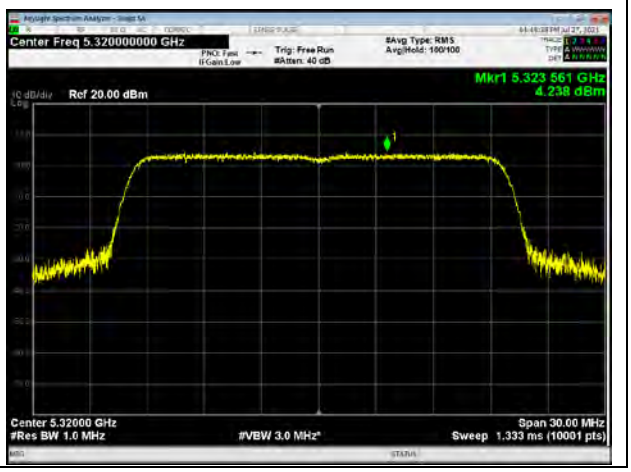
802.11ax HE20 242Tone: 5300



802.11ax HE20 106Tone: 5320

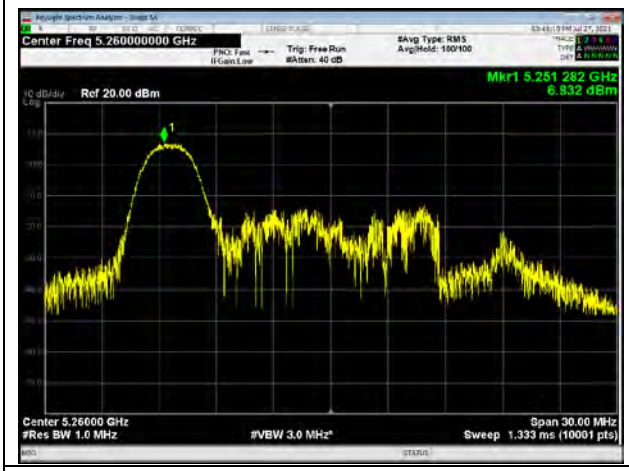


802.11ax HE20 242Tone: 5320

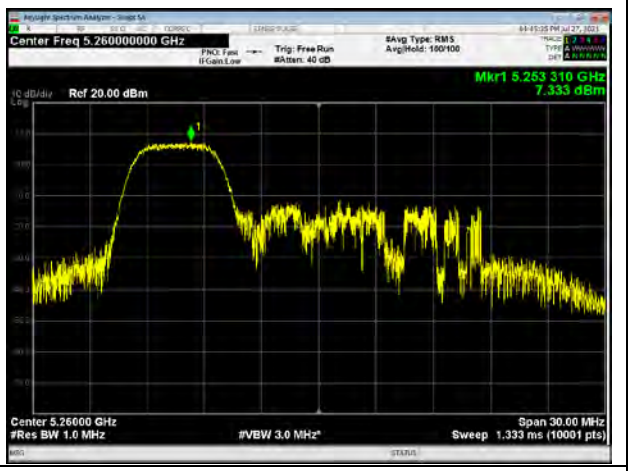


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

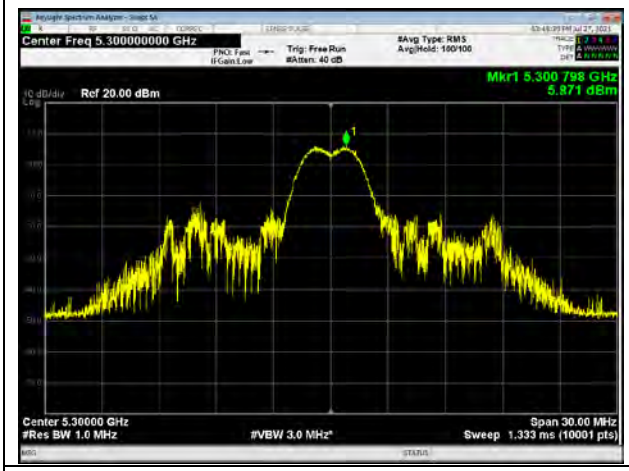
802.11ax HE20 26Tone:5180



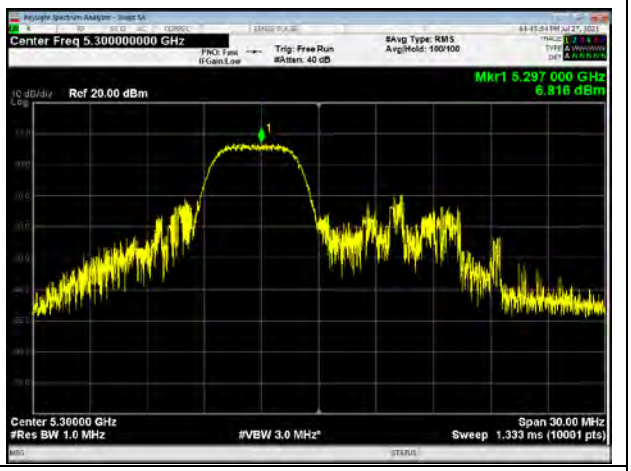
802.11ax HE20 52Tone: 5260



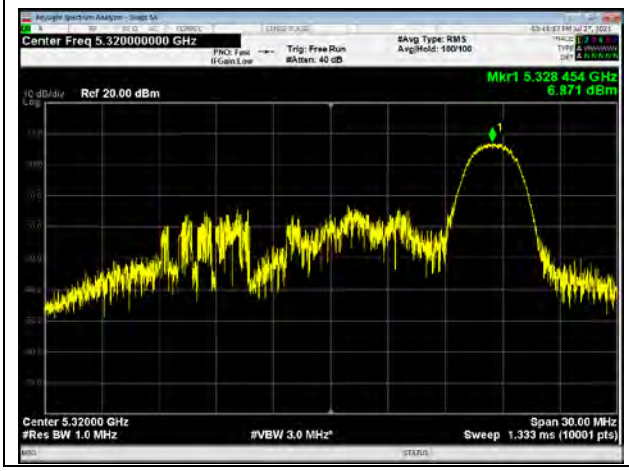
802.11ax HE20 26Tone:5300



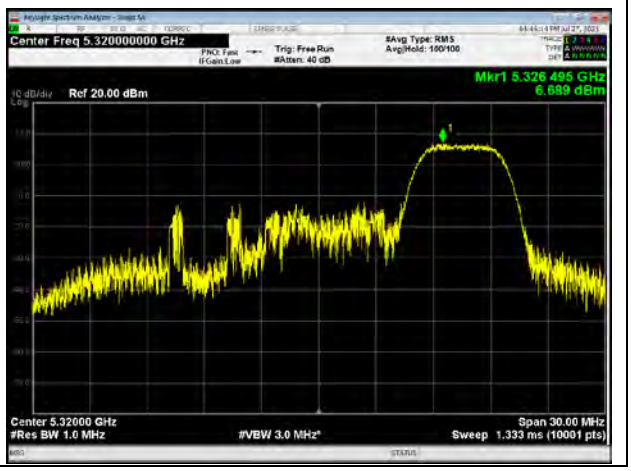
802.11ax HE20 52Tone: 5300



802.11ax HE20 26Tone: 5320

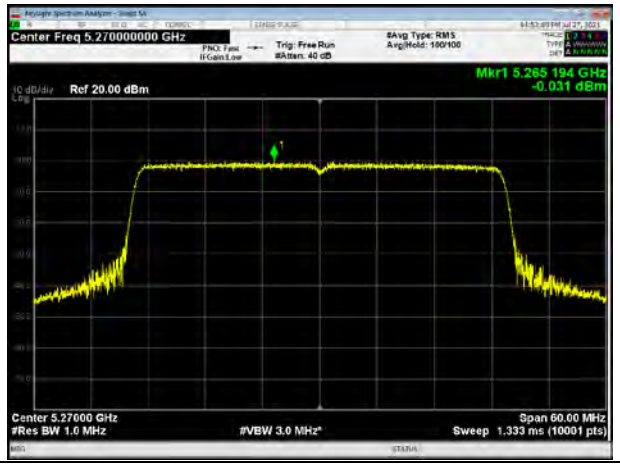


802.11ax HE20 52Tone: 5320

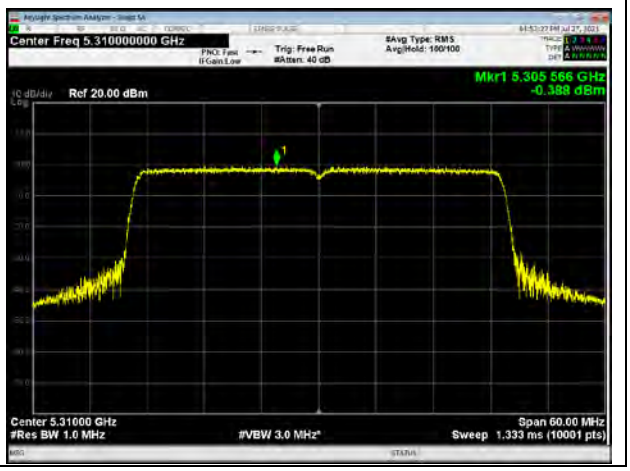


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

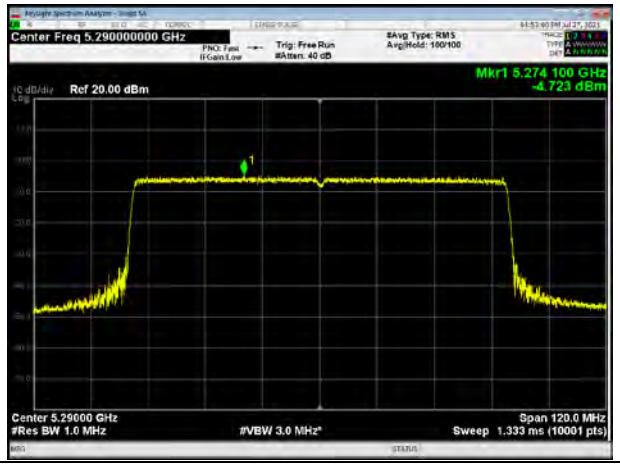
802.11ax HE40 484Tone: 5270



802.11ax HE40 484Tone: 5310



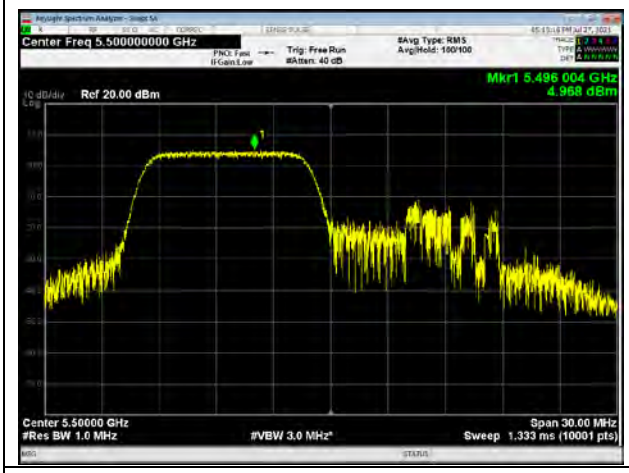
802.11ax HE80 996 Tone: 5290



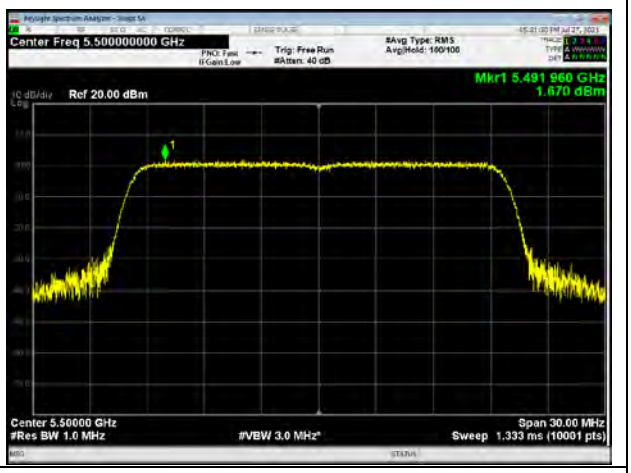
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-2C

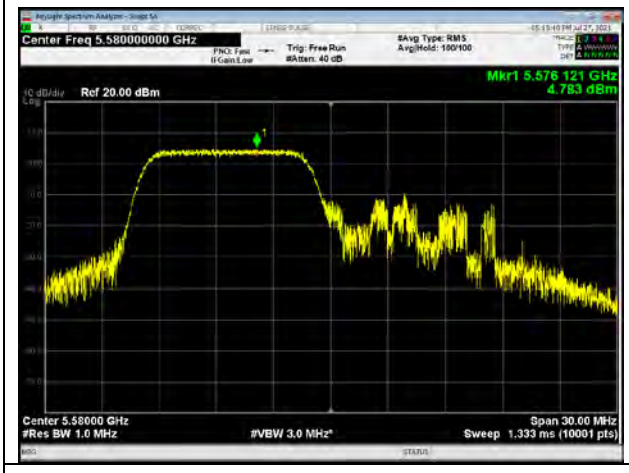
802.11ax HE20 106Tone: 5500



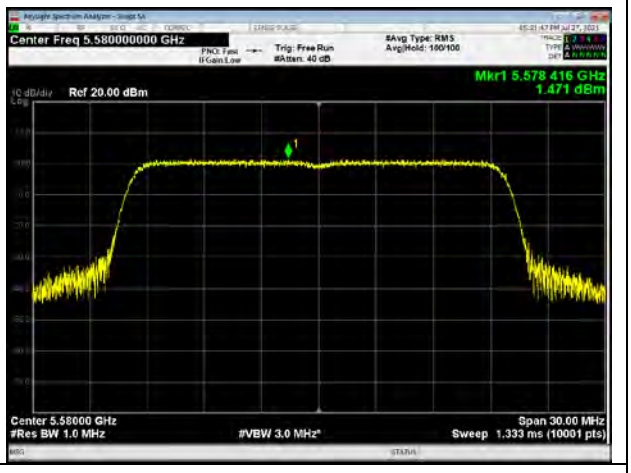
802.11ax HE20 242Tone: 5500



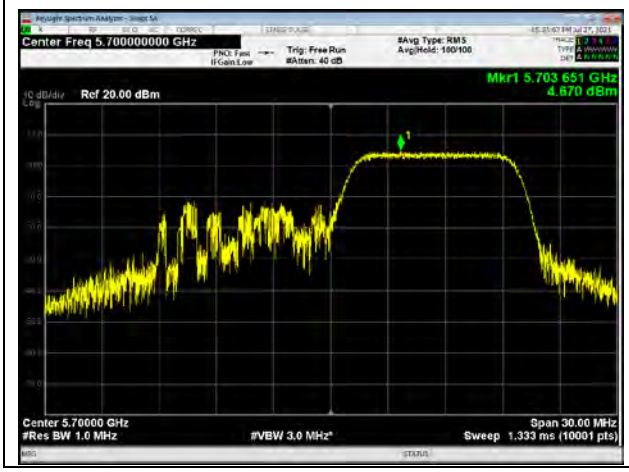
802.11ax HE20 106Tone:5580



802.11ax HE20 242Tone: 5580



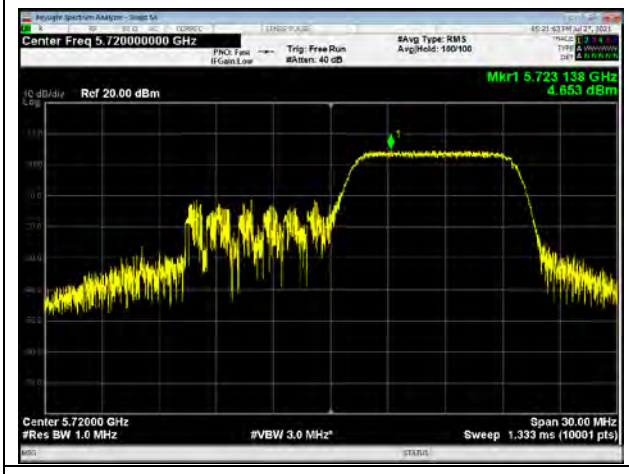
802.11ax HE20 106Tone: 5700



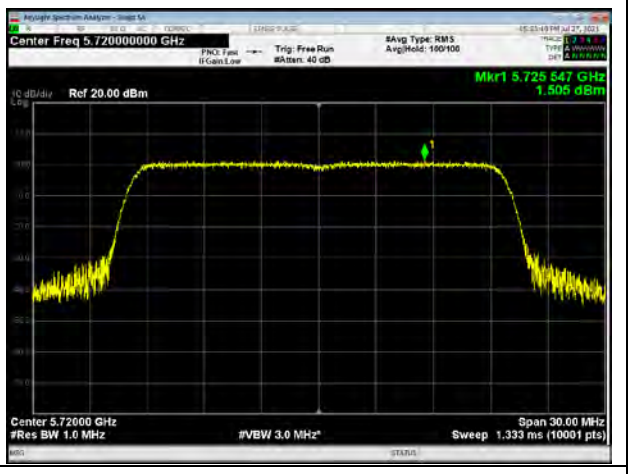
802.11ax HE20 242Tone: 5700

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

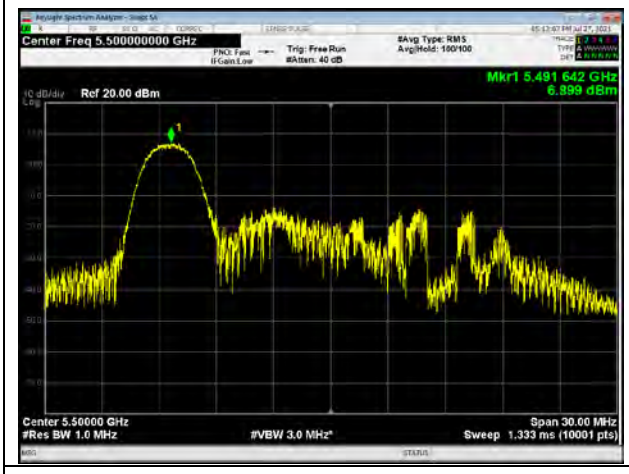
802.11ax HE20 106Tone: 5720



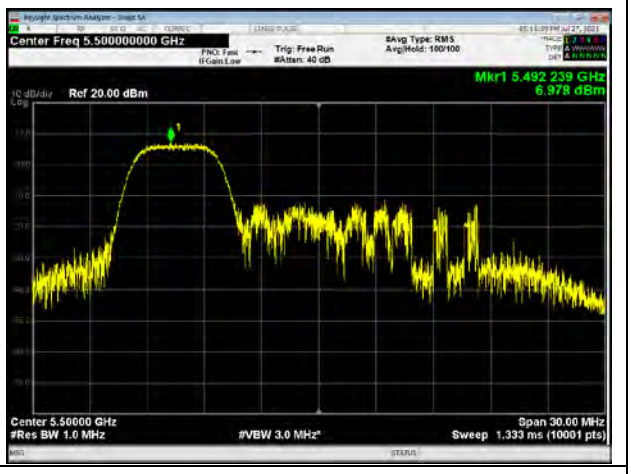
802.11ax HE20 242Tone: 5720



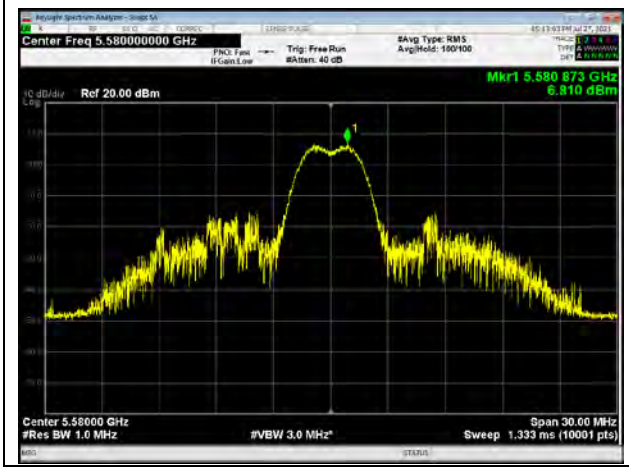
802.11ax HE20 26Tone:5500



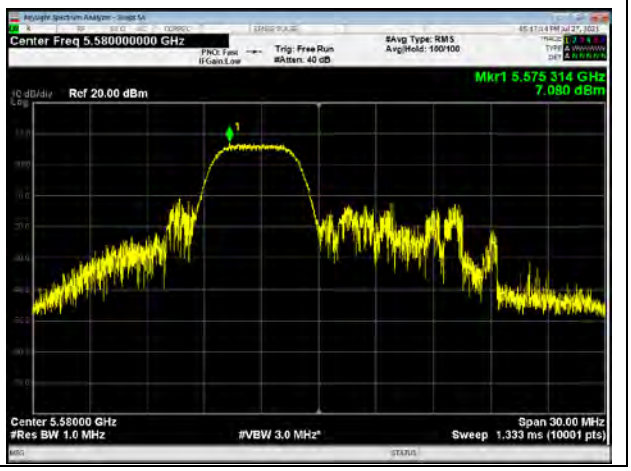
802.11ax HE20 52Tone: 5500



802.11ax HE20 26Tone:5580

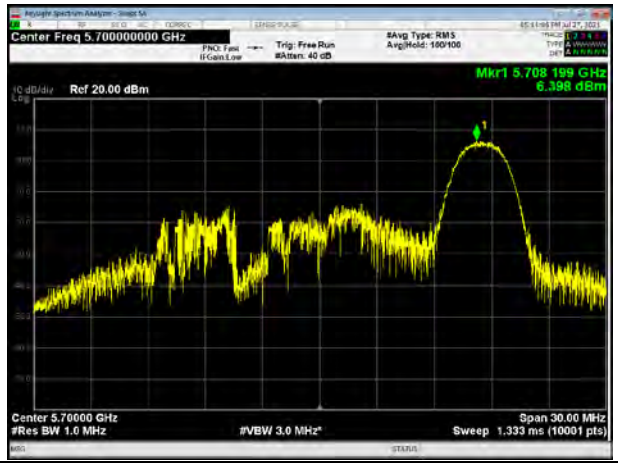


802.11ax HE20 52Tone: 5580

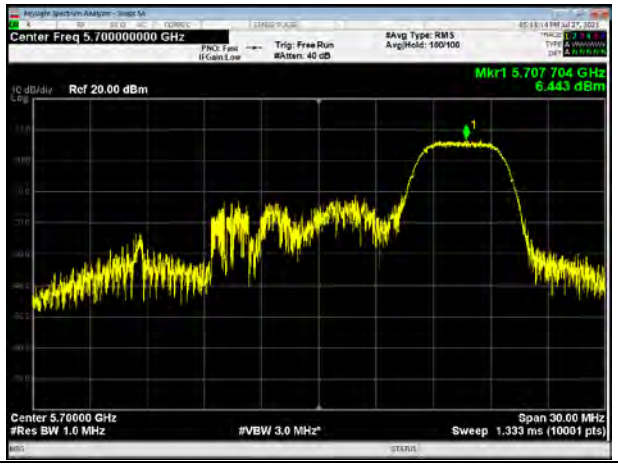


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

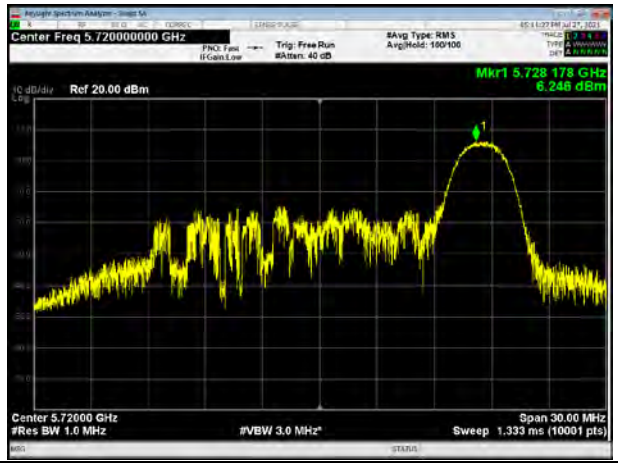
802.11ax HE20 26Tone: 5700



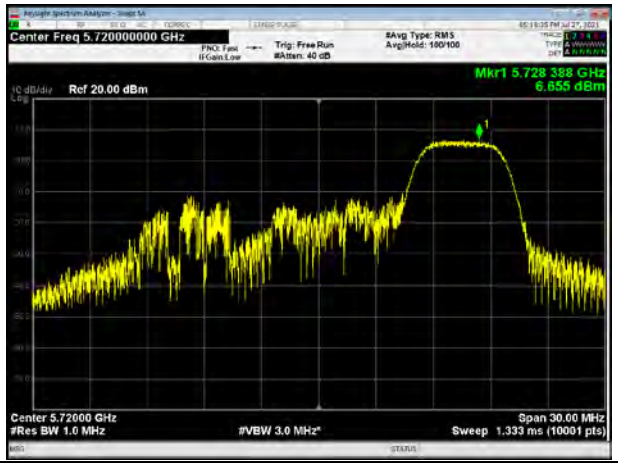
802.11ax HE20 52Tone: 5700



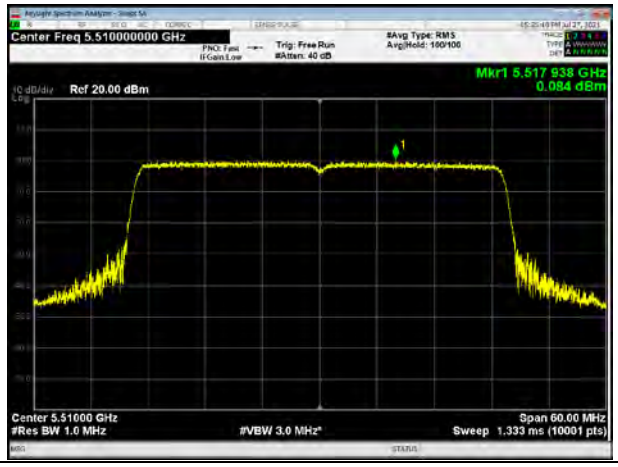
802.11ax HE20 26Tone: 5720



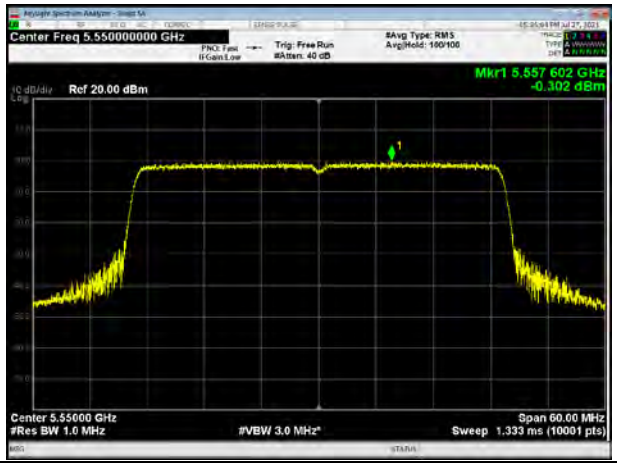
802.11ax HE20 52Tone: 5720



802.11ax HE40 484Tone: 5510

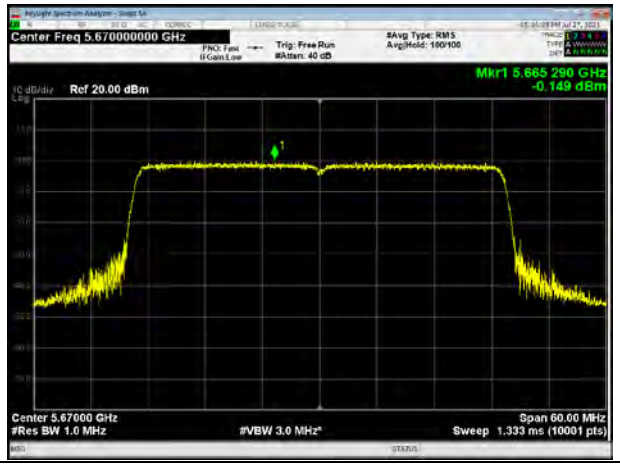


802.11ax HE40 484Tone: 5550

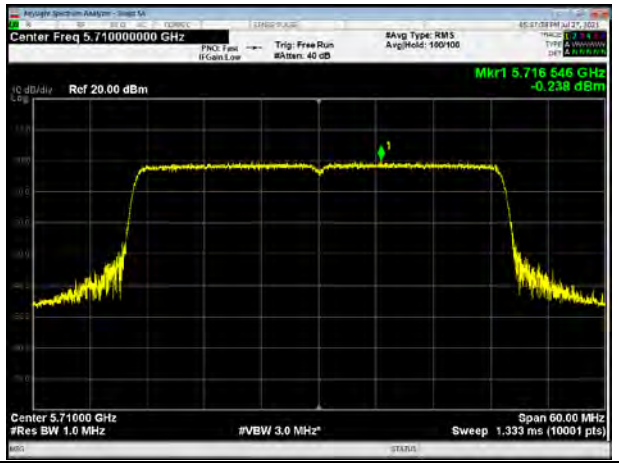


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

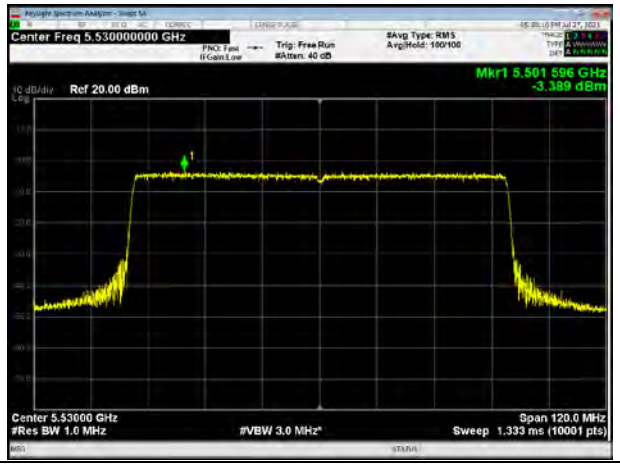
802.11ax HE40 484Tone: 5670



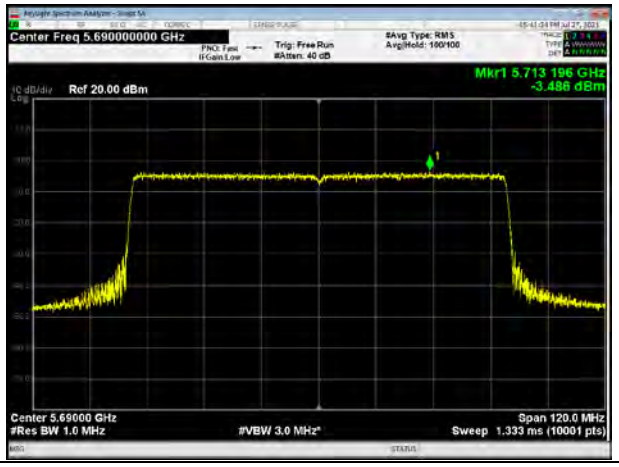
802.11ax HE40 484Tone: 5710



802.11ax HE80 996 Tone: 5530



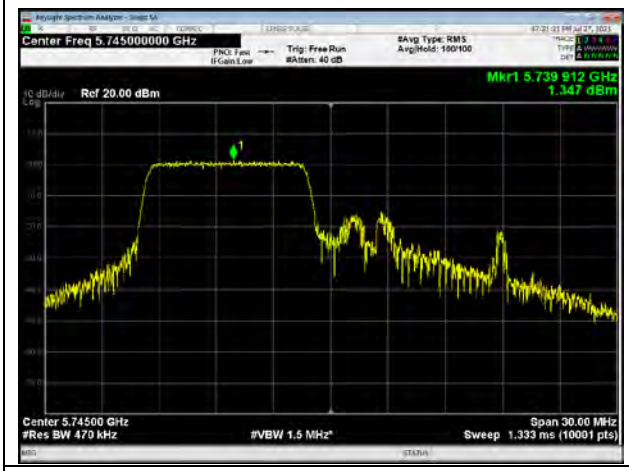
802.11ax HE80 996 Tone: 5690



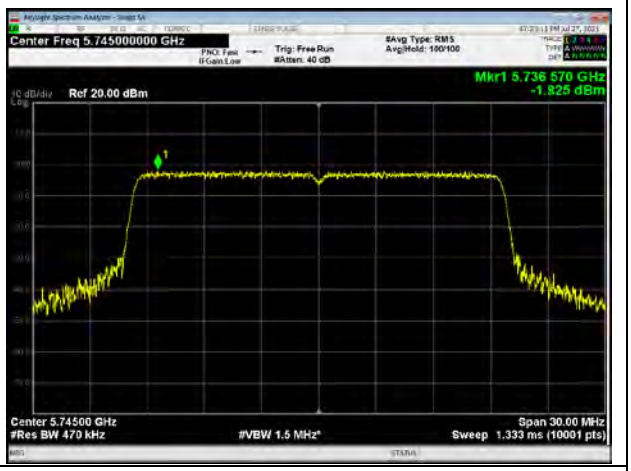
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-3

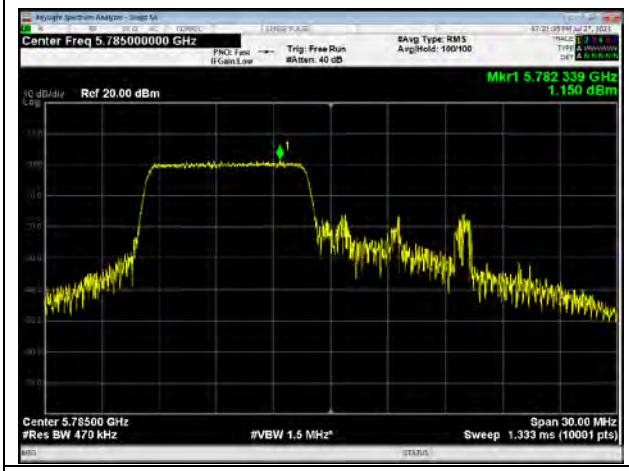
802.11ax HE20 106Tone:5745



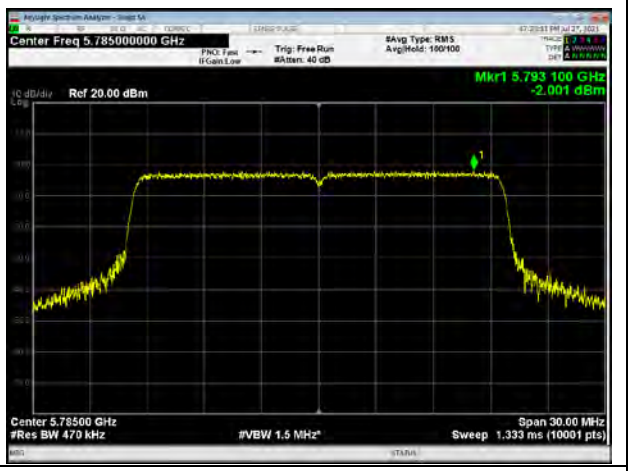
802.11ax HE20 242Tone: 5745



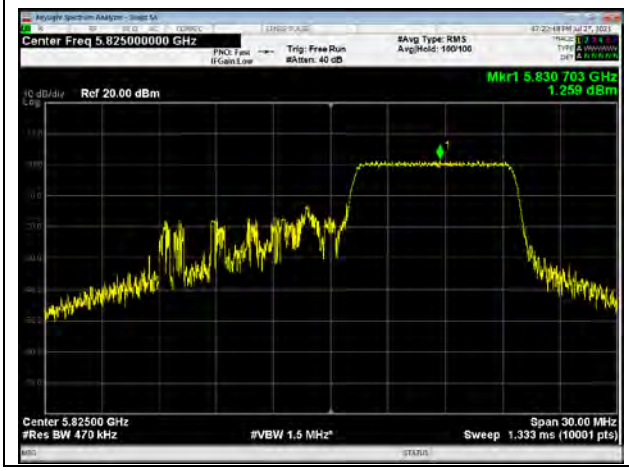
802.11ax HE20 106Tone:5785



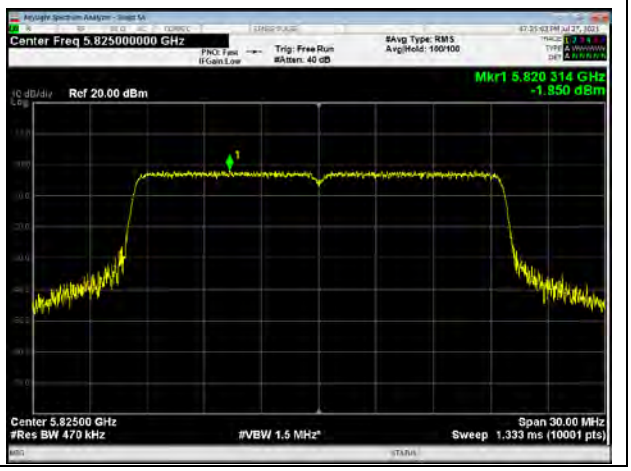
802.11ax HE20 242Tone: 5785



802.11ax HE20 106Tone: 5825

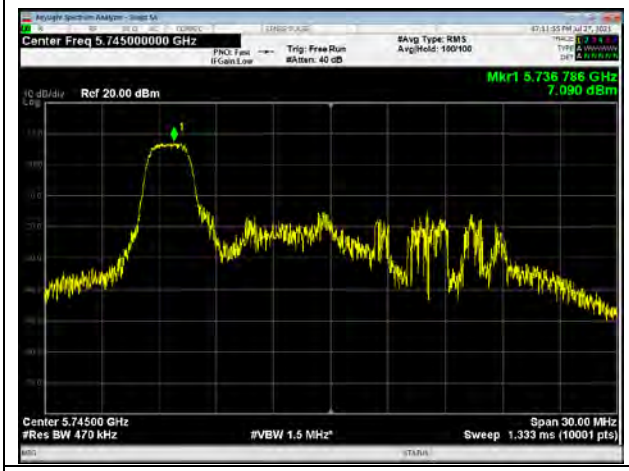


802.11ax HE20 242Tone: 5825

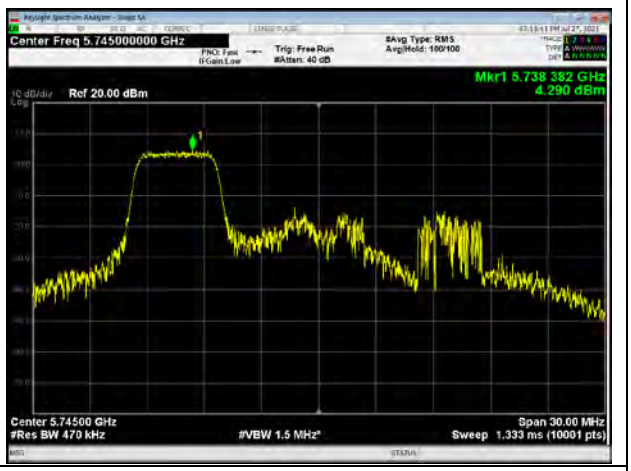


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

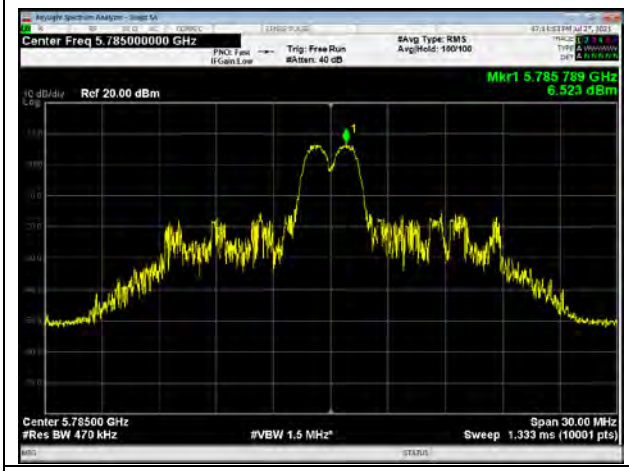
802.11ax HE20 26Tone:5745



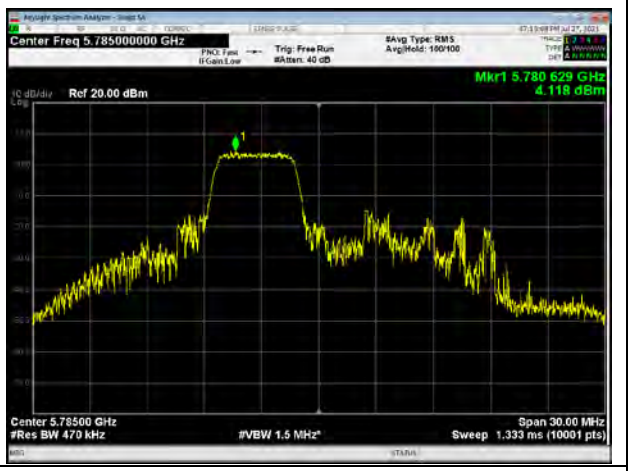
802.11ax HE20 52Tone: 5745



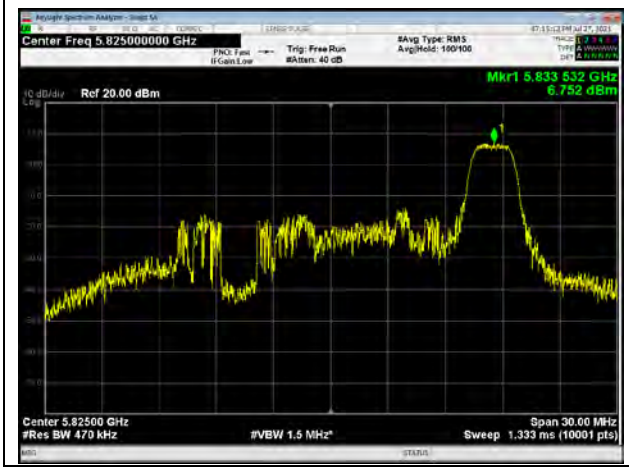
802.11ax HE20 26Tone:5785



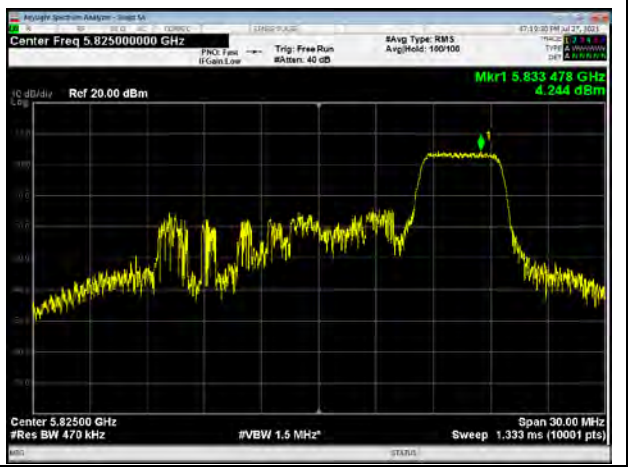
802.11ax HE20 52Tone: 5785



802.11ax HE20 26Tone: 5825

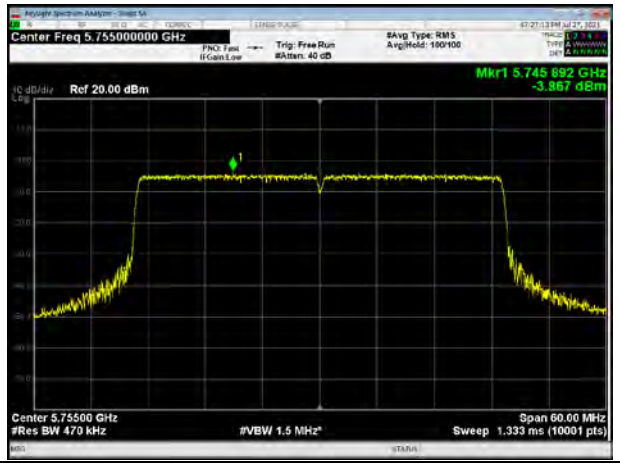


802.11ax HE20 52Tone: 5825

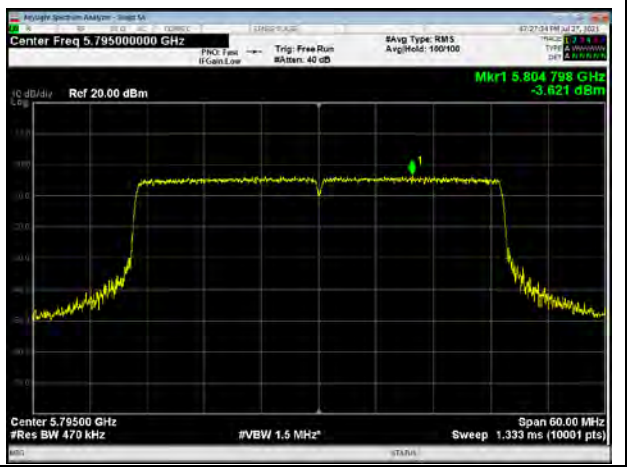


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

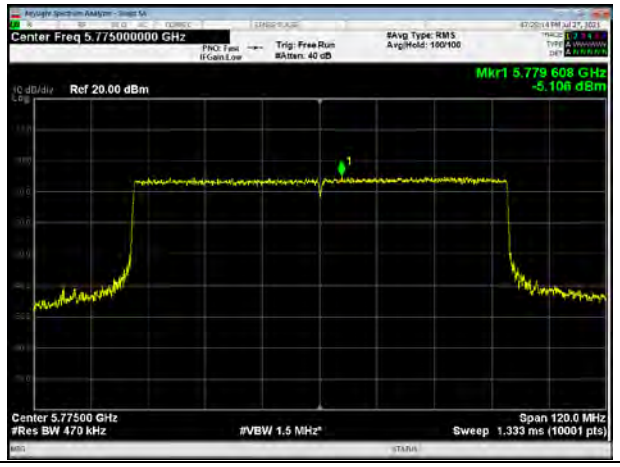
802.11ax HE40 484Tone: 5755



802.11ax HE40 484Tone: 5795



802.11ax HE80 996 Tone: 5775



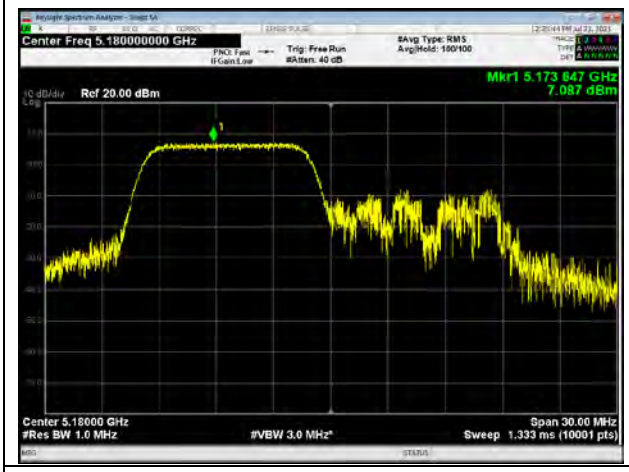
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

MIMO

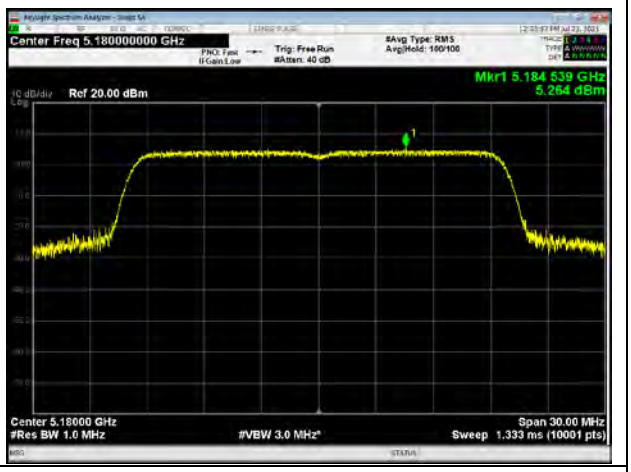
SISO Antenna 1

UNII-1

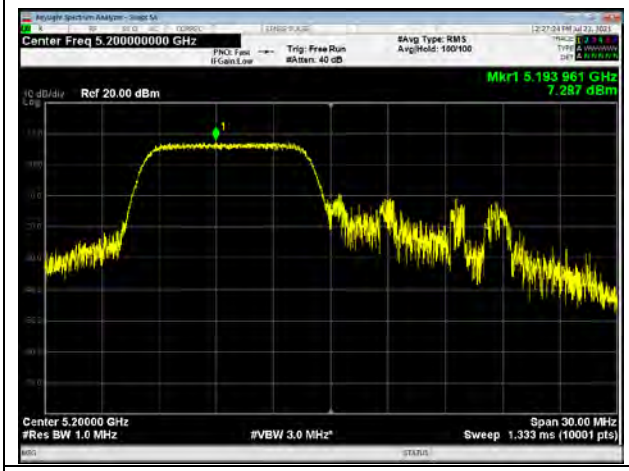
802.11ax HE20 106Tone:5180



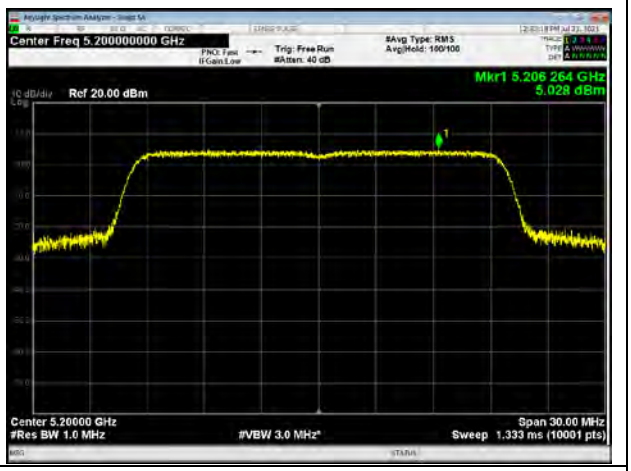
802.11ax HE20 242Tone: 5180



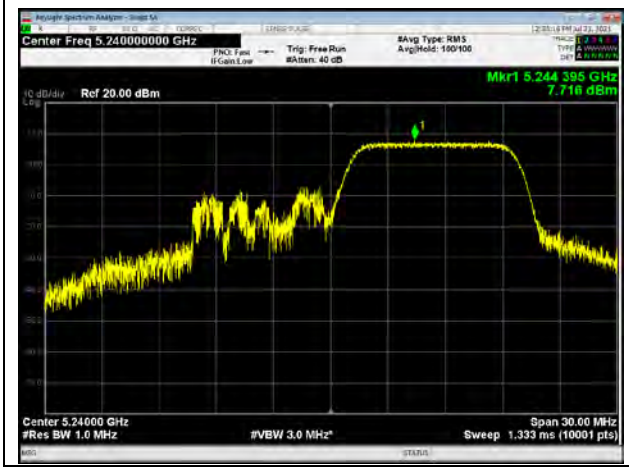
802.11ax HE20 106Tone:5200



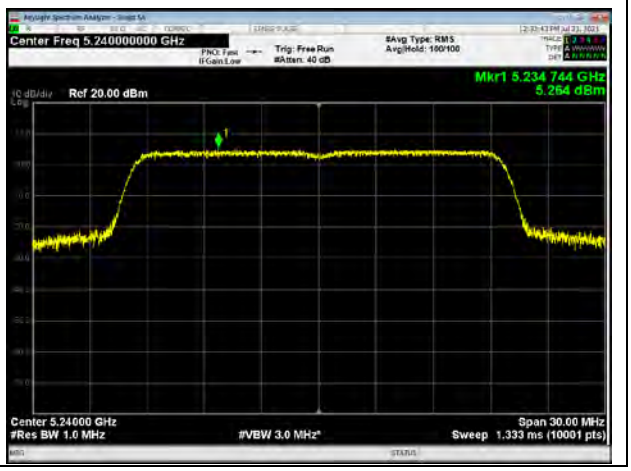
802.11ax HE20 242Tone: 5200



802.11ax HE20 106Tone: 5240

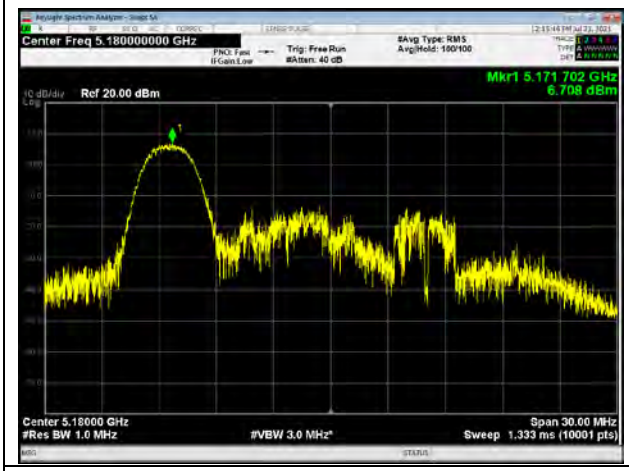


802.11ax HE20 242Tone: 5240

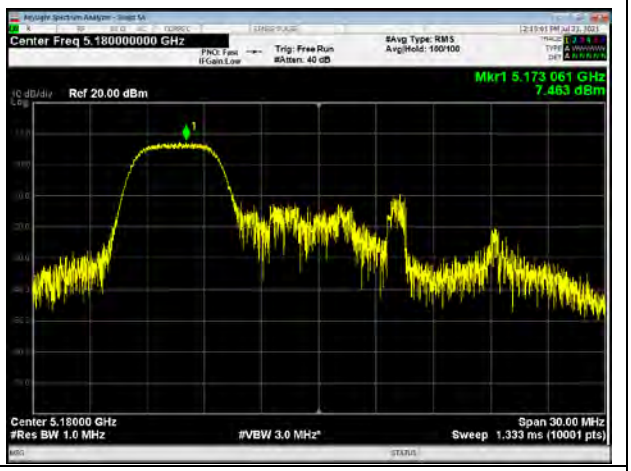


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

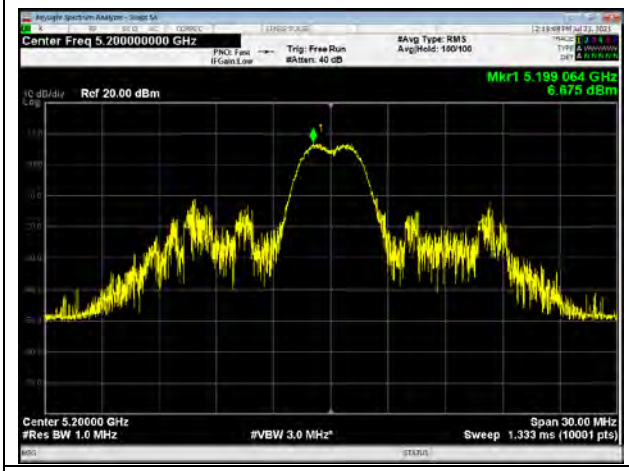
802.11ax HE20 26Tone:5180



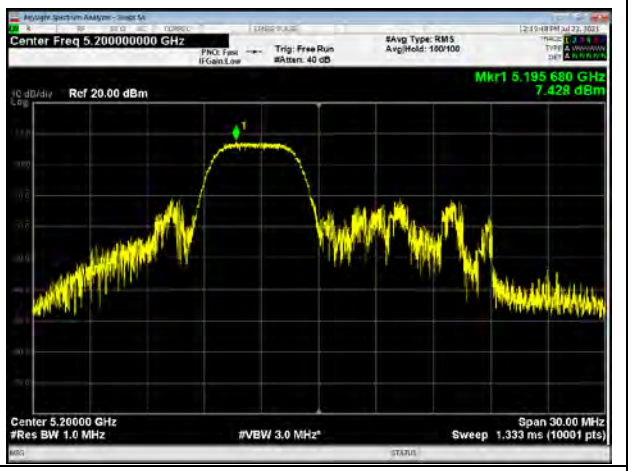
802.11ax HE20 52Tone: 5180



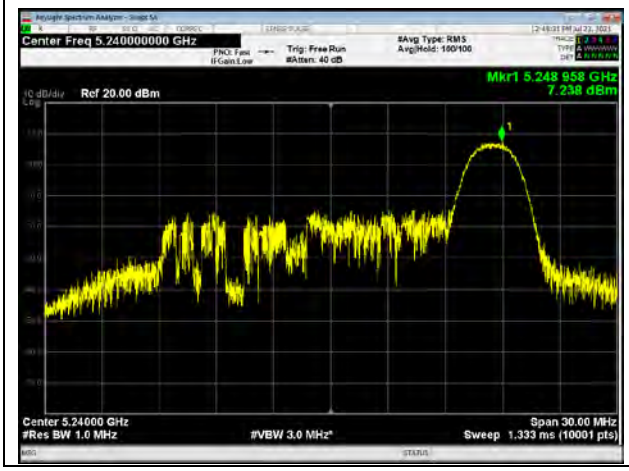
802.11ax HE20 26Tone:5200



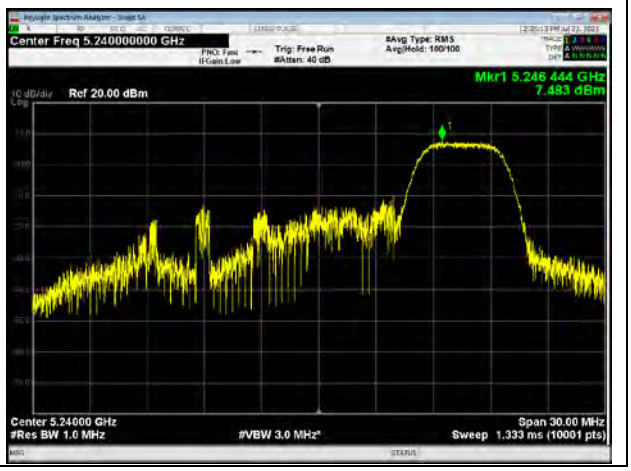
802.11ax HE20 52Tone: 5200



802.11ax HE20 26Tone: 5240

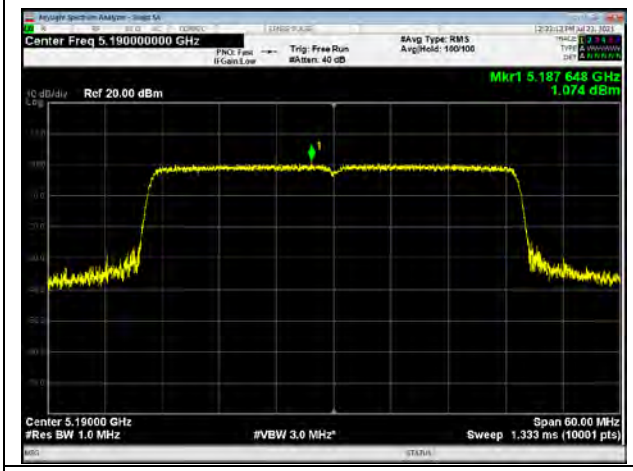


802.11ax HE20 52Tone: 5420

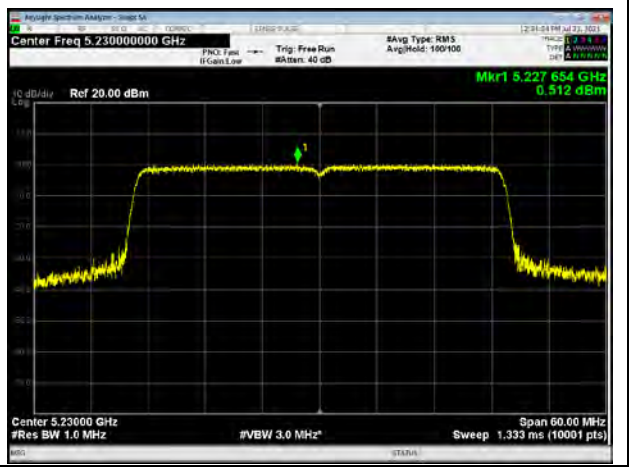


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

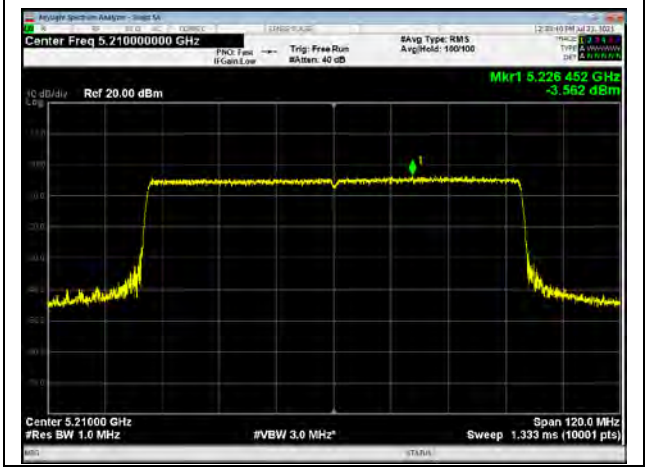
802.11ax HE40 484Tone: 5190



802.11ax HE40 484Tone: 5230



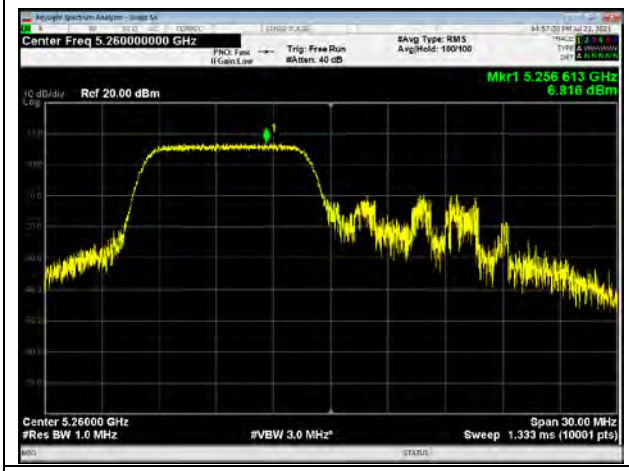
802.11ax HE80 996 Tone: 5210



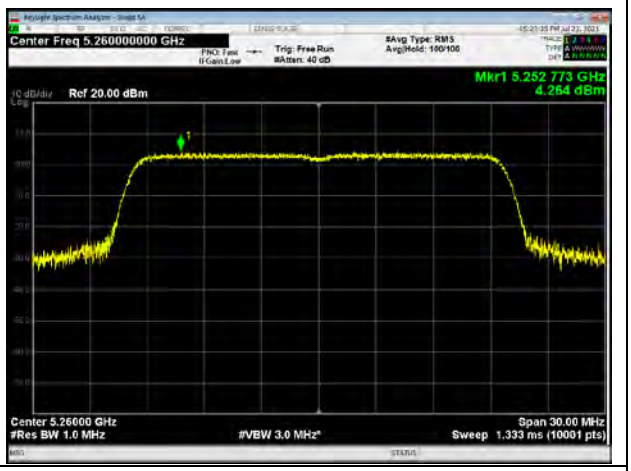
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-2A

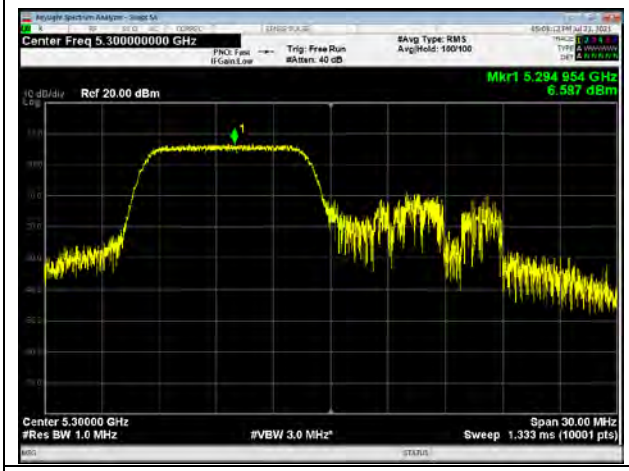
802.11ax HE20 106Tone: 5260



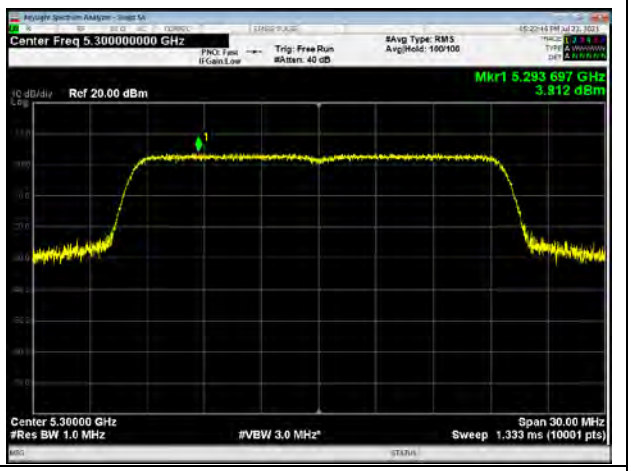
802.11ax HE20 242Tone: 5260



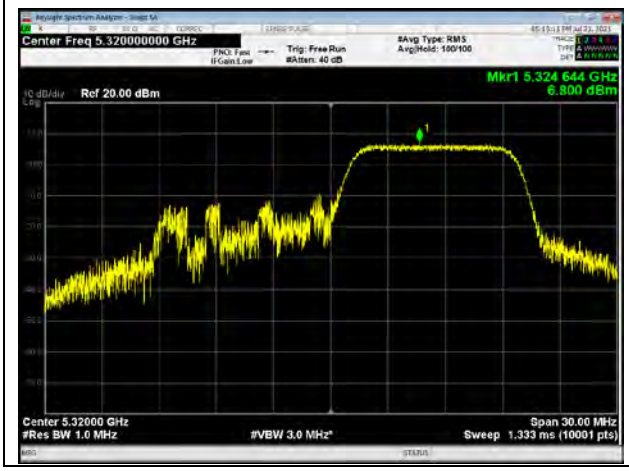
802.11ax HE20 106Tone:5300



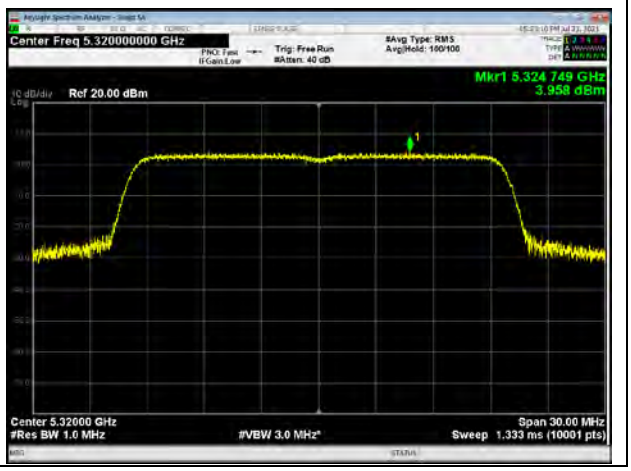
802.11ax HE20 242Tone: 5300



802.11ax HE20 106Tone: 5320

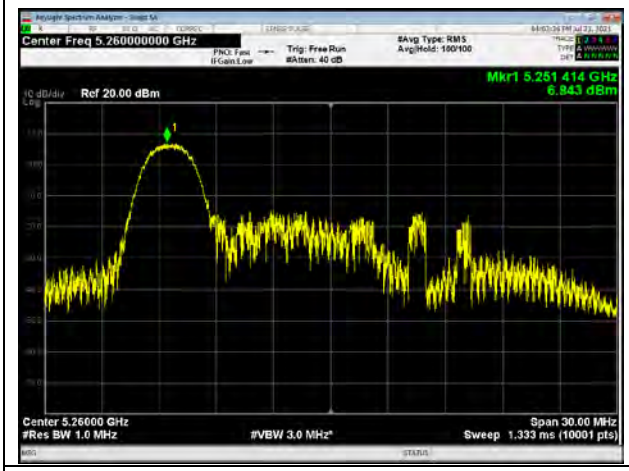


802.11ax HE20 242Tone: 5320

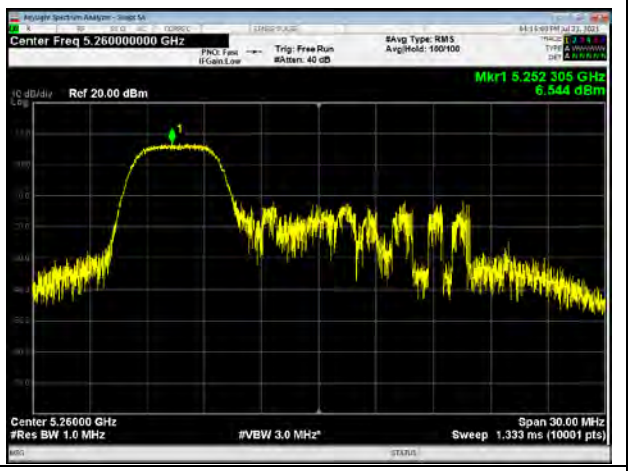


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

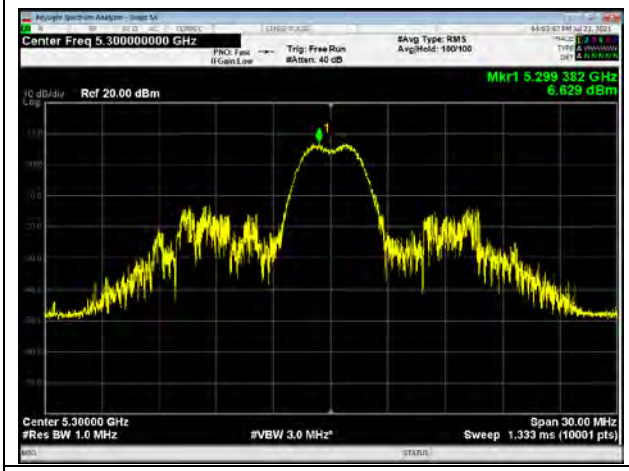
802.11ax HE20 26Tone:5180



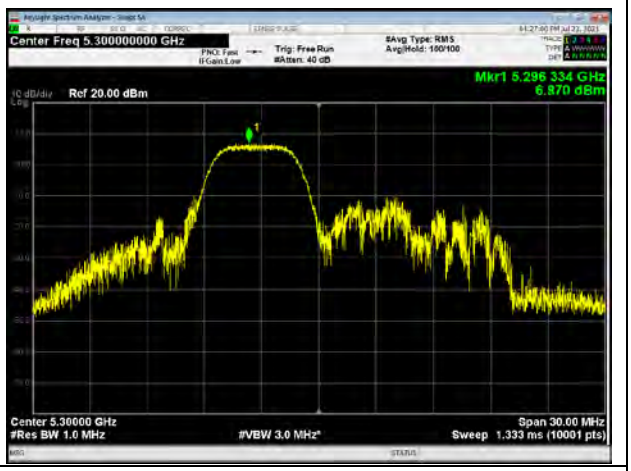
802.11ax HE20 52Tone: 5260



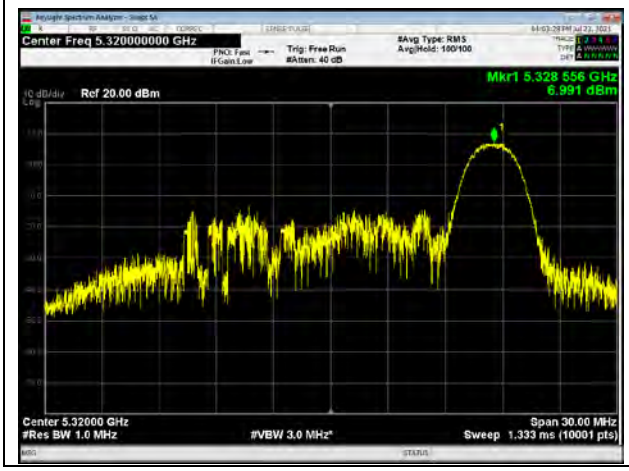
802.11ax HE20 26Tone:5300



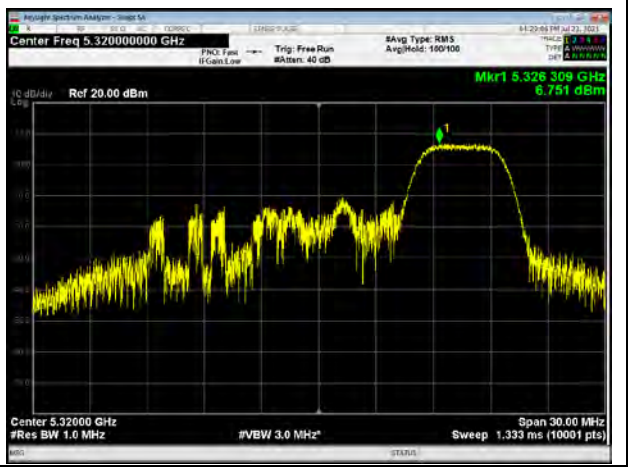
802.11ax HE20 52Tone: 5300



802.11ax HE20 26Tone: 5320

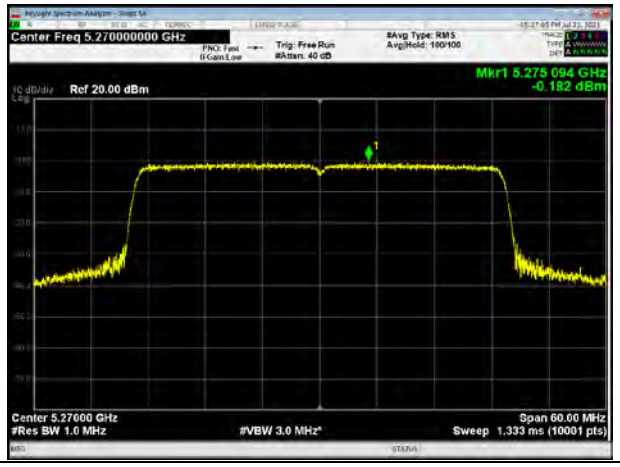


802.11ax HE20 52Tone: 5320

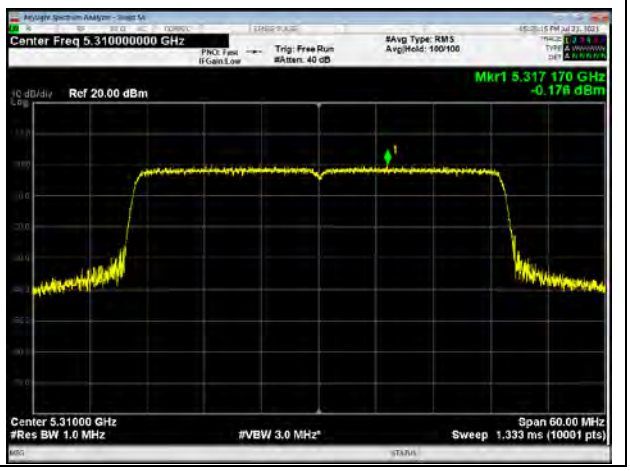


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

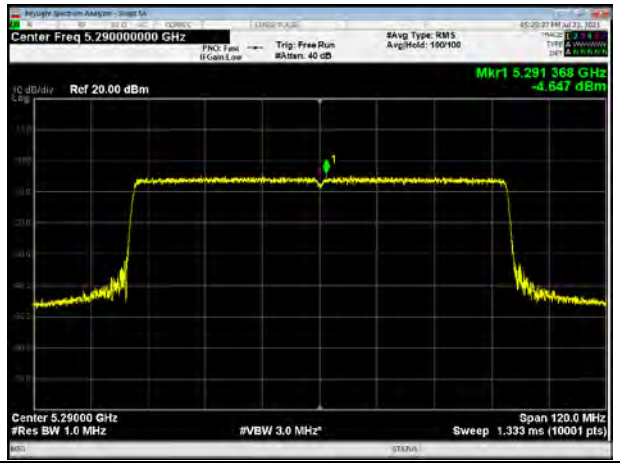
802.11ax HE40 484Tone: 5270



802.11ax HE40 484Tone: 5310



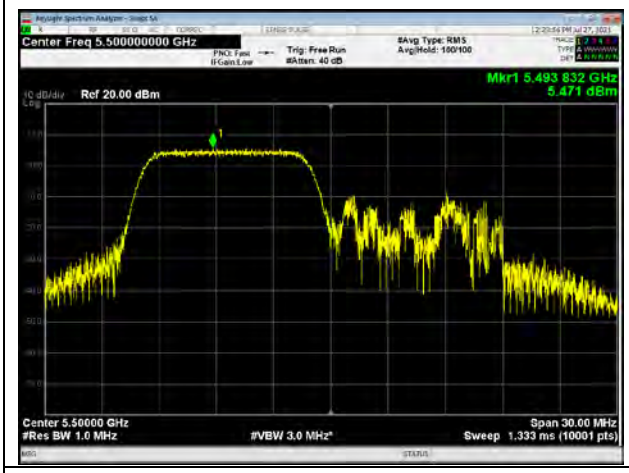
802.11ax HE80 996 Tone: 5290



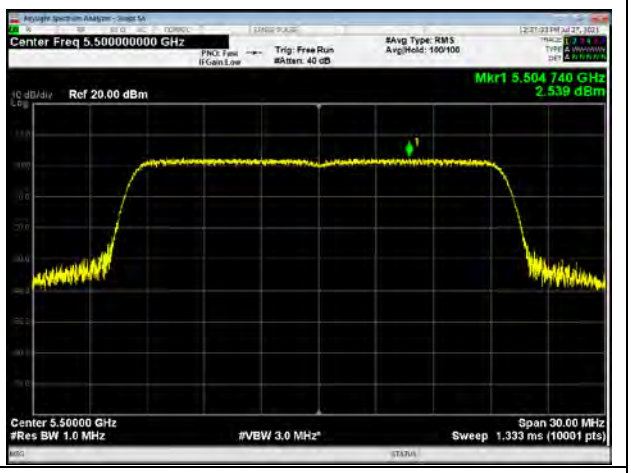
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-2C

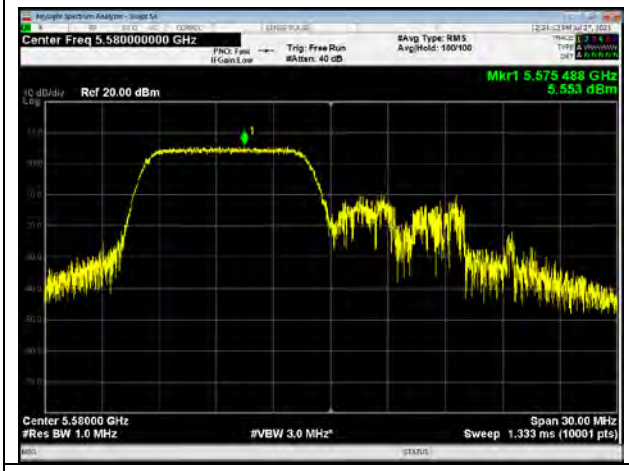
802.11ax HE20 106Tone: 5500



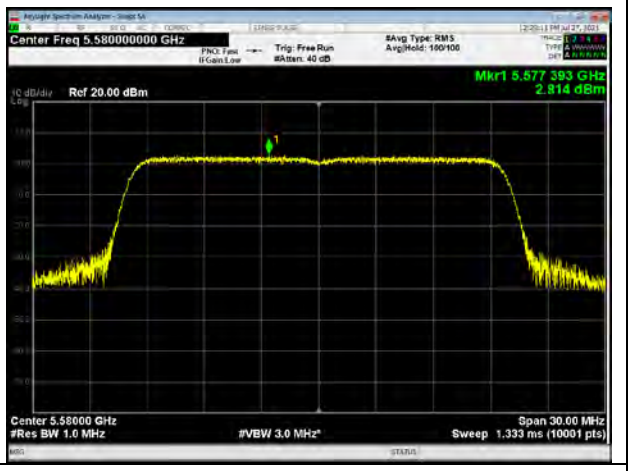
802.11ax HE20 242Tone: 5500



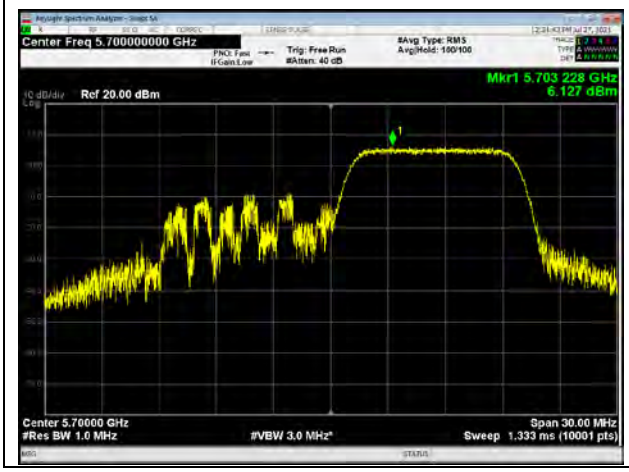
802.11ax HE20 106Tone:5580



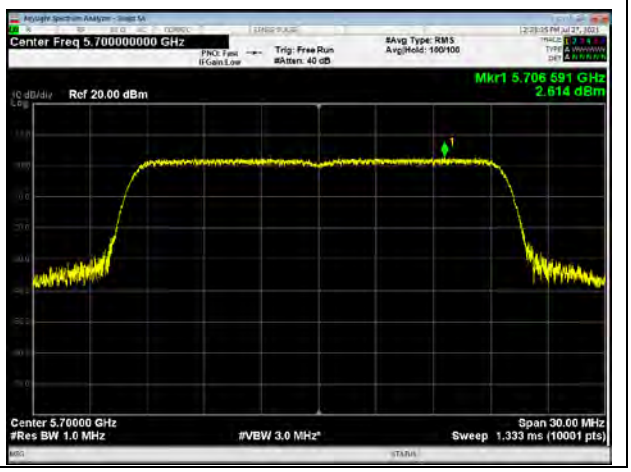
802.11ax HE20 242Tone: 5580



802.11ax HE20 106Tone: 5700

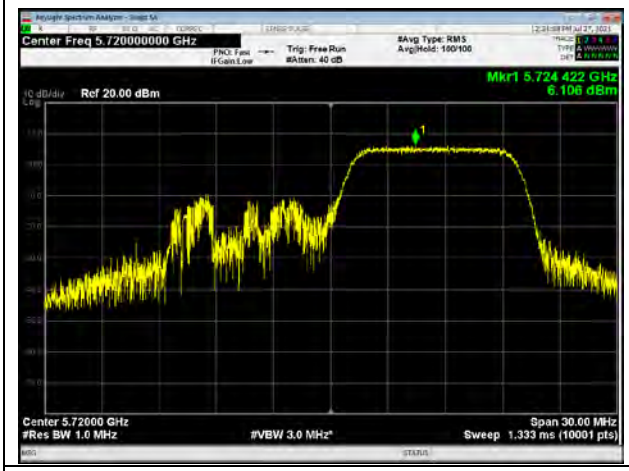


802.11ax HE20 242Tone: 5700

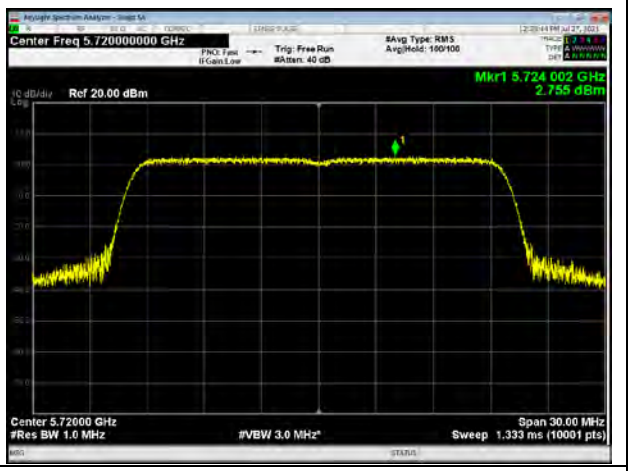


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

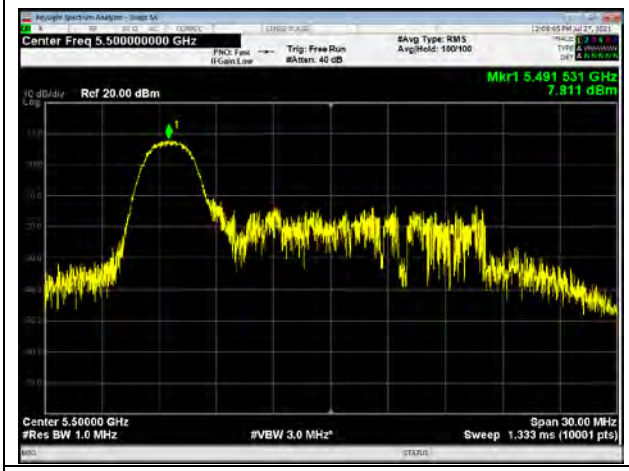
802.11ax HE20 106Tone: 5720



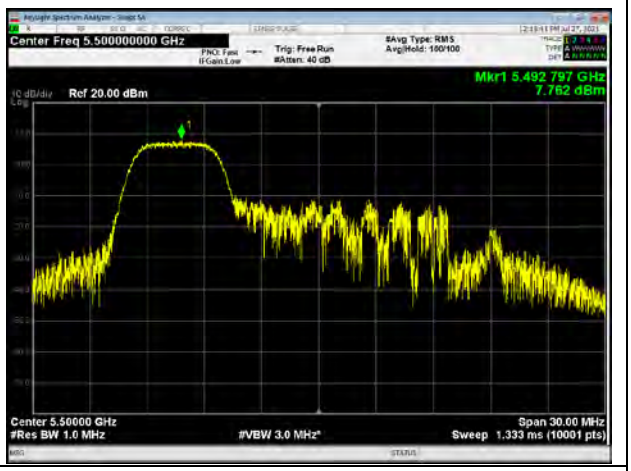
802.11ax HE20 242Tone: 5720



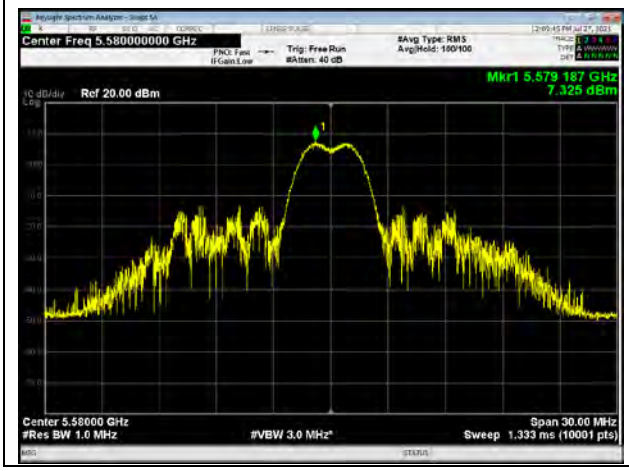
802.11ax HE20 26Tone:5500



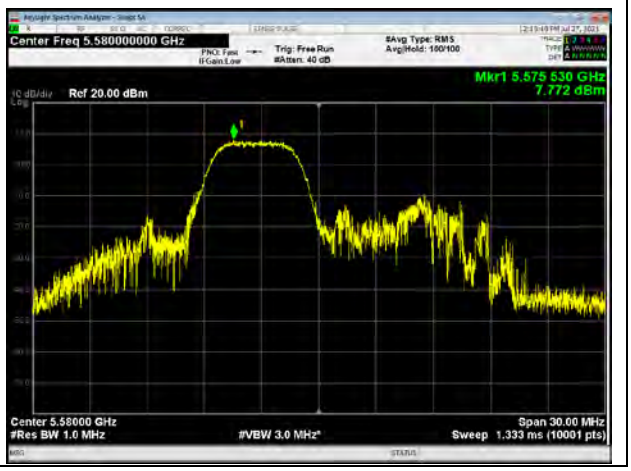
802.11ax HE20 52Tone: 5500



802.11ax HE20 26Tone:5580

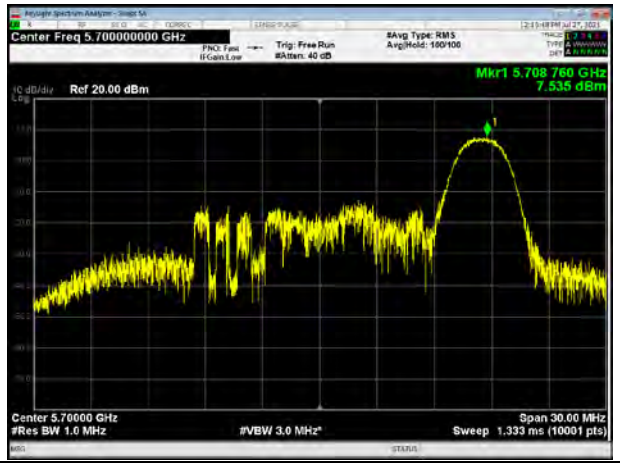


802.11ax HE20 52Tone: 5580

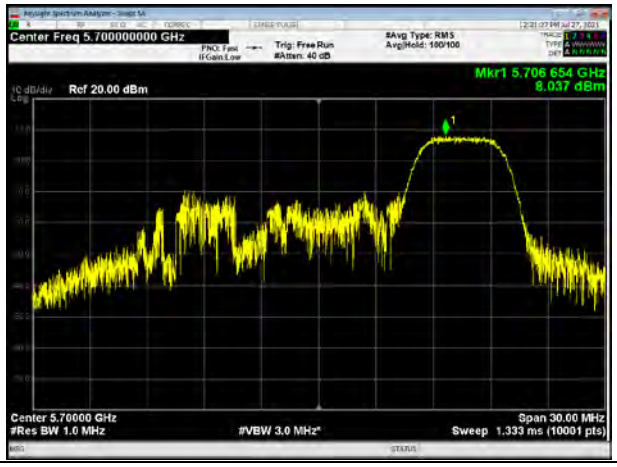


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

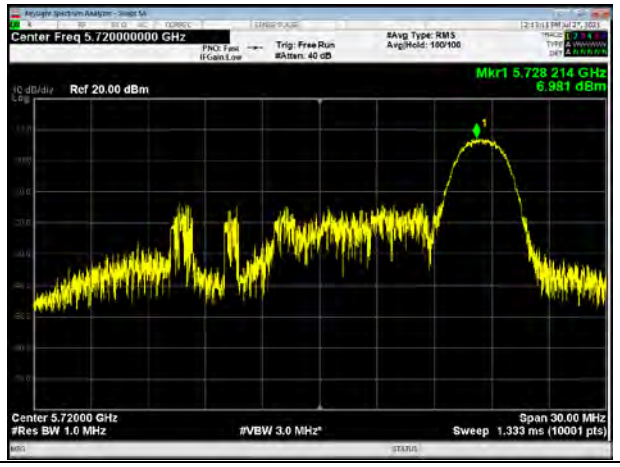
802.11ax HE20 26Tone: 5700



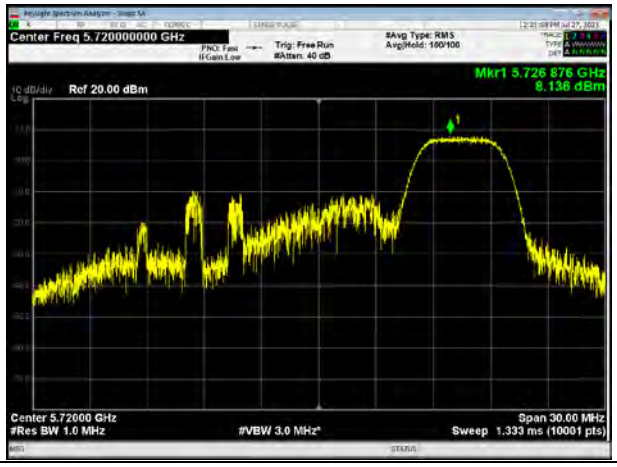
802.11ax HE20 52Tone: 5700



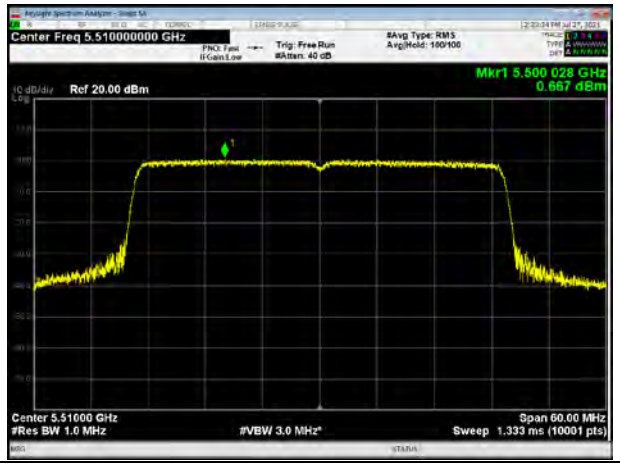
802.11ax HE20 26Tone: 5720



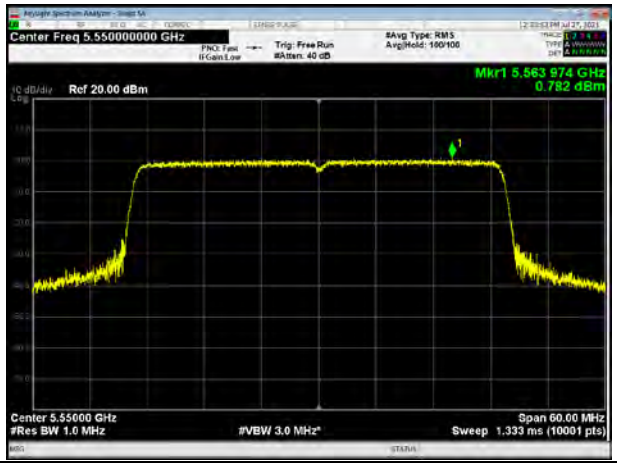
802.11ax HE20 52Tone: 5720



802.11ax HE40 484Tone: 5510

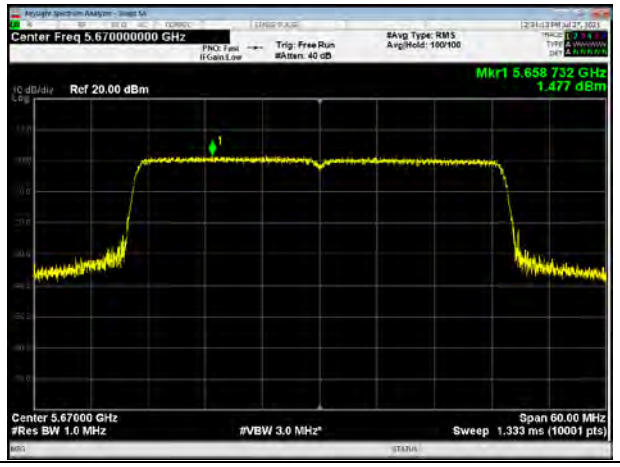


802.11ax HE40 484Tone: 5550

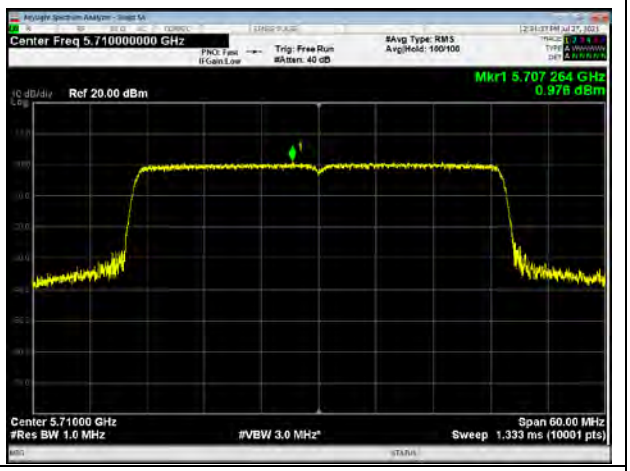


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

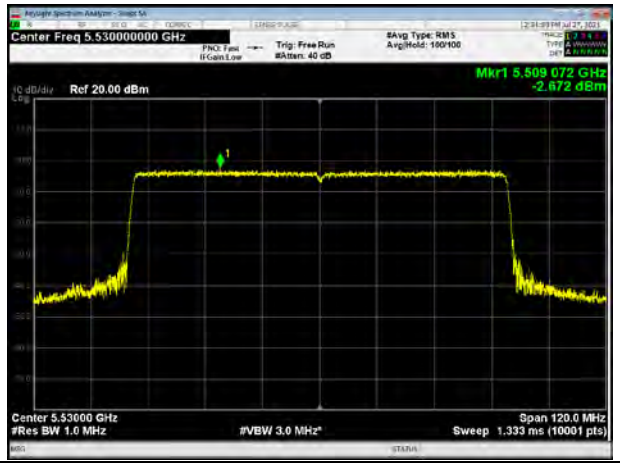
802.11ax HE40 484Tone: 5670



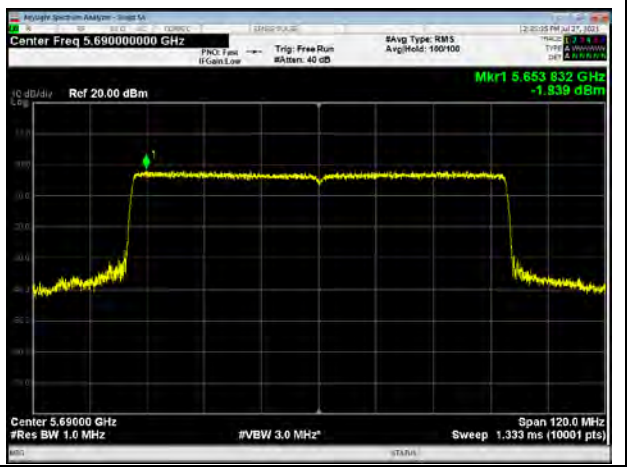
802.11ax HE40 484Tone: 5710



802.11ax HE80 996 Tone: 5530



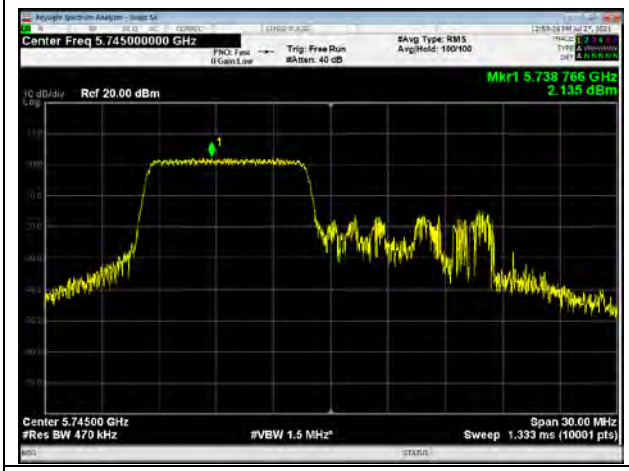
802.11ax HE80 996 Tone: 5690



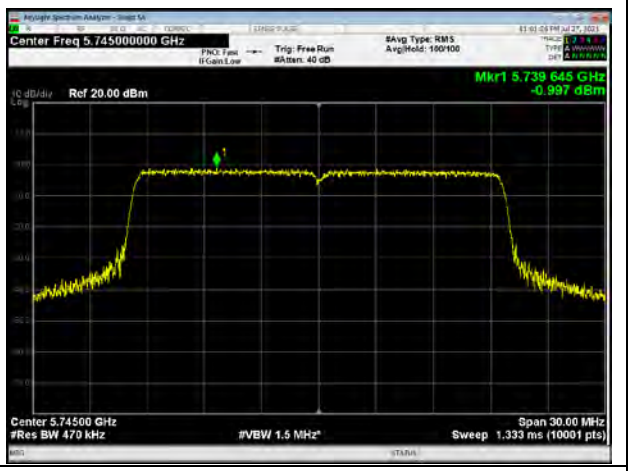
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-3

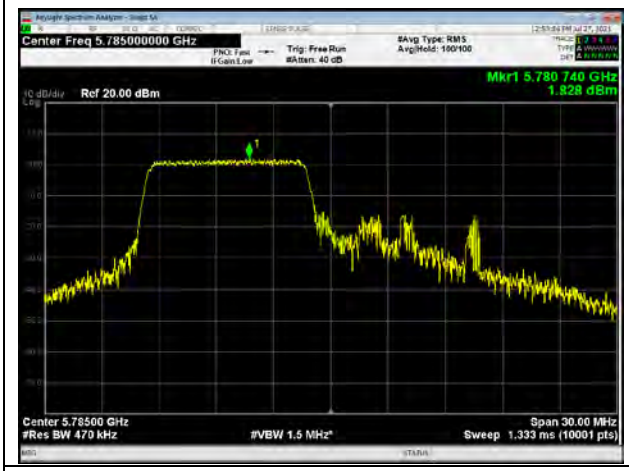
802.11ax HE20 106Tone:5745



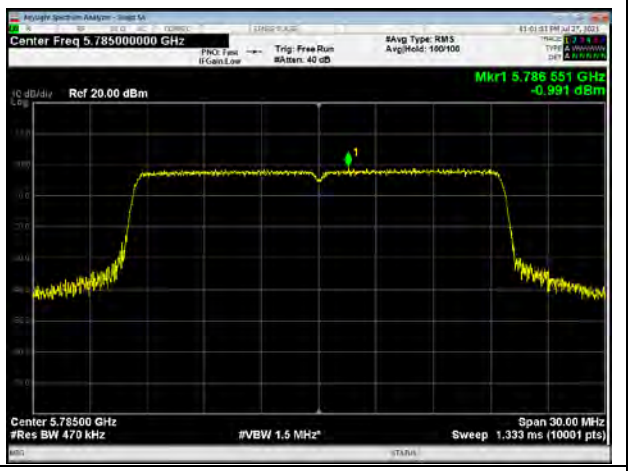
802.11ax HE20 242Tone: 5745



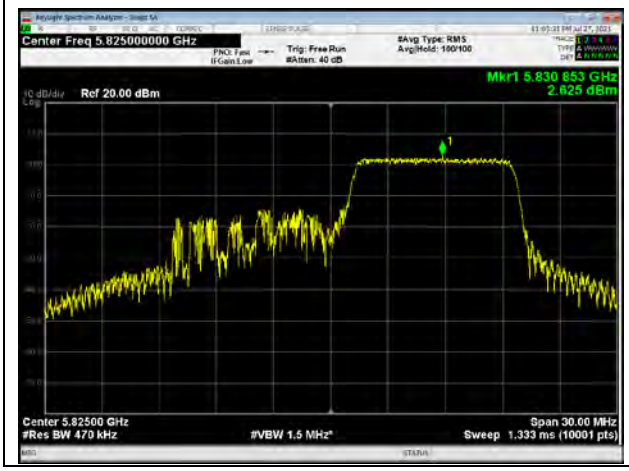
802.11ax HE20 106Tone:5785



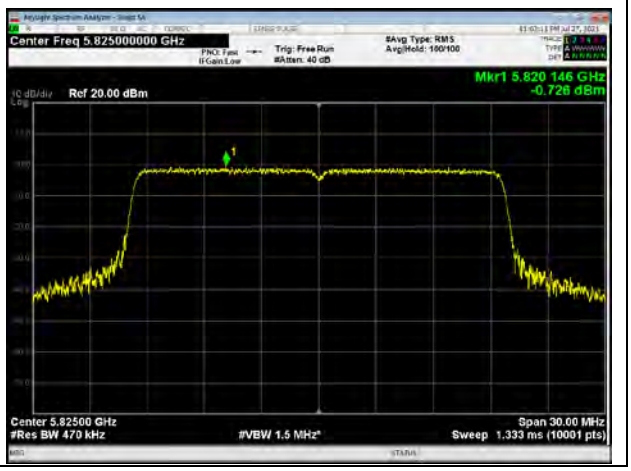
802.11ax HE20 242Tone: 5785



802.11ax HE20 106Tone: 5825

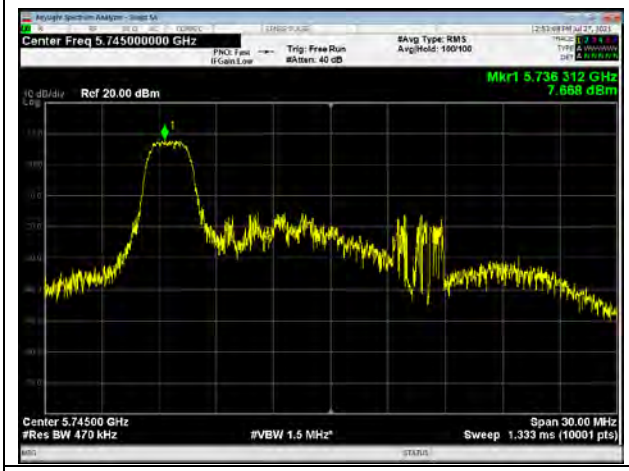


802.11ax HE20 242Tone: 5825

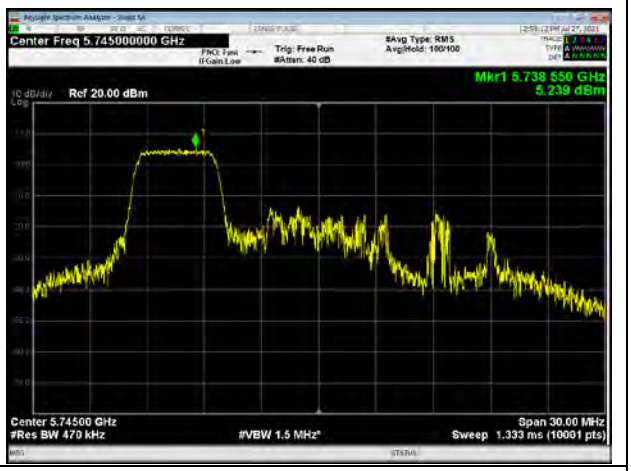


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

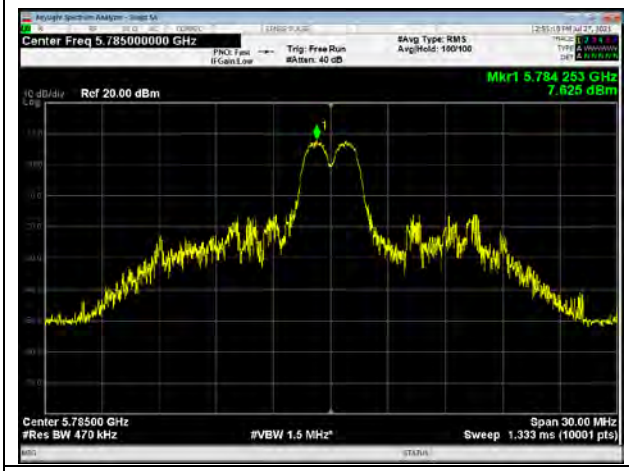
802.11ax HE20 26Tone:5745



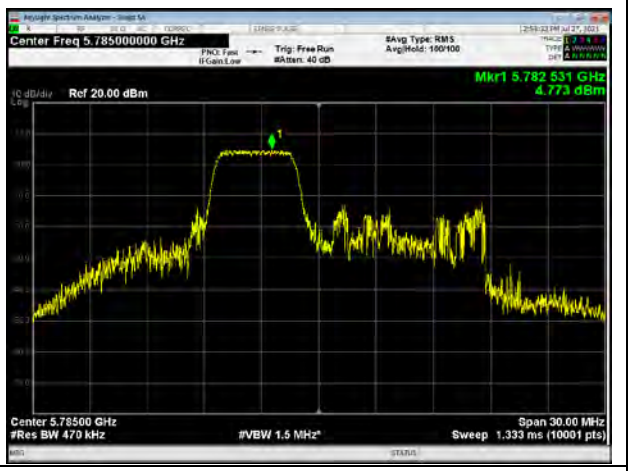
802.11ax HE20 52Tone: 5745



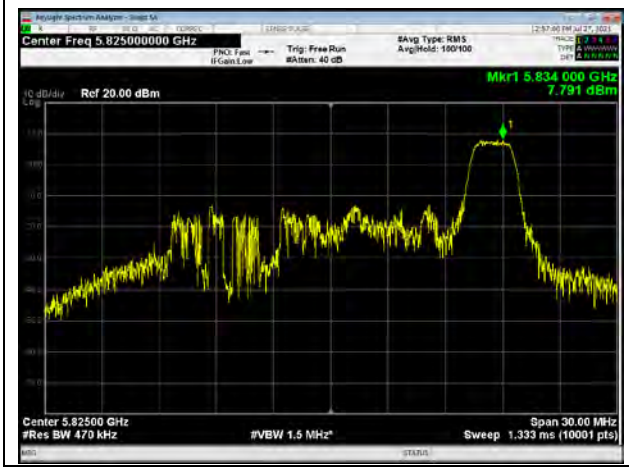
802.11ax HE20 26Tone:5785



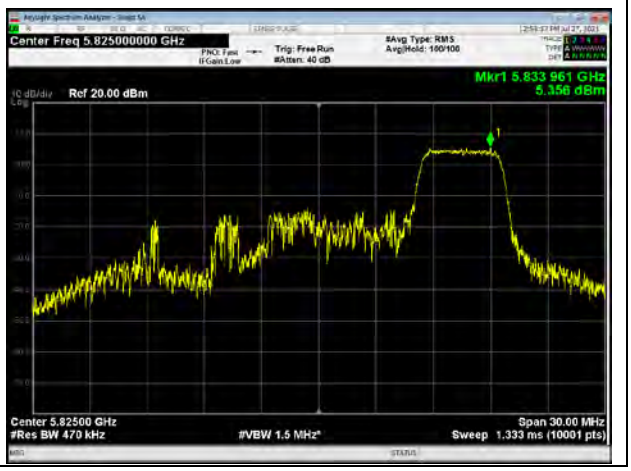
802.11ax HE20 52Tone: 5785



802.11ax HE20 26Tone: 5825

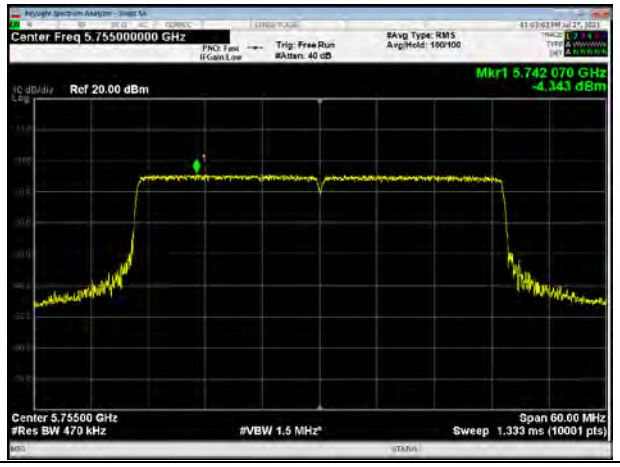


802.11ax HE20 52Tone: 5825

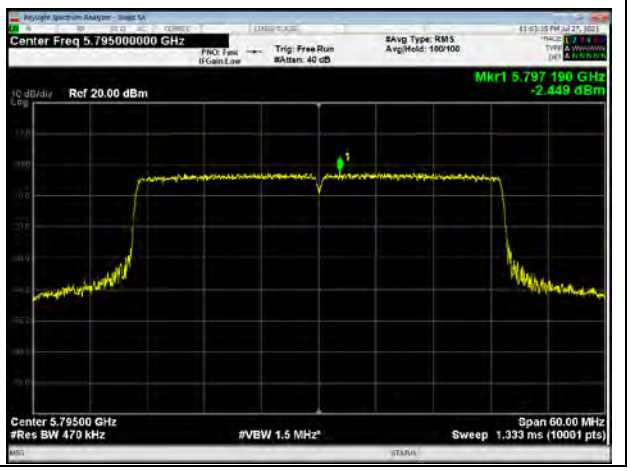


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

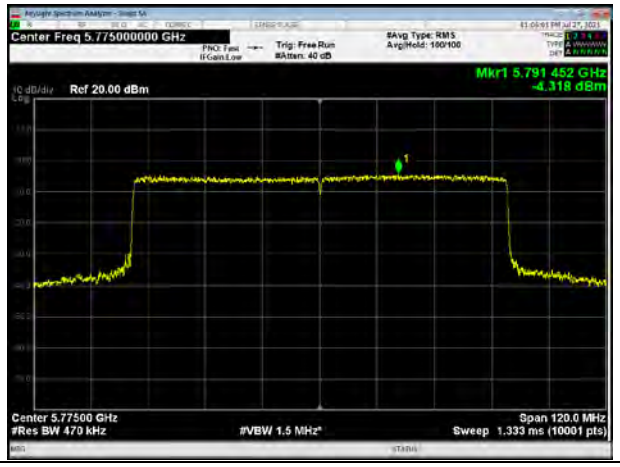
802.11ax HE40 484Tone: 5755



802.11ax HE40 484Tone: 5795



802.11ax HE80 996 Tone: 5775

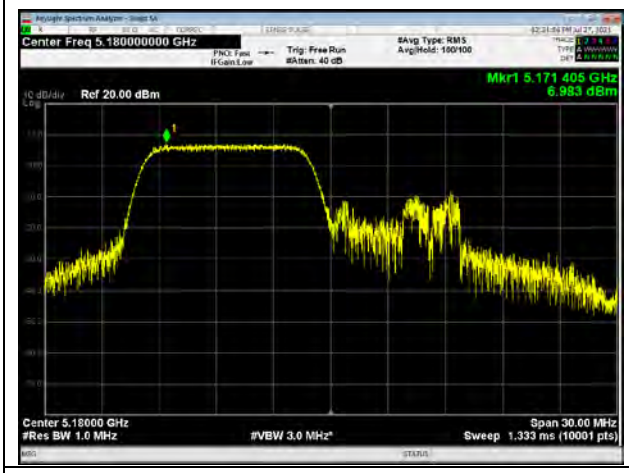


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

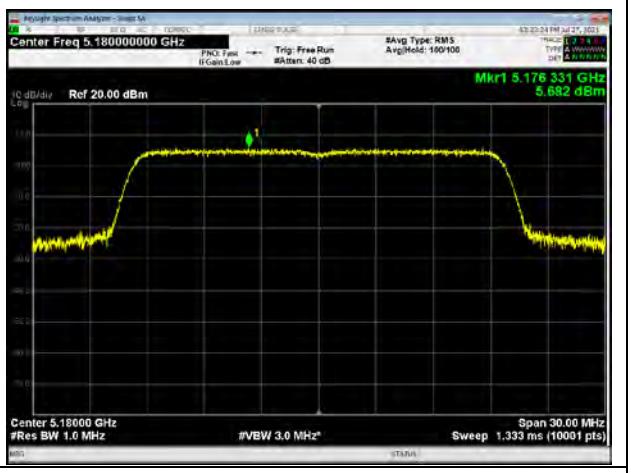
SISO Antenna 1

UNII-1

802.11ax HE20 106Tone:5180



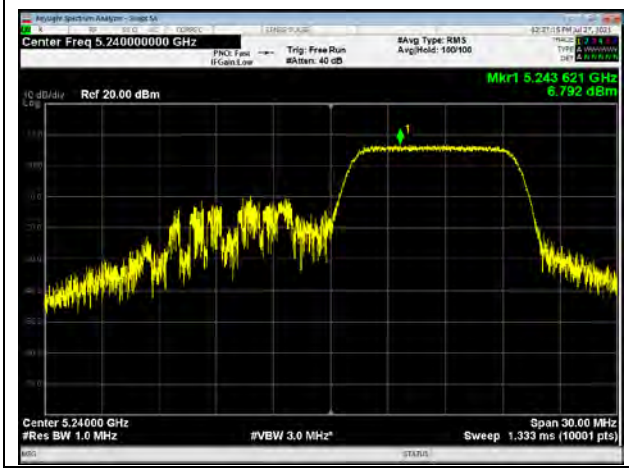
802.11ax HE20 242Tone: 5180



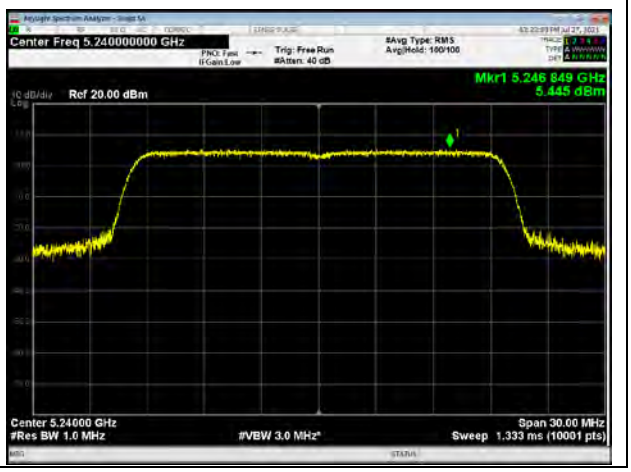
802.11ax HE20 106Tone:5200

802.11ax HE20 242Tone: 5200

802.11ax HE20 106Tone: 5240

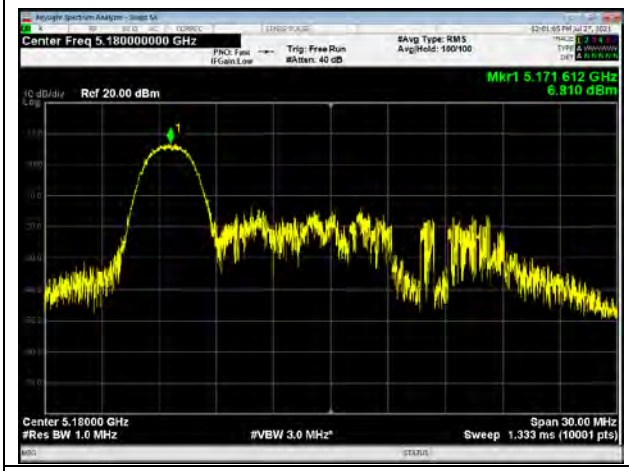


802.11ax HE20 242Tone: 5240

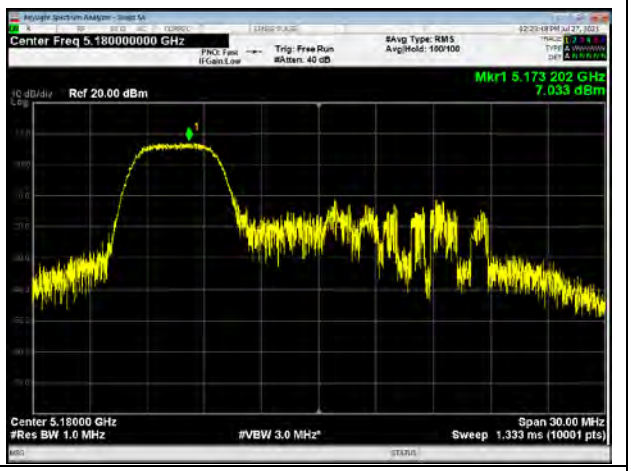


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

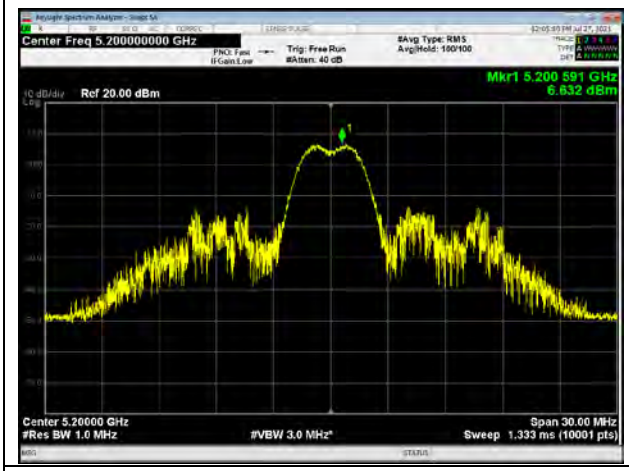
802.11ax HE20 26Tone:5180



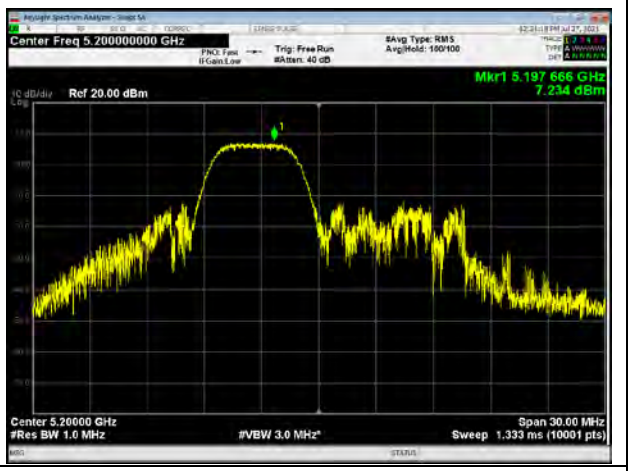
802.11ax HE20 52Tone: 5180



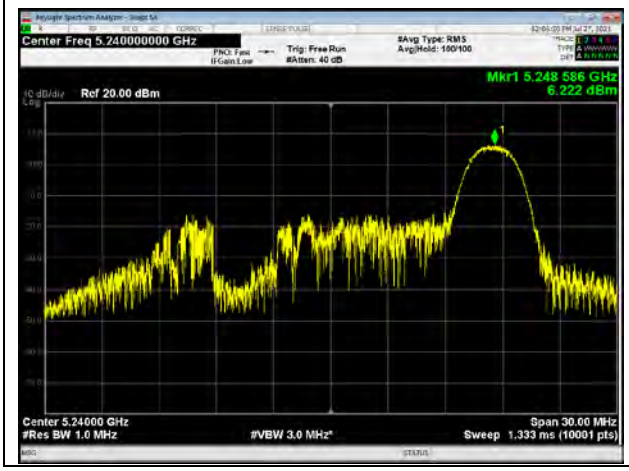
802.11ax HE20 26Tone:5200



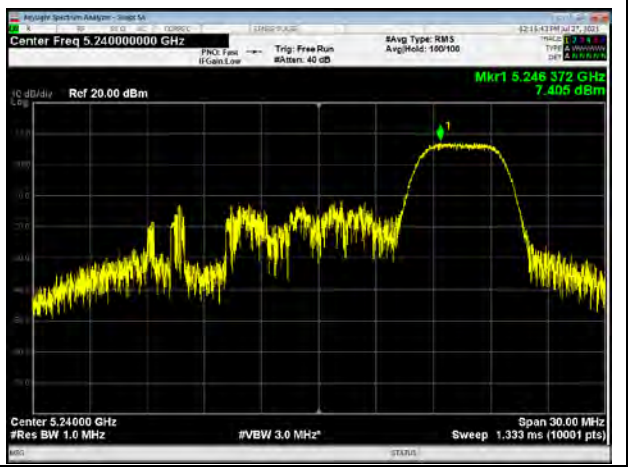
802.11ax HE20 52Tone: 5200



802.11ax HE20 26Tone: 5240

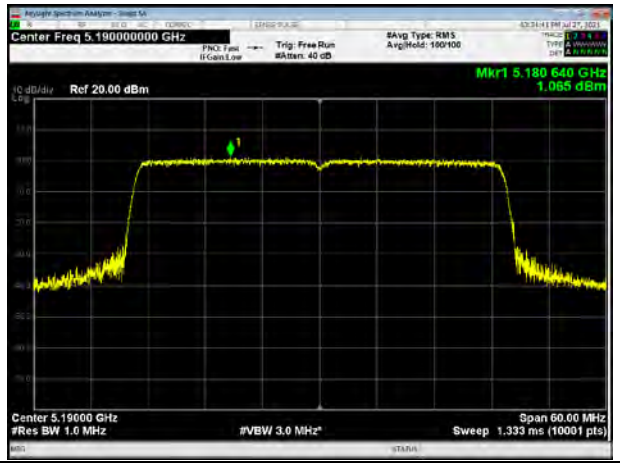


802.11ax HE20 52Tone: 5420

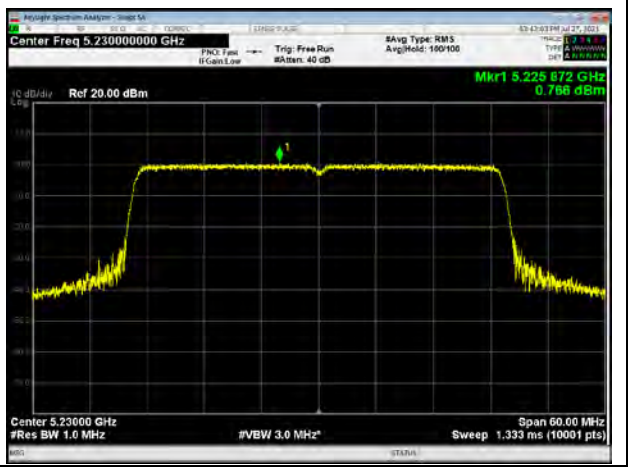


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

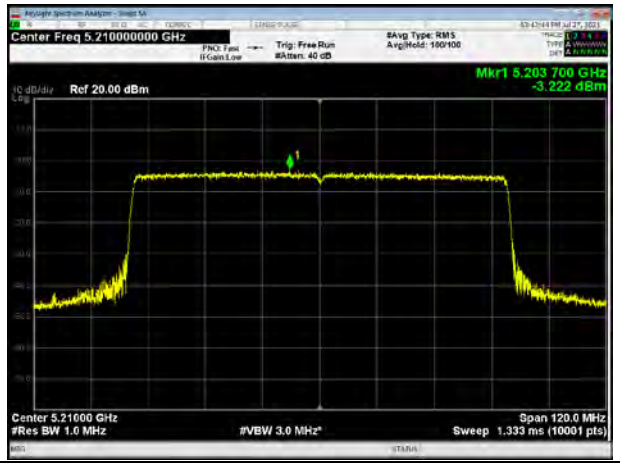
802.11ax HE40 484Tone: 5190



802.11ax HE40 484Tone: 5230



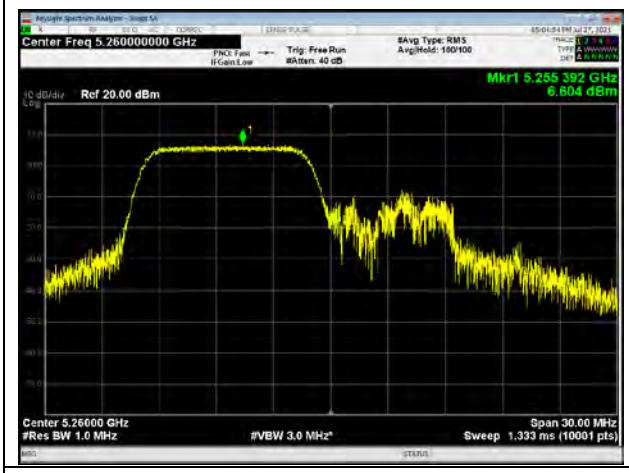
802.11ax HE80 996 Tone: 5210



This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

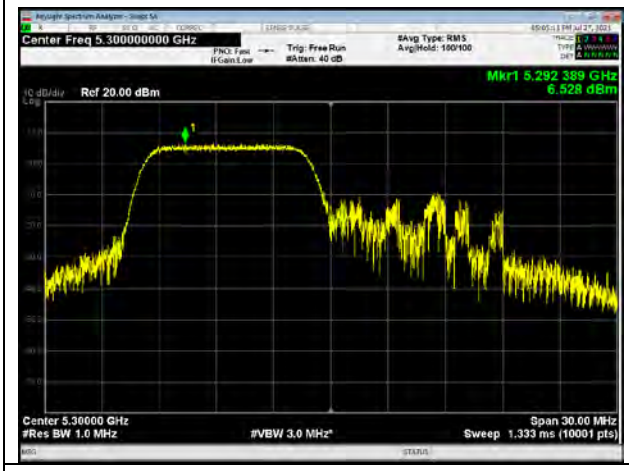
UNII-2A

802.11ax HE20 106Tone: 5260



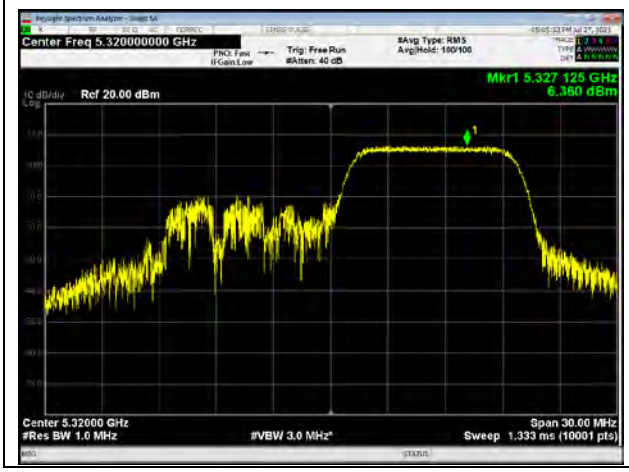
802.11ax HE20 242Tone: 5260

802.11ax HE20 106Tone:5300

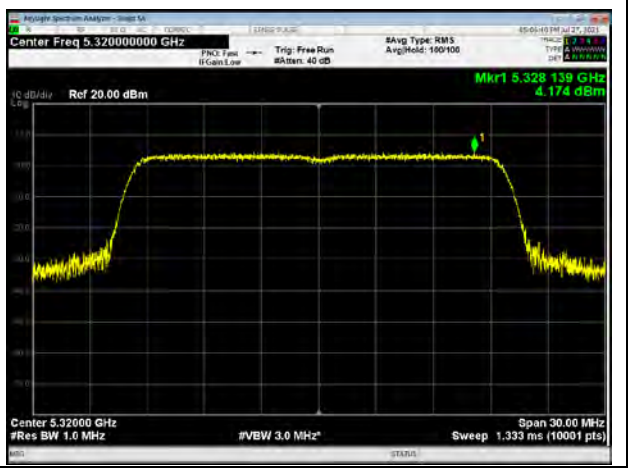


802.11ax HE20 242Tone: 5300

802.11ax HE20 106Tone: 5320

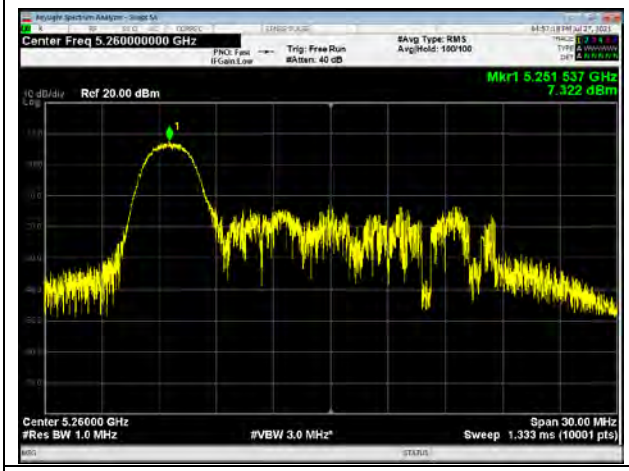


802.11ax HE20 242Tone: 5320

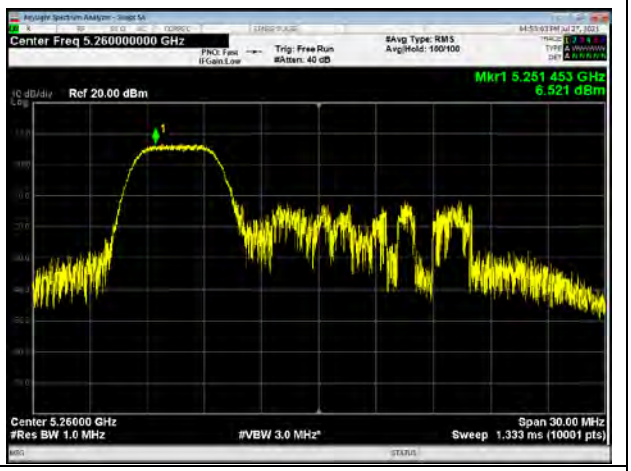


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

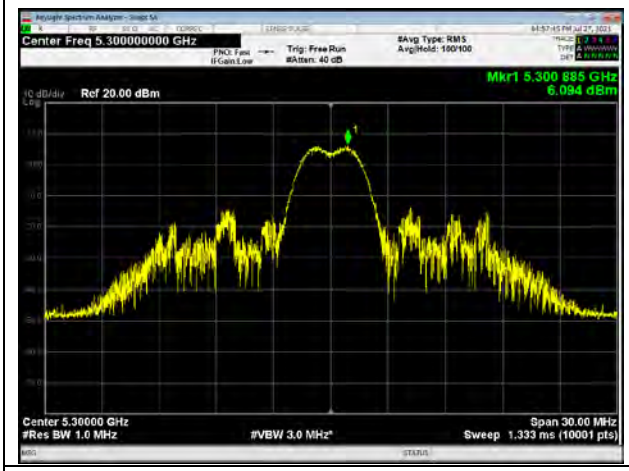
802.11ax HE20 26Tone:5260



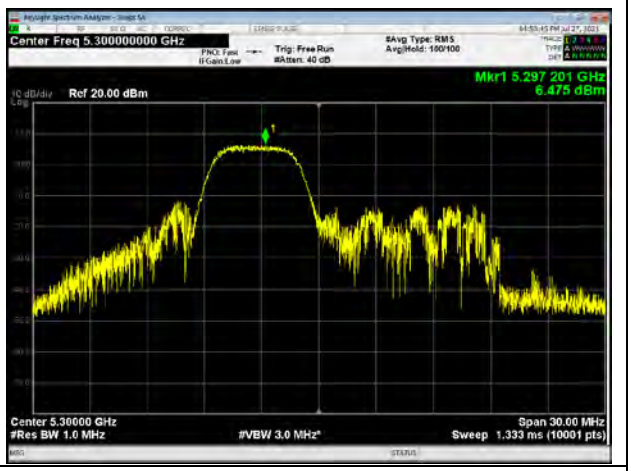
802.11ax HE20 52Tone: 5260



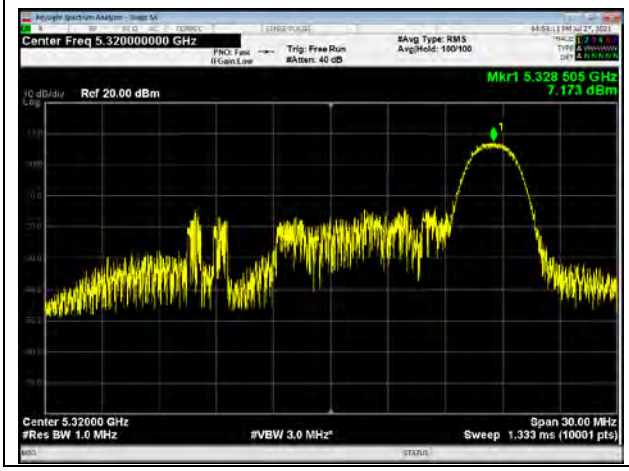
802.11ax HE20 26Tone:5300



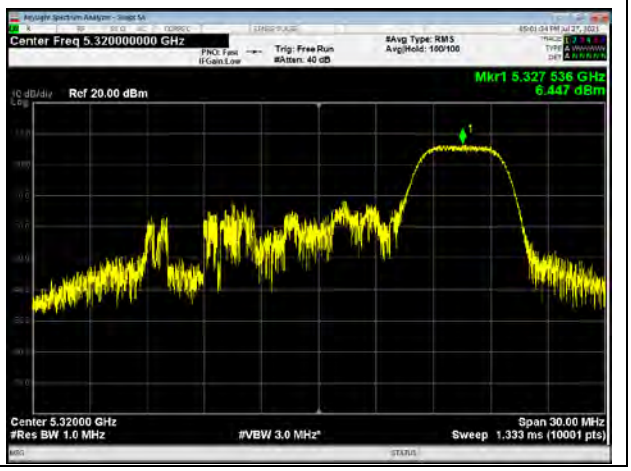
802.11ax HE20 52Tone: 5300



802.11ax HE20 26Tone: 5320

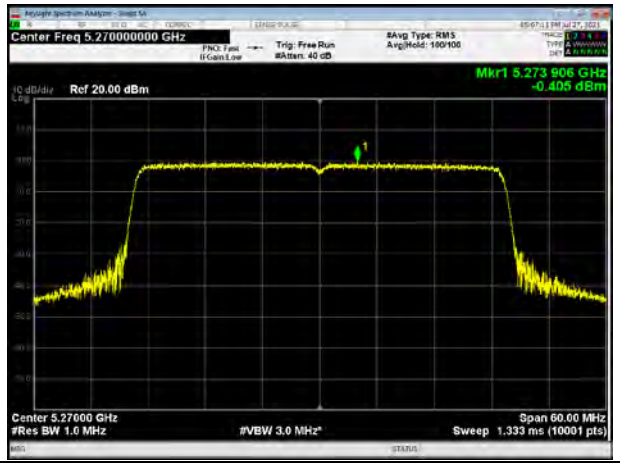


802.11ax HE20 52Tone: 5320

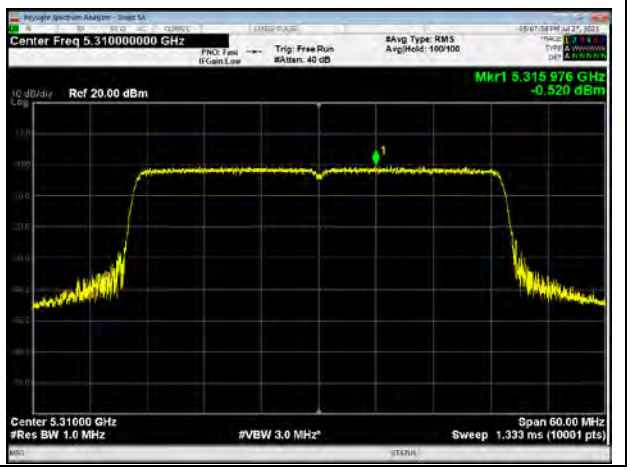


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

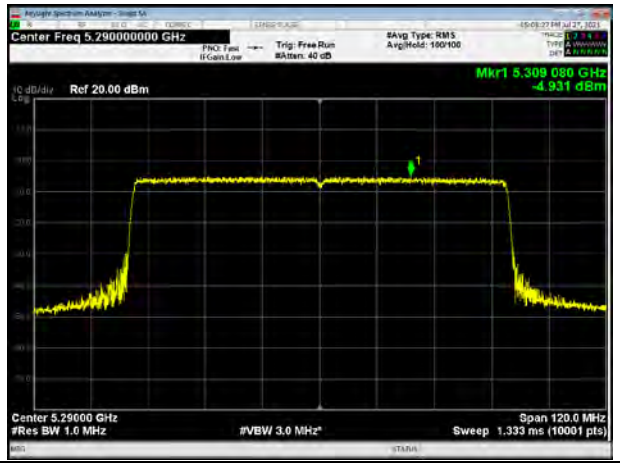
802.11ax HE40 484Tone: 5270



802.11ax HE40 484Tone: 5310



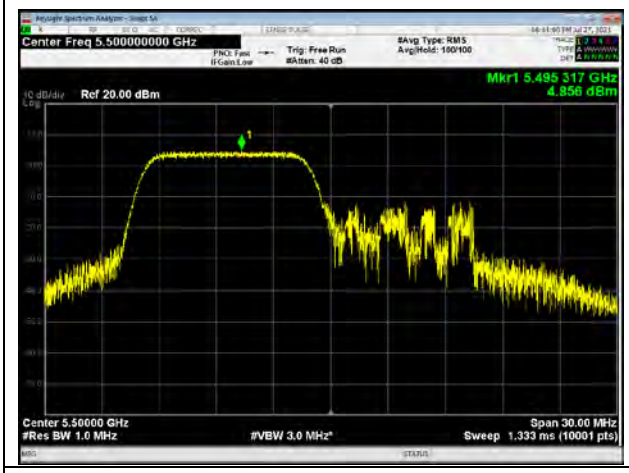
802.11ax HE80 996 Tone: 5290



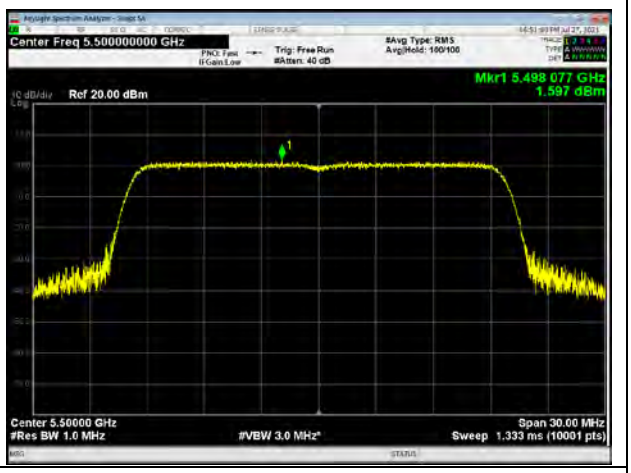
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-2C

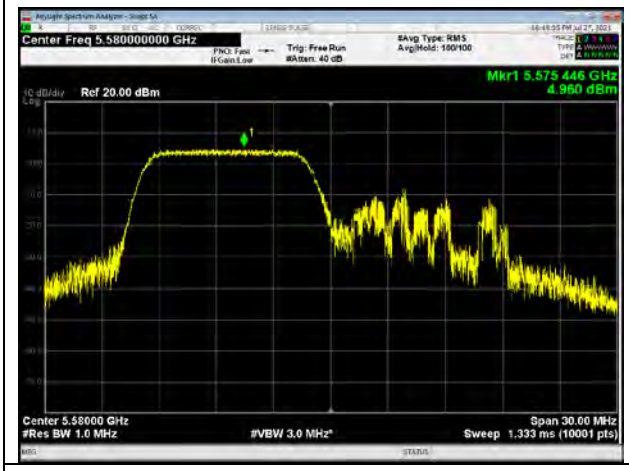
802.11ax HE20 106Tone: 5500



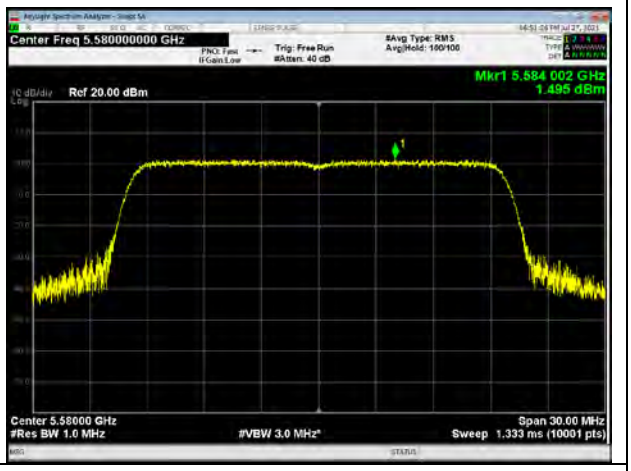
802.11ax HE20 242Tone: 5500



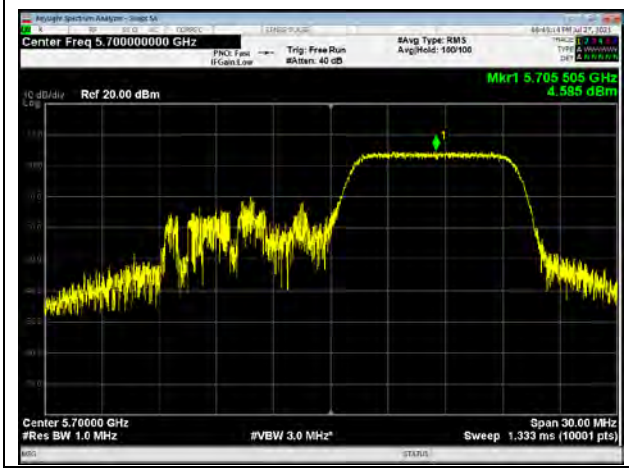
802.11ax HE20 106Tone:5580



802.11ax HE20 242Tone: 5580



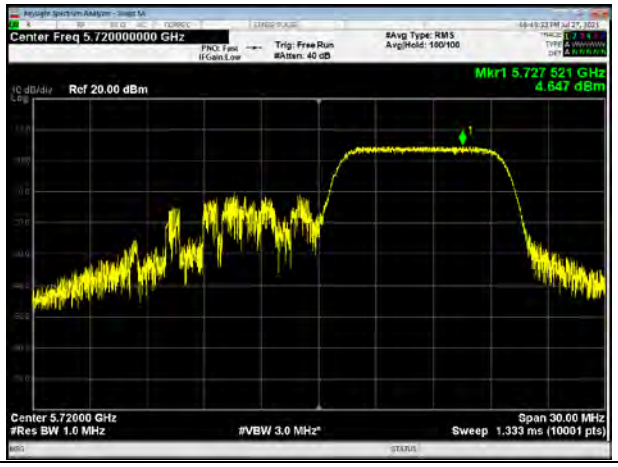
802.11ax HE20 106Tone: 5700



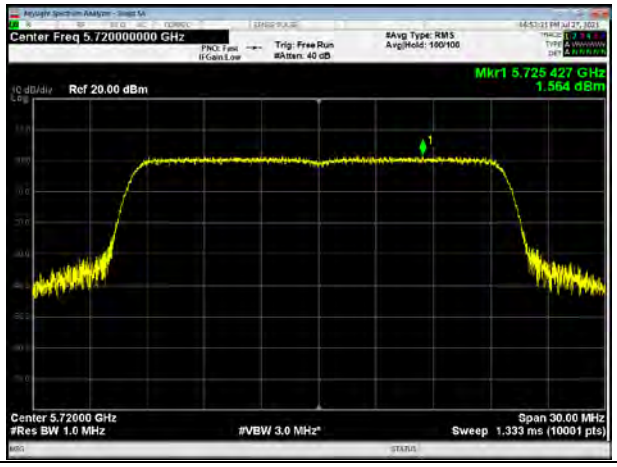
802.11ax HE20 242Tone: 5700

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

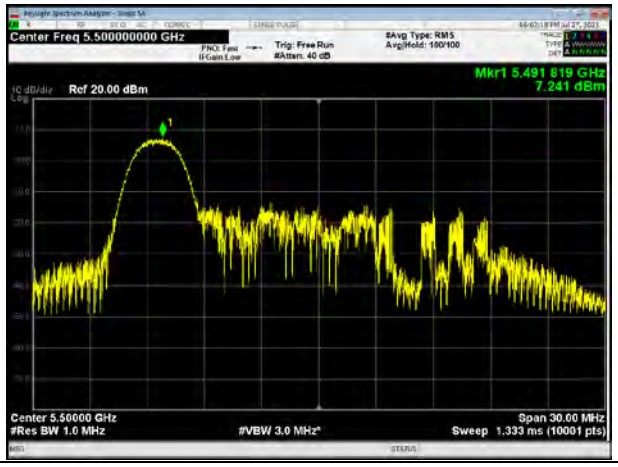
802.11ax HE20 106Tone: 5720



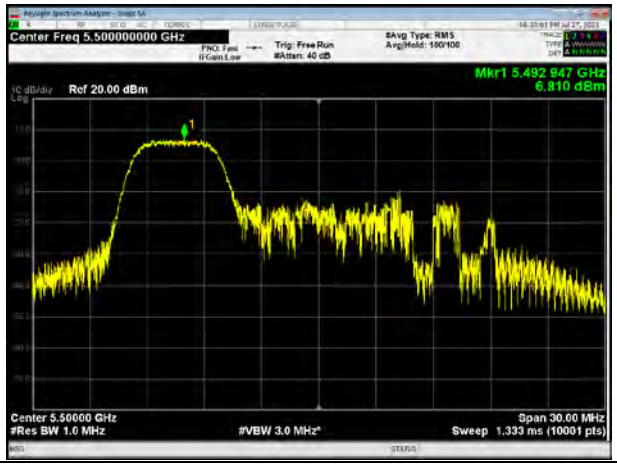
802.11ax HE20 242Tone: 5720



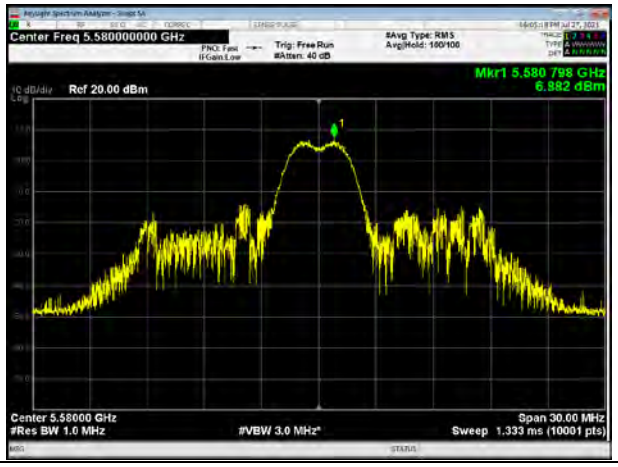
802.11ax HE20 26Tone:5500



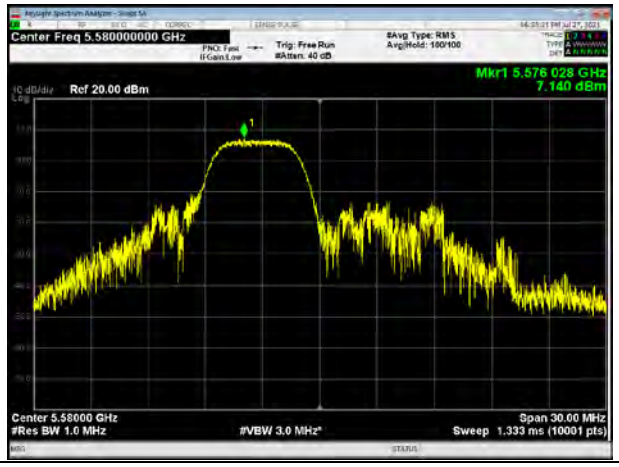
802.11ax HE20 52Tone: 5500



802.11ax HE20 26Tone:5580

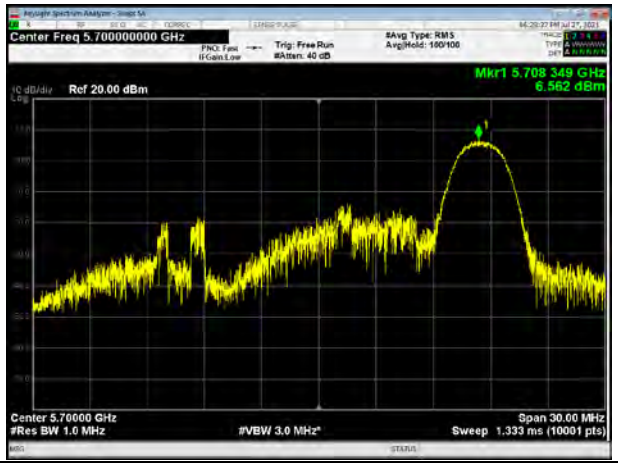


802.11ax HE20 52Tone: 5580

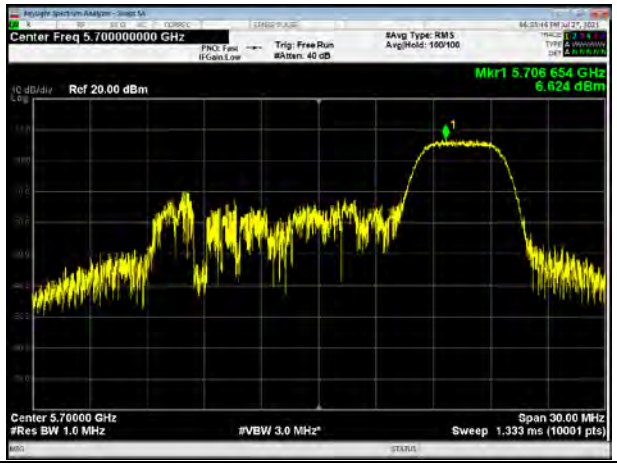


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

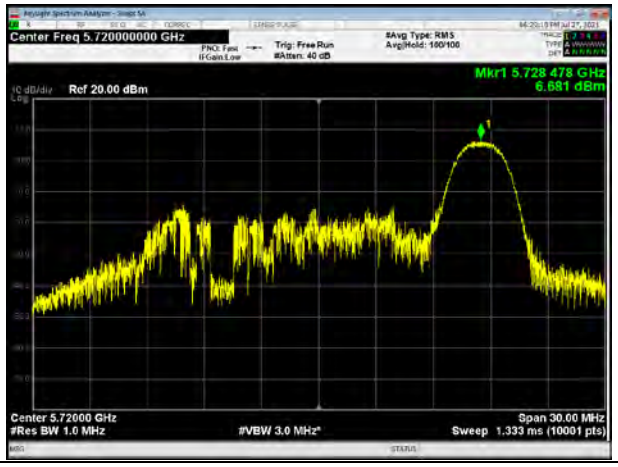
802.11ax HE20 26Tone: 5700



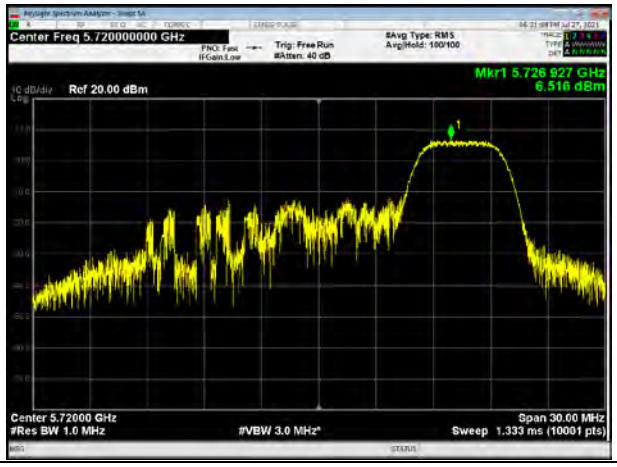
802.11ax HE20 52Tone: 5700



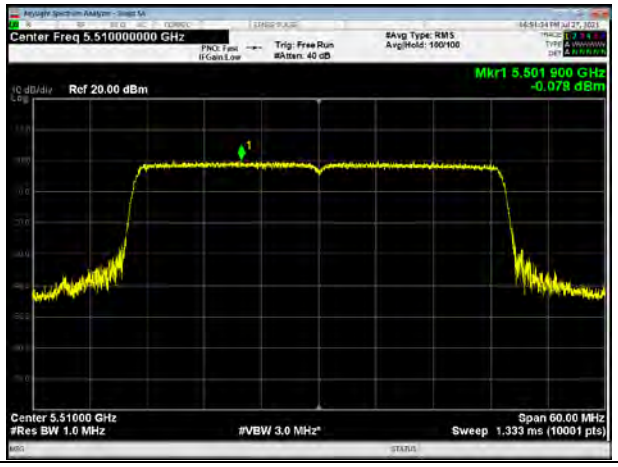
802.11ax HE20 26Tone: 5720



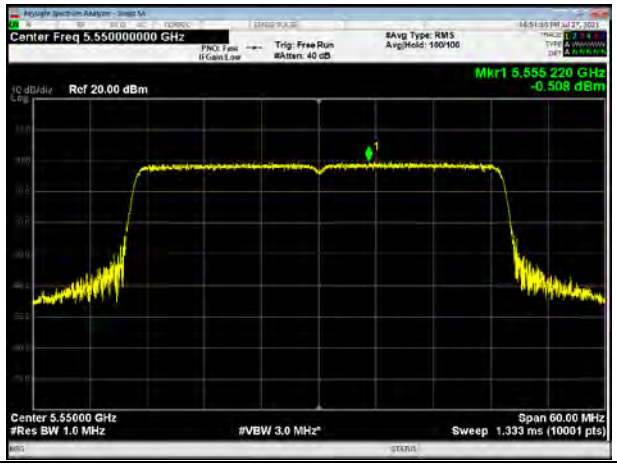
802.11ax HE20 52Tone: 5720



802.11ax HE40 484Tone: 5510

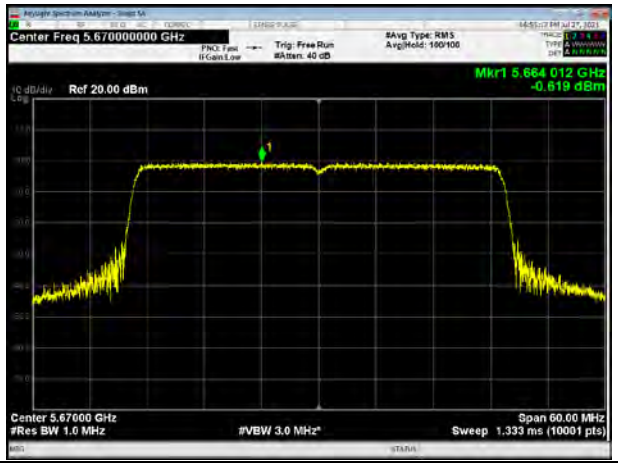


802.11ax HE40 484Tone: 5550

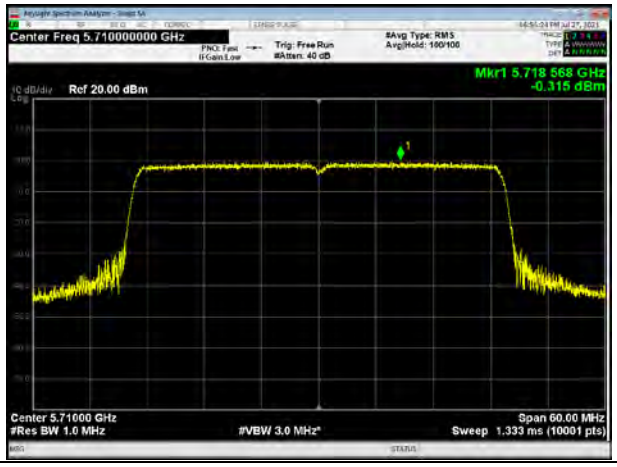


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

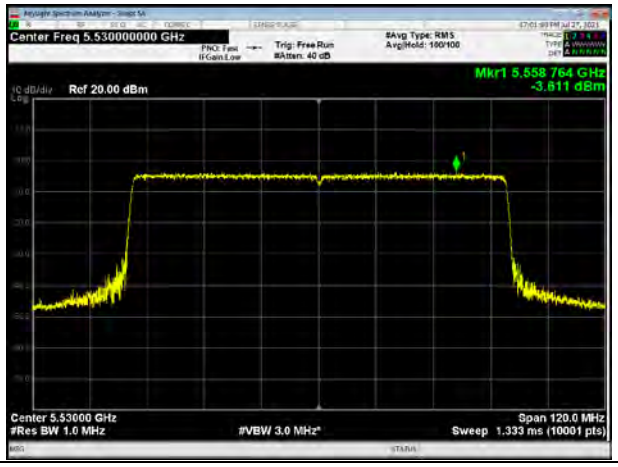
802.11ax HE40 484Tone: 5670



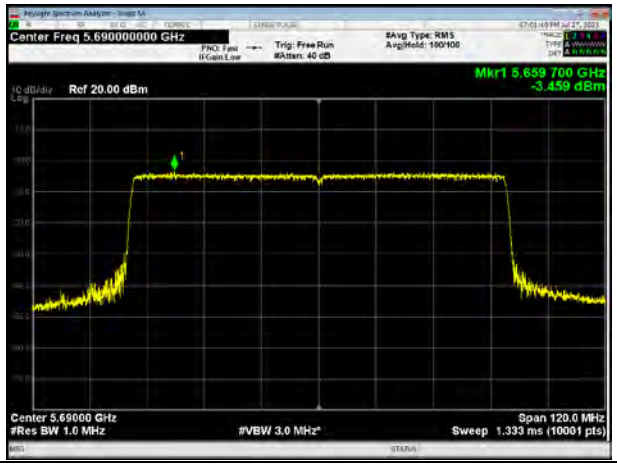
802.11ax HE40 484Tone: 5710



802.11ax HE80 996 Tone: 5530



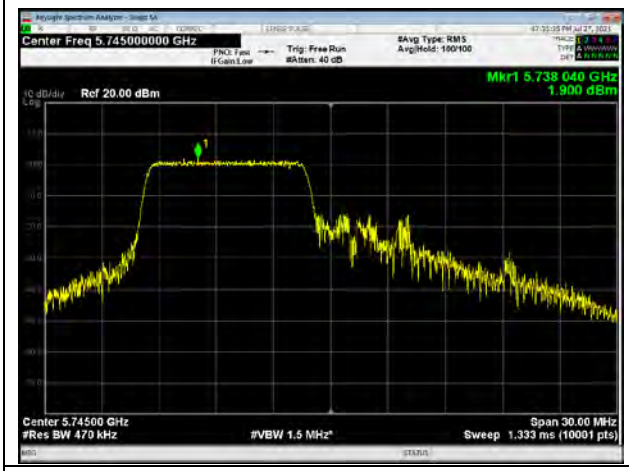
802.11ax HE80 996 Tone: 5690



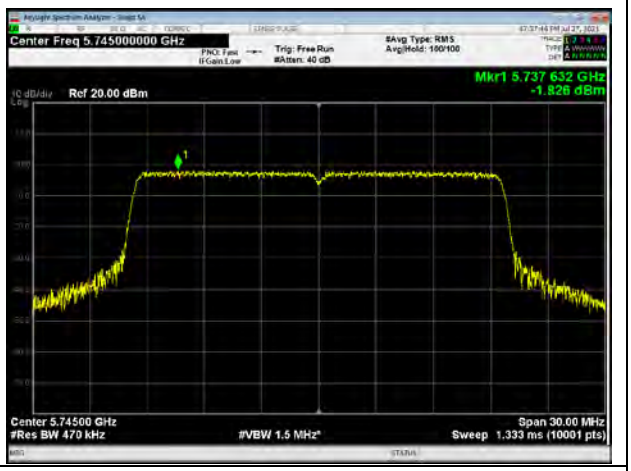
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

UNII-3

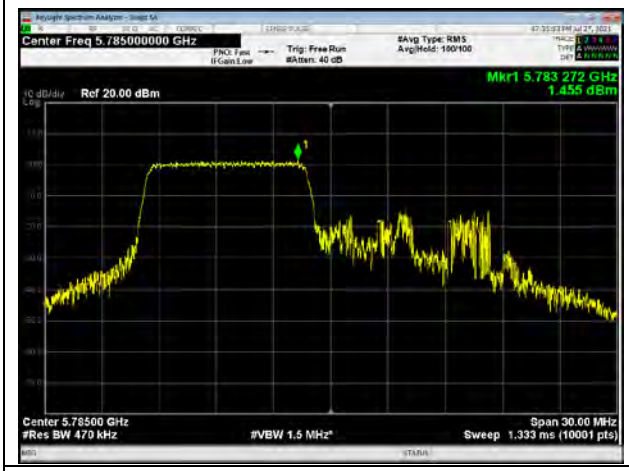
802.11ax HE20 106Tone:5745



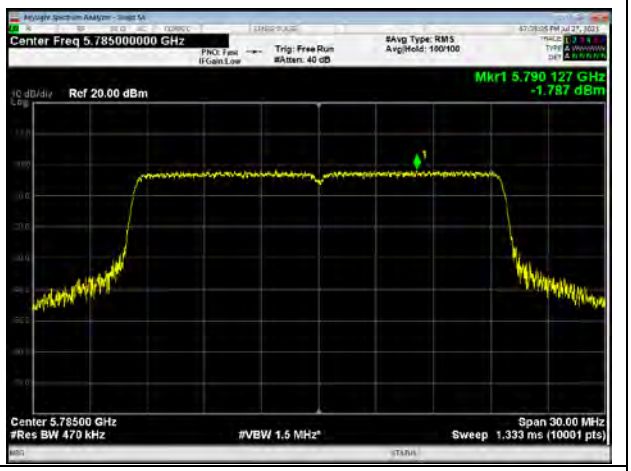
802.11ax HE20 242Tone: 5745



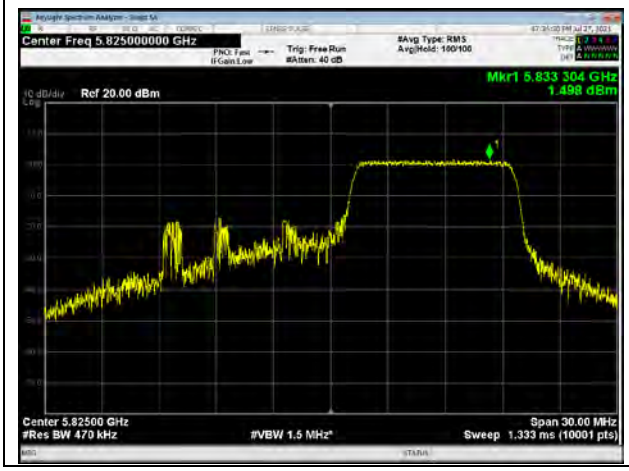
802.11ax HE20 106Tone:5785



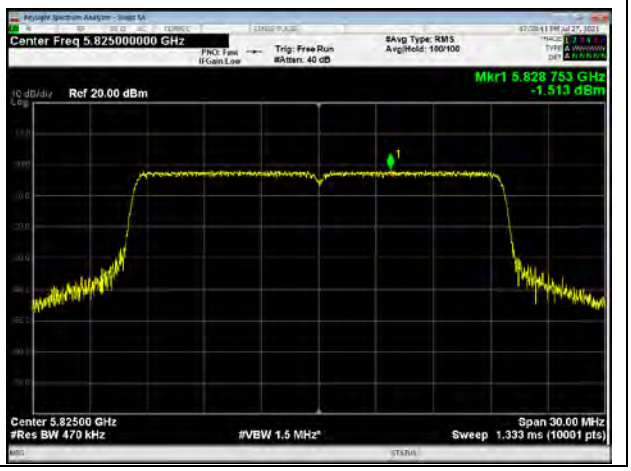
802.11ax HE20 242Tone: 5785



802.11ax HE20 106Tone: 5825

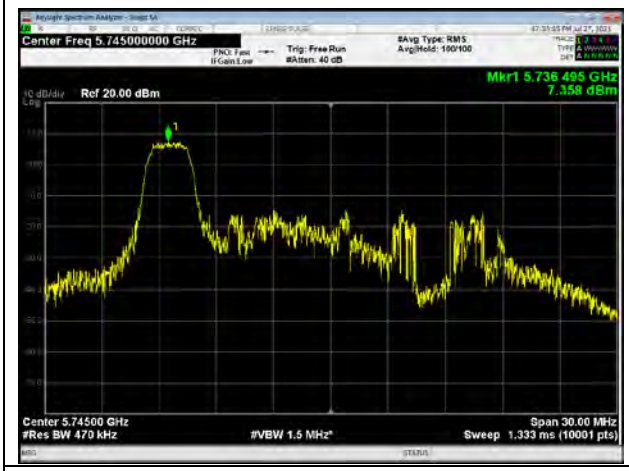


802.11ax HE20 242Tone: 5825

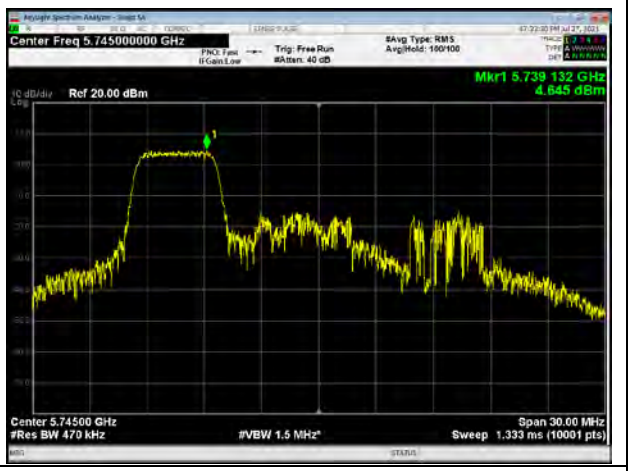


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

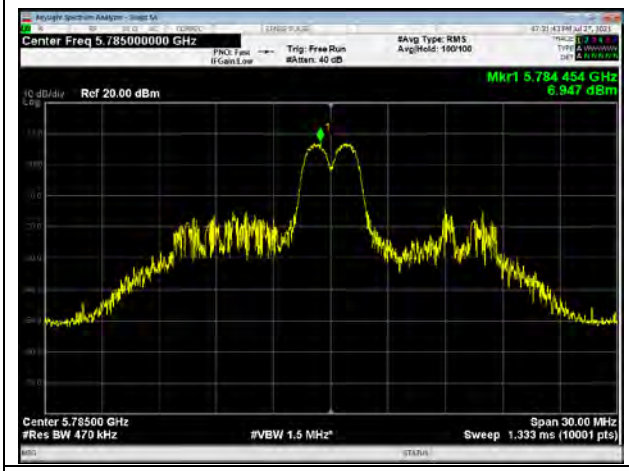
802.11ax HE20 26Tone:5745



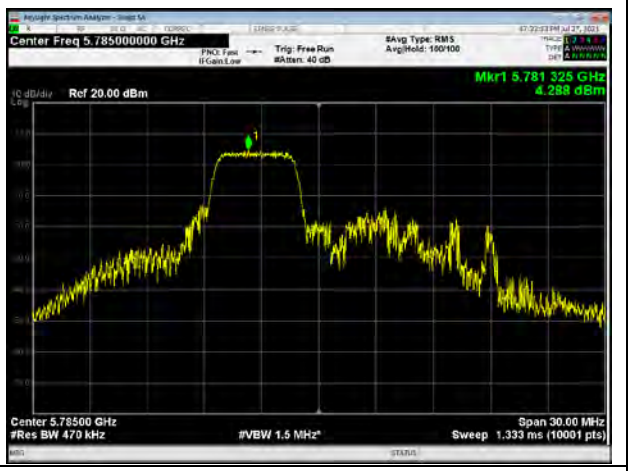
802.11ax HE20 52Tone: 5745



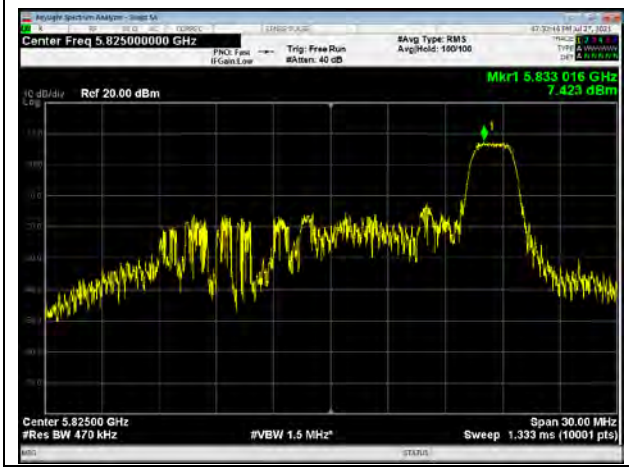
802.11ax HE20 26Tone:5785



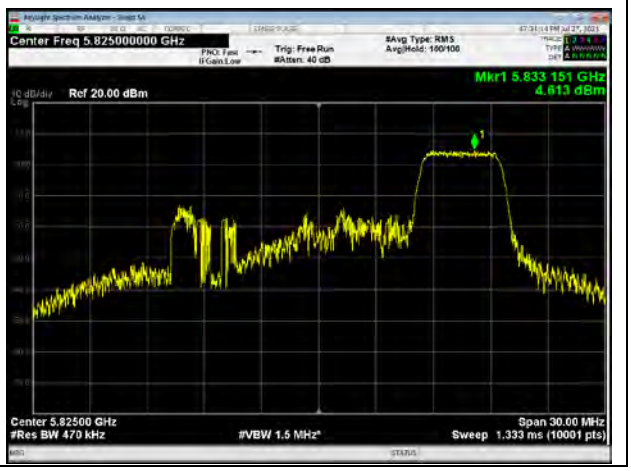
802.11ax HE20 52Tone: 5785



802.11ax HE20 26Tone: 5825

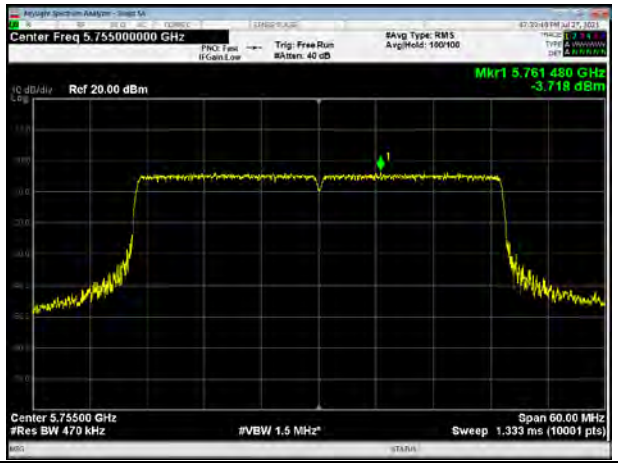


802.11ax HE20 52Tone: 5825

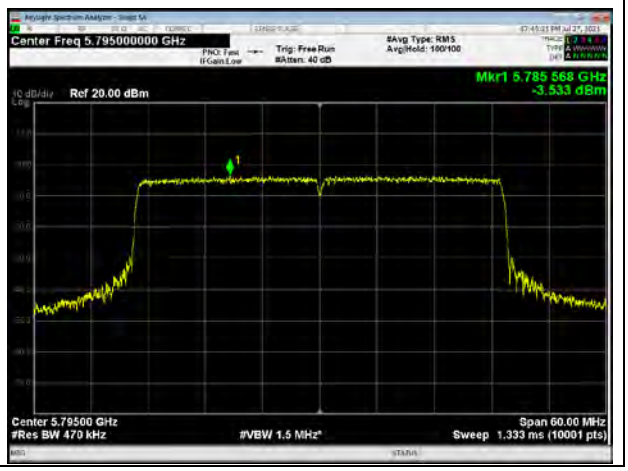


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

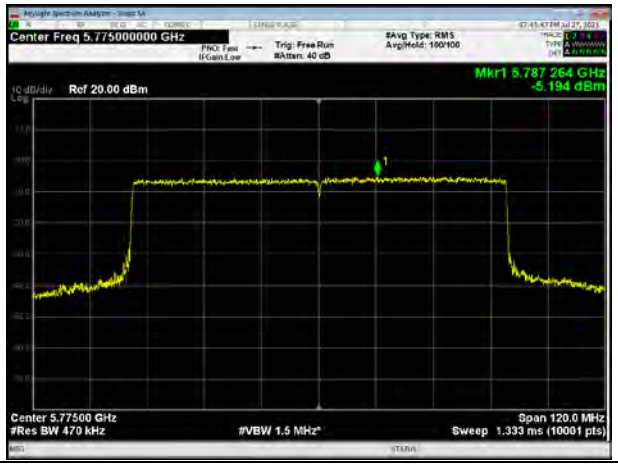
802.11ax HE40 484Tone: 5755



802.11ax HE40 484Tone: 5795



802.11ax HE80 996 Tone: 5775



This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

5.5. Unwanted Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration.
Sweep the whole frequency band range from 9kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.
Set the spectrum analyzer in the following:
9kHz~150 kHz
RBW=200Hz, VBW=1kHz/ Sweep=AUTO
150 kHz~30MHz
RBW=9KHz, VBW=30KHz,/ Sweep=AUTO
Below 1GHz
RBW=100kHz / VBW=300kHz / Sweep=AUTO
a) Peak emission levels are measured by setting the instrument as follows:
Above 1GHz
PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO
b) Average emission levels are measured by setting the instrument as follows:
Above 1GHz
AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO
c) Detector: The measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)
e) Sweep time = auto.
f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

OFF with the transmit cycle, at least 100 traces shall be averaged.)

g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is [10 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.

2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is [20 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.

3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

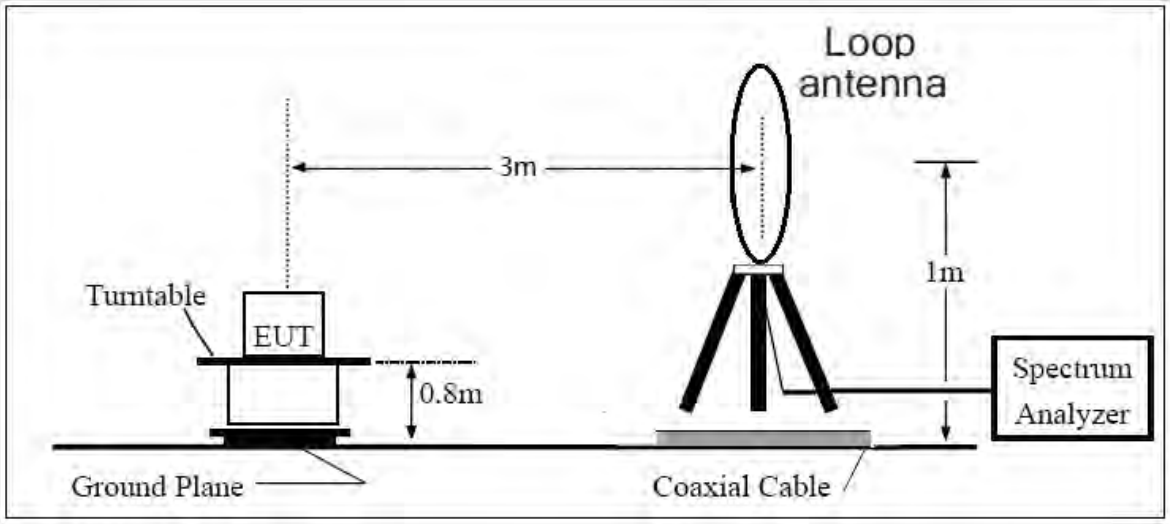
Reduce the video bandwidth until no significant variations in the displayed signal are observed in subsequent traces, provided the video bandwidth is no less than 1 Hz. For regulatory requirements that specify averaging only over the transmit duration (e.g., digital transmission system [DTS] and Unlicensed National Information Infrastructure [U-NII]), the video bandwidth shall be greater than [1 / (minimum transmitter on time)] and no less than 1 Hz.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the loop antenna is vertical, others antenna are vertical and horizontal.

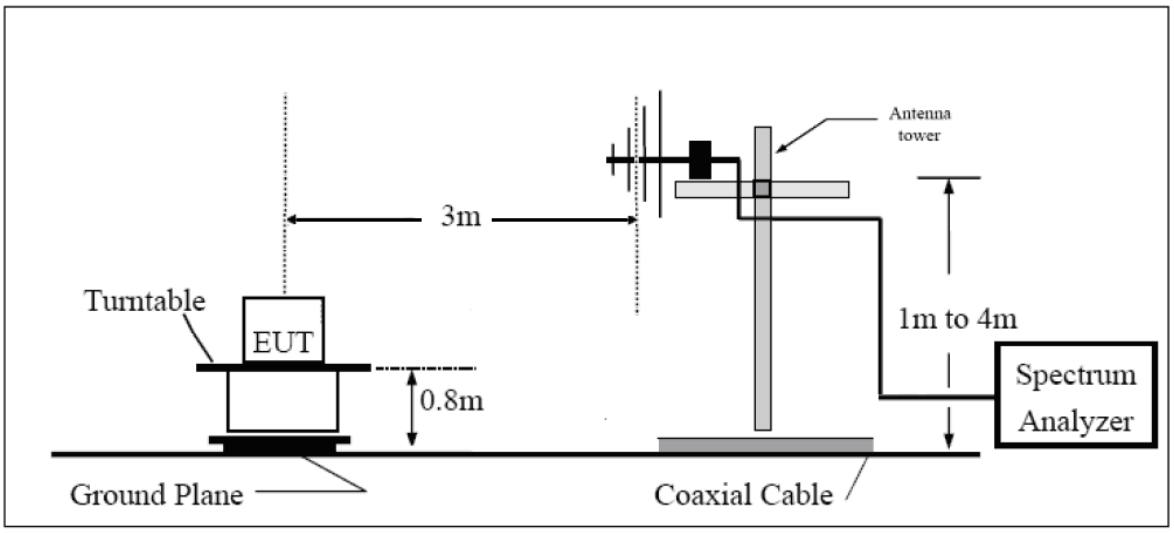
The test is in transmitting mode.

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

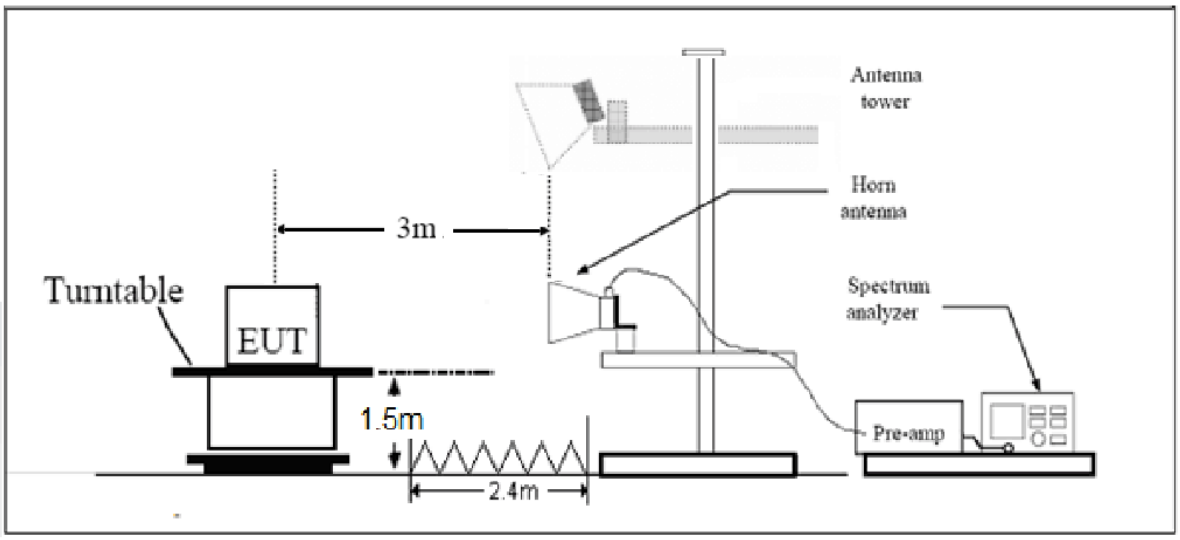
9KHz~~~30MHz



30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Limits

(1) For transmitters operating in the 5725-5850 MHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(3) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(4) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

Note: the following formula is used to convert the EIRP to field strength

§1、E[dBμV/m] = EIRP[dBm] - 20 log(d[meters]) + 104.77, where E = field strength and

d = distance at which field strength limit is specified in the rules;

§2、E[dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters

(5) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table.

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
0.009–0.490	2400/F(kHz)	/
0.490–1.705	24000/F(kHz)	/
1.705–30.0	30	/
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor *k* = 1.96.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Test Results:

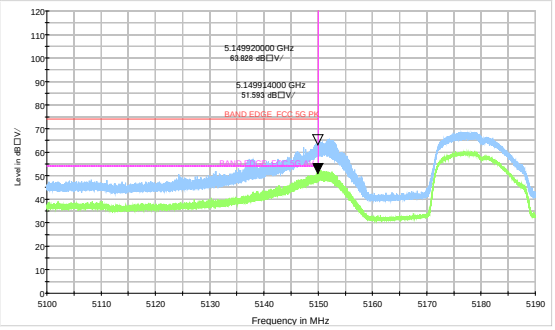
The signal beyond the limit is carrier.

A font (dB磺/m)in the test plot =(dB μ V/m)

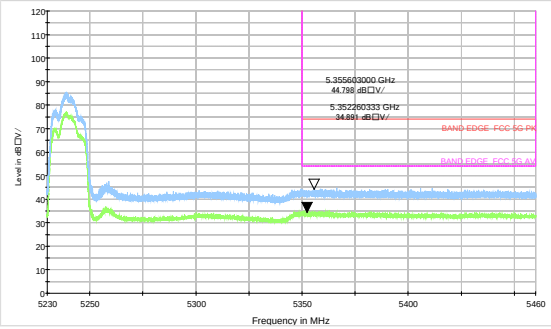
A font (dB V/)in the test plot =(dB μ V/m)

SISO Antenna 1

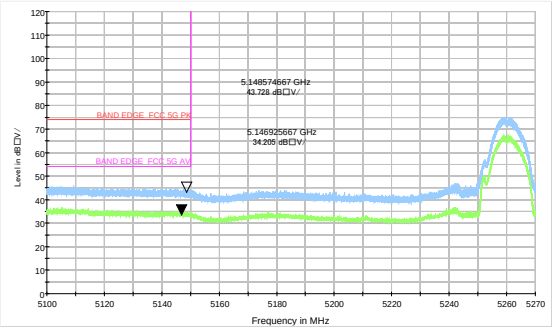
802.11a-Channel 36: Peak+ Average



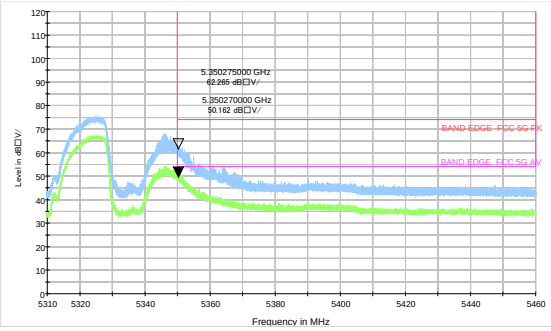
802.11a-Channel 48: Peak+ Average



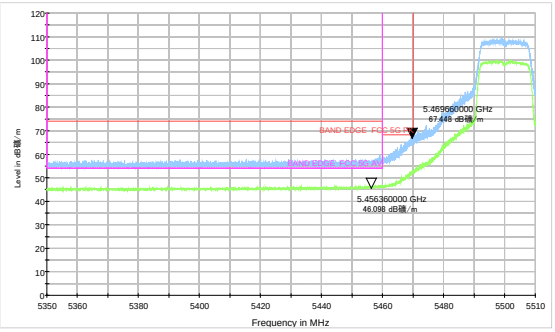
802.11a-Channel 52: Peak+ Average



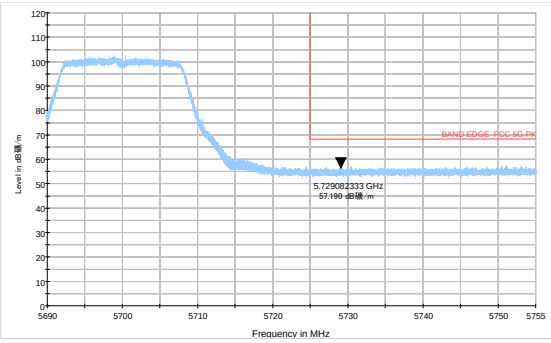
802.11a-Channel 64: Peak+ Average



802.11a-Channel 100: Peak+ Average

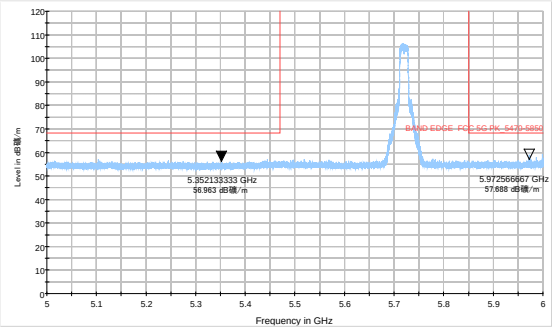


802.11a-Channel 140: Peak+ Average

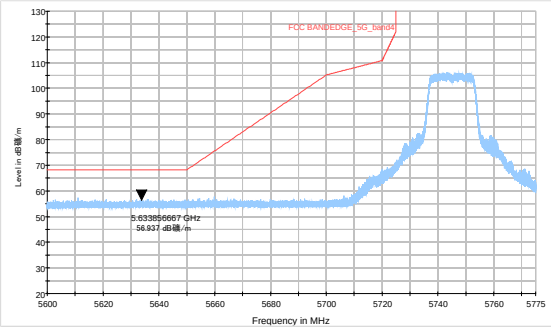


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

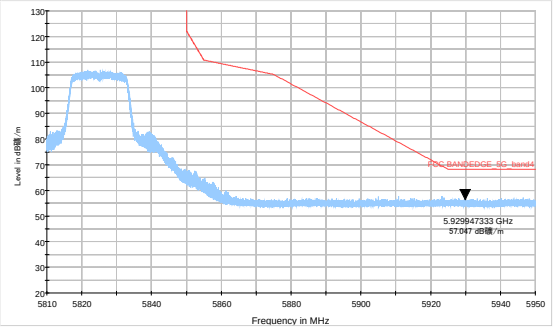
802.11a-Channel 144: Peak+ Average



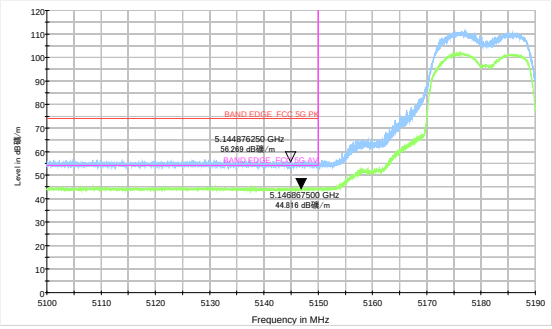
802.11a-Channel 149: Peak+ Average



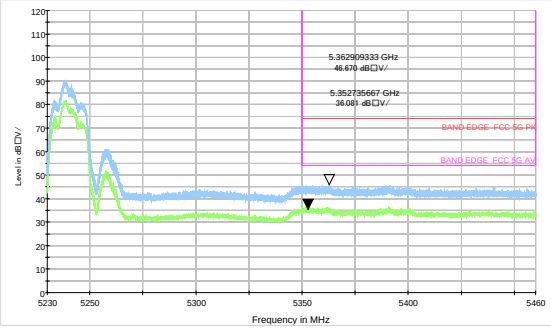
802.11a-Channel 165: Peak+ Average



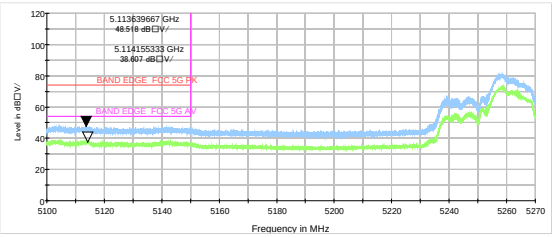
802.11n HT20-Channel 36: Peak+ Average



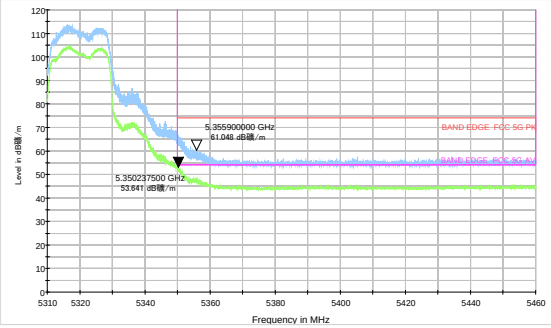
802.11n HT20-Channel 48: Peak+ Average



802.11n HT20-Channel 52: Peak+ Average

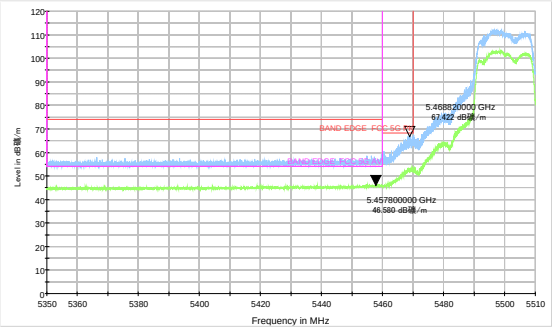


802.11n HT20-Channel 64: Peak+ Average

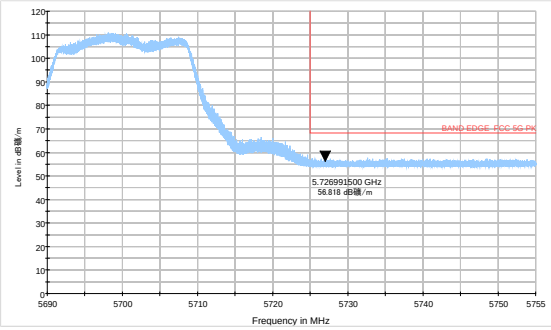


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

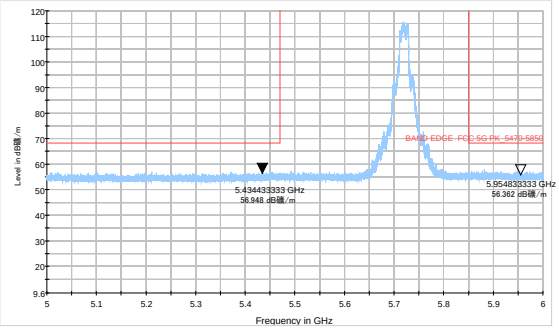
802.11n HT20-Channel 100: Peak+ Average



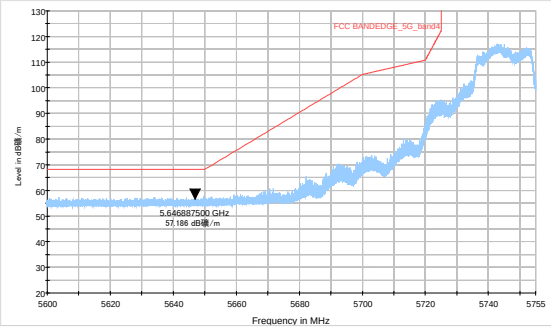
802.11n HT20-Channel 140: Peak+ Average



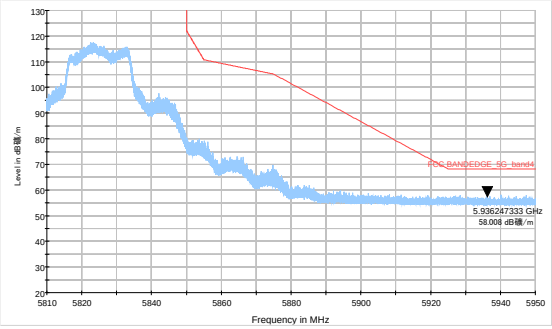
802.11n HT20-Channel 144: Peak+ Average



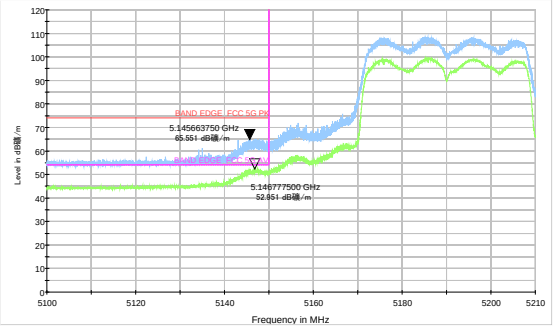
802.11n HT20-Channel 149: Peak+ Average



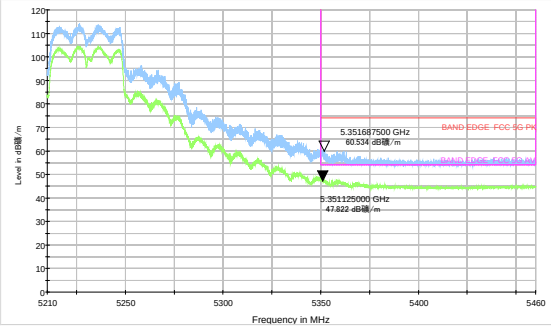
802.11n HT20-Channel 165: Peak+ Average



802.11n HT40-Channel 38: Peak+ Average

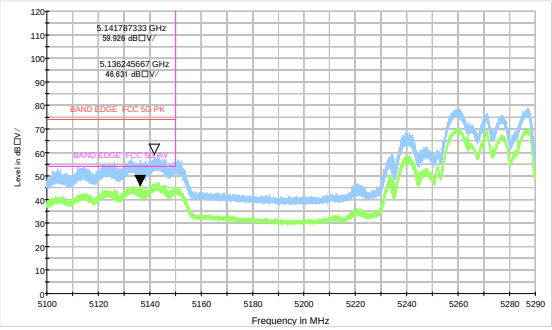


802.11n HT46-Channel 46: Peak+ Average

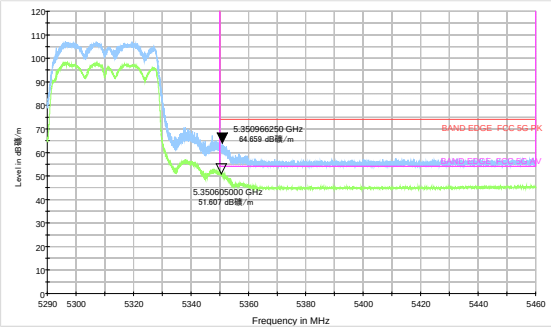


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

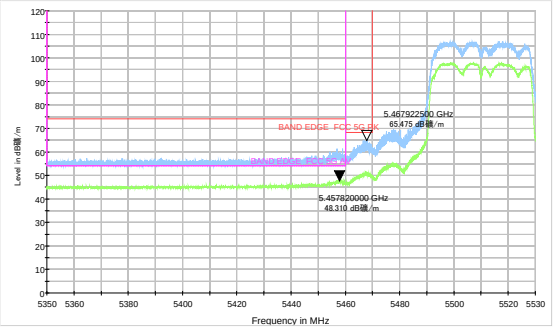
802.11n HT40-Channel 54: Peak+ Average



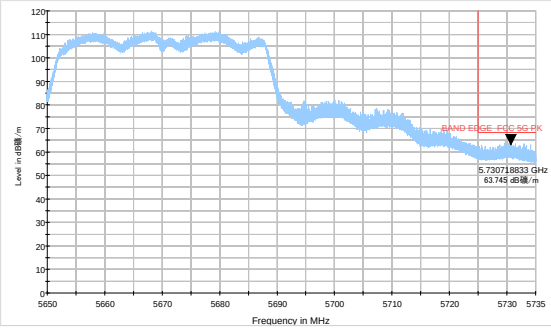
802.11n HT40-Channel 62: Peak+ Average



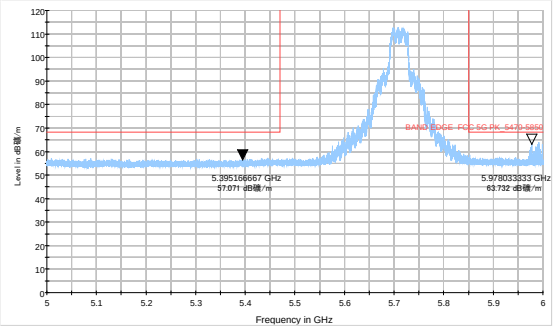
802.11n HT40-Channel 102: Peak+ Average



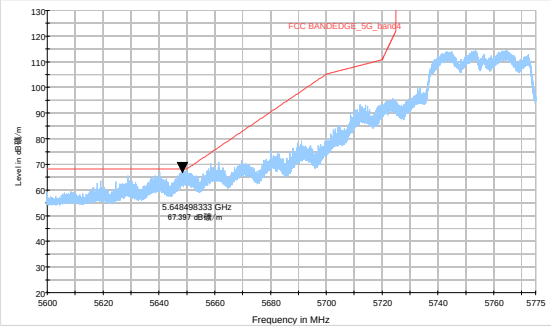
802.11n HT40-Channel 134: Peak+ Average



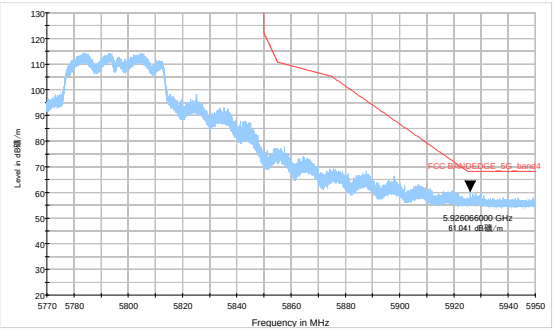
802.11n HT40-Channel 142: Peak+ Average



802.11n HT40-Channel 151: Peak+ Average

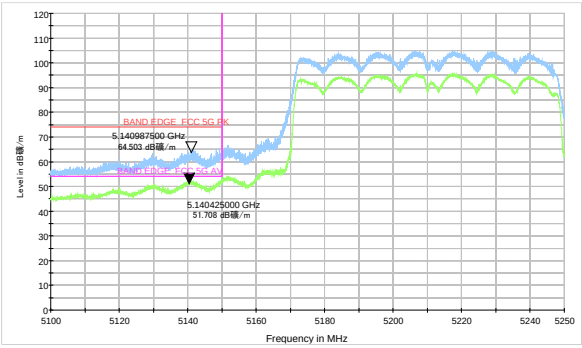


802.11n HT40-Channel 159: Peak+ Average

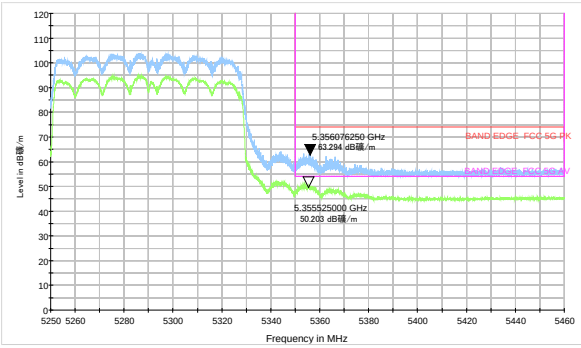


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

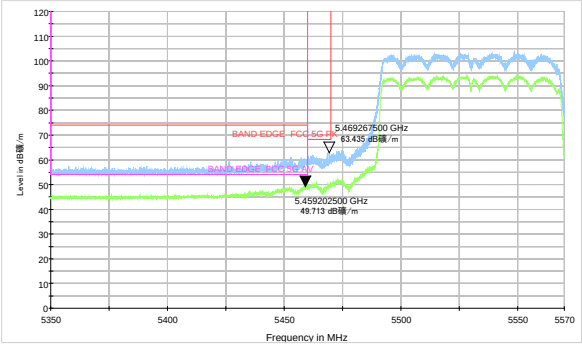
802.11ac VHT80 –Channel 42: Peak+ Average



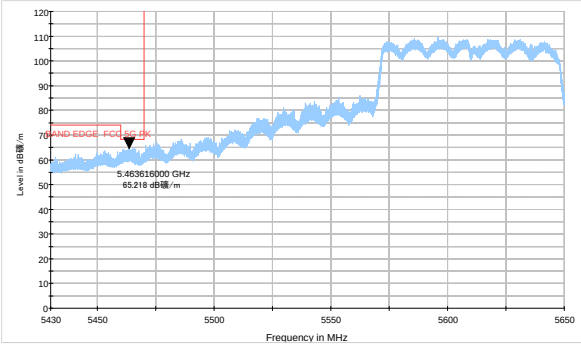
802.11ac VHT80- Channel 58: Average



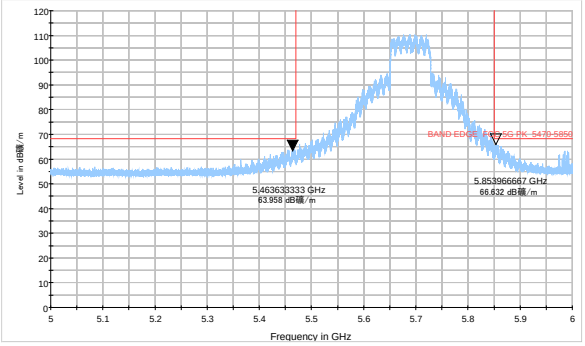
802.11ac VHT80 –Channel 106: Peak+ Average



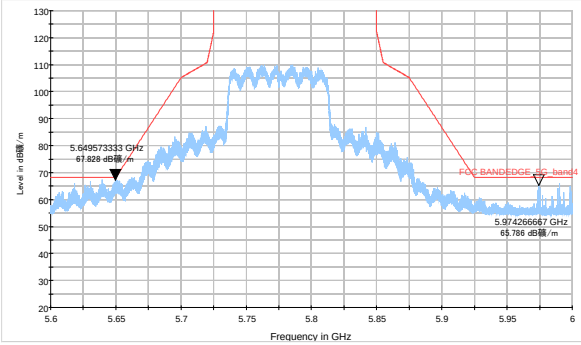
802.11ac VHT80 –Channel 122: Peak+ Average



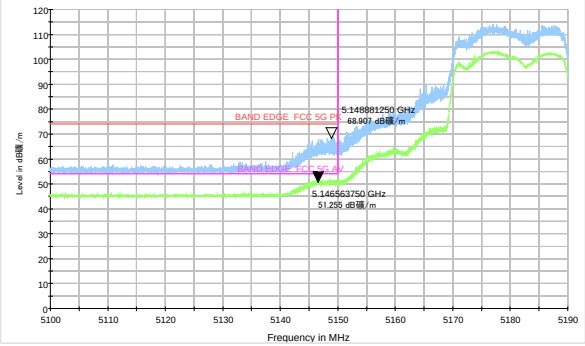
802.11ac VHT80 –Channel 138: Peak+ Average



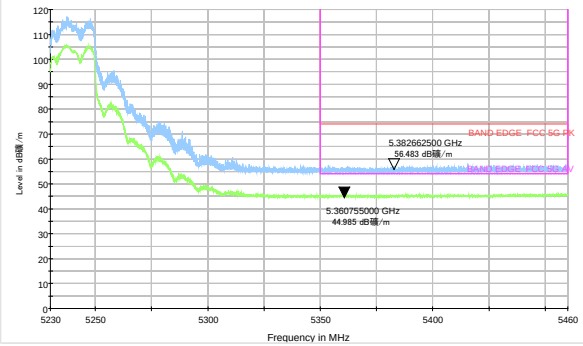
802.11ac VHT80 –Channel 155: Peak+ Average



802.11ax HE20 -Channel 36: Peak+ Average

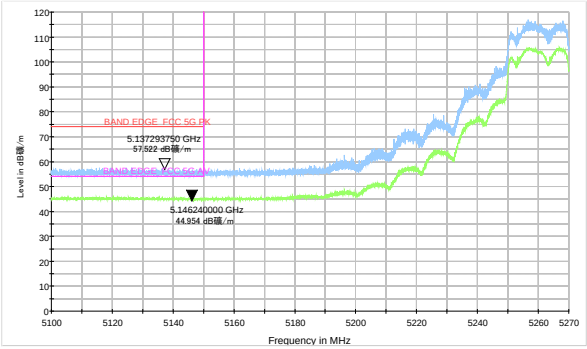


802.11ax HE20 -Channel 48: Peak+ Average

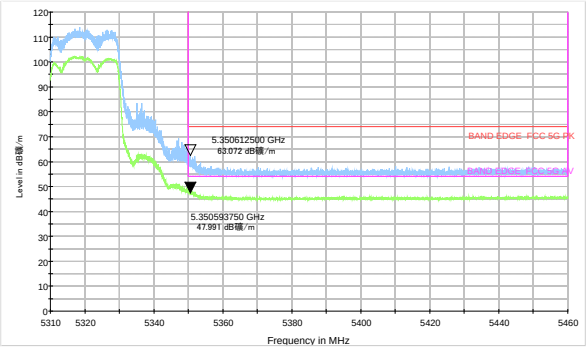


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

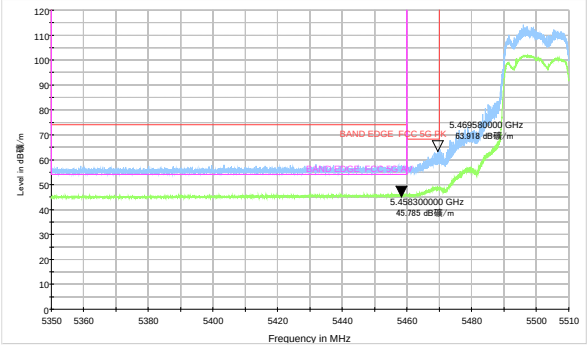
802.11ax HE20 -Channel 52: Peak+ Average



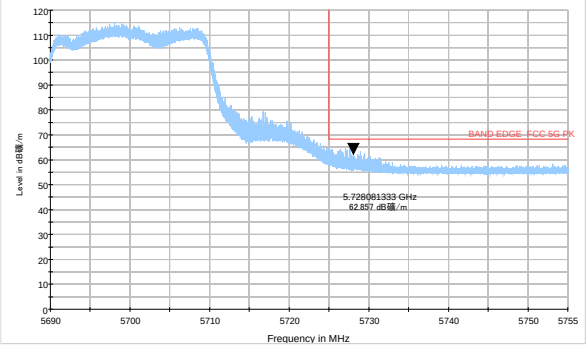
802.11ax HE20 -Channel 64: Peak+ Average



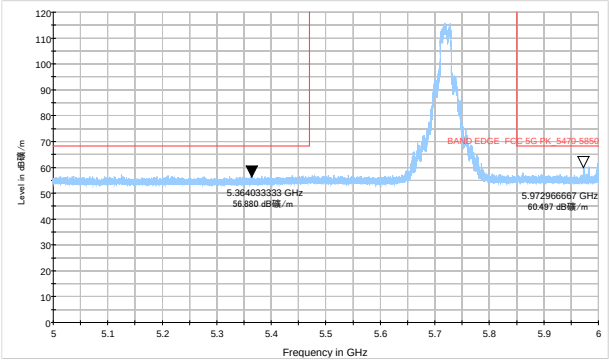
802.11ax HE20 -Channel 100: Peak+ Average



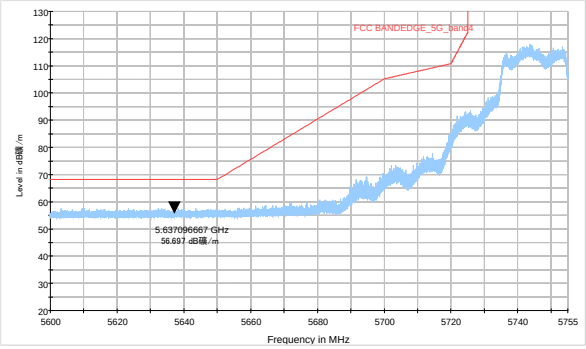
802.11ax HE20 -Channel 140: Peak+ Average



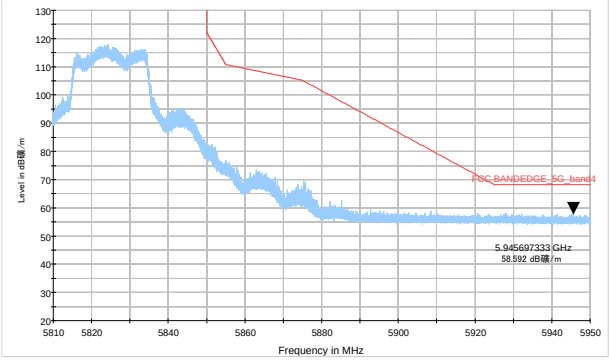
802.11ax HE20 -Channel 144: Peak+ Average



802.11ax HE20 -Channel 149: Peak+ Average

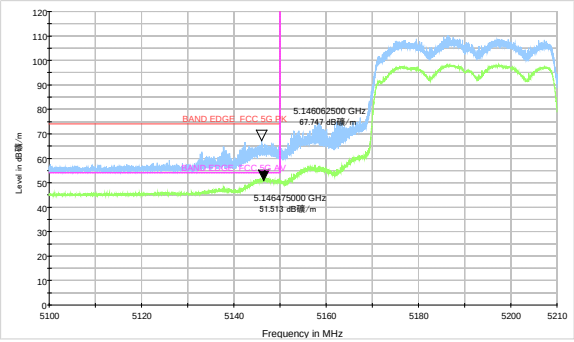


802.11ax HE20 -Channel 165: Peak+ Average

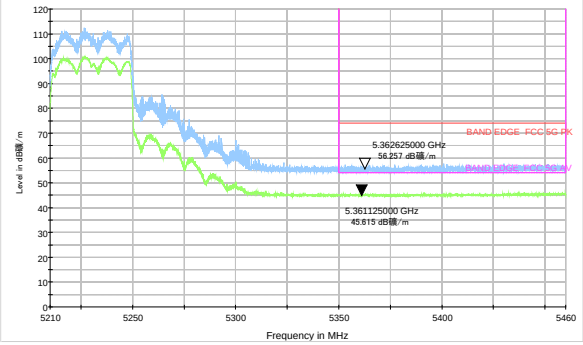


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

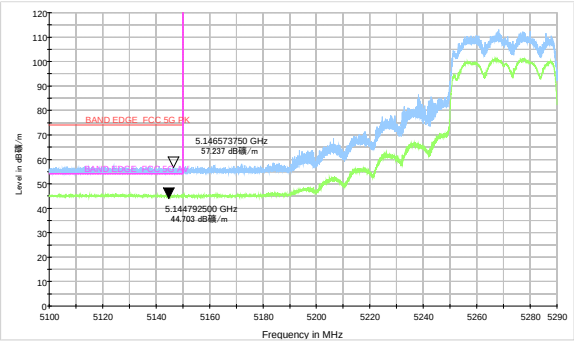
802.11ax HE40-Channel 38: Peak+ Average



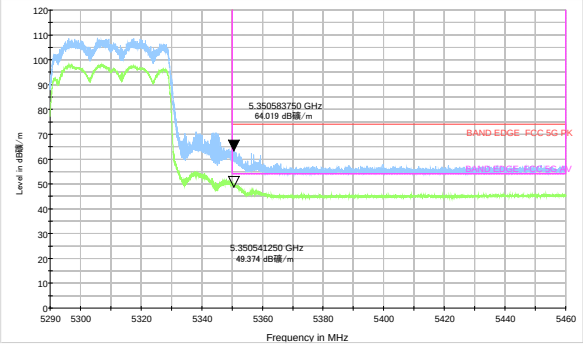
802.11ax HE40-Channel 46: Peak+ Average



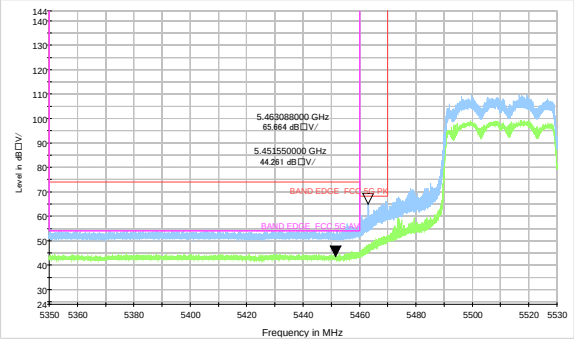
802.11ax HE40-Channel 54: Peak+ Average



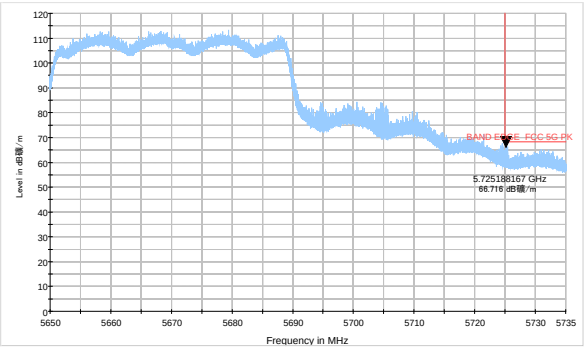
802.11ax HE40-Channel 62: Peak+ Average



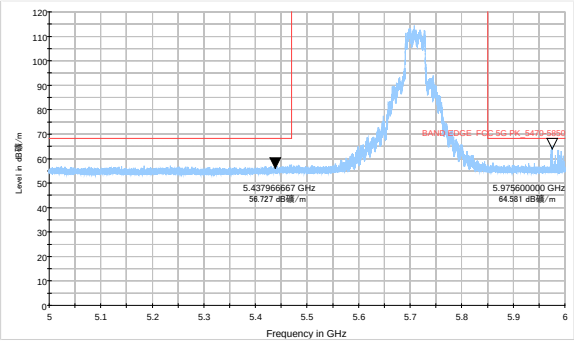
802.11ax HE40-Channel 102: Peak+ Average



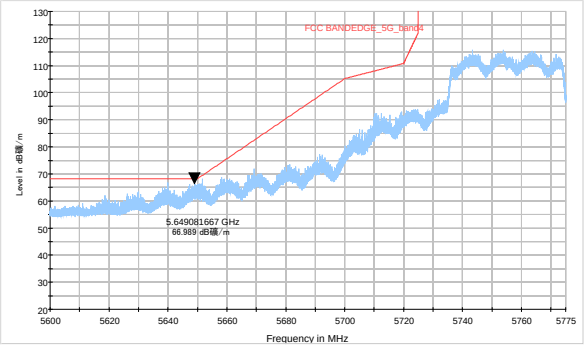
802.11ax HE40-Channel 134: Peak+ Average



802.11ax HE40-Channel 142: Peak+ Average

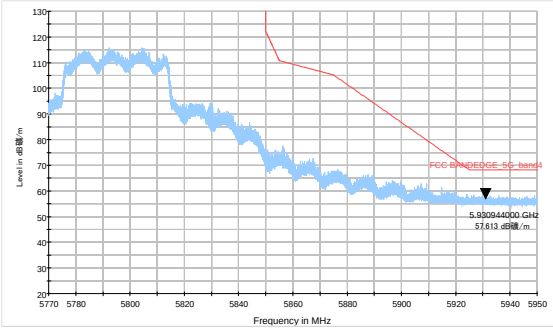


802.11ax HE40-Channel 151: Peak+ Average

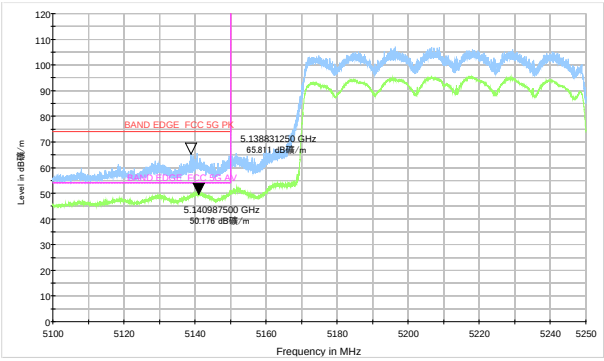


This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

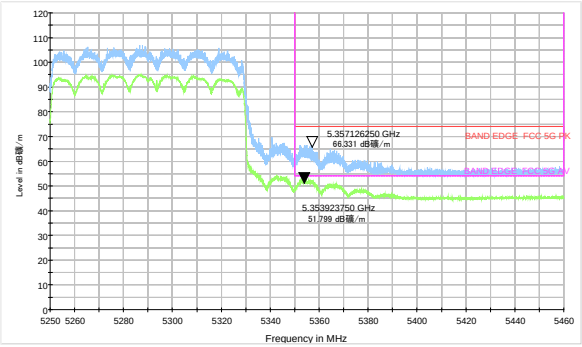
802.11ax HE40-Channel 159: Peak+ Average



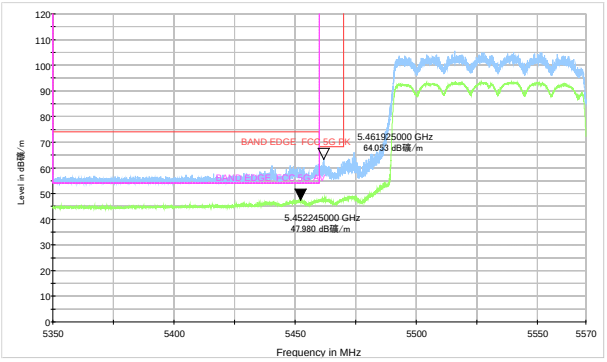
802.11ax HE80–Channel 42: Peak+ Average



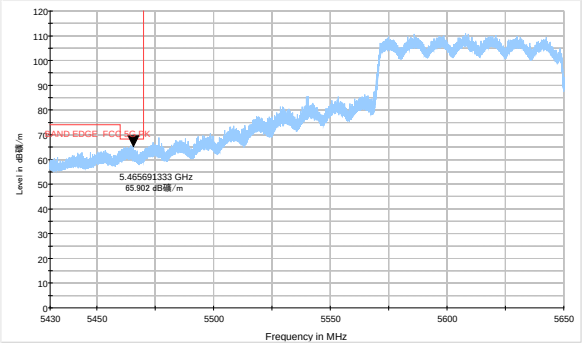
802.11ax HE80 - Channel 58: Average



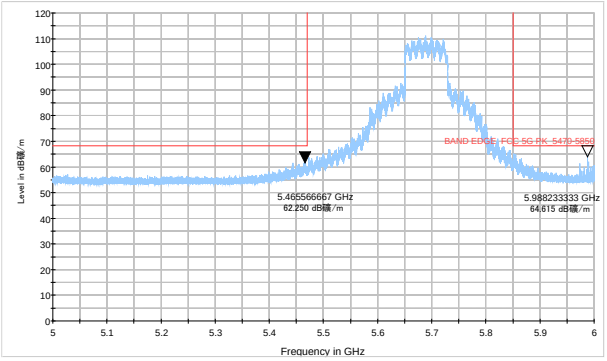
802.11ax HE80–Channel 106: Peak+ Average



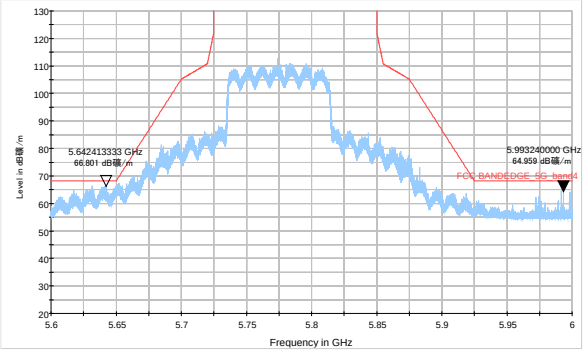
802.11ax HE80–Channel 122: Peak+ Average



802.11ax HE80–Channel 138: Peak+ Average



802.11ax HE80–Channel 155: Peak+ Average



This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Result of RE

Test result

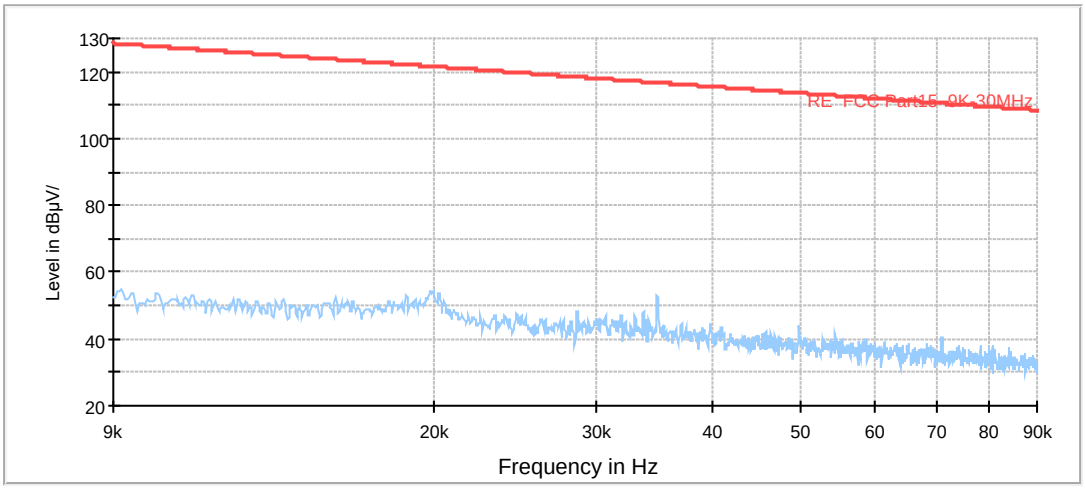
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the Emissions in the frequency band 9kHz-30MHz and 26.5GHz-40GHz are more than 20dB below the limit are not reported.

After the pretest, MIMO was selected as the worst antenna. SISO Antenna 1 was selected as the worst SISO antenna.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, 802.11ax (HT40), Channel 134 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

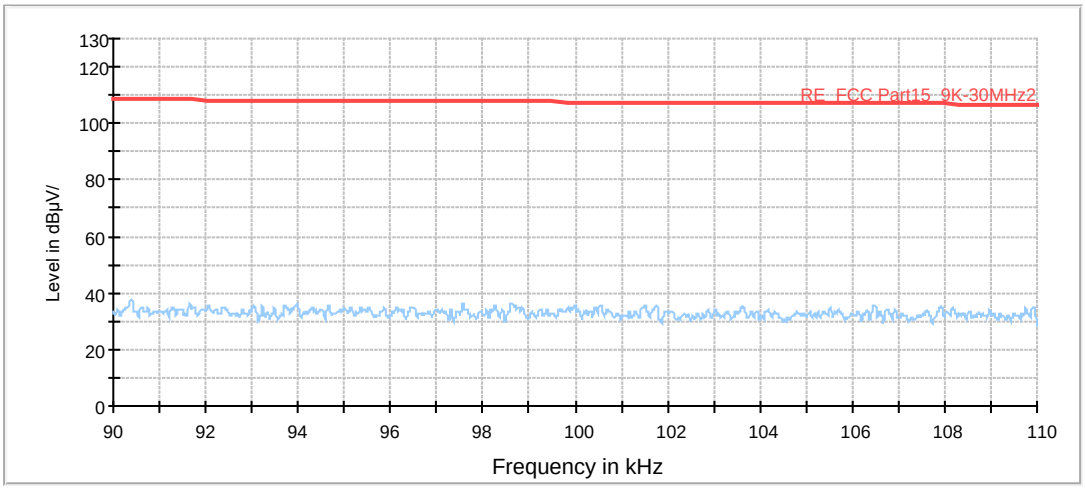
Continuous TX mode:

FCC RE 9K-90KHz AV



Radiates Emission from 9KHz to 90KHz

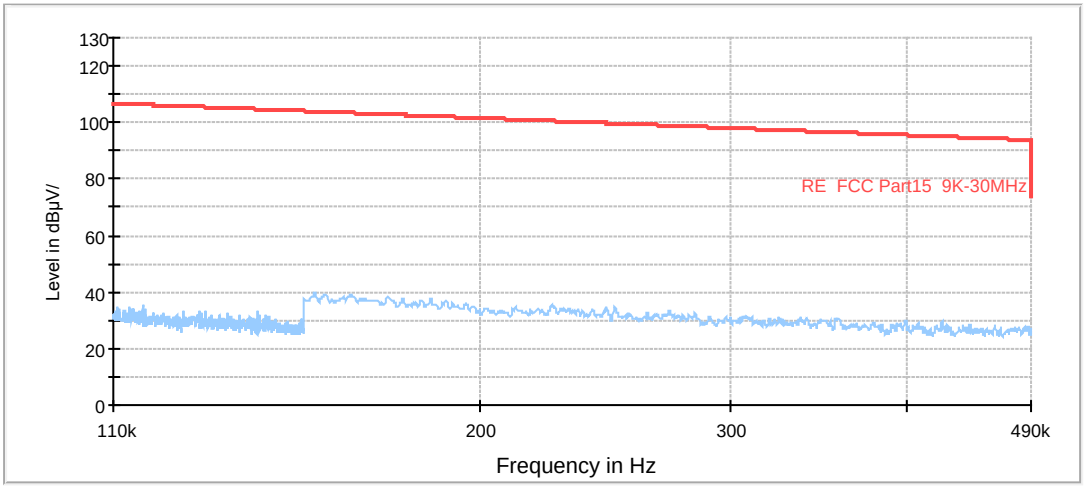
FCC RE 90K-110KHz QP



Radiates Emission from 90KHz to 110KHz

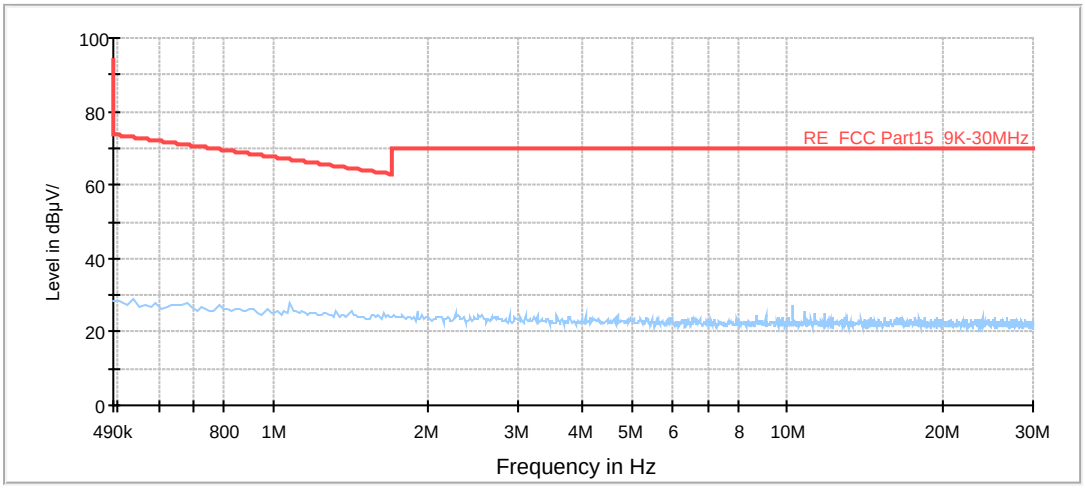
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

FCC RE 110K-490KHz AV



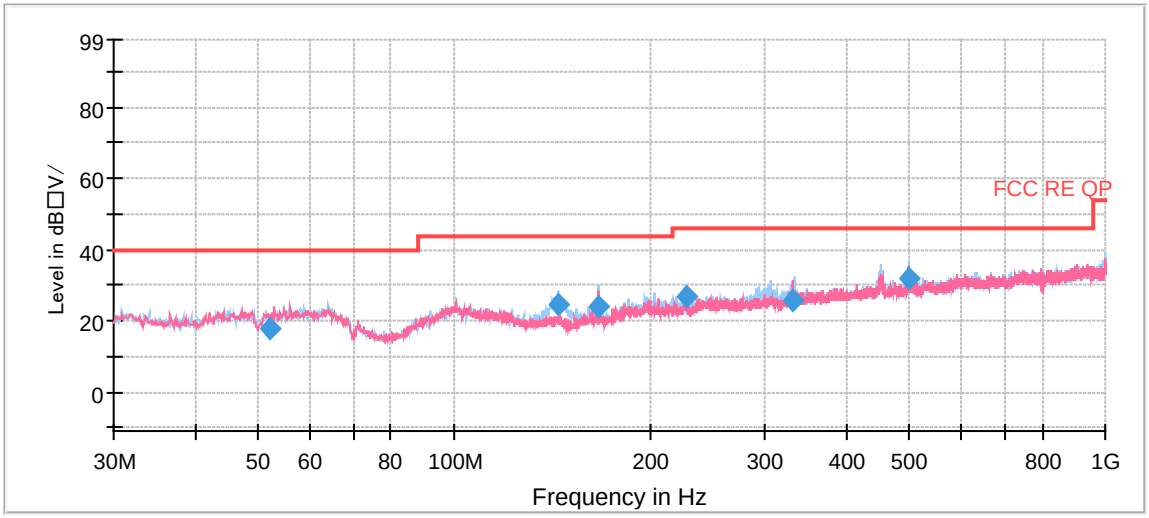
Radiates Emission from 110KHz to 490KHz

FCC RE 490K-30MHz QP



Radiates Emission from 490KHz to 30MHz

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
52.174700	17.85	100.0	V	170.0	-4.9	22.15	40.00
144.242291	24.82	225.0	H	206.0	-9.7	18.68	43.50
166.021950	24.17	125.0	H	257.0	-8.8	19.33	43.50
227.697150	26.53	125.0	H	256.0	-5.5	19.47	46.00
332.055746	25.65	100.0	H	113.0	-2.6	20.35	46.00
498.601400	31.72	175.0	H	234.0	0.3	14.28	46.00

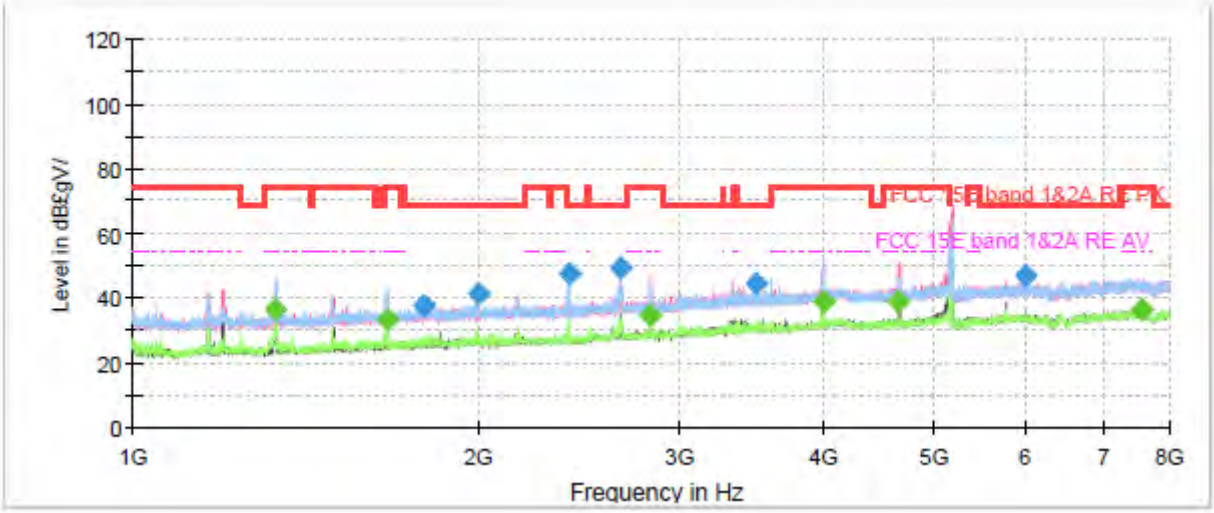
Remark: 1. Correction Factor = Antenna factor+ Insertion loss(cable loss+amplifier gain)

2. Margin = Limit – Quasi-Peak

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

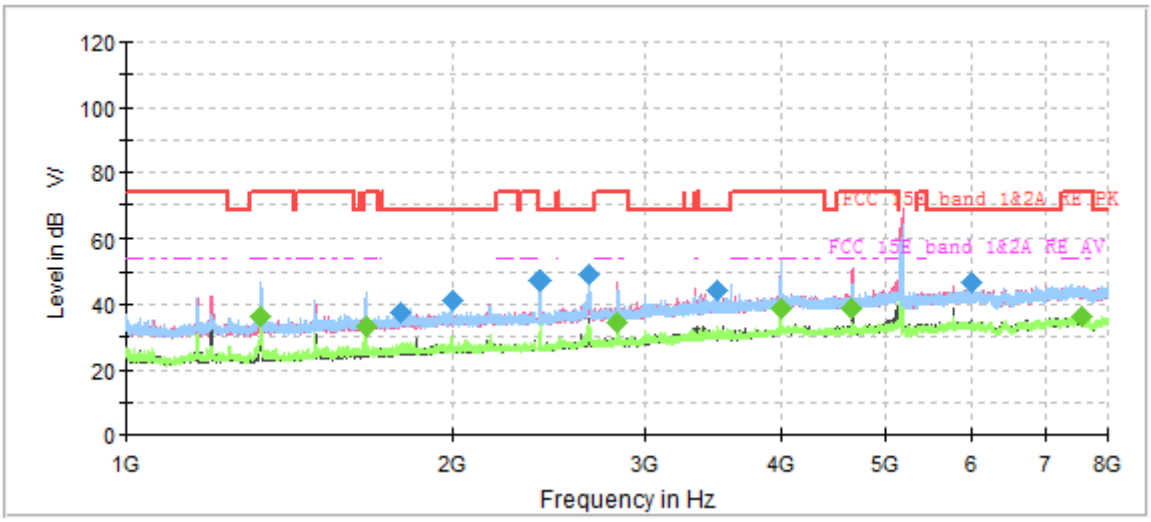
SISO Antenna 1

802.11a CH36



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

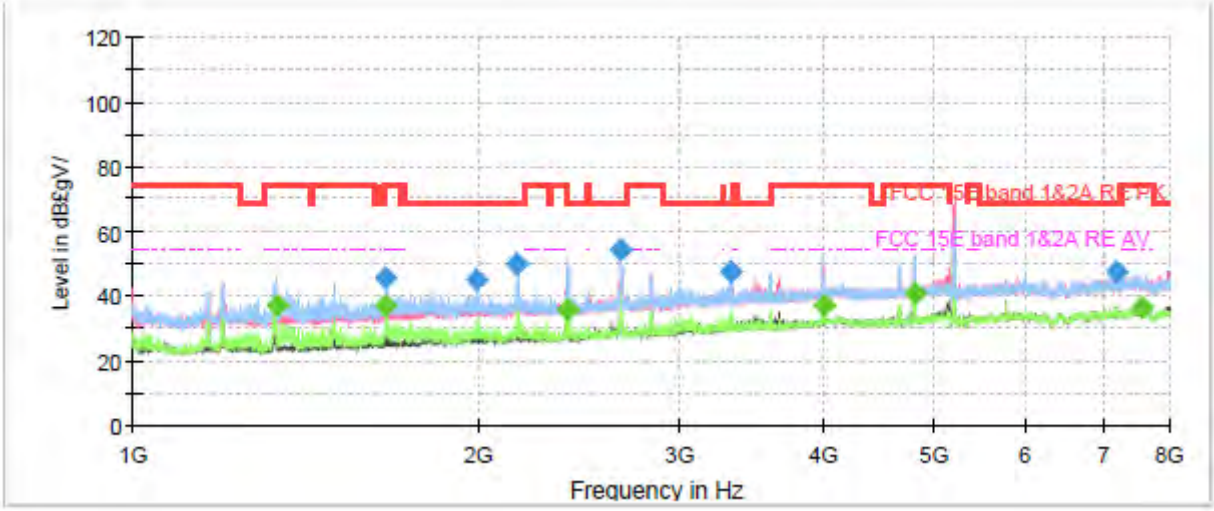
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1332.266667	---	36.46	54.00	17.54	100.0	H	304.0	-16.6
1665.000000	---	33.29	54.00	20.71	200.0	H	289.0	-14.7
1793.800000	37.31	---	68.20	30.89	100.0	H	206.0	-13.9
1996.100000	41.36	---	68.20	26.84	100.0	V	118.0	-12.7
2396.500000	47.54	---	68.20	20.66	200.0	H	217.0	-11.2
2659.233333	49.08	---	68.20	19.12	100.0	V	248.0	-9.6
2821.633333	---	34.47	54.00	19.53	200.0	V	293.0	-9.0
3494.800000	44.39	---	68.20	23.81	200.0	H	282.0	-6.3
3995.066667	---	38.70	54.00	15.30	100.0	H	290.0	-3.9
4651.433333	---	38.79	54.00	15.21	100.0	V	305.0	-3.1
5985.400000	46.49	---	68.20	21.71	100.0	H	304.0	-0.3
7585.833333	---	36.36	54.00	17.64	200.0	H	1.0	1.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

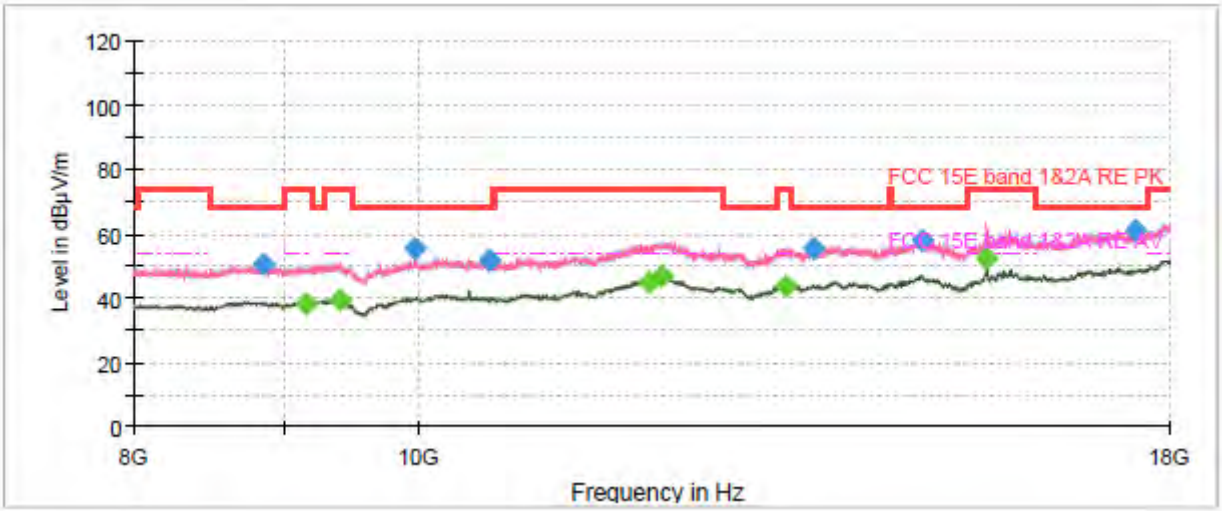
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

802.11a CH40



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

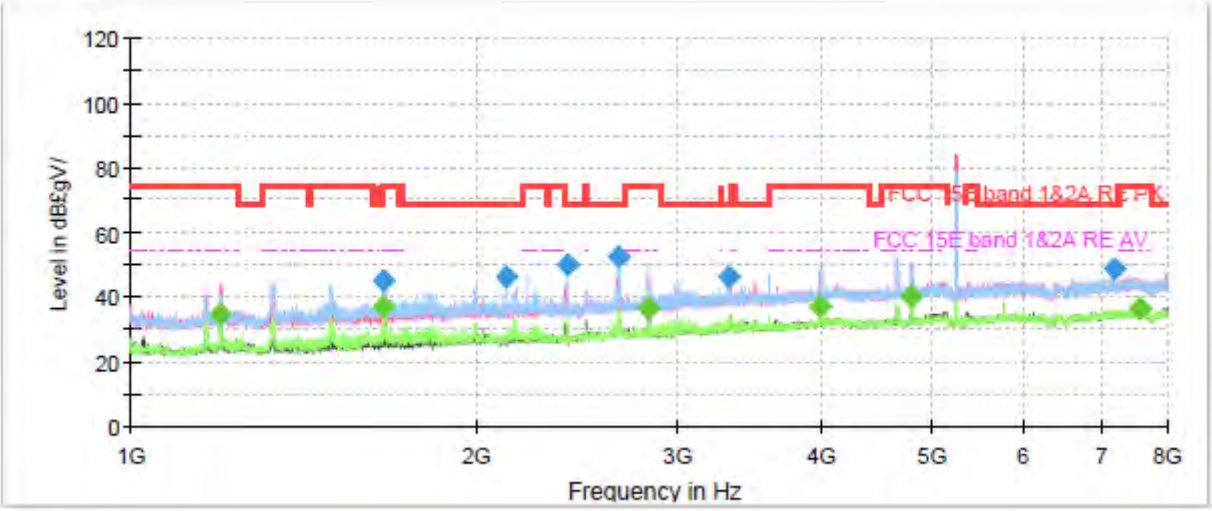
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1332.500000	---	37.10	54.00	16.90	200.0	H	297.0	-16.6
1659.166667	45.36	---	68.20	22.84	100.0	H	70.0	-14.7
1660.800000	---	36.67	54.00	17.33	100.0	H	77.0	-14.7
1990.733333	44.79	---	68.20	23.41	100.0	H	85.0	-12.7
2162.000000	49.95	---	68.20	18.25	100.0	H	92.0	-11.9
2388.800000	---	35.46	54.00	18.54	100.0	V	83.0	-11.2
2657.600000	54.34	---	68.20	13.86	200.0	H	71.0	-9.6
3319.566667	47.44	---	68.20	20.76	100.0	H	129.0	-6.9
3997.400000	---	36.80	54.00	17.20	100.0	V	326.0	-3.8
4795.633333	---	40.67	54.00	13.33	100.0	H	99.0	-2.6
7190.333333	47.60	---	68.20	20.60	100.0	H	249.0	1.2
7566.933333	---	36.01	54.00	17.99	200.0	V	269.0	1.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

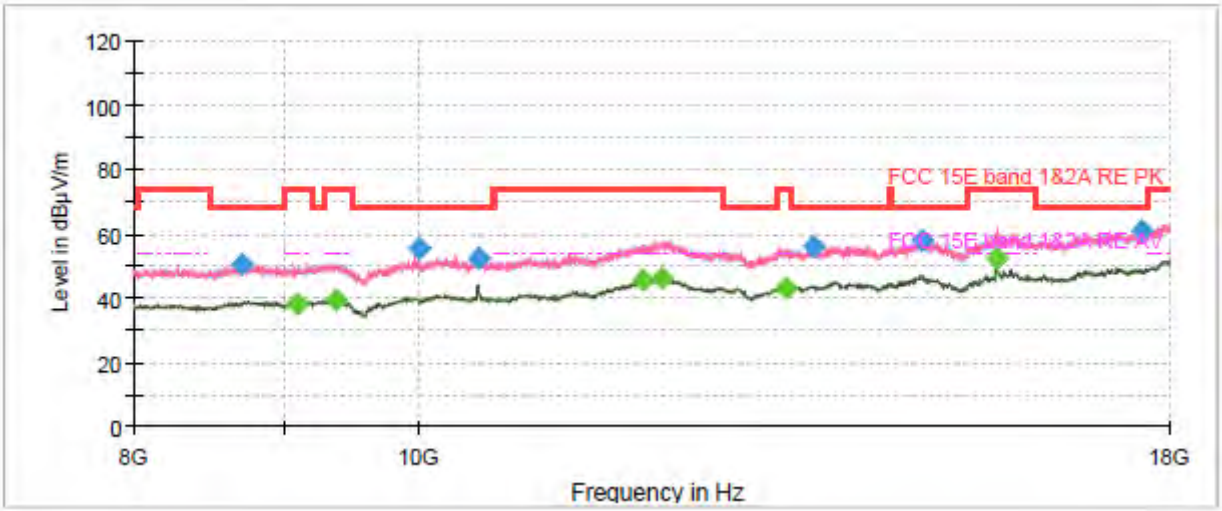
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

802.11a CH48



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

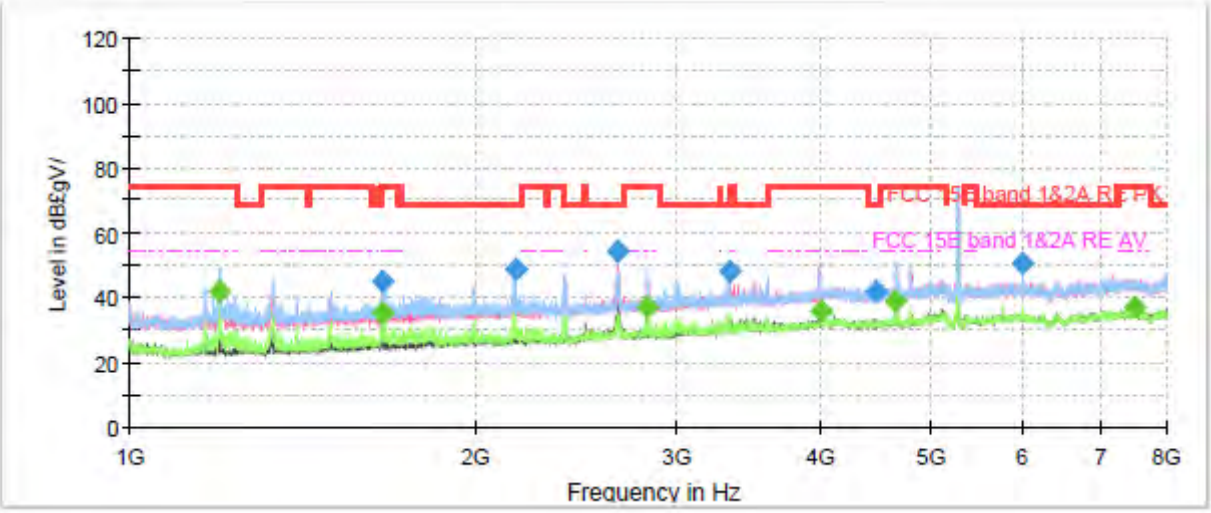
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1195.766667	---	34.63	54.00	19.37	100.0	V	138.0	-17.3
1659.866667	44.95	---	68.20	23.25	100.0	H	12.0	-14.7
1660.333333	---	36.87	54.00	17.13	200.0	H	97.0	-14.7
2122.333333	45.90	---	68.20	22.30	100.0	H	158.0	-12.1
2398.600000	50.08	---	68.20	18.12	200.0	H	218.0	-11.2
2659.466667	52.22	---	68.20	15.98	200.0	H	62.0	-9.6
2826.300000	---	36.06	54.00	17.94	100.0	H	80.0	-9.0
3321.900000	46.41	---	68.20	21.79	100.0	H	144.0	-6.9
3983.633333	---	37.21	54.00	16.79	200.0	H	268.0	-3.9
4786.533333	---	39.71	54.00	14.29	100.0	H	109.0	-2.6
7185.900000	48.50	---	68.20	19.70	100.0	H	109.0	1.2
7558.766667	---	36.19	54.00	17.81	100.0	H	80.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

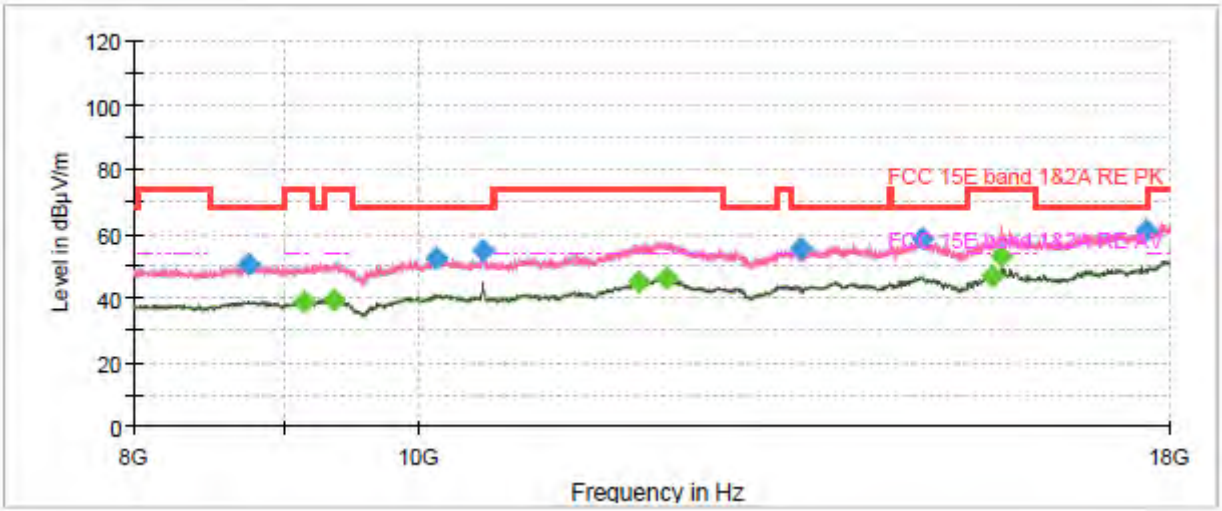
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

802.11a CH52



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

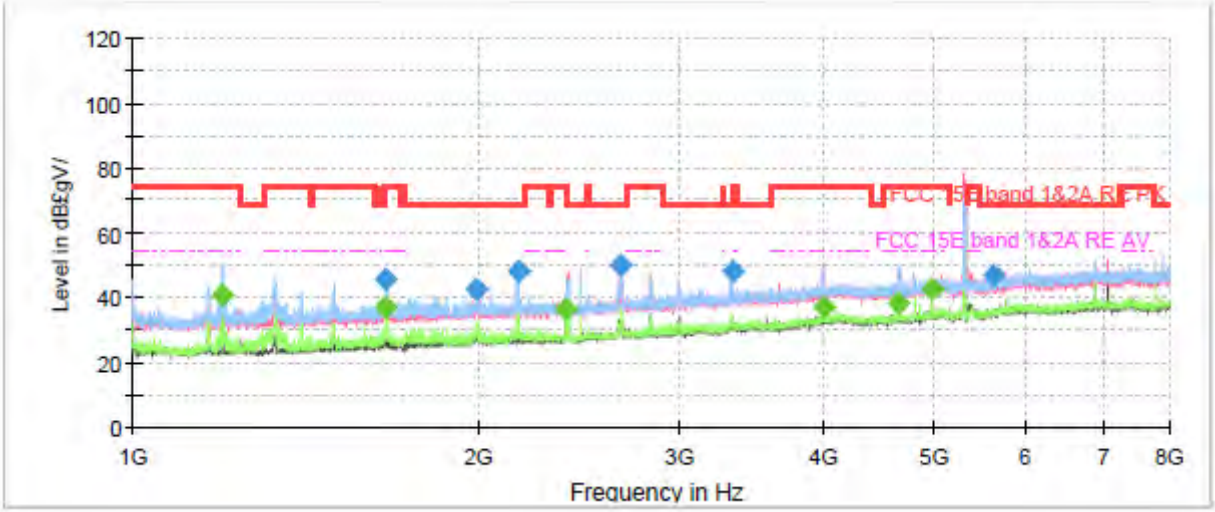
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1195.766667	---	41.64	54.00	12.36	200.0	H	0.0	-17.3
1659.166667	44.82	---	68.20	23.38	100.0	H	101.0	-14.7
1661.033333	---	35.07	54.00	18.93	100.0	H	0.0	-14.7
2165.733333	48.36	---	68.20	19.84	100.0	H	101.0	-11.9
2664.133333	54.07	---	68.20	14.13	200.0	V	18.0	-9.6
2824.666667	---	37.01	54.00	16.99	100.0	H	84.0	-9.0
3328.200000	47.94	---	68.20	20.26	100.0	H	135.0	-6.9
3997.866667	---	35.91	54.00	18.09	200.0	V	0.0	-3.8
4475.733333	42.06	---	68.20	26.14	100.0	H	0.0	-3.6
4647.233333	---	38.64	54.00	15.36	100.0	H	91.0	-3.1
5988.900000	50.43	---	68.20	17.77	200.0	H	244.0	-0.3
7512.566667	---	36.67	54.00	17.33	200.0	V	280.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

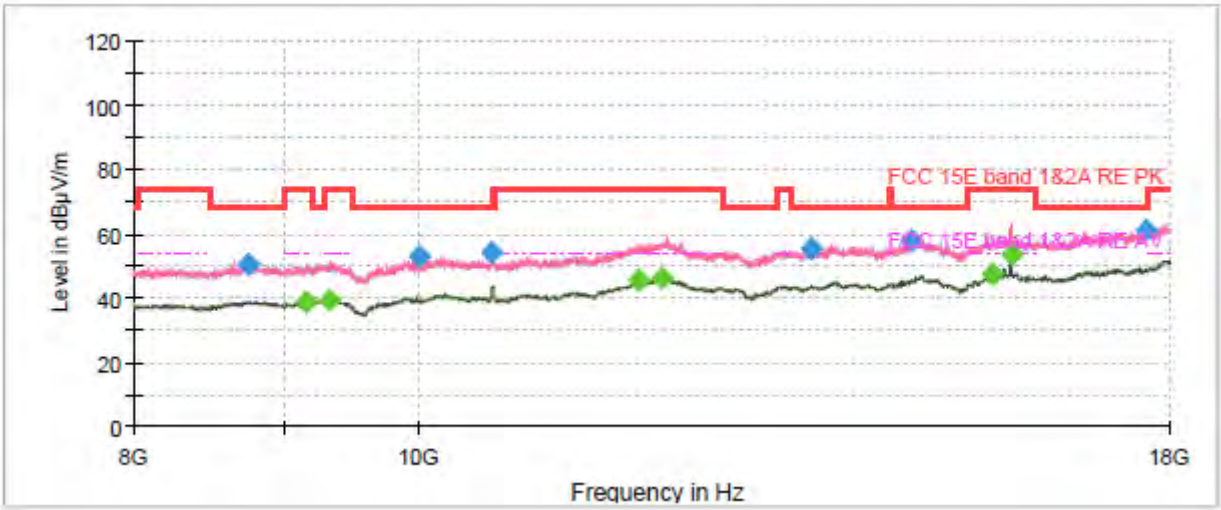
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

802.11a CH60



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

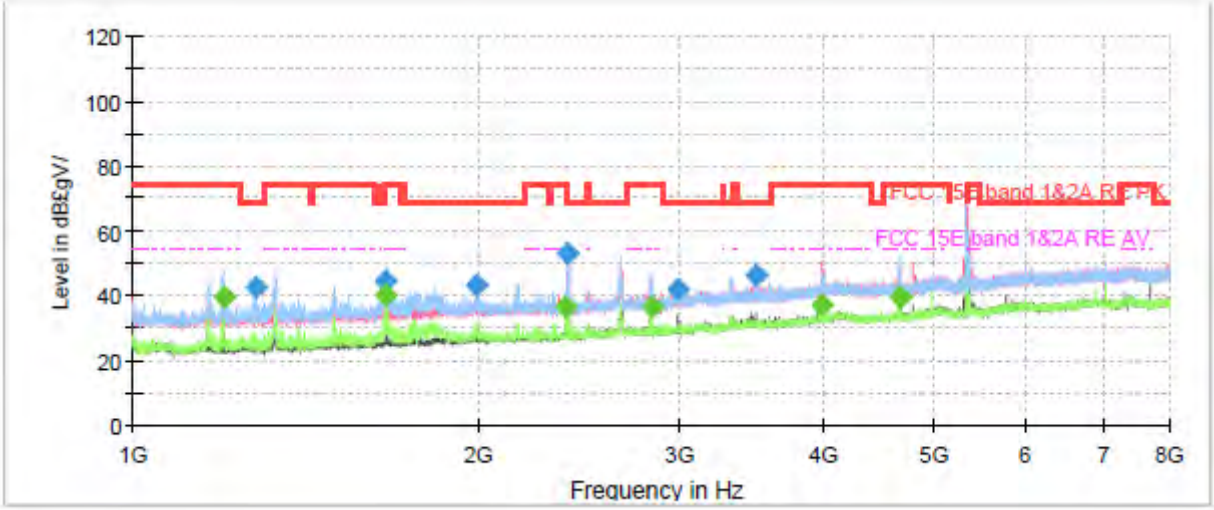
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1195.533333	---	40.64	54.00	13.36	100.0	H	143.0	-17.3
1659.166667	45.67	---	68.20	22.53	200.0	H	71.0	-14.7
1661.966667	---	36.93	54.00	17.07	100.0	H	52.0	-14.7
1991.200000	42.45	---	68.20	25.75	100.0	H	59.0	-12.7
2164.566667	47.72	---	68.20	20.48	100.0	H	68.0	-11.9
2381.100000	---	36.29	54.00	17.71	100.0	H	82.0	-11.2
2663.666667	49.54	---	68.20	18.66	100.0	H	323.0	-9.6
3327.733333	47.97	---	68.20	20.23	100.0	H	109.0	-6.9
3999.966667	---	36.72	54.00	17.28	100.0	V	296.0	-3.8
4648.866667	---	37.95	54.00	16.05	100.0	H	75.0	-3.1
4958.966667	---	42.21	54.00	11.79	100.0	H	213.0	-1.6
5617.433333	46.74	---	68.20	21.46	100.0	V	53.0	-0.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

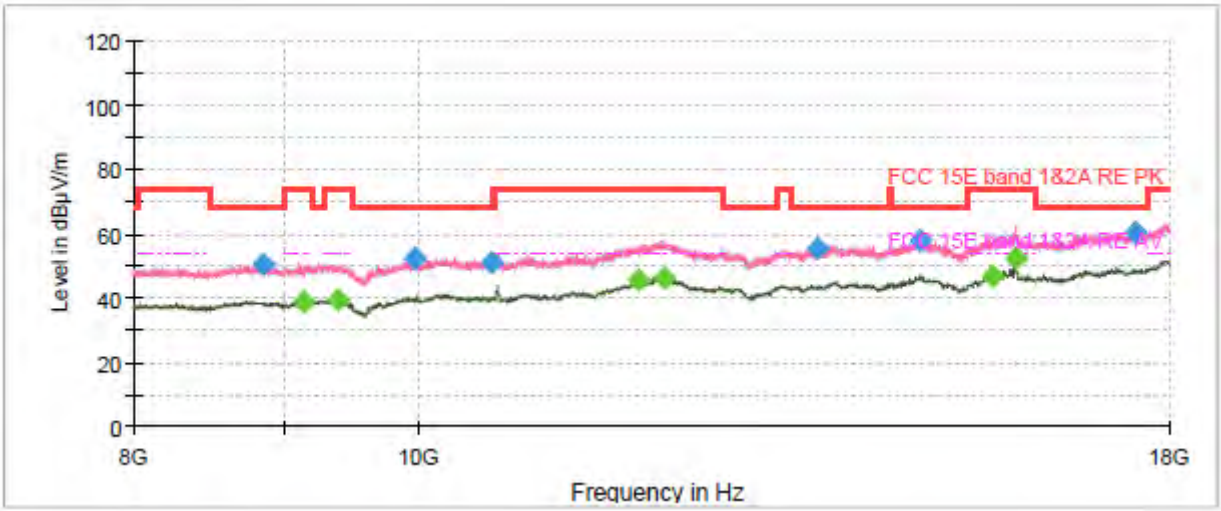
This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

802.11a CH64



Radiates Emission from 1GHz to 8GHz

Note: The signal beyond the limit is carrier.



Radiates Emission from 8GHz to 18GHz

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1198.566667	---	39.67	54.00	14.33	100.0	H	137.0	-17.3
1278.366667	42.27	---	68.20	25.93	100.0	H	0.0	-16.8
1659.633333	44.57	---	68.20	23.63	100.0	H	34.0	-14.7
1660.800000	---	40.26	54.00	13.74	100.0	H	86.0	-14.7
1993.300000	42.91	---	68.20	25.29	200.0	H	31.0	-12.7
2381.333333	---	36.60	54.00	17.40	100.0	H	86.0	-11.2
2391.600000	52.97	---	68.20	15.23	100.0	H	355.0	-11.2
2830.266667	---	36.37	54.00	17.63	100.0	H	49.0	-9.0
2989.166667	42.13	---	68.20	26.07	200.0	V	109.0	-8.2
3487.800000	45.96	---	68.20	22.24	200.0	V	333.0	-6.3
3986.900000	---	36.92	54.00	17.08	200.0	V	340.0	-3.9
4662.400000	---	39.17	54.00	14.83	100.0	H	86.0	-3.0

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.