CE Test Report

Equipment	:	**802.11abn (1x1) + Bluetooth (2.1) module**
Model No.	:	**SDC-SSD40NBT**
Brand Name	:	**Laird Technologies**
Applicant	:	**Laird Technologies**
Address	:	**11160 Thompson Ave. / Lenexa, Kansas / 66219 / USA**
Standard	:	**EN 301 893 V1.8.1 (2015-03)**
Received Date	:	**Mar. 23, 2016**
Tested Date	:	**Mar. 23 ~ Apr. 08, 2016**

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:

Gary Chang / Manager

Testing Laboratory
2732

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APPENDIX A: SHORT CONTROL SIGNALLING TRANSMISSION

Release Record

Report No.	Version	Description	Issued Date
ER442903-01AN	Rev. 01	Initial issue	May 12, 2016

Summary of Test Result

Ref. Std. Clause	Test Items	Measured	Result
4.2	Centre Frequencies	Meet the requirement of limit.	Pass
4.3	Nominal Channel Bandwidth and Occupied Channel Bandwidth	Meet the requirement of limit.	Pass
4.4	RF Output Power & Transmit Power Control (TPC)	5.15-5.25GHz: 20.32 dBm 5.25-5.35GHz: 20.13 dBm 5.47-5.725GHz: 20.42 dBm	Pass
4.4	Power Density	Meet the requirement of limit.	Pass
4.5	Transmitter Unwanted Emissions	Meet the requirement of limit.	Pass
4.6	Receiver Spurious Emissions	Meet the requirement of limit.	Pass
4.7	Dynamic Frequency Selection (DFS)	Meet the requirement of limit.	Pass
4.8	Adaptivity (Channel Access Mechanism)	Meet the requirement of limit.	Pass
4.10	Geo-location capability	This test is not required since the device does not support this function	NA

NOTE: The DFS measurement was recorded in Report No.: EY442903-01.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
IEEE Std. 802.11	**Frequency Range (MHz)**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
a	5150-5250 5250-5350 5500-5700	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [11]	1	6-54 Mbps
n (HT20)	5150-5250 5250-5350 5500-5700	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [11]	1	MCS 0-7
Note 1: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.					

1.1.2 Antenna Details

Ant. No.	Brand / Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)			
				2400~2483.5	**5150~5250**	**5250~5350**	**5470~5725**
1	Cisco AIR-ANT 4941	Dipole	RP-TNC plug	2	---	---	---
2	Radiall Larsen R380.500.314	Dipole	RP-TNC plug	1.6	5	5	5

1.1.3 EUT Operational Condition

Power Supply Type	3.3Vdc from host		
Operational Voltage	☒ Vnom (3.3 V)	☒ Vmax (3.6 V)	☒ Vmin (3 V)
Operational Climatic	☒ Tnom (20°C)	☒ Tmax (55°C)	☒ Tmin (-20°C)

1.1.4 Accessories

N/A

1.1.5 Adaptive Equipment

Adaptive Equipment		
☒	Adaptive Equipment without the possibility to switch to a non-adaptive mode:	
	☐	The equipment has implemented an LBT based DAA mechanism:
		☐ The equipment is Frame Based equipment
		☒ The equipment is Load Based equipment
		☐ The equipment can switch dynamically between Frame Based and Load Based equipment
	☐	The equipment has implemented an non-LBT based DAA mechanism
	☐	The equipment can operate in more than one adaptive mode
☐	Adaptive Equipment which can also operate in a non-adaptive mode	

1.1.6 Channel List

Frequency band (MHz): 5150~5350	
802.11 a / n HT20	
Channel	Frequency(MHz)
36	5180
40	5200
44	5220
48	5240
52	5260
56	5280
60	5300
64	5320

Frequency band (MHz): 5500~5700	
802.11 a / n HT20	
Channel	Frequency(MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700

1.1.7 Test Tool and Duty Cycle

Test tool	Hyper Terminal, version: 5.7.3636
Duty Cycle Of Test Signal (%)	96.28% - IEEE 802.11a 95.08% - IEEE 802.11n (HT20)
Duty Factor	0.16 - IEEE 802.11a 0.22 - IEEE 802.11n (HT20)

1.1.8 Power Setting

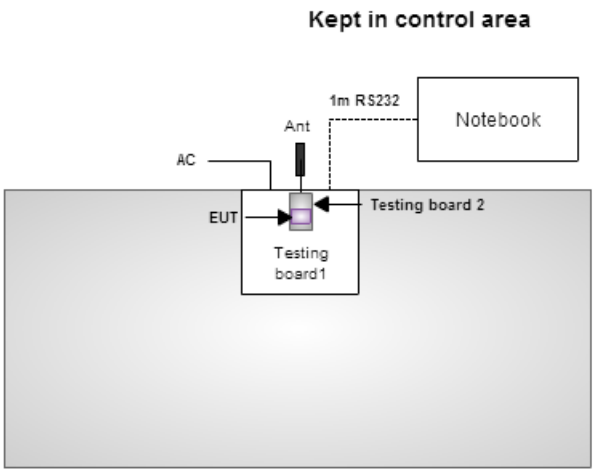
Modulation Mode	**Test Frequency (MHz)**			
	5180	**5320**	**5500**	**5700**
a	13	13	14	13
an (HT20)	13	13	14	13

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	E6430	DoC	---
2	Testing board 1	---	---	---	---
3	Testing board 2	---	---	---	---

1.3 Test Setup Chart

Test Setup Diagram



1.4 Test Equipment and Calibration Data

Test Item	Radiated Emissions				
Test Site	Fully-anechoic chamber 2 / (05CH02-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	Agilent	N9010A	MY52221474	Sep. 08, 2015	Sep. 07, 2016
Bilog Antenna 30-1000MHz	SCHWARZBECK	VULB9168	9168-563	Dec. 29, 2015	Dec. 28, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	9120D-1205	Jan. 08, 2016	Jan. 07, 2017
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 04, 2016	Jan. 03, 2017
Preamplifier	Agilent	83017A	MY53270013	Jan. 27, 2016	Jan. 26, 2017
Preamplifier 30-1000MHz	EMC	EMC02325	980188	Dec. 10, 2015	Dec. 09, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22622/4	Dec. 04, 2015	Dec. 03, 2016
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22623/4	Dec. 04, 2015	Dec. 03, 2016
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22621/4	Dec. 04, 2015	Dec. 03, 2016
RF cable-4M	HUBER+SUHNER	SUCOFLEX104	MY22579/4	Dec. 04, 2015	Dec. 03, 2016
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-002	Dec. 04, 2015	Dec. 03, 2016
LF cable-3M	EMC	EMC8D-NM-NM-3000	131102	Dec. 04, 2015	Dec. 03, 2016
LF cable-10M	EMC	EMC8D-NM-NM-10000	131101	Dec. 04, 2015	Dec. 03, 2016
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(DF01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum	R&S	FSV-7	101607	Dec. 10, 2015	Dec. 09, 2016
Spectrum	Keysight	N9010A	MY54510374	May. 18, 2015	May. 17, 2016
RF cable-4M	HUBER+SUHNER	SUCOFLEX_104	MY15686/4	Dec. 17, 2015	Dec. 16, 2016
RF cable-0.5M	HUBER+SUHNER	SUCOFLEX_104	296081/4	Dec. 17, 2015	Dec. 16, 2016
RF cable-0.2M	HUBER+SUHNER	SUCOFLEX_104	329023/4	Dec. 17, 2015	Dec. 16, 2016
RF cable-0.2M	HUBER+SUHNER	SUCOFLEX_104	329021/4	Dec. 17, 2015	Dec. 16, 2016
Preamplifier	EMC	EMC02325	980146	Oct. 14, 2015	Oct. 13, 2016
Oscilloscope	National Instruments	USB-5133	F651FF	Jun. 15, 2015	Jun. 14, 2016
Measurement Software	Sporton	Sporton_3	1.0.0.22	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	ROHDE&SCHWARZ	FSV40	101486	Oct. 14, 2015	Oct. 13, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2015	Nov. 26, 2016
Power Sensor	Agilent	U2021XA	MY53480019	Feb. 02, 2016	Feb. 01, 2017
Power Sensor	Agilent	U2021XA	MY53510003	Feb. 02, 2016	Feb. 01, 2017
Power Sensor	Agilent	U2021XA	MY54070003	Feb. 15, 2016	Feb. 14, 2017
Power Sensor	Agilent	U2021XA	MY54060013	Feb. 15, 2016	Feb. 14, 2017
Signal Generator	R&S	SMB100A	175727	Oct. 05, 2015	Oct. 04, 2016
DC POWER SOURCE	GW INSTEK	GPC-3060D	EM884797	Oct. 20, 2015	Oct. 19, 2016
Combiner(1X2)	woken	0120A02201801O	DOM2AEW1A22	Dec. 17, 2015	Dec. 16, 2016
Combiner(1X4)	woken	0120A04056002D	111204	Dec. 17, 2015	Dec. 16, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Measurement Software	Agilent	EN RF test	1.1501125	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

EN 301 893 V1.8.1 (2015-03)

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty		
Parameters	**Uncertainty**	**Limit**
Radio Frequency	±1.4 x 10^{-9}	±1 × 10^{-5}
RF power conducted	±0.808 dB	±1,5 dB
RF power radiated	±3.398 dB	±6 dB
Spurious emission, conducted	±2.470 dB	±3 dB
Spurious emission, radiated	±3.398 dB	±6 dB
Humidity	±4.7%	±5 %
Temperature	±0.8 ^{o}C	±1 °C
Time	±0.1 %	±10 %

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
RF Conducted	TH01-WS	23°C / 64%	Nic Guan
Radiated Emission	05CH02-WS	24°C / 63%	Ryan Lee
Adaptivity	DF01-WS	22°C / 67%	Jack Li

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate
Centre Frequencies	11a HT20	5180 / 5320 / 5500 / 5700 5180 / 5320 / 5500 / 5700	6 Mbps MCS 0
Occupied Channel Bandwidth			
RF Output Power			
Power Spectral Density			
Transmitter Unwanted Emissions outside the 5 GHz RLAN Bands	11a HT20	5180 / 5700 5180 / 5700	6 Mbps MCS 0
Transmitter Unwanted Emissions within the 5 GHz RLAN Band	11a HT20	5180 / 5320 / 5500 / 5700 5180 / 5320 / 5500 / 5700	6 Mbps MCS 0
Receiver Spurious Emissions	11a HT20	5180 / 5700 5180 / 5700	6 Mbps MCS 0
Adaptivity	HT20	5180 / 5700	MCS 0

3 Transmitter Test Results

3.1 Carrier Frequencies

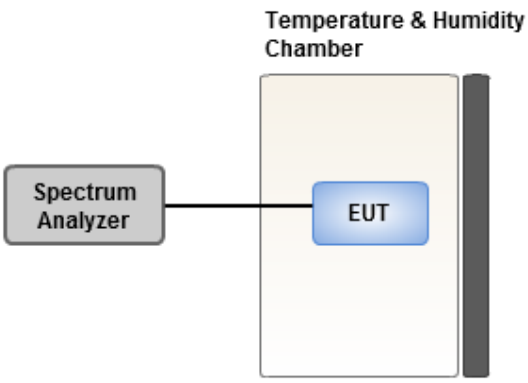
3.1.1 Limit of Carrier Frequencies

The actual centre frequency for any given channel declared by the manufacturer shall be maintained within the range f_c ± 20 ppm.

3.1.2 Test Procedures

Reference to clause 5.3.2.2 of ETSI EN 301 893 V1.8.1 (2015-03).

3.1.3 Test Setup



3.1.4 Test Result of Carrier Frequencies

Condition	Modulation Mode	Freq. (MHz)	Carrier Centre Frequencies (ppm)		Limit (ppm)
			Freqeuncy (MHz)	Carrier Stability	
$T_{nom}V_{nom}$	802.11a	5180	5180.00290	0.56	20
$T_{min}V_{max}$	802.11a	5180	5180.00556	1.07	20
$T_{min}V_{min}$	802.11a	5180	5180.00556	1.07	20
$T_{max}V_{max}$	802.11a	5180	5179.99689	-0.60	20
$T_{max}V_{min}$	802.11a	5180	5179.99689	-0.60	20
$T_{nom}V_{nom}$	802.11a	5320	5320.00430	0.81	20
$T_{min}V_{max}$	802.11a	5320	5320.00610	1.15	20
$T_{min}V_{min}$	802.11a	5320	5320.00610	1.15	20
$T_{max}V_{max}$	802.11a	5320	5319.99710	-0.55	20
$T_{max}V_{min}$	802.11a	5320	5319.99710	-0.55	20
$T_{nom}V_{nom}$	802.11a	5500	5500.00380	0.69	20
$T_{min}V_{max}$	802.11a	5500	5500.00870	1.58	20
$T_{min}V_{min}$	802.11a	5500	5500.00870	1.58	20
$T_{max}V_{max}$	802.11a	5500	5499.99610	-0.71	20
$T_{max}V_{min}$	802.11a	5500	5499.99610	-0.71	20
$T_{nom}V_{nom}$	802.11a	5700	5700.00510	0.89	20
$T_{min}V_{max}$	802.11a	5700	5700.00410	0.72	20
$T_{min}V_{min}$	802.11a	5700	5700.00410	0.72	20
$T_{max}V_{max}$	802.11a	5700	5699.99780	-0.39	20
$T_{max}V_{min}$	802.11a	5700	5699.99780	-0.39	20

Condition	Modulation Mode	Freq. (MHz)	Carrier Centre Frequencies (ppm)		Limit (ppm)
			Freqeuncy (MHz)	Carrier Stability	
$T_{nom}V_{nom}$	802.11n HT20	5180	5180.00310	0.60	20
$T_{min}V_{max}$	802.11n HT20	5180	5180.00510	0.98	20
$T_{min}V_{min}$	802.11n HT20	5180	5180.00510	0.98	20
$T_{max}V_{max}$	802.11n HT20	5180	5179.99740	-0.50	20
$T_{max}V_{min}$	802.11n HT20	5180	5179.99740	-0.50	20
$T_{nom}V_{nom}$	802.11n HT20	5320	5320.00430	0.81	20
$T_{min}V_{max}$	802.11n HT20	5320	5320.00780	1.47	20
$T_{min}V_{min}$	802.11n HT20	5320	5320.00780	1.47	20
$T_{max}V_{max}$	802.11n HT20	5320	5319.99780	-0.41	20
$T_{max}V_{min}$	802.11n HT20	5320	5319.99780	-0.41	20
$T_{nom}V_{nom}$	802.11n HT20	5500	5500.00430	0.78	20
$T_{min}V_{max}$	802.11n HT20	5500	5500.00360	0.65	20
$T_{min}V_{min}$	802.11n HT20	5500	5500.00360	0.65	20
$T_{max}V_{max}$	802.11n HT20	5500	5499.99200	-1.45	20
$T_{max}V_{min}$	802.11n HT20	5500	5499.99200	-1.45	20
$T_{nom}V_{nom}$	802.11n HT20	5700	5700.00630	1.11	20
$T_{min}V_{max}$	802.11n HT20	5700	5700.00920	1.61	20
$T_{min}V_{min}$	802.11n HT20	5700	5700.00920	1.61	20
$T_{max}V_{max}$	802.11n HT20	5700	5699.99350	-1.14	20
$T_{max}V_{min}$	802.11n HT20	5700	5699.99350	-1.14	20

3.2 Occupied Channel Bandwidth

3.2.1 Limit of Occupied Channel Bandwidth

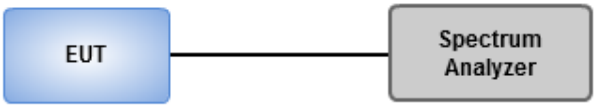
The Nominal Channel Bandwidth shall be at least 5 MHz at all times.

The Occupied Channel Bandwidth shall be between 80 % and 100 % of the declared Nominal Channel Bandwidth. In case of smart antenna systems (devices with multiple transmit chains) each of the transmit chains shall meet this requirement.

3.2.2 Test Procedures

Reference to clause 5.3.3.2 of ETSI EN 301 893 V1.8.1 (2015-03).

3.2.3 Test Setup



3.2.4 Test Result of Occupied Channel Bandwidth

Modulation Mode	Frequency (MHz)	Occupied Channel Bandwidth (MHz)	Occupied Channel Bandwidth Limit (MHz)
802.11a	5180	16.49	16-20
802.11a	5320	17.01	16-20
802.11a	5500	17.94	16-20
802.11a	5700	16.38	16-20
802.11n HT20	5180	17.65	16-20
802.11n HT20	5320	18.11	16-20
802.11n HT20	5500	18.92	16-20
802.11n HT20	5700	17.65	16-20

3.3 RF Output Power, Transmit Power Control (TPC) and Power density

3.3.1 Limit of RF Output Power, Transmit Power Control (TPC) and Power density

E.I.R.P limits for RF output power and power density at the highest power level

Frequency range (MHz)	Mean e.i.r.p. limit [dBm]		Mean e.i.r.p. density limit [dBm/MHz]	
	With TPC	Without TPC	With TPC	Without TPC
5150 to 5350	23	20 / 23 (see note 1)	10	7 / 10 (see note 2)
5470 to 5725	30 (see note 3)	27 (see note 3)	17 (see note 3)	14 (see note 3)

Note 1: The applicable limit is 20 dBm, except for transmissions whose nominal bandwidth falls completely within the band 5150 MHz to 5250 MHz, in which case the applicable limit is 23 dBm.
Note 2: The applicable limit is 7 dBm/MHz except for transmissions whose nominal bandwidth falls completely within the band 5150 MHz to 5250 MHz, in which case the applicable limit is 10 dBm/MHz.
Note 3: Slave devices without a Radar Interference Detection function shall comply with the limits for the band 5250 MHz to 5350 MHz.

E.I.R.P limits for RF output power at the lowest power level

Frequency range (MHz)	Mean e.i.r.p. [dBm]
5250 to 5350	17
5470 to 5725	24 (see note)

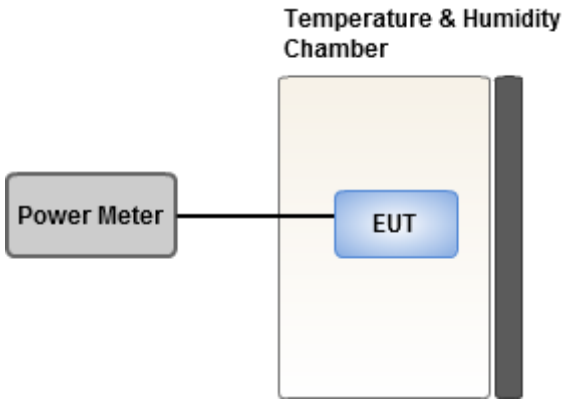
Note: Slave devices without a Radar Interference Detection function shall comply with the limits for the band 5250 MHz to 5350 MHz.

3.3.2 Test Procedures

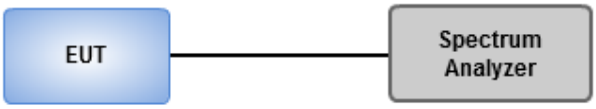
Reference to clause 5.3.4.2 of ETSI EN 301 893 V1.8.1 (2015-03).

3.3.3 Test Setup

For RF Output Power, Transmit Power Control (TPC)



For Power Density



3.3.4 Test Result of RF Output Power at the Highest Power

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11a**	**Limit (dBm)**
$T_{nom}V_{nom}$	5180	19.77	23
$T_{min}V_{max}$	5180	20.30	23
$T_{min}V_{min}$	5180	**20.32**	23
$T_{max}V_{max}$	5180	19.57	23
$T_{max}V_{min}$	5180	19.54	23
$T_{nom}V_{nom}$	5320	19.35	23
$T_{min}V_{max}$	5320	20.11	23
$T_{min}V_{min}$	5320	**20.13**	23
$T_{max}V_{max}$	5320	19.15	23
$T_{max}V_{min}$	5320	19.13	23
$T_{nom}V_{nom}$	5500	19.95	23
$T_{min}V_{max}$	5500	20.40	23
$T_{min}V_{min}$	5500	**20.42**	23
$T_{max}V_{max}$	5500	19.41	23
$T_{max}V_{min}$	5500	19.38	23
$T_{nom}V_{nom}$	5700	19.35	23
$T_{min}V_{max}$	5700	19.99	23
$T_{min}V_{min}$	5700	20.02	23
$T_{max}V_{max}$	5700	18.83	23
$T_{max}V_{min}$	5700	18.81	23

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11n HT20**	**Limit (dBm)**
$T_{nom}V_{nom}$	5180	19.57	23
$T_{min}V_{max}$	5180	19.89	23
$T_{min}V_{min}$	5180	19.92	23
$T_{max}V_{max}$	5180	19.41	23
$T_{max}V_{min}$	5180	19.39	23
$T_{nom}V_{nom}$	5320	19.05	23
$T_{min}V_{max}$	5320	19.56	23
$T_{min}V_{min}$	5320	19.58	23
$T_{max}V_{max}$	5320	18.88	23
$T_{max}V_{min}$	5320	18.86	23
$T_{nom}V_{nom}$	5500	19.85	23
$T_{min}V_{max}$	5500	20.21	23
$T_{min}V_{min}$	5500	20.24	23
$T_{max}V_{max}$	5500	19.34	23
$T_{max}V_{min}$	5500	19.32	23
$T_{nom}V_{nom}$	5700	18.45	23
$T_{min}V_{max}$	5700	19.07	23
$T_{min}V_{min}$	5700	19.09	23
$T_{max}V_{max}$	5700	17.98	23
$T_{max}V_{min}$	5700	17.96	23

3.3.5 Test Result of RF Output Power at the Lowest Power

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11a**	**Limit (dBm)**
$T_{nom}V_{nom}$	5320	13.35	17
$T_{min}V_{max}$	5320	14.11	17
$T_{min}V_{min}$	5320	14.13	17
$T_{max}V_{max}$	5320	13.15	17
$T_{max}V_{min}$	5320	13.13	17
$T_{nom}V_{nom}$	5500	13.95	17
$T_{min}V_{max}$	5500	14.40	17
$T_{min}V_{min}$	5500	14.42	17
$T_{max}V_{max}$	5500	13.41	17
$T_{max}V_{min}$	5500	13.38	17
$T_{nom}V_{nom}$	5700	13.35	17
$T_{min}V_{max}$	5700	13.99	17
$T_{min}V_{min}$	5700	14.02	17
$T_{max}V_{max}$	5700	12.83	17
$T_{max}V_{min}$	5700	12.81	17

Maximum Transmit Power (dBm)			
Condition	**Freq. (MHz)**	**802.11n HT20**	**Limit (dBm)**
$T_{nom}V_{nom}$	5320	13.05	17
$T_{min}V_{max}$	5320	13.56	17
$T_{min}V_{min}$	5320	13.58	17
$T_{max}V_{max}$	5320	12.88	17
$T_{max}V_{min}$	5320	12.86	17
$T_{nom}V_{nom}$	5500	13.85	17
$T_{min}V_{max}$	5500	14.21	17
$T_{min}V_{min}$	5500	14.24	17
$T_{max}V_{max}$	5500	13.34	17
$T_{max}V_{min}$	5500	13.32	17
$T_{nom}V_{nom}$	5700	12.45	17
$T_{min}V_{max}$	5700	13.07	17
$T_{min}V_{min}$	5700	13.09	17
$T_{max}V_{max}$	5700	11.98	17
$T_{max}V_{min}$	5700	11.96	17

3.3.6 Test Result of Power Density

Modulation Mode	Freq. (MHz)	Power Density (dBm/1MHz) e.i.r.p.	Limit (dBm/1MHz) e.i.r.p.	Results
802.11a	5180	8.79	10	Pass
802.11a	5320	8.86	10	Pass
802.11a	5500	9.80	10	Pass
802.11a	5700	8.83	10	Pass
802.11n HT20	5180	8.61	10	Pass
802.11n HT20	5320	8.37	10	Pass
802.11n HT20	5500	9.12	10	Pass
802.11n HT20	5700	8.22	10	Pass

3.4 Transmitter Unwanted Emissions outside the 5 GHz RLAN Bands

3.4.1 Limit of Transmitter Unwanted Emissions outside the 5 GHz RLAN Bands

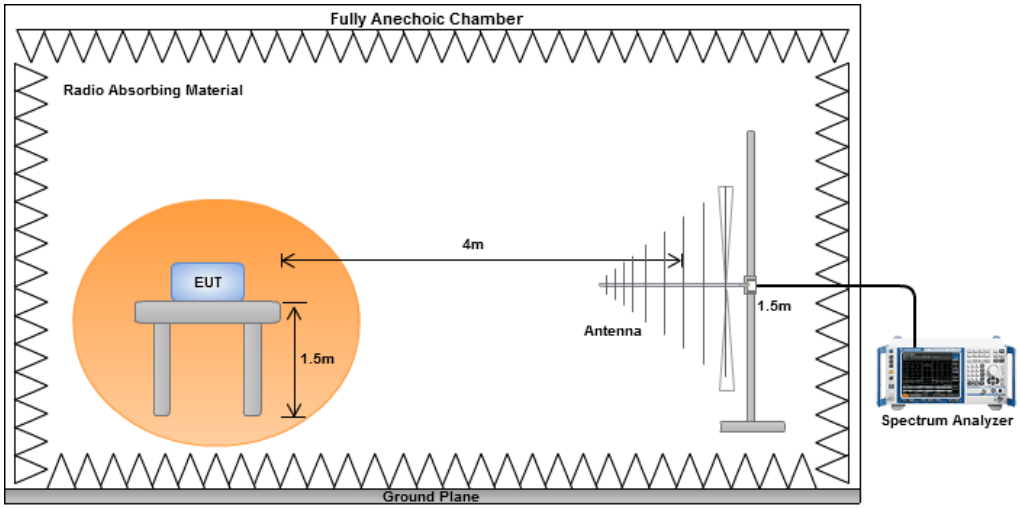
Frequency Range	Maximum Power	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 862 MHz	-54 dBm	100 kHz
862 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 5,15 GHz	-30 dBm	1 MHz
5,35 GHz to 5,47 GHz	-30 dBm	1 MHz
5,725 GHz to 26 GHz	-30 dBm	1 MHz

3.4.2 Test Procedures

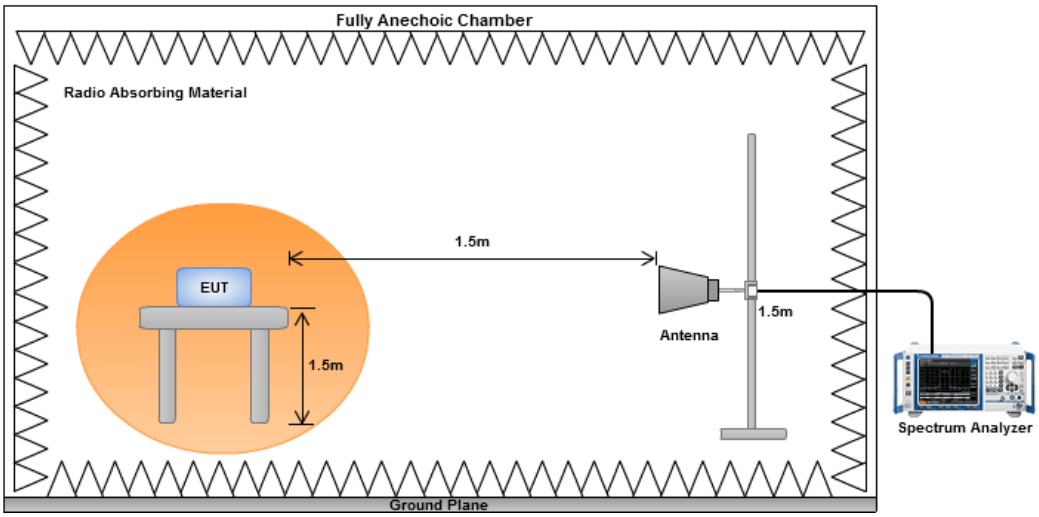
Reference to clause 5.3.5.2 of ETSI EN 301 893 V1.8.1 (2015-03).

3.4.3 Test Setup

Below 1GHz

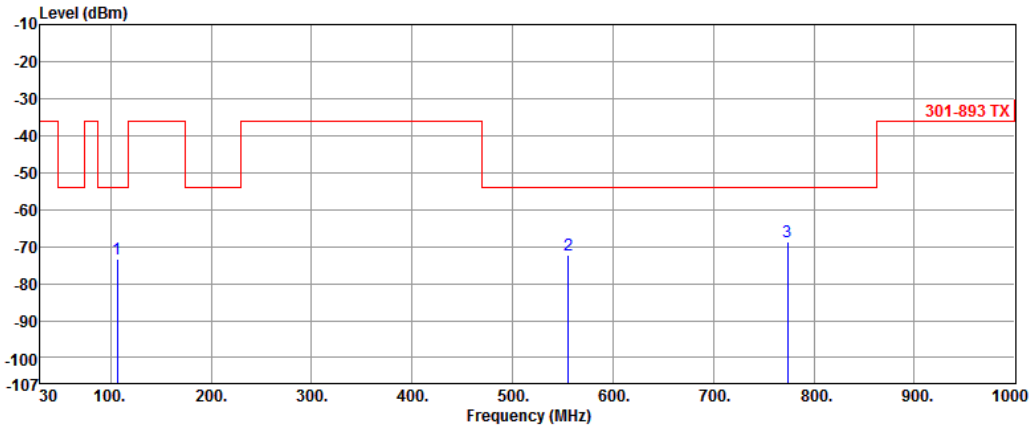


Above 1 GHz



3.4.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

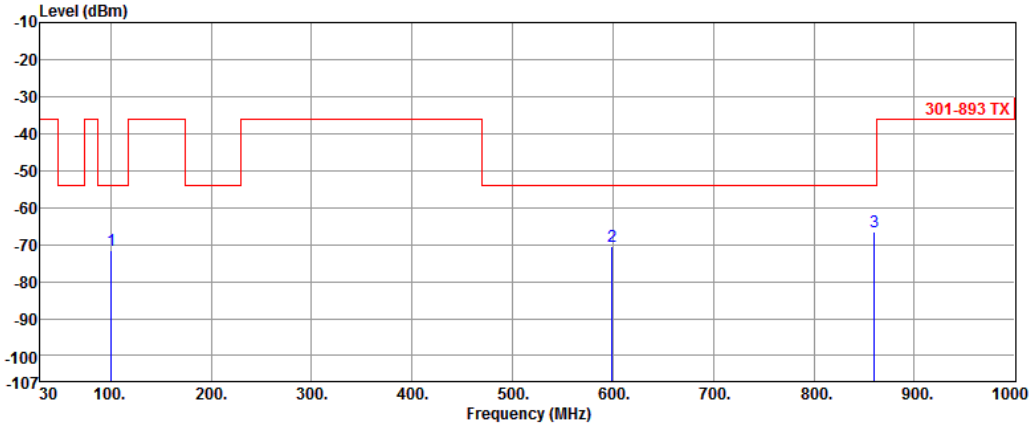
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	106.63	-73.21	-54.00	-19.21	-5.41	-67.80
2	555.74	-72.32	-54.00	-18.32	4.95	-77.27
3	773.99	-68.67	-54.00	-14.67	8.95	-77.62

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

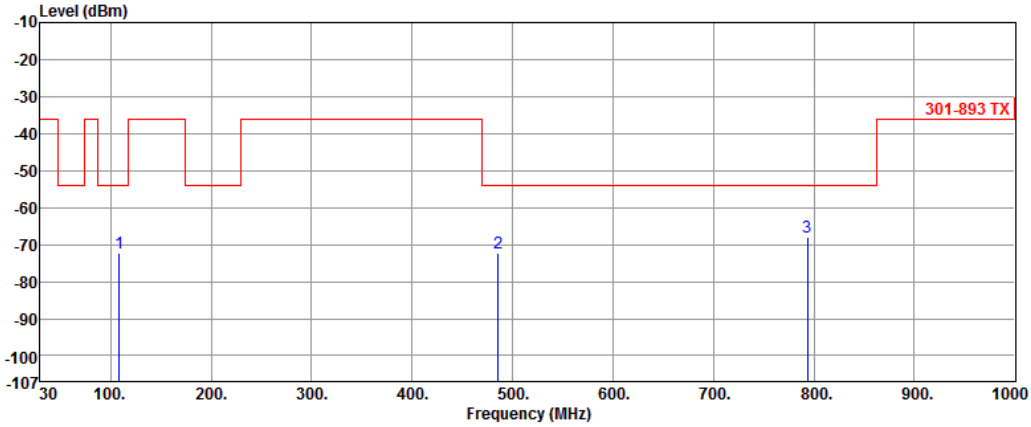
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Measured value dBm	Limit dBm	Margin dB	Factor dB	Reading dBm
1	100.81	-71.60	-54.00	-17.60	-4.70	-66.90
2	599.39	-70.62	-54.00	-16.62	6.78	-77.40
3	860.32	-66.47	-54.00	-12.47	10.47	-76.94

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

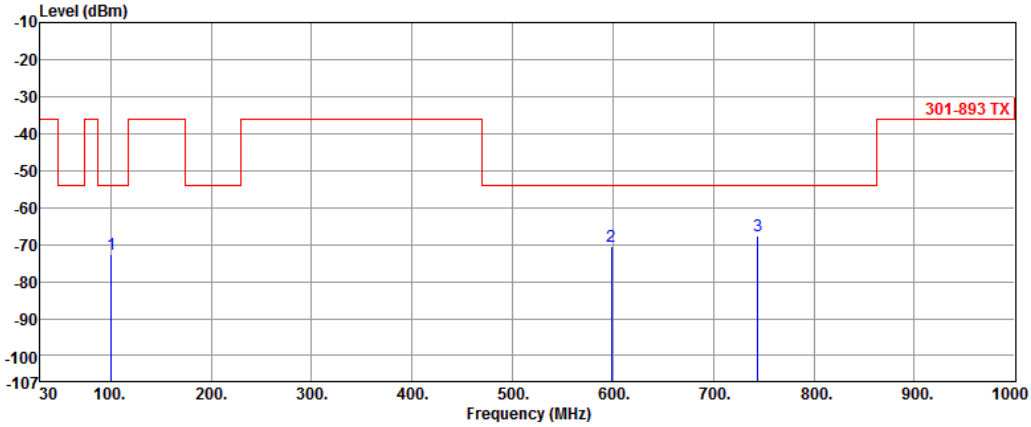
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	108.57	-72.36	-54.00	-18.36	-4.98	-67.38
2	485.90	-72.32	-54.00	-18.32	3.42	-75.74
3	793.39	-68.07	-54.00	-14.07	9.31	-77.38

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

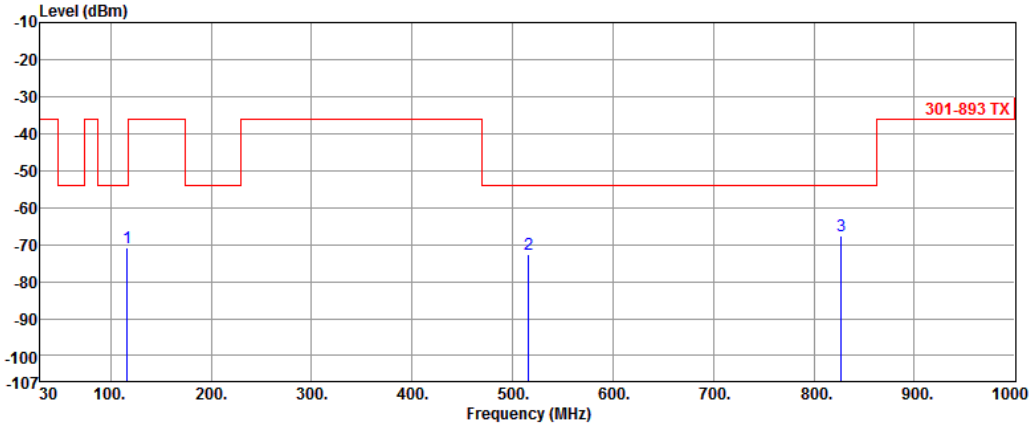
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	100.81	-72.65	-54.00	-18.65	-4.70	-67.95
2	598.42	-70.34	-54.00	-16.34	6.77	-77.11
3	743.92	-67.77	-54.00	-13.77	9.14	-76.91

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

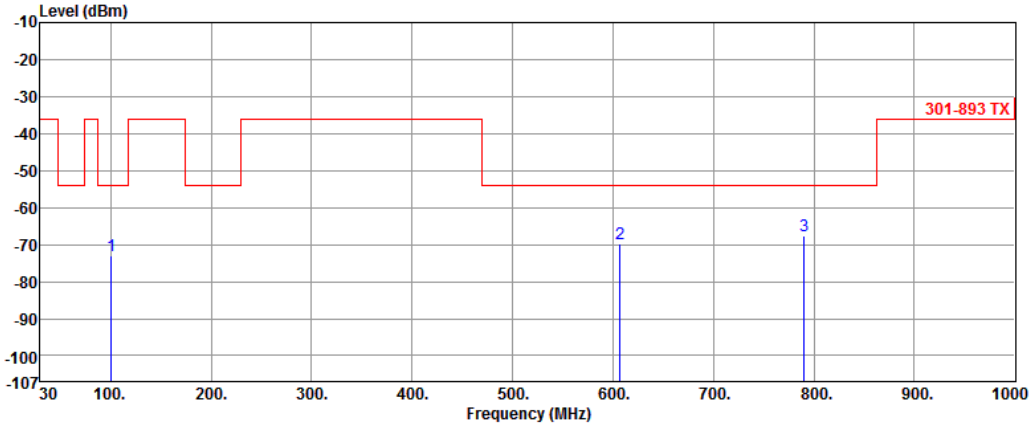
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	116.33	-70.70	-54.00	-16.70	-4.18	-66.52
2	515.97	-72.75	-54.00	-18.75	4.09	-76.84
3	827.34	-67.50	-54.00	-13.50	9.84	-77.34

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

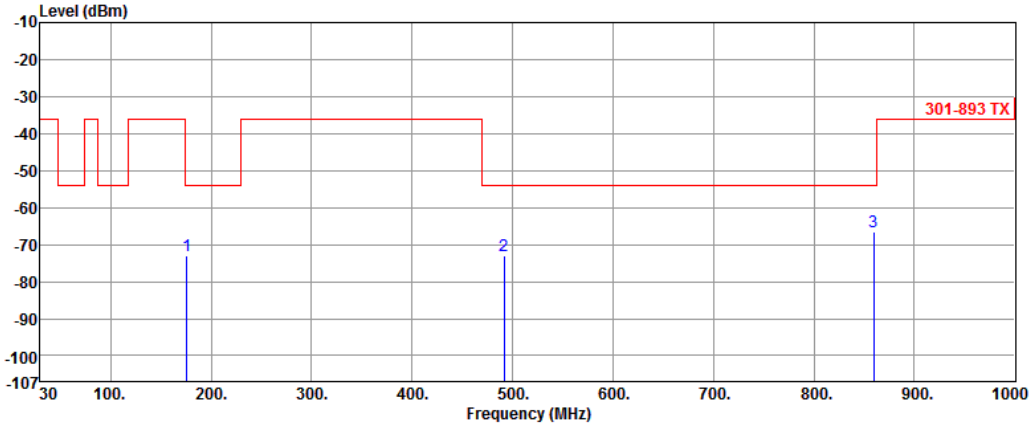
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	100.81	-72.98	-54.00	-18.98	-4.70	-68.28
2	607.15	-69.89	-54.00	-15.89	7.23	-77.12
3	790.48	-67.66	-54.00	-13.66	9.27	-76.93

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

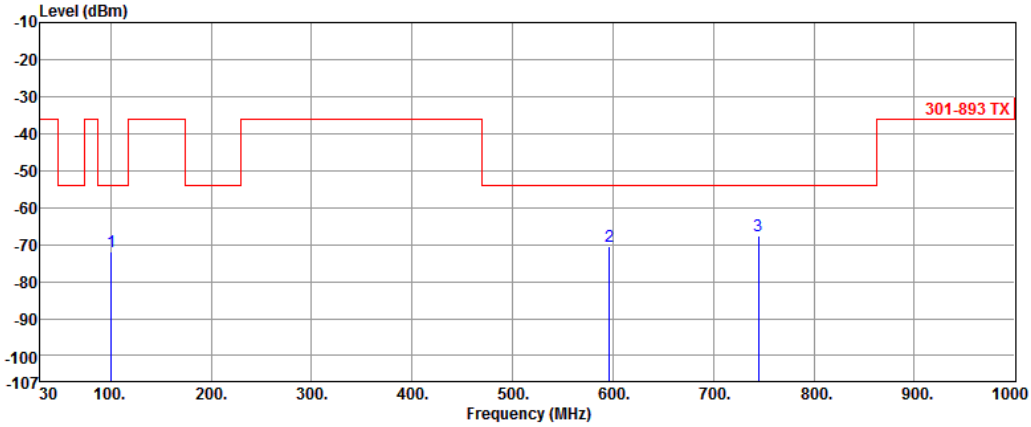
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	175.50	-73.07	-54.00	-19.07	-2.96	-70.11
2	491.72	-72.99	-54.00	-18.99	3.55	-76.54
3	859.35	-66.48	-54.00	-12.48	10.24	-76.72

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		

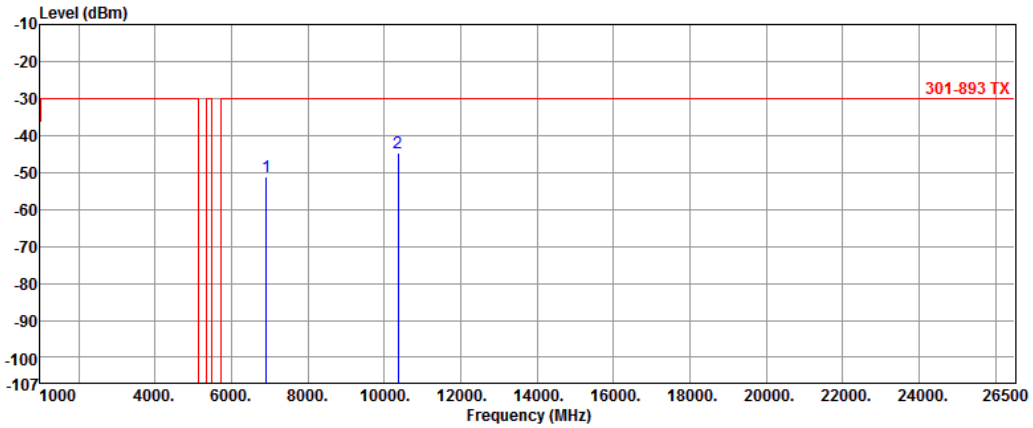


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	100.81	-72.03	-54.00	-18.03	-4.70	-67.33
2	596.48	-70.41	-54.00	-16.41	6.75	-77.16
3	744.89	-67.72	-54.00	-13.72	9.18	-76.90

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

3.4.5 Transmitter Radiated Unwanted Emissions (Above 1GHz)

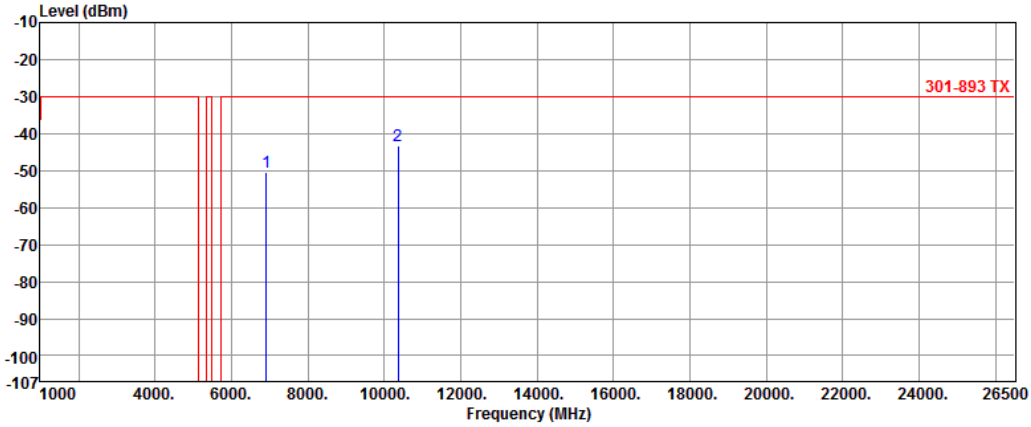
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.32	-51.03	-30.00	-21.03	13.68	-64.71
2	10361.50	-44.78	-30.00	-14.78	19.20	-63.98

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

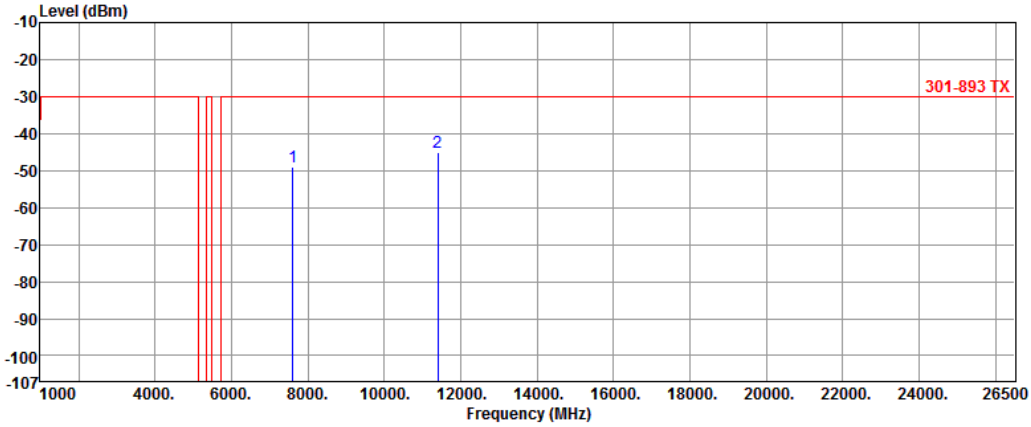
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.92	-50.52	-30.00	-20.52	13.81	-64.33
2	10361.89	-43.13	-30.00	-13.13	20.25	-63.38

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

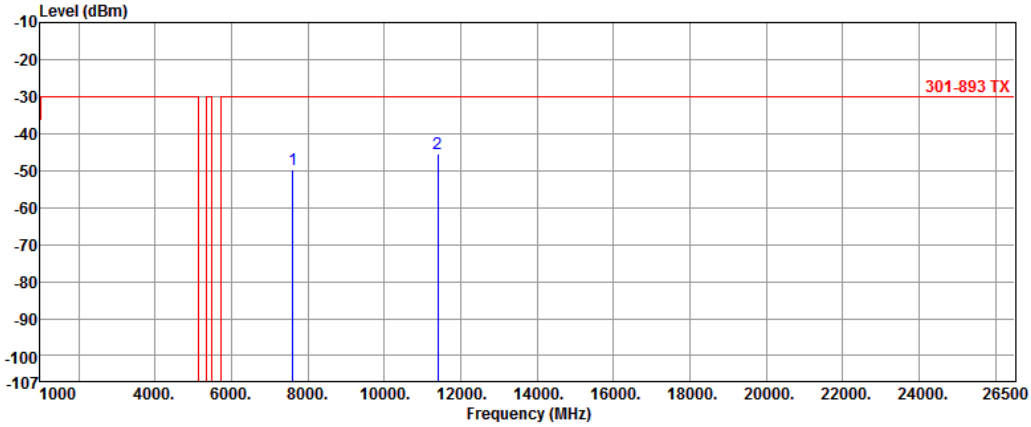
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7599.97	-49.09	-30.00	-19.09	14.70	-63.79
2	11399.44	-45.17	-30.00	-15.17	18.69	-63.86

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

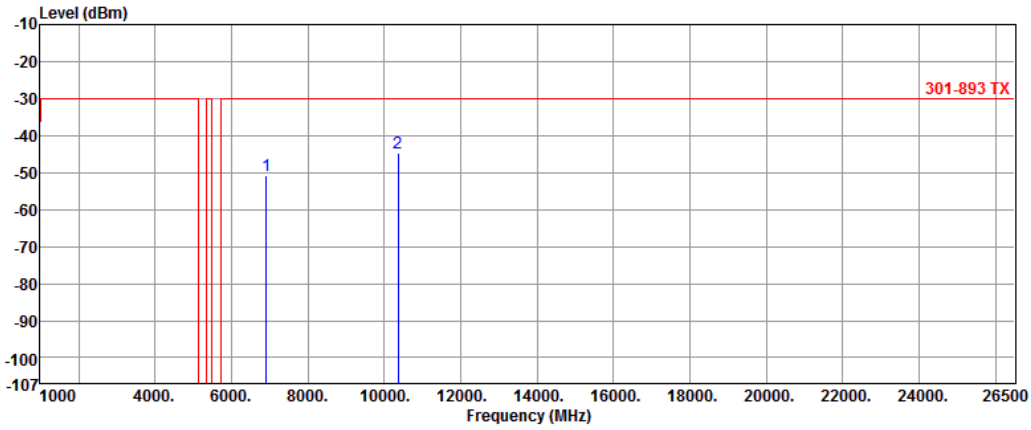
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7601.37	-49.87	-30.00	-19.87	14.42	-64.29
2	11399.96	-45.32	-30.00	-15.32	18.55	-63.87

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

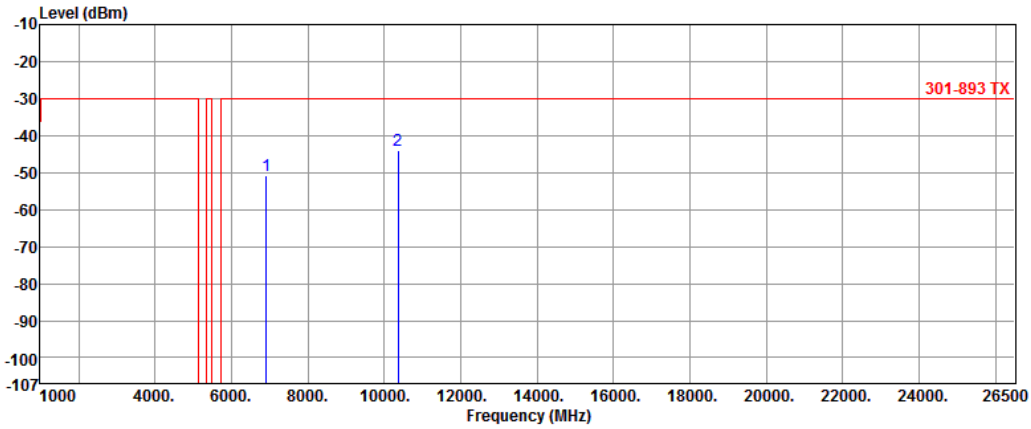
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6904.35	-50.66	-30.00	-20.66	13.68	-64.34
2	10359.59	-44.81	-30.00	-14.81	19.20	-64.01

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

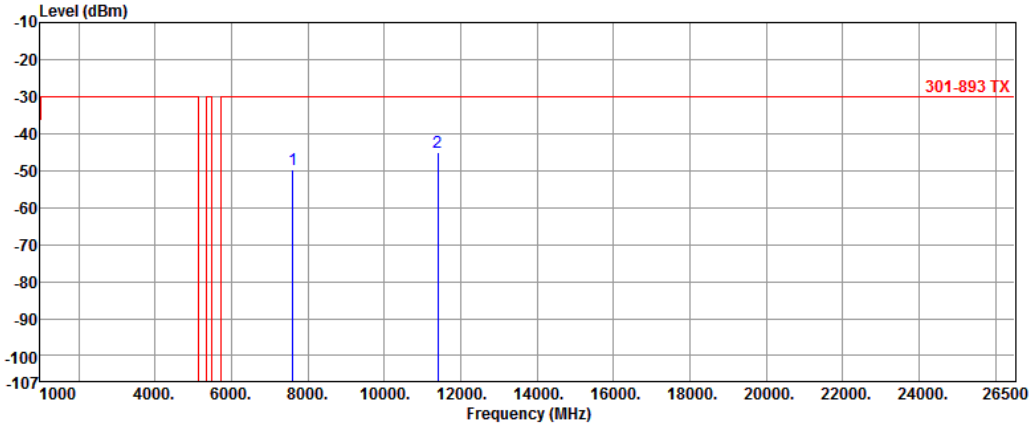
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.76	-50.89	-30.00	-20.89	13.81	-64.70
2	10361.07	-43.89	-30.00	-13.89	20.25	-64.14

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

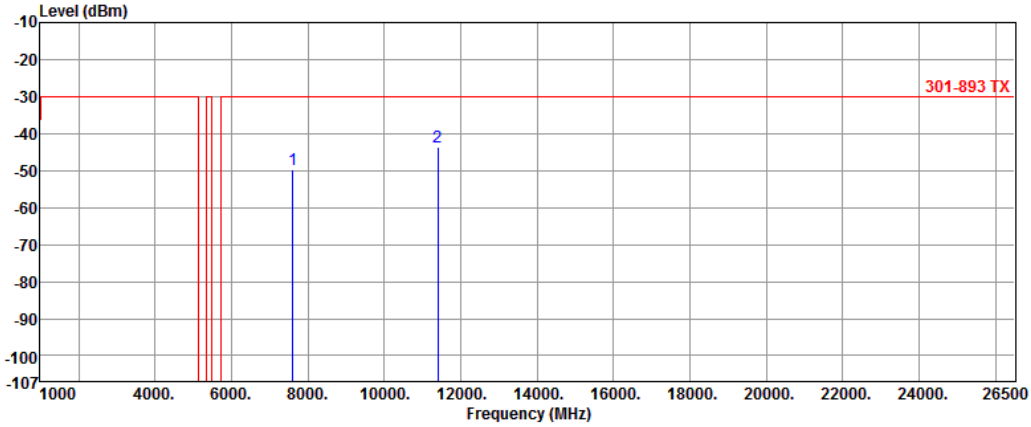
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7600.24	-49.67	-30.00	-19.67	14.70	-64.37
2	11397.54	-44.95	-30.00	-14.95	18.69	-63.64

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		

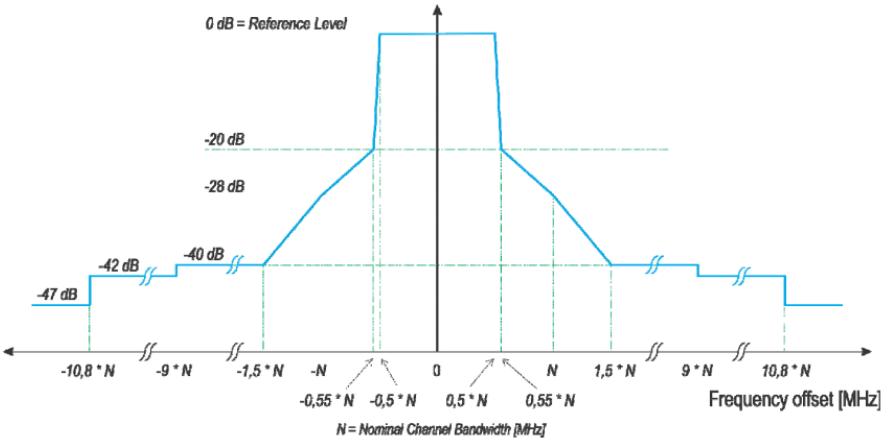


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7599.80	-49.64	-30.00	-19.64	14.42	-64.06
2	11401.21	-43.55	-30.00	-13.55	18.55	-62.10

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

3.5 Transmitter Unwanted Emissions within the 5 GHz RLAN Band

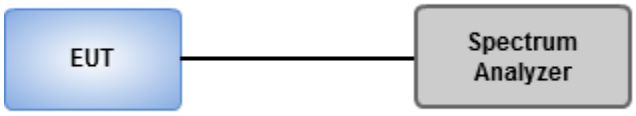
3.5.1 Limit of Transmitter Unwanted Emissions within the 5 GHz RLAN Band



3.5.2 Test Procedures

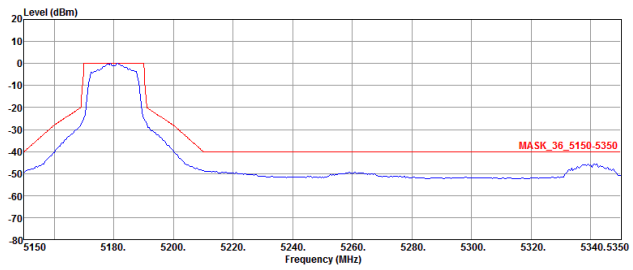
Reference to clause 5.3.6.2 of ETSI EN 301 893 V1.8.1 (2015-03).

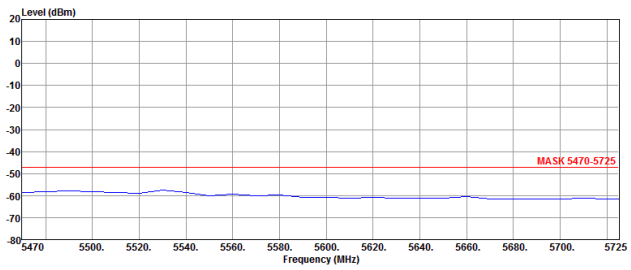
3.5.3 Test Setup



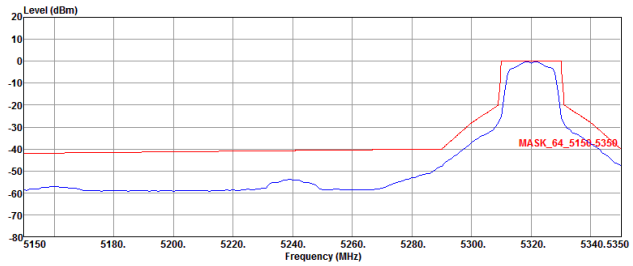
3.5.4 Test Result of Transmitter Unwanted Emissions within the 5 GHz RLAN Band for 802.11a

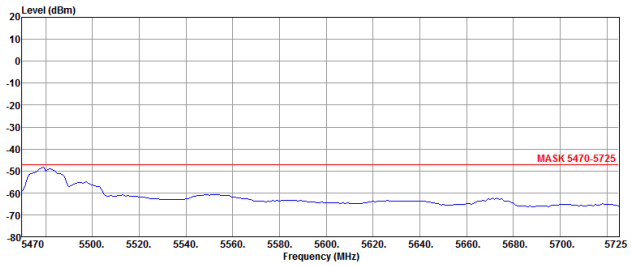
5180MHz



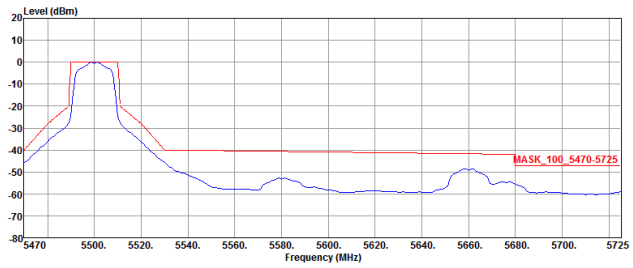


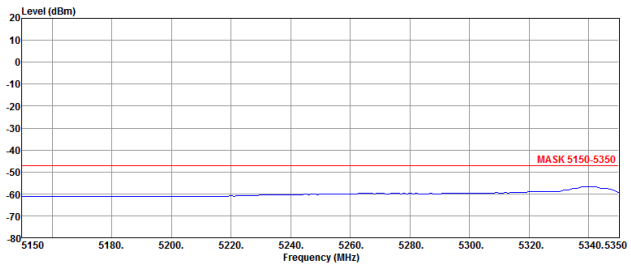
5320MHz



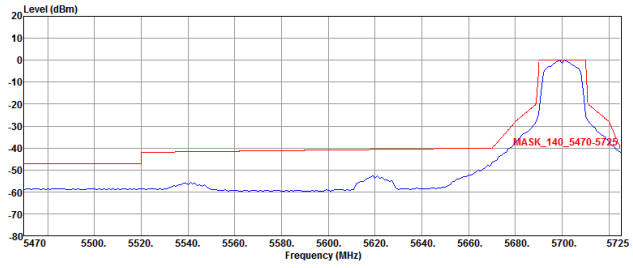


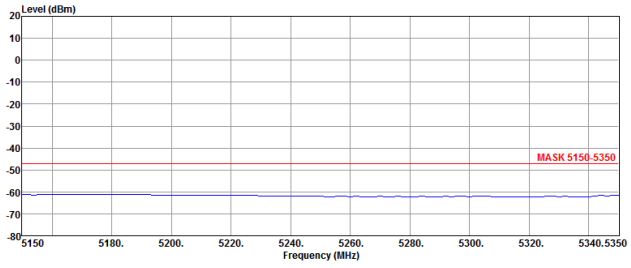
5500MHz





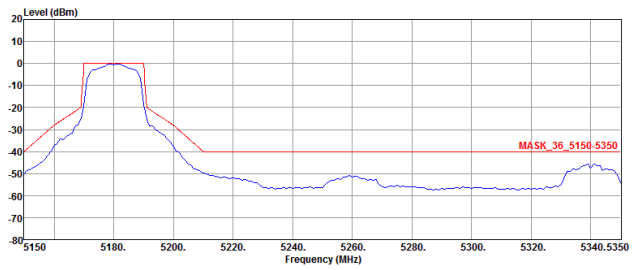
5700MHz

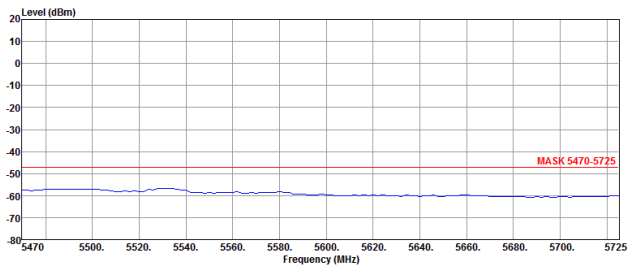




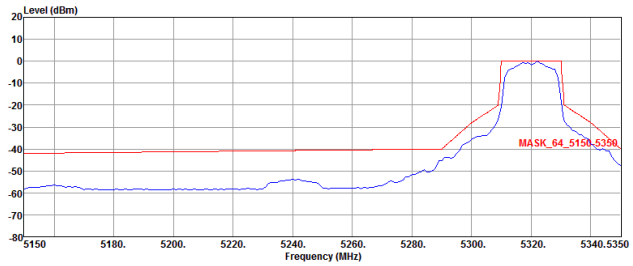
3.5.5 Test Result of Transmitter Unwanted Emissions within the 5 GHz RLAN Band for 802.11n HT20

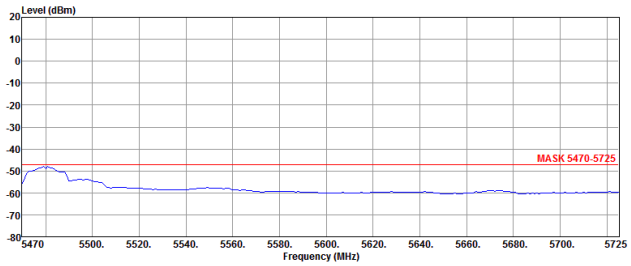
5180MHz



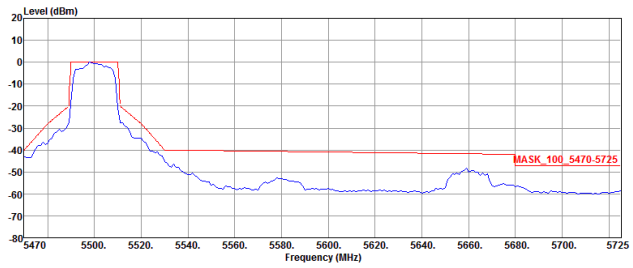


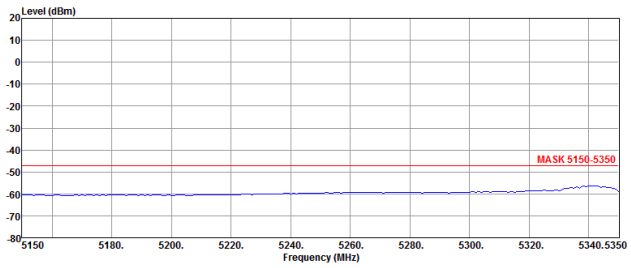
5320MHz



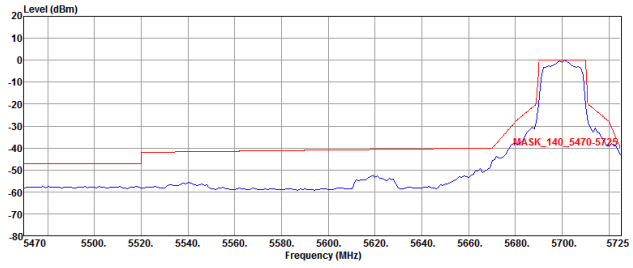


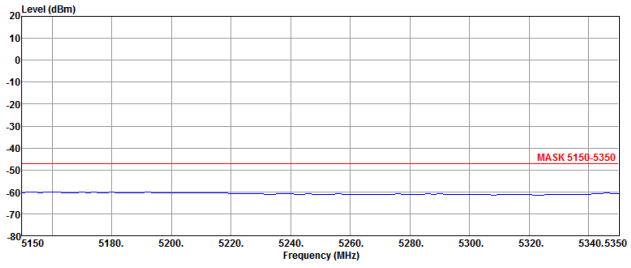
5500MHz





5700MHz





4 Receiver Test Results

4.1 Receiver Spurious Emissions

4.1.1 Limit of Receiver Spurious Emissions

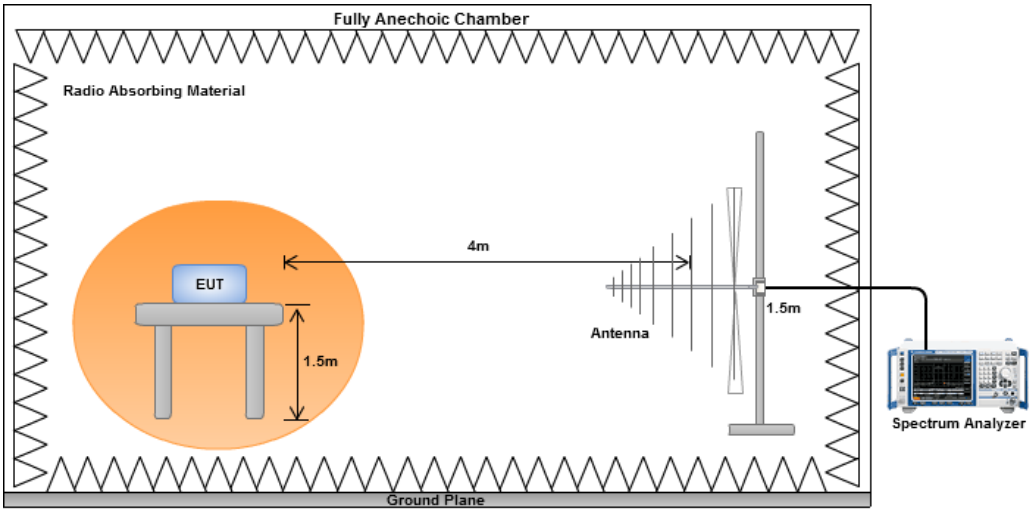
Frequency Range	Maximum power	Measurement bandwidth
30 MHz to 1 GHz	-57 dBm	100kHz
1 GHz to 26 GHz	-47 dBm	1MHz

4.1.2 Test Procedures

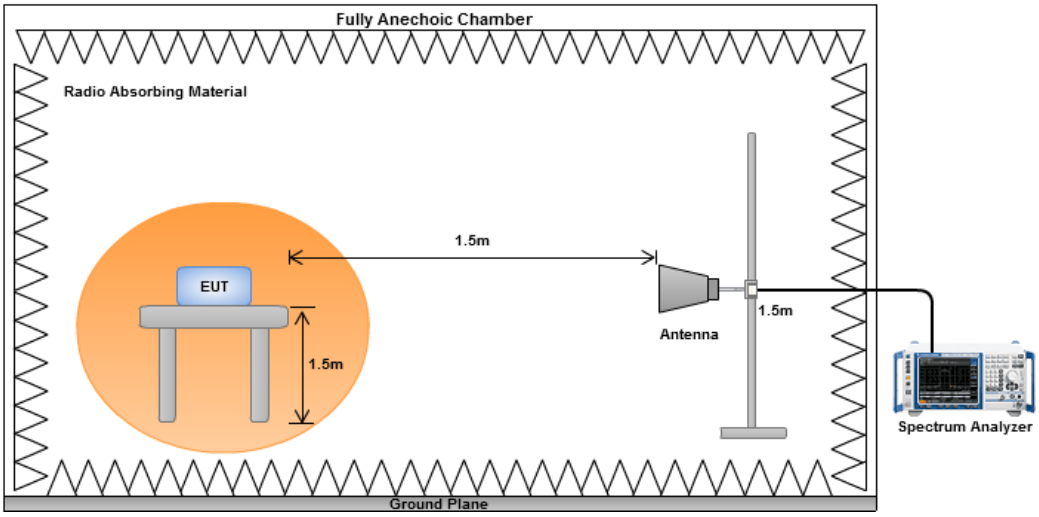
Reference to clause 5.3.7.2 of ETSI EN 301 893 V1.8.1 (2015-03).

4.1.3 Test Setup

Below 1GHz

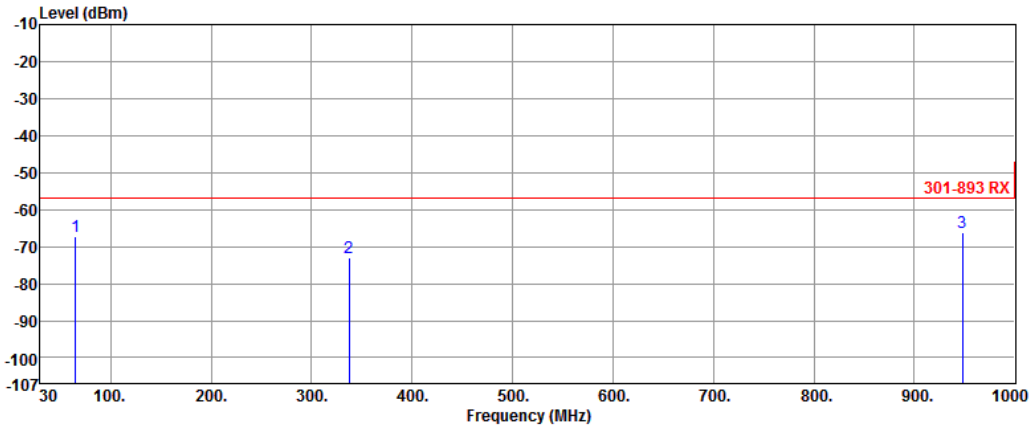


Above 1 GHz



4.1.4 Receiver Spurious Emissions (Below 1GHz)

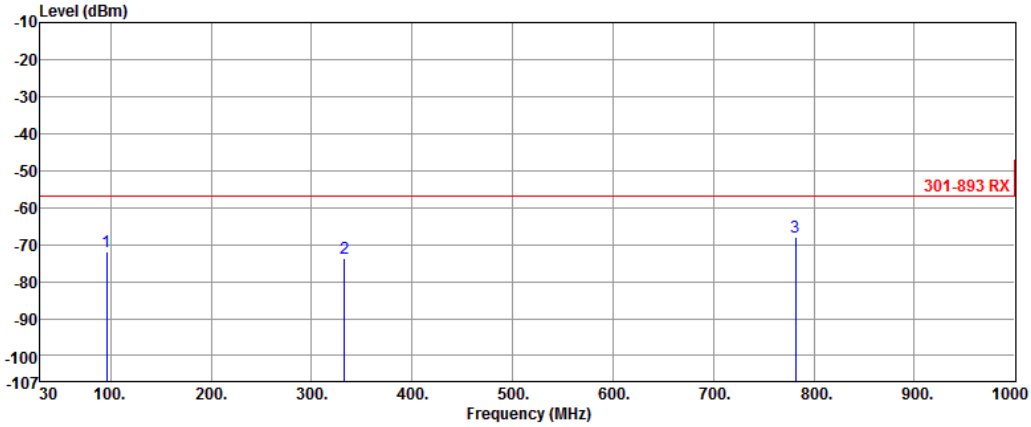
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	64.92	-67.33	-57.00	-10.33	-3.05	-64.28
2	337.49	-72.99	-57.00	-15.99	0.30	-73.29
3	947.62	-66.30	-57.00	-9.30	11.54	-77.84

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

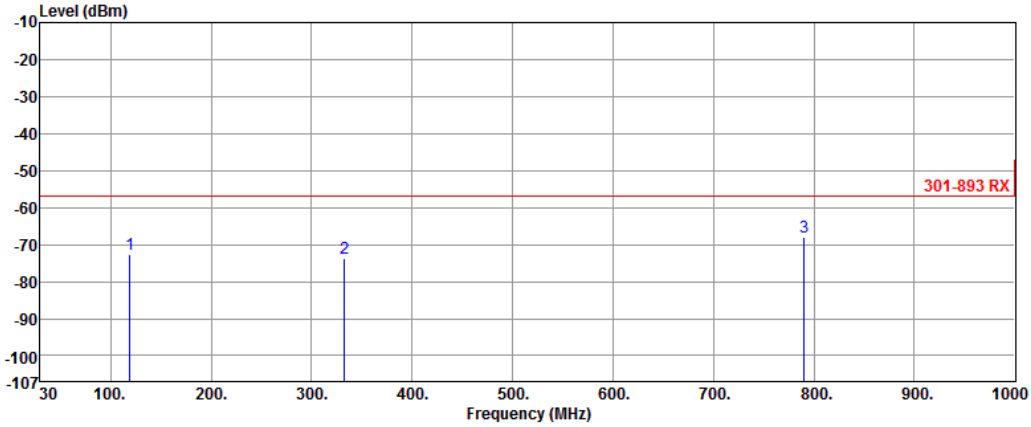
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	95.96	-71.76	-57.00	-14.76	-4.67	-67.09
2	332.64	-73.72	-57.00	-16.72	0.07	-73.79
3	781.75	-68.10	-57.00	-11.10	9.09	-77.19

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

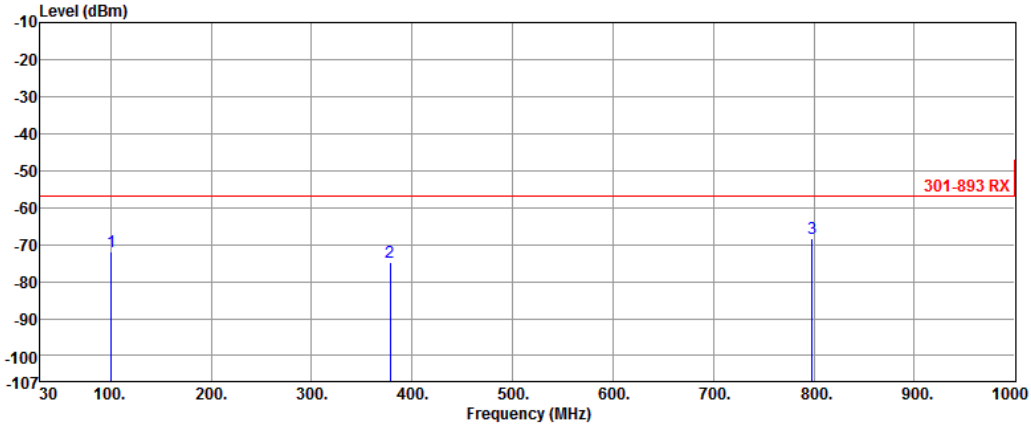
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	119.24	-72.71	-57.00	-15.71	-4.06	-68.65
2	332.64	-73.63	-57.00	-16.63	0.24	-73.87
3	790.48	-68.16	-57.00	-11.16	9.29	-77.45

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

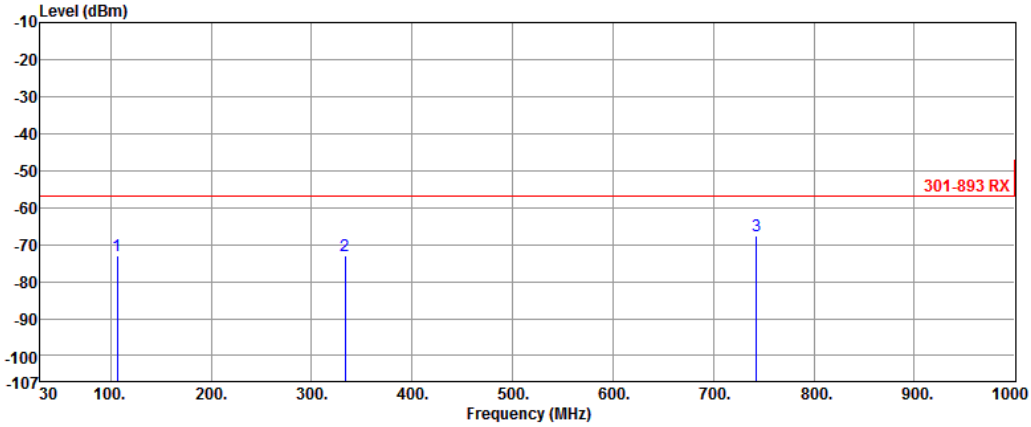
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	100.81	-72.08	-57.00	-15.08	-4.70	-67.38
2	378.23	-74.91	-57.00	-17.91	1.12	-76.03
3	798.24	-68.28	-57.00	-11.28	9.46	-77.74

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

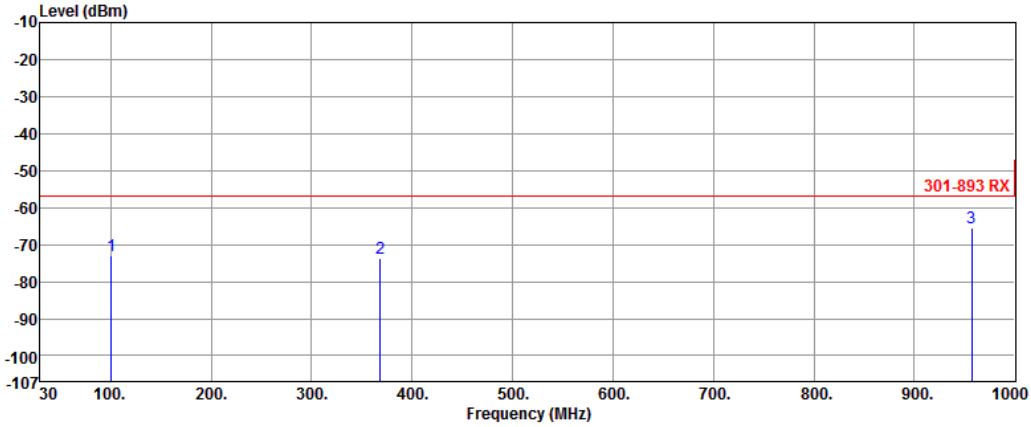
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	106.63	-72.90	-57.00	-15.90	-5.41	-67.49
2	333.61	-72.92	-57.00	-15.92	0.25	-73.17
3	742.95	-67.74	-57.00	-10.74	8.64	-76.38

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

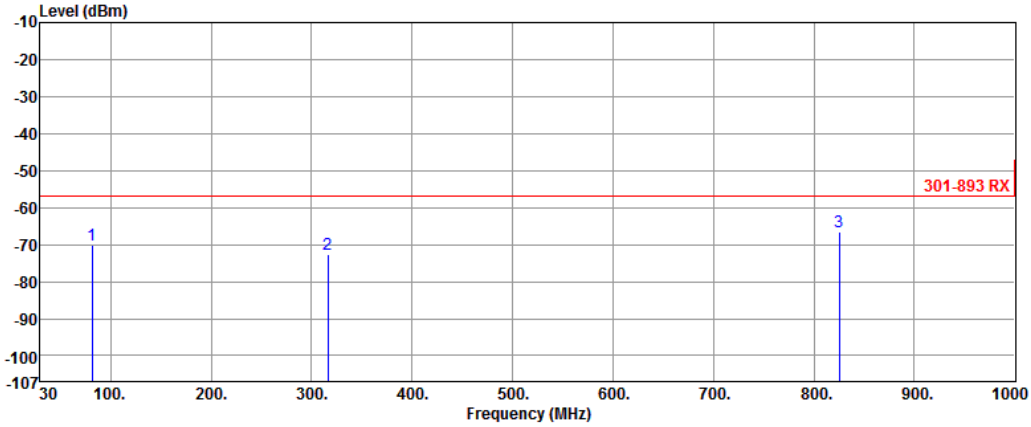
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	100.81	-72.99	-57.00	-15.99	-4.70	-68.29
2	368.53	-73.77	-57.00	-16.77	0.99	-74.76
3	957.32	-65.60	-57.00	-8.60	11.70	-77.30

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

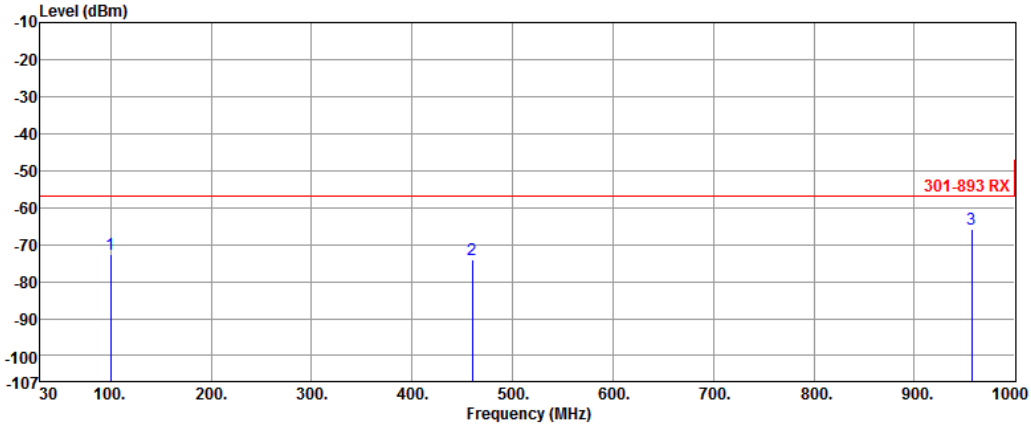
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	81.41	-70.06	-57.00	-13.06	-5.32	-64.74
2	316.15	-72.73	-57.00	-15.73	-0.30	-72.43
3	825.40	-66.53	-57.00	-9.53	9.84	-76.37

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		

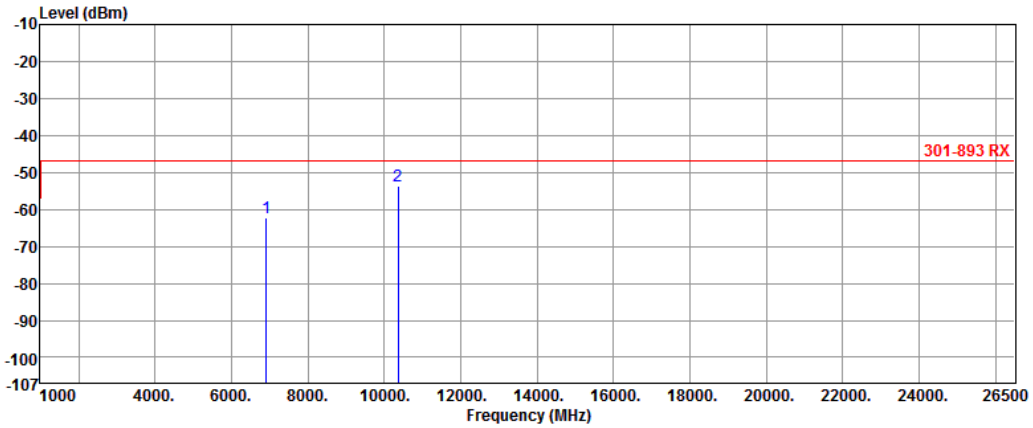


	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	99.84	-72.67	-57.00	-15.67	-4.98	-67.69
2	459.71	-74.08	-57.00	-17.08	3.00	-77.08
3	957.32	-65.75	-57.00	-8.75	11.70	-77.45

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

4.1.5 Receiver Spurious Emissions (Above 1GHz)

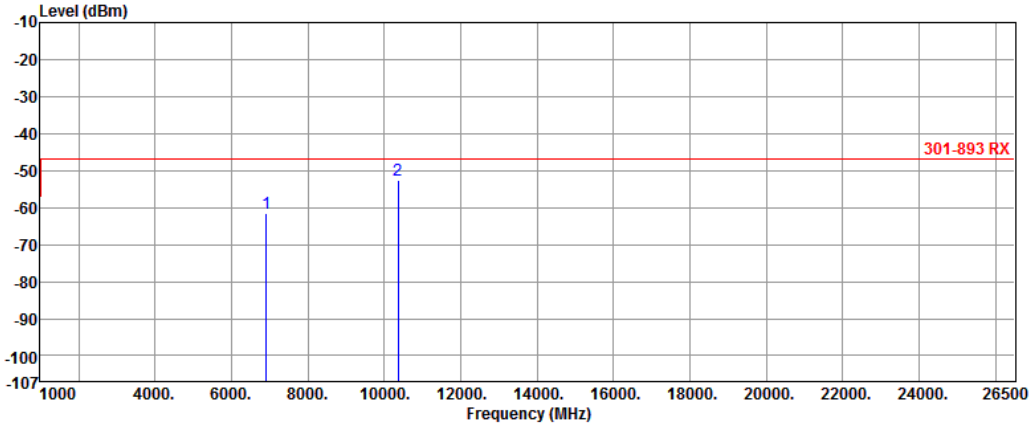
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.42	-62.18	-47.00	-15.18	13.68	-75.86
2	10359.98	-53.69	-47.00	-6.69	19.20	-72.89

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

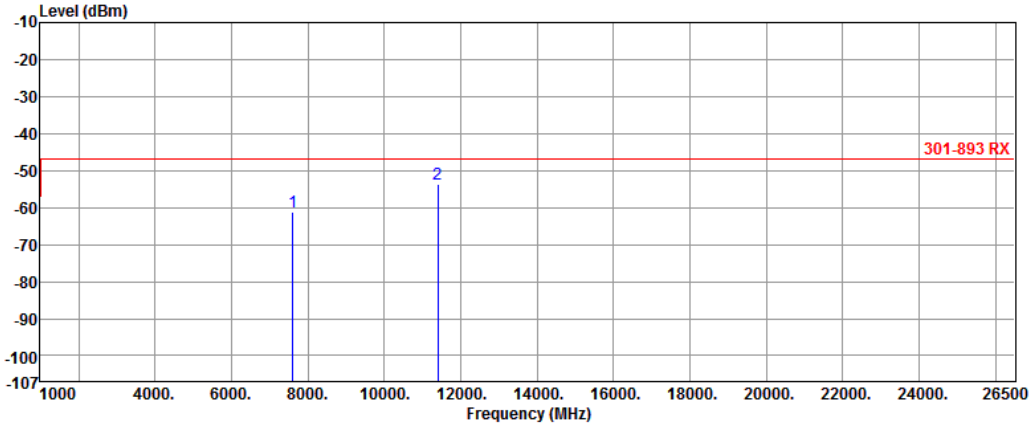
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.83	-61.67	-47.00	-14.67	13.81	-75.48
2	10360.71	-52.68	-47.00	-5.68	20.25	-72.93

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

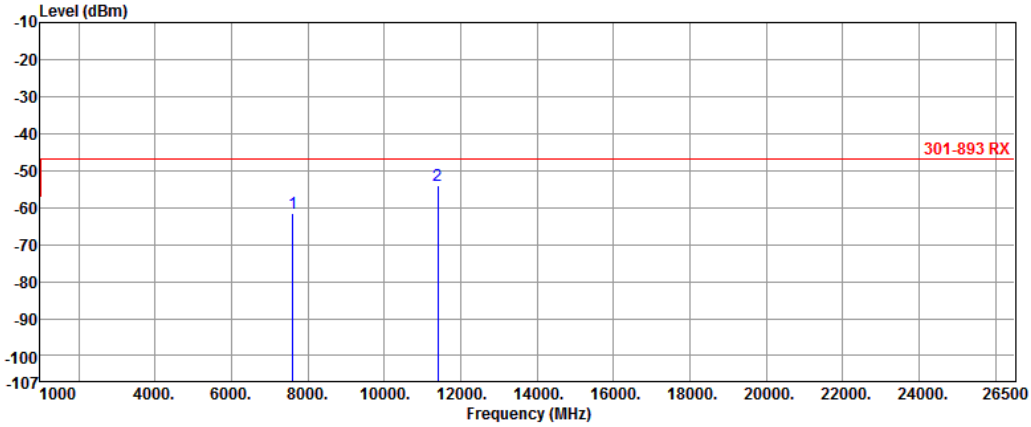
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7601.74	-61.20	-47.00	-14.20	14.69	-75.89
2	11402.64	-53.80	-47.00	-6.80	18.69	-72.49

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

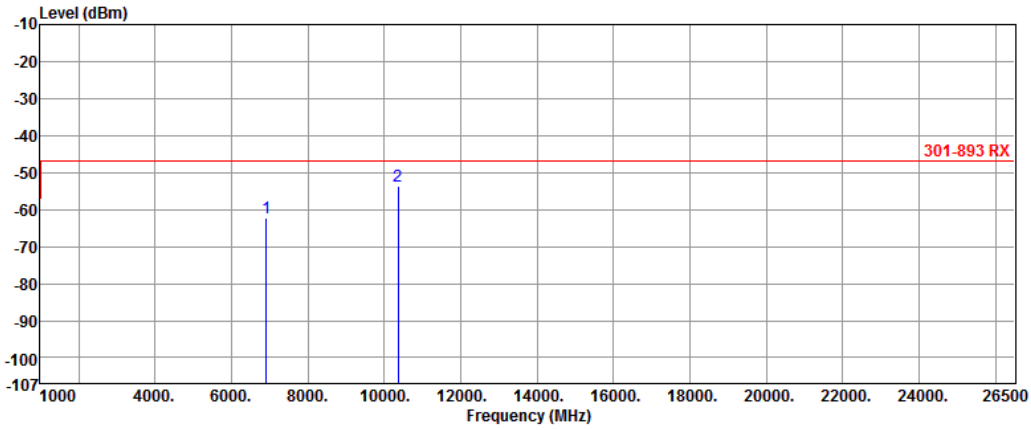
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7599.87	-61.59	-47.00	-14.59	14.42	-76.01
2	11404.08	-53.90	-47.00	-6.90	18.56	-72.46

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

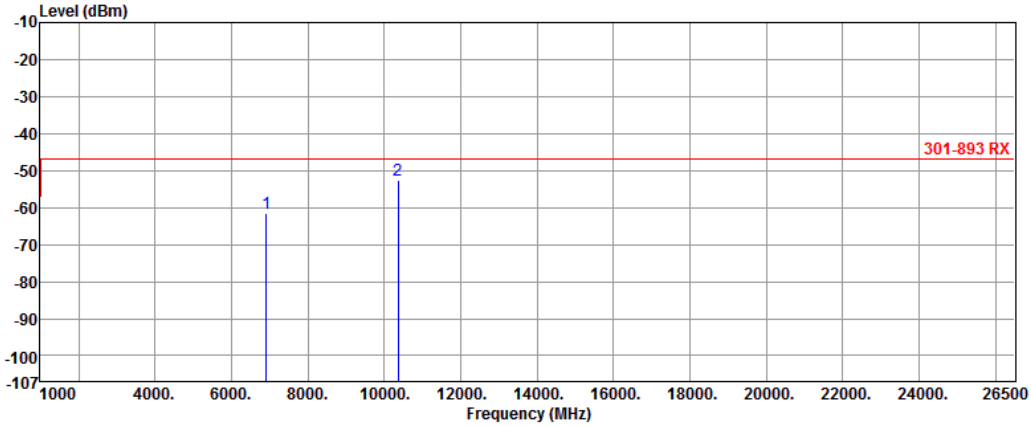
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.41	-62.08	-47.00	-15.08	13.68	-75.76
2	10359.96	-53.73	-47.00	-6.73	19.20	-72.93

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

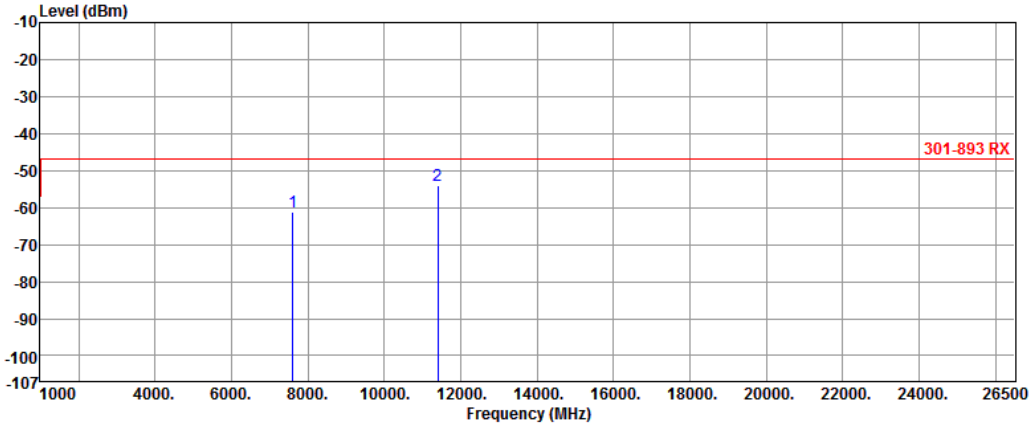
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	6906.80	-61.50	-47.00	-14.50	13.81	-75.31
2	10360.75	-52.72	-47.00	-5.72	20.25	-72.97

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

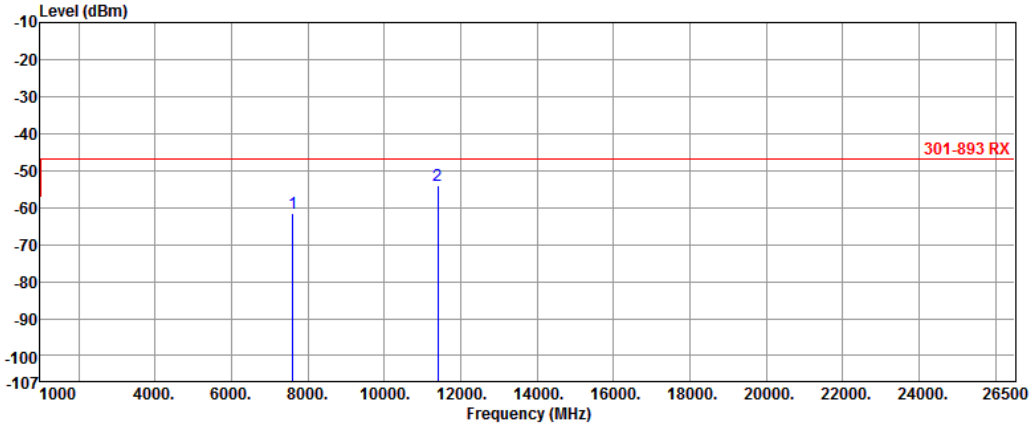
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7601.76	-61.14	-47.00	-14.14	14.69	-75.83
2	11402.60	-53.86	-47.00	-6.86	18.69	-72.55

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq.	Measured value	Limit	Margin	Factor	Reading
	MHz	dBm	dBm	dB	dB	dBm
1	7599.81	-61.41	-47.00	-14.41	14.42	-75.83
2	11404.10	-54.00	-47.00	-7.00	18.56	-72.56

Note 1: Measured Value (dBm) = Reading (dBm) + Factor (dB)
Note 2: Margin (dB) = Measured Value (dBm) – Limit (dBm)

5 Adaptivity Test Results

5.1 Adaptivity

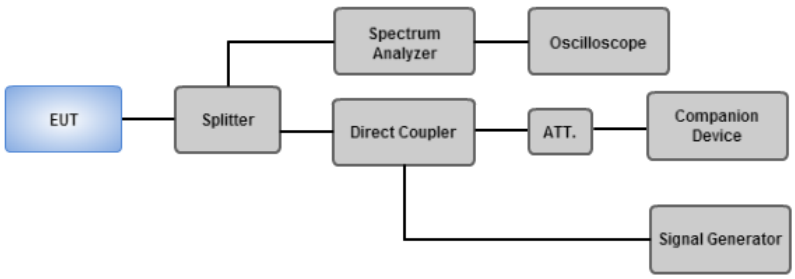
5.1.1 Adaptivity Limit

Adaptivity Limit
☐ LBT based Detect and Avoid (Frame Based Equipment): ◆ Clear Channel Assessment (CCA) time shall be not less than 20 us; ◆ Channel Occupancy Time (COT) shall be in the range 1 ms ~ 10 ms ◆ Minimum Idle Period shall be at least 5 % of Channel Occupancy Time
☒ Load based Equipment may implement an LBT based spectrum sharing mechanism based on the Clear Channel Assessment (CCA) mode using "energy detect", as described in IEEE 802.11™-2012 [8], clause 9, clause 10, clause 18 and clause 20 or as described in IEEE 802.11ac™-2013 [9], clause 8, clause 9, clause 10 and clause 22
☐ LBT based Detect and Avoid (Load Based Equipment): ☐ Option A ◆ Clear Channel Assessment (CCA) time shall be not less than 20 us ◆ Extended CCA(q * observed slots) observed slot: 18us (ECCA time slot)or Busy slot q=16~1024 / N=1~q ◆ Channel Occupancy Time (COT) shall be less than 10 ms ◆ Idle Period is equal to CCA or ECCA ☐ Option B ◆ Clear Channel Assessment (CCA) time shall be not less than 20 us ◆ Extended CCA: N*CCA N:1~q randomly / q=4~32 (q is selected by the manufacturer) ◆ Channel Occupancy Time (COT) (13/32*q)ms ◆ Idle Period is equal to CCA~CCA*N
☒ Short Control Signalling Transmissions: ◆ Short Control Signalling Transmissions shall have a maximum duty cycle of 5 % within an observation period of 50 ms.

5.1.2 Test Procedures

Reference to clause 5.3.9.2 of ETSI EN 301 893 V1.8.1 (2015-03).

5.1.3 Test Setup



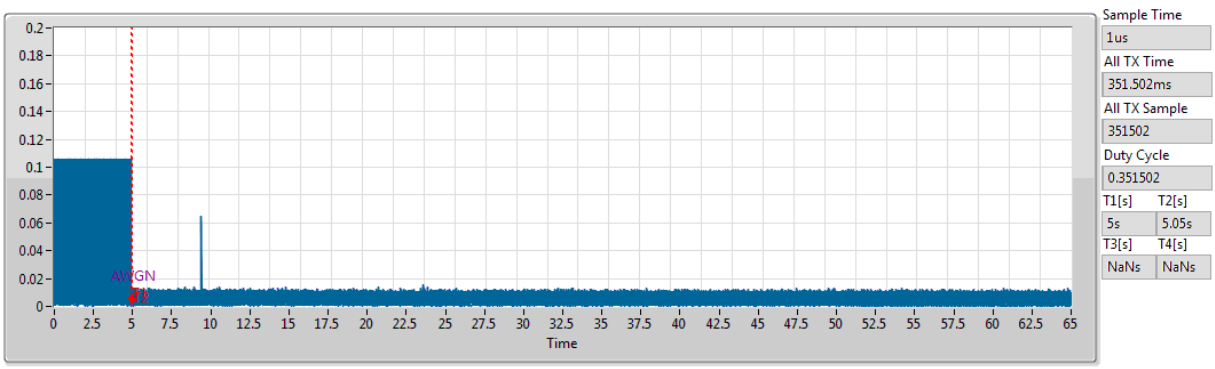
5.1.4 Test Result of Adaptivity and Short Control Signalling Transmissions

Adaptivity Result					
EUT firmware / software version		V3.4.4.1			
Adaptivity Detection Threshold Level (dBm)		-64.85			
Modulation Mode	**Freq. (MHz)**	**Short Control Signalling Transmissions (ms)**	**Channel Occupancy Time (ms)**	**Idle Period Time (us)**	**Adaptivity**
802.11an (HT20)	5180	2.038	2.037	50	Pass
802.11an (HT20)	5500	1.333	2.316	49	Pass
Limit		< 2.5 ms	-	> 20us	N/A

Adaptivity Result Plots

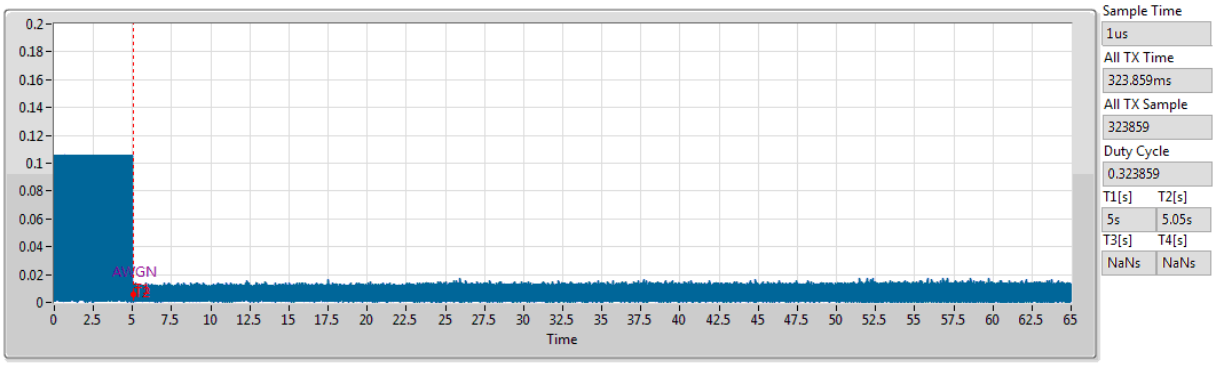
802.11an (HT20) - 5180MHz

Time Analysis



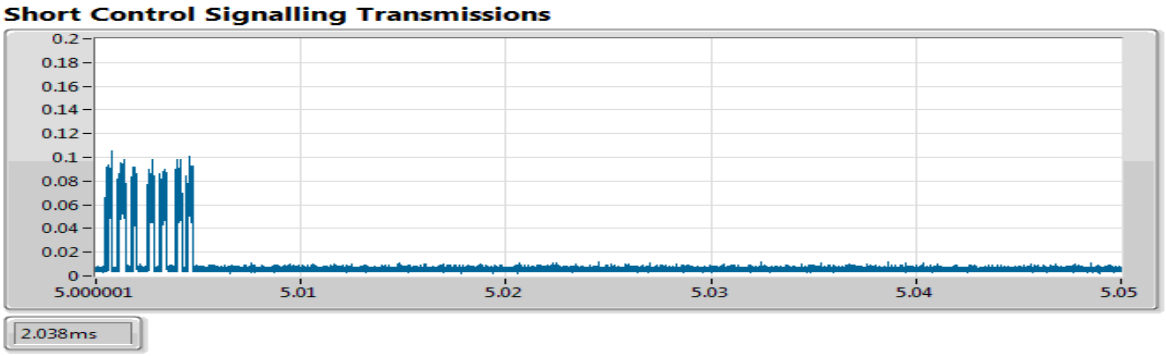
802.11an (HT20) - 5500MHz

Time Analysis

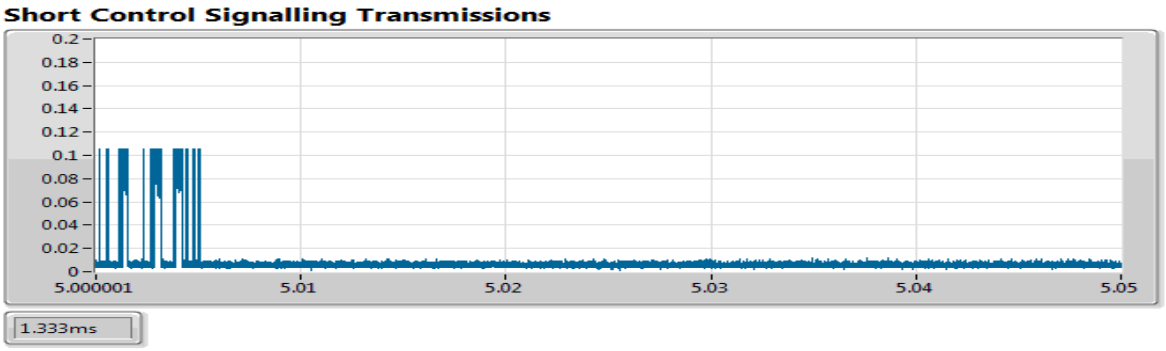


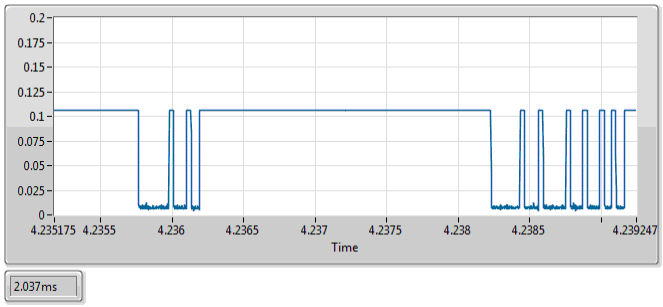
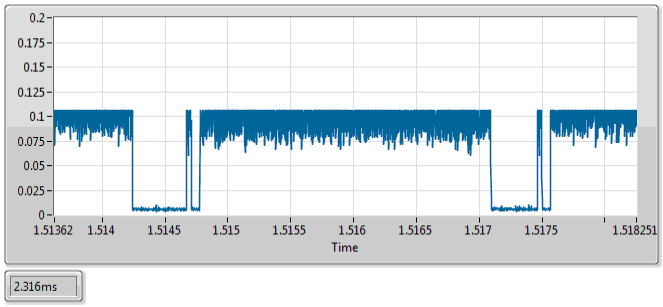
Short Control Signalling Transmissions Plots

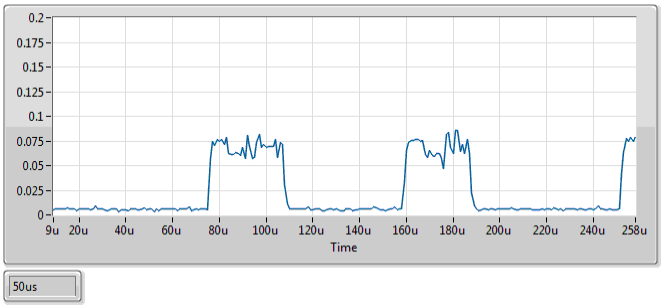
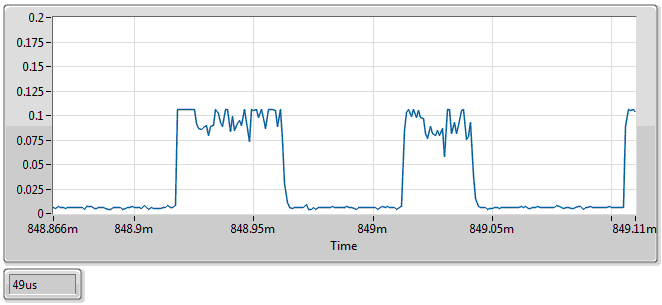
802.11an (HT20) - 5180MHz



802.11an (HT20) - 5500MHz

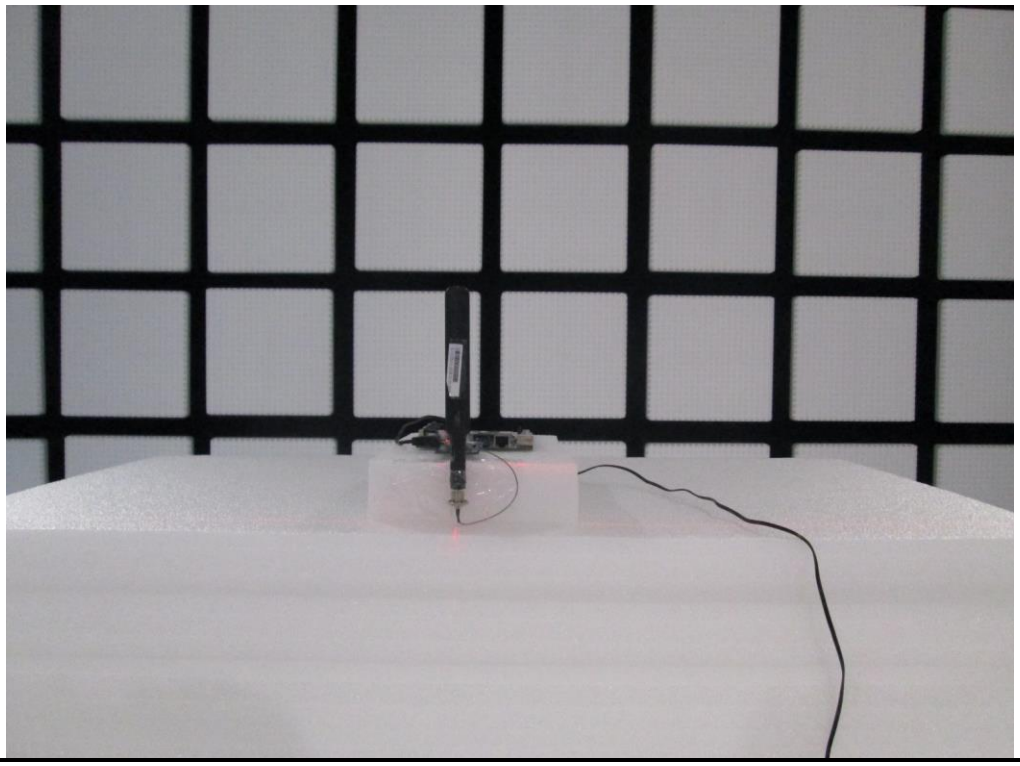


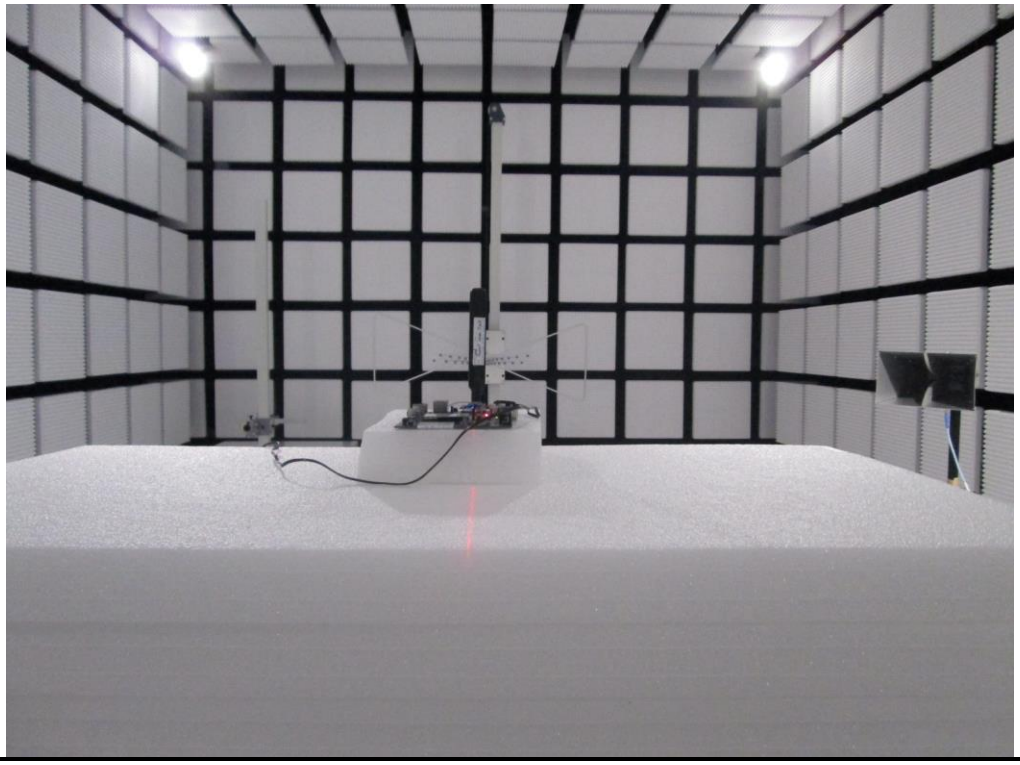
Channel Occupancy Time
802.11an (HT20) - 5180MHz
Max On Time 
802.11an (HT20) - 5500MHz
Max On Time 

Idle Period Time
802.11an (HT20) - 5180MHz
Min Off Time 
802.11an (HT20) - 5500MHz
Min Off Time 

6 Photographs of the Test Configuration

Spurious Emission Test





Adaptivity and Short Control Signalling Transmissions Test

7 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp, it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan Hsiang. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

═END═

Appendix A: Short Control Signalling Transmissions

Start(S)	Stop(s)	Test Frequency	
		5210MHz	5530 MHz
5.000001	5.05	2.46ms	2.871ms
5.050001	5.1	0	0
5.100001	5.15	0	0
5.150001	5.2	0	0
5.200001	5.25	0	0
5.250001	5.3	0	0
5.300001	5.35	0	0
5.350001	5.4	0	0
5.400001	5.45	0	0
5.450001	5.5	0	0
5.500001	5.55	0	0
5.550001	5.6	0	0
5.600001	5.65	0	0
5.650001	5.7	0	0
5.700001	5.75	0	0
5.750001	5.8	0	0
5.800001	5.85	0	0
5.850001	5.9	0	0
5.900001	5.95	0	0
5.950001	6	0	0
6.000001	6.05	0	0
6.050001	6.1	0	0
6.100001	6.15	0	0
6.150001	6.2	0	0
6.200001	6.25	0	0
6.250001	6.3	0	0
6.300001	6.35	0	0
6.350001	6.4	0	0
6.400001	6.45	0	0
6.450001	6.5	0	0
6.500001	6.55	0	0
6.550001	6.6	0	0
6.600001	6.65	0	0
6.650001	6.7	0	0
6.700001	6.75	0	0
6.750001	6.8	0	0
6.800001	6.85	0	0
6.850001	6.9	0	0
6.900001	6.95	0	0
6.950001	7	0	0
7.000001	7.05	0	0
7.050001	7.1	0	0
7.100001	7.15	0	0
7.150001	7.2	0	0
7.200001	7.25	0	0
7.250001	7.3	0	0
7.300001	7.35	0	0

7.350001	7.4	0	0
7.400001	7.45	0	0
7.450001	7.5	0	0
7.500001	7.55	0	0
7.550001	7.6	0	0
7.600001	7.65	0	0
7.650001	7.7	0	2.437ms
7.700001	7.75	0	0
7.750001	7.8	0	0
7.800001	7.85	0	0
7.850001	7.9	0	0
7.900001	7.95	0	0
7.950001	8	0	0
8.000001	8.05	0	0
8.050001	8.1	0	0
8.100001	8.15	0	0
8.150001	8.2	0	0
8.200001	8.25	0	0
8.250001	8.3	0	0
8.300001	8.35	0	0
8.350001	8.4	0	0
8.400001	8.45	0	0
8.450001	8.5	0	0
8.500001	8.55	0	0
8.550001	8.6	0	0
8.600001	8.65	0	0
8.650001	8.7	0	0
8.700001	8.75	0	0
8.750001	8.8	0	0
8.800001	8.85	0	0
8.850001	8.9	0	0
8.900001	8.95	0	0
8.950001	9	1.773ms	0
9.000001	9.05	666u	0
9.050001	9.1	0	0
9.100001	9.15	0	0
9.150001	9.2	0	0
9.200001	9.25	0	0
9.250001	9.3	0	0
9.300001	9.35	0	0
9.350001	9.4	0	0
9.400001	9.45	0	0
9.450001	9.5	0	0
9.500001	9.55	0	0
9.550001	9.6	0	0
9.600001	9.65	0	0
9.650001	9.7	0	0
9.700001	9.75	0	0
9.750001	9.8	0	0

9.800001	9.85	0	0
9.850001	9.9	0	0
9.900001	9.95	0	0
9.950001	10	0	0
10.000001	10.05	0	0
10.050001	10.1	0	0
10.100001	10.15	0	0
10.150001	10.2	0	0
10.200001	10.25	0	0
10.250001	10.3	0	0
10.300001	10.35	0	0
10.350001	10.4	0	0
10.400001	10.45	0	0
10.450001	10.5	0	0
10.500001	10.55	0	0
10.550001	10.6	0	0
10.600001	10.65	0	0
10.650001	10.7	0	0
10.700001	10.75	0	0
10.750001	10.8	0	0
10.800001	10.85	0	0
10.850001	10.9	0	0
10.900001	10.95	0	0
10.950001	11	0	0
11.000001	11.05	0	0
11.050001	11.1	0	0
11.100001	11.15	0	0
11.150001	11.2	0	0
11.200001	11.25	0	0
11.250001	11.3	0	0
11.300001	11.35	0	0
11.350001	11.4	0	0
11.400001	11.45	0	0
11.450001	11.5	0	0
11.500001	11.55	0	0
11.550001	11.6	0	0
11.600001	11.65	0	0
11.650001	11.7	0	0
11.700001	11.75	0	0
11.750001	11.8	0	0
11.800001	11.85	0	0
11.850001	11.9	0	0
11.900001	11.95	0	0
11.950001	12	0	0
12.000001	12.05	0	0
12.050001	12.1	0	0
12.100001	12.15	0	0
12.150001	12.2	0	0
12.200001	12.25	0	0

12.250001	12.3	0	0
12.300001	12.35	0	0
12.350001	12.4	0	0
12.400001	12.45	0	0
12.450001	12.5	0	0
12.500001	12.55	0	0
12.550001	12.6	0	0
12.600001	12.65	0	0
12.650001	12.7	0	0
12.700001	12.75	0	0
12.750001	12.8	0	0
12.800001	12.85	0	0
12.850001	12.9	0	0
12.900001	12.95	0	0
12.950001	13	0	0
13.000001	13.05	0	0
13.050001	13.1	0	0
13.100001	13.15	0	0
13.150001	13.2	0	0
13.200001	13.25	0	0
13.250001	13.3	0	0
13.300001	13.35	0	0
13.350001	13.4	0	0
13.400001	13.45	0	0
13.450001	13.5	0	0
13.500001	13.55	0	0
13.550001	13.6	0	0
13.600001	13.65	0	0
13.650001	13.7	0	0
13.700001	13.75	0	0
13.750001	13.8	0	0
13.800001	13.85	0	0
13.850001	13.9	0	0
13.900001	13.95	0	0
13.950001	14	0	0
14.000001	14.05	0	0
14.050001	14.1	0	0
14.100001	14.15	0	0
14.150001	14.2	0	0
14.200001	14.25	0	0
14.250001	14.3	0	0
14.300001	14.35	0	0
14.350001	14.4	0	0
14.400001	14.45	0	0
14.450001	14.5	0	0
14.500001	14.55	0	0
14.550001	14.6	0	0
14.600001	14.65	0	0
14.650001	14.7	0	0

14.700001	14.75	0	0
14.750001	14.8	0	0
14.800001	14.85	0	0
14.850001	14.9	0	0
14.900001	14.95	0	0
14.950001	15	0	0
15.000001	15.05	0	0
15.050001	15.1	0	0
15.100001	15.15	0	0
15.150001	15.2	0	0
15.200001	15.25	0	0
15.250001	15.3	0	0
15.300001	15.35	0	0
15.350001	15.4	0	0
15.400001	15.45	0	0
15.450001	15.5	0	0
15.500001	15.55	0	0
15.550001	15.6	0	0
15.600001	15.65	0	0
15.650001	15.7	0	0
15.700001	15.75	0	0
15.750001	15.8	0	0
15.800001	15.85	0	0
15.850001	15.9	0	0
15.900001	15.95	0	0
15.950001	16	0	0
16.000001	16.05	0	0
16.050001	16.1	0	0
16.100001	16.15	0	0
16.150001	16.2	0	0
16.200001	16.25	0	0
16.250001	16.3	0	0
16.300001	16.35	0	0
16.350001	16.4	0	0
16.400001	16.45	0	0
16.450001	16.5	0	0
16.500001	16.55	0	0
16.550001	16.6	0	0
16.600001	16.65	0	0
16.650001	16.7	0	0
16.700001	16.75	0	0
16.750001	16.8	0	0
16.800001	16.85	0	0
16.850001	16.9	0	0
16.900001	16.95	0	0
16.950001	17	0	0
17.000001	17.05	0	0
17.050001	17.1	0	0
17.100001	17.15	0	0

17.150001	17.2	0	0
17.200001	17.25	0	0
17.250001	17.3	0	0
17.300001	17.35	0	0
17.350001	17.4	0	0
17.400001	17.45	0	0
17.450001	17.5	0	0
17.500001	17.55	0	0
17.550001	17.6	0	0
17.600001	17.65	0	0
17.650001	17.7	0	0
17.700001	17.75	0	0
17.750001	17.8	0	0
17.800001	17.85	0	0
17.850001	17.9	0	0
17.900001	17.95	0	0
17.950001	18	0	0
18.000001	18.05	0	0
18.050001	18.1	0	0
18.100001	18.15	0	0
18.150001	18.2	0	0
18.200001	18.25	0	0
18.250001	18.3	0	0
18.300001	18.35	0	0
18.350001	18.4	0	0
18.400001	18.45	0	0
18.450001	18.5	0	0
18.500001	18.55	0	0
18.550001	18.6	0	0
18.600001	18.65	0	0
18.650001	18.7	0	0
18.700001	18.75	0	0
18.750001	18.8	0	0
18.800001	18.85	0	1.218ms
18.850001	18.9	0	0
18.900001	18.95	0	1.218ms
18.950001	19	0	0
19.000001	19.05	0	0
19.050001	19.1	0	0
19.100001	19.15	0	0
19.150001	19.2	0	0
19.200001	19.25	0	0
19.250001	19.3	0	0
19.300001	19.35	0	0
19.350001	19.4	0	0
19.400001	19.45	0	0
19.450001	19.5	0	0
19.500001	19.55	0	0
19.550001	19.6	0	0

19.600001	19.65	0	0
19.650001	19.7	0	0
19.700001	19.75	0	0
19.750001	19.8	0	0
19.800001	19.85	0	0
19.850001	19.9	0	0
19.900001	19.95	0	0
19.950001	20	0	0
20.000001	20.05	0	0
20.050001	20.1	0	0
20.100001	20.15	0	0
20.150001	20.2	0	0
20.200001	20.25	0	0
20.250001	20.3	0	0
20.300001	20.35	0	0
20.350001	20.4	0	0
20.400001	20.45	0	0
20.450001	20.5	0	0
20.500001	20.55	0	0
20.550001	20.6	0	0
20.600001	20.65	0	0
20.650001	20.7	0	0
20.700001	20.75	0	0
20.750001	20.8	0	0
20.800001	20.85	0	0
20.850001	20.9	0	0
20.900001	20.95	0	0
20.950001	21	0	0
21.000001	21.05	0	0
21.050001	21.1	0	0
21.100001	21.15	0	0
21.150001	21.2	0	0
21.200001	21.25	0	0
21.250001	21.3	0	0
21.300001	21.35	0	0
21.350001	21.4	0	0
21.400001	21.45	0	0
21.450001	21.5	0	0
21.500001	21.55	0	0
21.550001	21.6	0	0
21.600001	21.65	0	0
21.650001	21.7	0	0
21.700001	21.75	0	0
21.750001	21.8	0	0
21.800001	21.85	0	0
21.850001	21.9	0	0
21.900001	21.95	0	0
21.950001	22	0	0
22.000001	22.05	0	0

22.050001	22.1	0	0
22.100001	22.15	0	0
22.150001	22.2	0	0
22.200001	22.25	0	0
22.250001	22.3	0	0
22.300001	22.35	0	0
22.350001	22.4	0	0
22.400001	22.45	0	0
22.450001	22.5	0	0
22.500001	22.55	0	0
22.550001	22.6	0	0
22.600001	22.65	0	0
22.650001	22.7	0	0
22.700001	22.75	0	0
22.750001	22.8	0	0
22.800001	22.85	0	0
22.850001	22.9	0	0
22.900001	22.95	0	0
22.950001	23	0	0
23.000001	23.05	0	0
23.050001	23.1	0	0
23.100001	23.15	0	0
23.150001	23.2	0	0
23.200001	23.25	0	0
23.250001	23.3	0	0
23.300001	23.35	0	0
23.350001	23.4	0	0
23.400001	23.45	0	0
23.450001	23.5	0	0
23.500001	23.55	0	0
23.550001	23.6	0	0
23.600001	23.65	0	0
23.650001	23.7	0	0
23.700001	23.75	0	0
23.750001	23.8	0	0
23.800001	23.85	0	0
23.850001	23.9	0	0
23.900001	23.95	0	0
23.950001	24	0	0
24.000001	24.05	0	0
24.050001	24.1	0	0
24.100001	24.15	0	0
24.150001	24.2	0	0
24.200001	24.25	0	0
24.250001	24.3	0	0
24.300001	24.35	0	0
24.350001	24.4	0	0
24.400001	24.45	0	0
24.450001	24.5	0	0

24.500001	24.55	0	0
24.550001	24.6	0	0
24.600001	24.65	0	0
24.650001	24.7	0	0
24.700001	24.75	0	0
24.750001	24.8	0	0
24.800001	24.85	0	0
24.850001	24.9	0	0
24.900001	24.95	0	0
24.950001	25	0	0
25.000001	25.05	0	0
25.050001	25.1	0	0
25.100001	25.15	0	0
25.150001	25.2	0	0
25.200001	25.25	0	0
25.250001	25.3	0	0
25.300001	25.35	0	0
25.350001	25.4	0	0
25.400001	25.45	0	0
25.450001	25.5	0	0
25.500001	25.55	0	0
25.550001	25.6	0	0
25.600001	25.65	0	0
25.650001	25.7	0	0
25.700001	25.75	0	0
25.750001	25.8	0	0
25.800001	25.85	0	0
25.850001	25.9	0	0
25.900001	25.95	0	0
25.950001	26	0	0
26.000001	26.05	0	0
26.050001	26.1	0	0
26.100001	26.15	0	0
26.150001	26.2	0	0
26.200001	26.25	0	0
26.250001	26.3	0	0
26.300001	26.35	0	0
26.350001	26.4	0	0
26.400001	26.45	0	0
26.450001	26.5	0	0
26.500001	26.55	0	0
26.550001	26.6	0	0
26.600001	26.65	0	0
26.650001	26.7	0	0
26.700001	26.75	0	0
26.750001	26.8	0	0
26.800001	26.85	0	0
26.850001	26.9	0	0
26.900001	26.95	0	1.218ms

26.950001	27	0	1.218ms
27.000001	27.05	0	0
27.050001	27.1	0	0
27.100001	27.15	0	0
27.150001	27.2	0	0
27.200001	27.25	0	0
27.250001	27.3	0	0
27.300001	27.35	0	0
27.350001	27.4	0	0
27.400001	27.45	0	0
27.450001	27.5	0	0
27.500001	27.55	0	0
27.550001	27.6	0	0
27.600001	27.65	0	0
27.650001	27.7	0	0
27.700001	27.75	0	0
27.750001	27.8	0	0
27.800001	27.85	0	0
27.850001	27.9	0	0
27.900001	27.95	0	0
27.950001	28	0	0
28.000001	28.05	0	0
28.050001	28.1	0	0
28.100001	28.15	0	0
28.150001	28.2	0	0
28.200001	28.25	0	0
28.250001	28.3	0	0
28.300001	28.35	0	0
28.350001	28.4	0	0
28.400001	28.45	0	0
28.450001	28.5	0	0
28.500001	28.55	0	0
28.550001	28.6	0	0
28.600001	28.65	0	0
28.650001	28.7	0	0
28.700001	28.75	0	0
28.750001	28.8	0	0
28.800001	28.85	0	0
28.850001	28.9	0	0
28.900001	28.95	0	0
28.950001	29	0	0
29.000001	29.05	0	0
29.050001	29.1	0	0
29.100001	29.15	0	0
29.150001	29.2	0	0
29.200001	29.25	0	0
29.250001	29.3	0	0
29.300001	29.35	0	0
29.350001	29.4	0	0

29.400001	29.45	0	0
29.450001	29.5	0	0
29.500001	29.55	0	0
29.550001	29.6	0	0
29.600001	29.65	0	0
29.650001	29.7	0	0
29.700001	29.75	0	0
29.750001	29.8	0	0
29.800001	29.85	0	0
29.850001	29.9	0	0
29.900001	29.95	0	0
29.950001	30	0	0
30.000001	30.05	0	0
30.050001	30.1	0	0
30.100001	30.15	0	0
30.150001	30.2	0	0
30.200001	30.25	0	0
30.250001	30.3	0	0
30.300001	30.35	0	0
30.350001	30.4	0	0
30.400001	30.45	0	0
30.450001	30.5	0	0
30.500001	30.55	0	0
30.550001	30.6	0	0
30.600001	30.65	0	0
30.650001	30.7	0	0
30.700001	30.75	0	0
30.750001	30.8	0	0
30.800001	30.85	0	0
30.850001	30.9	0	0
30.900001	30.95	0	0
30.950001	31	0	0
31.000001	31.05	0	0
31.050001	31.1	0	0
31.100001	31.15	0	0
31.150001	31.2	0	0
31.200001	31.25	0	0
31.250001	31.3	0	0
31.300001	31.35	0	0
31.350001	31.4	0	0
31.400001	31.45	0	0
31.450001	31.5	0	0
31.500001	31.55	0	0
31.550001	31.6	0	0
31.600001	31.65	0	0
31.650001	31.7	0	0
31.700001	31.75	0	0
31.750001	31.8	0	0
31.800001	31.85	0	0

31.850001	31.9	0	0
31.900001	31.95	0	0
31.950001	32	0	0
32.000001	32.05	0	0
32.050001	32.1	0	0
32.100001	32.15	0	0
32.150001	32.2	0	0
32.200001	32.25	0	1.219ms
32.250001	32.3	0	1.218ms
32.300001	32.35	0	0
32.350001	32.4	0	0
32.400001	32.45	0	0
32.450001	32.5	0	0
32.500001	32.55	0	0
32.550001	32.6	0	0
32.600001	32.65	0	0
32.650001	32.7	0	0
32.700001	32.75	0	0
32.750001	32.8	0	0
32.800001	32.85	0	0
32.850001	32.9	0	0
32.900001	32.95	0	0
32.950001	33	0	0
33.000001	33.05	0	0
33.050001	33.1	0	0
33.100001	33.15	0	0
33.150001	33.2	0	0
33.200001	33.25	0	0
33.250001	33.3	0	0
33.300001	33.35	0	0
33.350001	33.4	0	0
33.400001	33.45	0	0
33.450001	33.5	0	0
33.500001	33.55	0	0
33.550001	33.6	0	0
33.600001	33.65	0	0
33.650001	33.7	0	0
33.700001	33.75	0	0
33.750001	33.8	0	0
33.800001	33.85	0	0
33.850001	33.9	0	0
33.900001	33.95	0	0
33.950001	34	0	0
34.000001	34.05	0	0
34.050001	34.1	0	0
34.100001	34.15	0	0
34.150001	34.2	0	0
34.200001	34.25	0	0
34.250001	34.3	0	0

34.300001	34.35	0	0
34.350001	34.4	0	0
34.400001	34.45	0	0
34.450001	34.5	0	0
34.500001	34.55	0	0
34.550001	34.6	0	0
34.600001	34.65	0	0
34.650001	34.7	0	0
34.700001	34.75	0	0
34.750001	34.8	0	0
34.800001	34.85	0	0
34.850001	34.9	0	0
34.900001	34.95	0	0
34.950001	35	0	0
35.000001	35.05	0	0
35.050001	35.1	0	0
35.100001	35.15	0	0
35.150001	35.2	0	0
35.200001	35.25	0	0
35.250001	35.3	0	0
35.300001	35.35	0	0
35.350001	35.4	0	0
35.400001	35.45	0	0
35.450001	35.5	0	0
35.500001	35.55	0	0
35.550001	35.6	0	0
35.600001	35.65	0	0
35.650001	35.7	0	0
35.700001	35.75	0	0
35.750001	35.8	0	0
35.800001	35.85	0	0
35.850001	35.9	0	0
35.900001	35.95	0	0
35.950001	36	0	0
36.000001	36.05	0	0
36.050001	36.1	0	0
36.100001	36.15	0	0
36.150001	36.2	0	0
36.200001	36.25	0	0
36.250001	36.3	0	0
36.300001	36.35	0	0
36.350001	36.4	0	0
36.400001	36.45	0	0
36.450001	36.5	0	0
36.500001	36.55	0	0
36.550001	36.6	0	0
36.600001	36.65	0	0
36.650001	36.7	0	0
36.700001	36.75	0	0

36.750001	36.8	0	0
36.800001	36.85	0	0
36.850001	36.9	0	0
36.900001	36.95	0	0
36.950001	37	0	0
37.000001	37.05	0	0
37.050001	37.1	0	0
37.100001	37.15	0	0
37.150001	37.2	0	0
37.200001	37.25	0	0
37.250001	37.3	0	0
37.300001	37.35	0	0
37.350001	37.4	0	0
37.400001	37.45	0	0
37.450001	37.5	0	0
37.500001	37.55	0	0
37.550001	37.6	0	0
37.600001	37.65	0	0
37.650001	37.7	0	0
37.700001	37.75	0	0
37.750001	37.8	0	0
37.800001	37.85	0	0
37.850001	37.9	0	0
37.900001	37.95	0	0
37.950001	38	0	0
38.000001	38.05	0	0
38.050001	38.1	0	0
38.100001	38.15	0	0
38.150001	38.2	0	0
38.200001	38.25	0	0
38.250001	38.3	0	0
38.300001	38.35	0	0
38.350001	38.4	0	0
38.400001	38.45	0	0
38.450001	38.5	0	0
38.500001	38.55	0	0
38.550001	38.6	0	0
38.600001	38.65	0	0
38.650001	38.7	0	0
38.700001	38.75	0	0
38.750001	38.8	0	0
38.800001	38.85	0	0
38.850001	38.9	0	0
38.900001	38.95	0	0
38.950001	39	0	0
39.000001	39.05	0	0
39.050001	39.1	0	0
39.100001	39.15	0	0
39.150001	39.2	0	0

39.200001	39.25	0	0
39.250001	39.3	0	0
39.300001	39.35	0	0
39.350001	39.4	0	0
39.400001	39.45	0	0
39.450001	39.5	0	0
39.500001	39.55	0	0
39.550001	39.6	0	0
39.600001	39.65	0	0
39.650001	39.7	0	0
39.700001	39.75	0	0
39.750001	39.8	0	0
39.800001	39.85	0	0
39.850001	39.9	0	0
39.900001	39.95	0	0
39.950001	40	0	0
40.000001	40.05	0	0
40.050001	40.1	0	0
40.100001	40.15	0	0
40.150001	40.2	0	0
40.200001	40.25	0	0
40.250001	40.3	0	0
40.300001	40.35	0	1.219ms
40.350001	40.4	0	1.218ms
40.400001	40.45	0	0
40.450001	40.5	0	0
40.500001	40.55	0	0
40.550001	40.6	0	0
40.600001	40.65	0	0
40.650001	40.7	0	0
40.700001	40.75	0	0
40.750001	40.8	0	0
40.800001	40.85	0	0
40.850001	40.9	0	0
40.900001	40.95	0	0
40.950001	41	0	0
41.000001	41.05	0	0
41.050001	41.1	0	0
41.100001	41.15	0	0
41.150001	41.2	0	0
41.200001	41.25	0	0
41.250001	41.3	0	0
41.300001	41.35	0	0
41.350001	41.4	0	0
41.400001	41.45	0	0
41.450001	41.5	0	0
41.500001	41.55	0	0
41.550001	41.6	0	0
41.600001	41.65	0	0

41.650001	41.7	0	0
41.700001	41.75	0	0
41.750001	41.8	0	0
41.800001	41.85	0	0
41.850001	41.9	0	0
41.900001	41.95	0	0
41.950001	42	0	0
42.000001	42.05	0	0
42.050001	42.1	0	0
42.100001	42.15	0	0
42.150001	42.2	0	0
42.200001	42.25	0	0
42.250001	42.3	0	0
42.300001	42.35	0	0
42.350001	42.4	0	0
42.400001	42.45	0	0
42.450001	42.5	0	0
42.500001	42.55	0	0
42.550001	42.6	0	0
42.600001	42.65	0	0
42.650001	42.7	0	0
42.700001	42.75	0	0
42.750001	42.8	0	0
42.800001	42.85	0	0
42.850001	42.9	0	0
42.900001	42.95	0	0
42.950001	43	0	0
43.000001	43.05	0	0
43.050001	43.1	0	0
43.100001	43.15	0	0
43.150001	43.2	0	0
43.200001	43.25	0	0
43.250001	43.3	0	0
43.300001	43.35	0	0
43.350001	43.4	0	0
43.400001	43.45	0	0
43.450001	43.5	0	0
43.500001	43.55	0	0
43.550001	43.6	0	0
43.600001	43.65	0	0
43.650001	43.7	0	0
43.700001	43.75	0	0
43.750001	43.8	0	0
43.800001	43.85	0	0
43.850001	43.9	0	0
43.900001	43.95	0	0
43.950001	44	0	0
44.000001	44.05	0	0
44.050001	44.1	0	0

44.100001	44.15	0	0
44.150001	44.2	0	0
44.200001	44.25	0	0
44.250001	44.3	0	0
44.300001	44.35	0	0
44.350001	44.4	0	0
44.400001	44.45	0	0
44.450001	44.5	0	0
44.500001	44.55	0	0
44.550001	44.6	0	0
44.600001	44.65	0	0
44.650001	44.7	0	0
44.700001	44.75	0	0
44.750001	44.8	0	0
44.800001	44.85	0	0
44.850001	44.9	0	0
44.900001	44.95	0	0
44.950001	45	0	0
45.000001	45.05	0	0
45.050001	45.1	0	0
45.100001	45.15	0	0
45.150001	45.2	0	0
45.200001	45.25	0	0
45.250001	45.3	0	0
45.300001	45.35	0	0
45.350001	45.4	0	0
45.400001	45.45	0	0
45.450001	45.5	0	0
45.500001	45.55	0	0
45.550001	45.6	0	0
45.600001	45.65	0	0
45.650001	45.7	0	0
45.700001	45.75	0	0
45.750001	45.8	0	0
45.800001	45.85	0	0
45.850001	45.9	0	0
45.900001	45.95	0	0
45.950001	46	0	0
46.000001	46.05	0	0
46.050001	46.1	0	0
46.100001	46.15	0	0
46.150001	46.2	0	0
46.200001	46.25	0	0
46.250001	46.3	0	0
46.300001	46.35	0	0
46.350001	46.4	0	0
46.400001	46.45	0	0
46.450001	46.5	0	0
46.500001	46.55	0	0

46.550001	46.6	0	0
46.600001	46.65	0	0
46.650001	46.7	0	0
46.700001	46.75	0	0
46.750001	46.8	0	0
46.800001	46.85	0	0
46.850001	46.9	0	0
46.900001	46.95	0	0
46.950001	47	0	0
47.000001	47.05	0	0
47.050001	47.1	0	0
47.100001	47.15	0	0
47.150001	47.2	0	0
47.200001	47.25	0	0
47.250001	47.3	0	0
47.300001	47.35	0	0
47.350001	47.4	0	0
47.400001	47.45	0	0
47.450001	47.5	0	0
47.500001	47.55	0	0
47.550001	47.6	0	0
47.600001	47.65	0	0
47.650001	47.7	0	0
47.700001	47.75	0	0
47.750001	47.8	0	0
47.800001	47.85	0	0
47.850001	47.9	0	0
47.900001	47.95	0	0
47.950001	48	0	0
48.000001	48.05	0	0
48.050001	48.1	0	0
48.100001	48.15	0	0
48.150001	48.2	0	0
48.200001	48.25	0	0
48.250001	48.3	0	0
48.300001	48.35	0	0
48.350001	48.4	0	0
48.400001	48.45	0	1.217ms
48.450001	48.5	0	1.218ms
48.500001	48.55	0	0
48.550001	48.6	0	0
48.600001	48.65	0	0
48.650001	48.7	0	0
48.700001	48.75	0	0
48.750001	48.8	0	0
48.800001	48.85	0	0
48.850001	48.9	0	0
48.900001	48.95	0	0
48.950001	49	0	0

49.000001	49.05	0	0
49.050001	49.1	0	0
49.100001	49.15	0	0
49.150001	49.2	0	0
49.200001	49.25	0	0
49.250001	49.3	0	0
49.300001	49.35	0	0
49.350001	49.4	0	0
49.400001	49.45	0	0
49.450001	49.5	0	0
49.500001	49.55	0	0
49.550001	49.6	0	0
49.600001	49.65	0	0
49.650001	49.7	0	0
49.700001	49.75	0	0
49.750001	49.8	0	0
49.800001	49.85	0	0
49.850001	49.9	0	0
49.900001	49.95	0	0
49.950001	50	0	0
50.000001	50.05	0	0
50.050001	50.1	0	0
50.100001	50.15	0	0
50.150001	50.2	0	0
50.200001	50.25	0	0
50.250001	50.3	0	0
50.300001	50.35	0	0
50.350001	50.4	0	0
50.400001	50.45	0	0
50.450001	50.5	0	0
50.500001	50.55	0	0
50.550001	50.6	0	0
50.600001	50.65	0	0
50.650001	50.7	0	0
50.700001	50.75	0	0
50.750001	50.8	0	0
50.800001	50.85	0	0
50.850001	50.9	0	0
50.900001	50.95	0	0
50.950001	51	0	0
51.000001	51.05	0	0
51.050001	51.1	0	0
51.100001	51.15	0	0
51.150001	51.2	0	0
51.200001	51.25	0	0
51.250001	51.3	0	0
51.300001	51.35	0	0
51.350001	51.4	0	0
51.400001	51.45	0	0

51.450001	51.5	0	0
51.500001	51.55	0	0
51.550001	51.6	0	0
51.600001	51.65	0	0
51.650001	51.7	0	0
51.700001	51.75	0	0
51.750001	51.8	0	0
51.800001	51.85	0	0
51.850001	51.9	0	0
51.900001	51.95	0	0
51.950001	52	0	0
52.000001	52.05	0	0
52.050001	52.1	0	0
52.100001	52.15	0	0
52.150001	52.2	0	0
52.200001	52.25	0	0
52.250001	52.3	0	0
52.300001	52.35	0	0
52.350001	52.4	0	0
52.400001	52.45	0	0
52.450001	52.5	0	0
52.500001	52.55	0	0
52.550001	52.6	0	0
52.600001	52.65	0	0
52.650001	52.7	0	0
52.700001	52.75	0	0
52.750001	52.8	0	0
52.800001	52.85	0	0
52.850001	52.9	0	0
52.900001	52.95	0	0
52.950001	53	0	0
53.000001	53.05	0	0
53.050001	53.1	0	0
53.100001	53.15	0	0
53.150001	53.2	0	0
53.200001	53.25	0	0
53.250001	53.3	0	0
53.300001	53.35	0	1.217ms
53.350001	53.4	0	1.217ms
53.400001	53.45	0	0
53.450001	53.5	0	0
53.500001	53.55	0	0
53.550001	53.6	0	0
53.600001	53.65	0	0
53.650001	53.7	0	0
53.700001	53.75	0	0
53.750001	53.8	0	0
53.800001	53.85	0	0
53.850001	53.9	0	0

53.900001	53.95	0	0
53.950001	54	0	0
54.000001	54.05	0	0
54.050001	54.1	0	0
54.100001	54.15	0	0
54.150001	54.2	0	0
54.200001	54.25	0	0
54.250001	54.3	0	0
54.300001	54.35	0	0
54.350001	54.4	0	0
54.400001	54.45	0	0
54.450001	54.5	0	0
54.500001	54.55	0	0
54.550001	54.6	0	0
54.600001	54.65	0	0
54.650001	54.7	0	0
54.700001	54.75	0	0
54.750001	54.8	0	0
54.800001	54.85	0	0
54.850001	54.9	0	0
54.900001	54.95	0	0
54.950001	55	0	0
55.000001	55.05	0	0
55.050001	55.1	0	0
55.100001	55.15	0	0
55.150001	55.2	0	0
55.200001	55.25	0	0
55.250001	55.3	0	0
55.300001	55.35	0	0
55.350001	55.4	0	0
55.400001	55.45	0	0
55.450001	55.5	0	0
55.500001	55.55	0	0
55.550001	55.6	0	0
55.600001	55.65	0	0
55.650001	55.7	0	0
55.700001	55.75	0	0
55.750001	55.8	0	0
55.800001	55.85	0	0
55.850001	55.9	0	0
55.900001	55.95	0	0
55.950001	56	0	0
56.000001	56.05	0	0
56.050001	56.1	0	0
56.100001	56.15	0	0
56.150001	56.2	0	0
56.200001	56.25	0	0
56.250001	56.3	0	0
56.300001	56.35	0	0

56.350001	56.4	0	0
56.400001	56.45	0	0
56.450001	56.5	0	0
56.500001	56.55	0	0
56.550001	56.6	0	0
56.600001	56.65	0	0
56.650001	56.7	0	0
56.700001	56.75	0	0
56.750001	56.8	0	0
56.800001	56.85	0	0
56.850001	56.9	0	0
56.900001	56.95	0	0
56.950001	57	0	0
57.000001	57.05	0	0
57.050001	57.1	0	0
57.100001	57.15	0	0
57.150001	57.2	0	0
57.200001	57.25	0	0
57.250001	57.3	0	0
57.300001	57.35	0	0
57.350001	57.4	0	0
57.400001	57.45	0	0
57.450001	57.5	0	0
57.500001	57.55	0	0
57.550001	57.6	0	0
57.600001	57.65	0	0
57.650001	57.7	0	0
57.700001	57.75	0	0
57.750001	57.8	0	0
57.800001	57.85	0	0
57.850001	57.9	0	0
57.900001	57.95	0	0
57.950001	58	0	0
58.000001	58.05	0	0
58.050001	58.1	0	0
58.100001	58.15	0	0
58.150001	58.2	0	0
58.200001	58.25	0	0
58.250001	58.3	0	0
58.300001	58.35	0	0
58.350001	58.4	0	0
58.400001	58.45	0	0
58.450001	58.5	0	0
58.500001	58.55	0	0
58.550001	58.6	0	0
58.600001	58.65	0	0
58.650001	58.7	0	0
58.700001	58.75	0	0
58.750001	58.8	0	0

58.800001	58.85	0	0
58.850001	58.9	0	0
58.900001	58.95	0	0
58.950001	59	0	0
59.000001	59.05	0	0
59.050001	59.1	0	0
59.100001	59.15	0	0
59.150001	59.2	0	0
59.200001	59.25	0	0
59.250001	59.3	0	0
59.300001	59.35	0	0
59.350001	59.4	0	0
59.400001	59.45	0	0
59.450001	59.5	0	0
59.500001	59.55	0	0
59.550001	59.6	0	0
59.600001	59.65	0	0
59.650001	59.7	0	0
59.700001	59.75	0	0
59.750001	59.8	0	0
59.800001	59.85	0	0
59.850001	59.9	0	0
59.900001	59.95	0	0
59.950001	60	0	0
60.000001	60.05	0	0
60.050001	60.1	0	0
60.100001	60.15	0	0
60.150001	60.2	0	0
60.200001	60.25	0	0
60.250001	60.3	0	0
60.300001	60.35	0	0
60.350001	60.4	0	0
60.400001	60.45	0	0
60.450001	60.5	0	0
60.500001	60.55	0	0
60.550001	60.6	0	0
60.600001	60.65	0	0
60.650001	60.7	0	0
60.700001	60.75	0	0
60.750001	60.8	0	0
60.800001	60.85	0	0
60.850001	60.9	0	0
60.900001	60.95	0	0
60.950001	61	0	0
61.000001	61.05	0	0
61.050001	61.1	0	0
61.100001	61.15	0	0
61.150001	61.2	0	0
61.200001	61.25	0	0

61.250001	61.3	0	0
61.300001	61.35	0	0
61.350001	61.4	0	1.217ms
61.400001	61.45	0	0
61.450001	61.5	0	1.217ms
61.500001	61.55	0	0
61.550001	61.6	0	0
61.600001	61.65	0	0
61.650001	61.7	0	0
61.700001	61.75	0	0
61.750001	61.8	0	0
61.800001	61.85	0	0
61.850001	61.9	0	0
61.900001	61.95	0	0
61.950001	62	0	0
62.000001	62.05	0	0
62.050001	62.1	0	0
62.100001	62.15	0	0
62.150001	62.2	0	0
62.200001	62.25	0	0
62.250001	62.3	0	0
62.300001	62.35	0	0
62.350001	62.4	0	0
62.400001	62.45	0	0
62.450001	62.5	0	0
62.500001	62.55	0	0
62.550001	62.6	0	0
62.600001	62.65	0	0
62.650001	62.7	0	0
62.700001	62.75	0	0
62.750001	62.8	0	0
62.800001	62.85	0	0
62.850001	62.9	0	0
62.900001	62.95	0	0
62.950001	63	0	0
63.000001	63.05	0	0
63.050001	63.1	0	0
63.100001	63.15	0	0
63.150001	63.2	0	0
63.200001	63.25	0	0
63.250001	63.3	0	0
63.300001	63.35	0	0
63.350001	63.4	0	0
63.400001	63.45	0	0
63.450001	63.5	0	0
63.500001	63.55	0	0
63.550001	63.6	0	0
63.600001	63.65	0	0
63.650001	63.7	0	0

63.700001	63.75	0	0
63.750001	63.8	0	0
63.800001	63.85	0	0
63.850001	63.9	0	0
63.900001	63.95	0	0
63.950001	64	0	0
64.000001	64.05	0	0
64.050001	64.1	0	0
64.100001	64.15	0	0
64.150001	64.2	0	0
64.200001	64.25	0	0
64.250001	64.3	0	0
64.300001	64.35	0	0
64.350001	64.4	0	0
64.400001	64.45	0	0
64.450001	64.5	0	0
64.500001	64.55	0	0
64.550001	64.6	0	0
64.600001	64.65	0	0
64.650001	64.7	0	0
64.700001	64.75	0	0
64.750001	64.8	0	0
64.800001	64.85	0	0
64.850001	64.9	0	0
64.900001	64.95	0	0
64.950001	65	0	0
65.000001	65.05	0	0
65.050001	65.1	0	0
65.100001	65.15	0	0
65.150001	65.2	0	0
65.200001	65.25	0	0
65.250001	65.3	0	0
65.300001	65.35	0	0
65.350001	65.4	0	0
65.400001	65.45	0	0
65.450001	65.5	0	0
65.500001	65.55	0	0
65.550001	65.6	0	0
65.600001	65.65	0	0
65.650001	65.7	0	0
65.700001	65.75	0	0
65.750001	65.8	0	0
65.800001	65.85	0	0
65.850001	65.9	0	0
65.900001	65.95	0	0
65.950001	66	0	0
66.000001	66.05	0	0
66.050001	66.1	0	0
66.100001	66.15	0	0

66.150001	66.2	0	0
66.200001	66.25	0	0
66.250001	66.3	0	0
66.300001	66.35	0	0
66.350001	66.4	0	0
66.400001	66.45	0	0
66.450001	66.5	0	0
66.500001	66.55	0	0
66.550001	66.6	0	0
66.600001	66.65	0	0
66.650001	66.7	0	0
66.700001	66.75	0	0
66.750001	66.8	0	0
66.800001	66.85	0	0
66.850001	66.9	0	0
66.900001	66.95	0	0
66.950001	67	0	0
67.000001	67.05	0	0
67.050001	67.1	0	0
67.100001	67.15	0	0
67.150001	67.2	0	0
67.200001	67.25	0	0
67.250001	67.3	0	0
67.300001	67.35	0	0
67.350001	67.4	0	0
67.400001	67.45	0	0
67.450001	67.5	0	0
67.500001	67.55	0	0
67.550001	67.6	0	0
67.600001	67.65	0	0
67.650001	67.7	0	1.218ms
67.700001	67.75	0	1.217ms
67.750001	67.8	0	0
67.800001	67.85	0	0
67.850001	67.9	0	0
67.900001	67.95	0	0
67.950001	68	0	0
68.000001	68.05	0	0
68.050001	68.1	0	0
68.100001	68.15	0	0
68.150001	68.2	0	0
68.200001	68.25	0	0
68.250001	68.3	0	0
68.300001	68.35	0	0
68.350001	68.4	0	0
68.400001	68.45	0	0
68.450001	68.5	0	0
68.500001	68.55	0	0
68.550001	68.6	0	0

68.600001	68.65	0	0
68.650001	68.7	0	0
68.700001	68.75	0	0
68.750001	68.8	0	0
68.800001	68.85	0	0
68.850001	68.9	0	0
68.900001	68.95	0	0
68.950001	69	0	0
69.000001	69.05	0	0
69.050001	69.1	0	0
69.100001	69.15	0	0
69.150001	69.2	0	0
69.200001	69.25	0	0
69.250001	69.3	0	0
69.300001	69.35	0	0
69.350001	69.4	0	0
69.400001	69.45	0	0
69.450001	69.5	0	0
69.500001	69.55	0	0
69.550001	69.6	0	0
69.600001	69.65	0	0
69.650001	69.7	0	0
69.700001	69.75	0	0
69.750001	69.8	0	0
69.800001	69.85	0	0
69.850001	69.9	0	0
69.900001	69.95	0	0
69.950001	70	0	0
70.000001	70.05	0	0
70.050001	70.1	0	0
70.100001	70.15	0	0
70.150001	70.2	0	0
70.200001	70.25	0	0
70.250001	70.3	0	0
70.300001	70.35	0	0
70.350001	70.4	0	0
70.400001	70.45	0	0
70.450001	70.5	0	0
70.500001	70.55	0	0
70.550001	70.6	0	0
70.600001	70.65	0	0
70.650001	70.7	0	0
70.700001	70.75	0	0
70.750001	70.8	0	0
70.800001	70.85	0	0
70.850001	70.9	0	0
70.900001	70.95	0	0
70.950001	71	0	0
71.000001	71.05	0	0

71.050001	71.1	0	0
71.100001	71.15	0	0
71.150001	71.2	0	0
71.200001	71.25	0	0
71.250001	71.3	0	0
71.300001	71.35	0	0
71.350001	71.4	0	0
71.400001	71.45	0	0
71.450001	71.5	0	0
71.500001	71.55	0	0
71.550001	71.6	0	0
71.600001	71.65	0	0
71.650001	71.7	0	0
71.700001	71.75	0	0
71.750001	71.8	0	0
71.800001	71.85	0	0
71.850001	71.9	0	0
71.900001	71.95	0	0
71.950001	72	0	0
72.000001	72.05	0	0
72.050001	72.1	0	0
72.100001	72.15	0	0
72.150001	72.2	0	0
72.200001	72.25	0	0
72.250001	72.3	0	0
72.300001	72.35	0	0
72.350001	72.4	0	0
72.400001	72.45	0	0
72.450001	72.5	0	0
72.500001	72.55	0	0
72.550001	72.6	0	0
72.600001	72.65	0	0
72.650001	72.7	0	0
72.700001	72.75	0	0
72.750001	72.8	0	0
72.800001	72.85	0	0
72.850001	72.9	0	0
72.900001	72.95	0	0
72.950001	73	0	0
73.000001	73.05	0	0
73.050001	73.1	0	0
73.100001	73.15	0	0
73.150001	73.2	0	0
73.200001	73.25	0	0
73.250001	73.3	0	0
73.300001	73.35	0	0
73.350001	73.4	0	0
73.400001	73.45	0	0
73.450001	73.5	0	0

73.500001	73.55	0	0
73.550001	73.6	0	0
73.600001	73.65	0	0
73.650001	73.7	0	0
73.700001	73.75	0	0
73.750001	73.8	0	0
73.800001	73.85	0	0
73.850001	73.9	0	0
73.900001	73.95	0	0
73.950001	74	0	0
74.000001	74.05	0	0
74.050001	74.1	0	0
74.100001	74.15	0	0
74.150001	74.2	0	0
74.200001	74.25	0	0
74.250001	74.3	0	0
74.300001	74.35	0	0
74.350001	74.4	0	0
74.400001	74.45	0	0
74.450001	74.5	0	0
74.500001	74.55	0	0
74.550001	74.6	0	0
74.600001	74.65	0	0
74.650001	74.7	0	0
74.700001	74.75	0	0
74.750001	74.8	0	0
74.800001	74.85	0	0
74.850001	74.9	0	0
74.900001	74.95	0	0
74.950001	75	0	0
75.000001	75.05	0	0
75.050001	75.1	0	0
75.100001	75.15	0	0
75.150001	75.2	0	0
75.200001	75.25	0	0
75.250001	75.3	0	0
75.300001	75.35	0	0
75.350001	75.4	0	0
75.400001	75.45	0	0
75.450001	75.5	0	0
75.500001	75.55	0	0
75.550001	75.6	0	0
75.600001	75.65	0	0
75.650001	75.7	0	0
75.700001	75.75	0	0
75.750001	75.8	0	1.217ms
75.800001	75.85	0	1.218ms
75.850001	75.9	0	0
75.900001	75.95	0	0

75.950001	76	0	0
76.000001	76.05	0	0
76.050001	76.1	0	0
76.100001	76.15	0	0
76.150001	76.2	0	0
76.200001	76.25	0	0
76.250001	76.3	0	0
76.300001	76.35	0	0
76.350001	76.4	0	0
76.400001	76.45	0	0
76.450001	76.5	0	0
76.500001	76.55	0	0
76.550001	76.6	0	0
76.600001	76.65	0	0
76.650001	76.7	0	0
76.700001	76.75	0	0
76.750001	76.8	0	0
76.800001	76.85	0	0
76.850001	76.9	0	0
76.900001	76.95	0	0
76.950001	77	0	0
77.000001	77.05	0	0
77.050001	77.1	0	0
77.100001	77.15	0	0
77.150001	77.2	0	0
77.200001	77.25	0	0
77.250001	77.3	0	0
77.300001	77.35	0	0
77.350001	77.4	0	0
77.400001	77.45	0	0
77.450001	77.5	0	0
77.500001	77.55	0	0
77.550001	77.6	0	0
77.600001	77.65	0	0
77.650001	77.7	0	0
77.700001	77.75	0	0
77.750001	77.8	0	0
77.800001	77.85	0	0
77.850001	77.9	0	0
77.900001	77.95	0	0
77.950001	78	0	0
78.000001	78.05	0	0
78.050001	78.1	0	0
78.100001	78.15	0	0
78.150001	78.2	0	0
78.200001	78.25	0	0
78.250001	78.3	0	0
78.300001	78.35	0	0
78.350001	78.4	0	0

78.400001	78.45	0	0
78.450001	78.5	0	0
78.500001	78.55	0	0
78.550001	78.6	0	0
78.600001	78.65	0	0
78.650001	78.7	0	0
78.700001	78.75	0	0
78.750001	78.8	0	0
78.800001	78.85	0	0
78.850001	78.9	0	0
78.900001	78.95	0	0
78.950001	79	0	0
79.000001	79.05	0	0
79.050001	79.1	0	0
79.100001	79.15	0	0
79.150001	79.2	0	0
79.200001	79.25	0	0
79.250001	79.3	0	0
79.300001	79.35	0	0
79.350001	79.4	0	0
79.400001	79.45	0	0
79.450001	79.5	0	0
79.500001	79.55	0	0
79.550001	79.6	0	0
79.600001	79.65	0	0
79.650001	79.7	0	0
79.700001	79.75	0	0
79.750001	79.8	0	0
79.800001	79.85	0	0
79.850001	79.9	0	0
79.900001	79.95	0	0
79.950001	80	0	0
80.000001	80.05	0	0
80.050001	80.1	0	0
80.100001	80.15	0	0
80.150001	80.2	0	0
80.200001	80.25	0	0
80.250001	80.3	0	0
80.300001	80.35	0	0
80.350001	80.4	0	0
80.400001	80.45	0	0
80.450001	80.5	0	0
80.500001	80.55	0	0
80.550001	80.6	0	0
80.600001	80.65	0	0
80.650001	80.7	0	0
80.700001	80.75	0	0
80.750001	80.8	0	0
80.800001	80.85	0	0

80.850001	80.9	0	0
80.900001	80.95	0	0
80.950001	81	0	0
81.000001	81.05	0	0
81.050001	81.1	0	0
81.100001	81.15	0	0
81.150001	81.2	0	0
81.200001	81.25	0	0
81.250001	81.3	0	0
81.300001	81.35	0	0
81.350001	81.4	0	0
81.400001	81.45	0	0
81.450001	81.5	0	0
81.500001	81.55	0	0
81.550001	81.6	0	0
81.600001	81.65	0	0
81.650001	81.7	0	0
81.700001	81.75	0	0
81.750001	81.8	0	0
81.800001	81.85	0	0
81.850001	81.9	0	0
81.900001	81.95	0	0
81.950001	82	0	0
82.000001	82.05	0	0
82.050001	82.1	0	0
82.100001	82.15	0	0
82.150001	82.2	0	0
82.200001	82.25	0	0
82.250001	82.3	0	0
82.300001	82.35	0	0
82.350001	82.4	0	0
82.400001	82.45	0	0
82.450001	82.5	0	0
82.500001	82.55	0	0
82.550001	82.6	0	0
82.600001	82.65	0	0
82.650001	82.7	0	0
82.700001	82.75	0	0
82.750001	82.8	0	0
82.800001	82.85	0	0
82.850001	82.9	0	0
82.900001	82.95	0	0
82.950001	83	0	0
83.000001	83.05	0	0
83.050001	83.1	0	0
83.100001	83.15	0	0
83.150001	83.2	0	0
83.200001	83.25	0	0
83.250001	83.3	0	0

83.300001	83.35	0	0
83.350001	83.4	0	0
83.400001	83.45	0	0
83.450001	83.5	0	0
83.500001	83.55	0	0
83.550001	83.6	0	0
83.600001	83.65	0	0
83.650001	83.7	0	0
83.700001	83.75	0	0
83.750001	83.8	0	0
83.800001	83.85	0	1.217ms
83.850001	83.9	0	0
83.900001	83.95	0	1.218ms
83.950001	84	0	0
84.000001	84.05	0	0
84.050001	84.1	0	0
84.100001	84.15	0	0
84.150001	84.2	0	0
84.200001	84.25	0	0
84.250001	84.3	0	0
84.300001	84.35	0	0
84.350001	84.4	0	0
84.400001	84.45	0	0
84.450001	84.5	0	0
84.500001	84.55	0	0
84.550001	84.6	0	0
84.600001	84.65	0	0
84.650001	84.7	0	0
84.700001	84.75	0	0
84.750001	84.8	0	0
84.800001	84.85	0	0
84.850001	84.9	0	0
84.900001	84.95	0	0
84.950001	85	0	0
85.000001	85.05	0	0
85.050001	85.1	0	0
85.100001	85.15	0	0
85.150001	85.2	0	0
85.200001	85.25	0	0
85.250001	85.3	0	0
85.300001	85.35	0	0
85.350001	85.4	0	0
85.400001	85.45	0	0
85.450001	85.5	0	0
85.500001	85.55	0	0
85.550001	85.6	0	0
85.600001	85.65	0	0
85.650001	85.7	0	0
85.700001	85.75	0	0

85.750001	85.8	0	0
85.800001	85.85	0	0
85.850001	85.9	0	0
85.900001	85.95	0	0
85.950001	86	0	0
86.000001	86.05	0	0
86.050001	86.1	0	0
86.100001	86.15	0	0
86.150001	86.2	0	0
86.200001	86.25	0	0
86.250001	86.3	0	0
86.300001	86.35	0	0
86.350001	86.4	0	0
86.400001	86.45	0	0
86.450001	86.5	0	0
86.500001	86.55	0	0
86.550001	86.6	0	0
86.600001	86.65	0	0
86.650001	86.7	0	0
86.700001	86.75	0	0
86.750001	86.8	0	0
86.800001	86.85	0	0
86.850001	86.9	0	0
86.900001	86.95	0	0
86.950001	87	0	0
87.000001	87.05	0	0
87.050001	87.1	0	0
87.100001	87.15	0	0
87.150001	87.2	0	0
87.200001	87.25	0	0
87.250001	87.3	0	0
87.300001	87.35	0	0
87.350001	87.4	0	0
87.400001	87.45	0	0
87.450001	87.5	0	0
87.500001	87.55	0	0
87.550001	87.6	0	0
87.600001	87.65	0	0
87.650001	87.7	0	0
87.700001	87.75	0	0
87.750001	87.8	0	0
87.800001	87.85	0	0
87.850001	87.9	0	0
87.900001	87.95	0	0
87.950001	88	0	0
88.000001	88.05	0	0
88.050001	88.1	0	0
88.100001	88.15	0	0
88.150001	88.2	0	0

88.200001	88.25	0	0
88.250001	88.3	0	0
88.300001	88.35	0	0
88.350001	88.4	0	0
88.400001	88.45	0	0
88.450001	88.5	0	0
88.500001	88.55	0	0
88.550001	88.6	0	0
88.600001	88.65	0	0
88.650001	88.7	0	0
88.700001	88.75	0	1.217ms
88.750001	88.8	0	0
88.800001	88.85	0	1.217ms
88.850001	88.9	0	0
88.900001	88.95	0	0
88.950001	89	0	0
89.000001	89.05	0	0
89.050001	89.1	0	0
89.100001	89.15	0	0
89.150001	89.2	0	0
89.200001	89.25	0	0
89.250001	89.3	0	0
89.300001	89.35	0	0
89.350001	89.4	0	0
89.400001	89.45	0	0
89.450001	89.5	0	0
89.500001	89.55	0	0
89.550001	89.6	0	0
89.600001	89.65	0	0
89.650001	89.7	0	0
89.700001	89.75	0	0
89.750001	89.8	0	0
89.800001	89.85	0	0
89.850001	89.9	0	0
89.900001	89.95	0	0
89.950001	90	0	0
90.000001	90.05	0	0
90.050001	90.1	0	0
90.100001	90.15	0	0
90.150001	90.2	0	0
90.200001	90.25	0	0
90.250001	90.3	0	0
90.300001	90.35	0	0
90.350001	90.4	0	0
90.400001	90.45	0	0
90.450001	90.5	0	0
90.500001	90.55	0	0
90.550001	90.6	0	0
90.600001	90.65	0	0

90.650001	90.7	0	0
90.700001	90.75	0	0
90.750001	90.8	0	0
90.800001	90.85	0	0
90.850001	90.9	0	0
90.900001	90.95	0	0
90.950001	91	0	0
91.000001	91.05	0	0
91.050001	91.1	0	0
91.100001	91.15	0	0
91.150001	91.2	0	0
91.200001	91.25	0	0
91.250001	91.3	0	0
91.300001	91.35	0	0
91.350001	91.4	0	0
91.400001	91.45	0	0
91.450001	91.5	0	0
91.500001	91.55	0	0
91.550001	91.6	0	0
91.600001	91.65	0	0
91.650001	91.7	0	0
91.700001	91.75	0	0
91.750001	91.8	0	0
91.800001	91.85	0	0
91.850001	91.9	0	0
91.900001	91.95	0	0
91.950001	92	0	0
92.000001	92.05	0	0
92.050001	92.1	0	0
92.100001	92.15	0	0
92.150001	92.2	0	0
92.200001	92.25	0	0
92.250001	92.3	0	0
92.300001	92.35	0	0
92.350001	92.4	0	0
92.400001	92.45	0	0
92.450001	92.5	0	0
92.500001	92.55	0	0
92.550001	92.6	0	0
92.600001	92.65	0	0
92.650001	92.7	0	0
92.700001	92.75	0	0
92.750001	92.8	0	0
92.800001	92.85	0	0
92.850001	92.9	0	0
92.900001	92.95	0	0
92.950001	93	0	0
93.000001	93.05	0	0
93.050001	93.1	0	0

93.100001	93.15	0	0
93.150001	93.2	0	0
93.200001	93.25	0	0
93.250001	93.3	0	0
93.300001	93.35	0	0
93.350001	93.4	0	0
93.400001	93.45	0	0
93.450001	93.5	0	0
93.500001	93.55	0	0
93.550001	93.6	0	0
93.600001	93.65	0	0
93.650001	93.7	0	0
93.700001	93.75	0	0
93.750001	93.8	0	0
93.800001	93.85	0	0
93.850001	93.9	0	0
93.900001	93.95	0	0
93.950001	94	0	0
94.000001	94.05	0	0
94.050001	94.1	0	0
94.100001	94.15	0	0
94.150001	94.2	0	0
94.200001	94.25	0	0
94.250001	94.3	0	0
94.300001	94.35	0	0
94.350001	94.4	0	0
94.400001	94.45	0	0
94.450001	94.5	0	0
94.500001	94.55	0	0
94.550001	94.6	0	0
94.600001	94.65	0	0
94.650001	94.7	0	0
94.700001	94.75	0	0
94.750001	94.8	0	0
94.800001	94.85	0	0
94.850001	94.9	0	0
94.900001	94.95	0	0
94.950001	95	0	0
95.000001	95.05	0	0
95.050001	95.1	0	0
95.100001	95.15	0	0
95.150001	95.2	0	0
95.200001	95.25	0	0
95.250001	95.3	0	0
95.300001	95.35	0	0
95.350001	95.4	0	0
95.400001	95.45	0	0
95.450001	95.5	0	0
95.500001	95.55	0	0

95.550001	95.6	0	0
95.600001	95.65	0	0
95.650001	95.7	0	0
95.700001	95.75	0	0
95.750001	95.8	0	0
95.800001	95.85	0	0
95.850001	95.9	0	0
95.900001	95.95	0	0
95.950001	96	0	0
96.000001	96.05	0	0
96.050001	96.1	0	0
96.100001	96.15	0	0
96.150001	96.2	0	0
96.200001	96.25	0	0
96.250001	96.3	0	0
96.300001	96.35	0	0
96.350001	96.4	0	0
96.400001	96.45	0	0
96.450001	96.5	0	0
96.500001	96.55	0	0
96.550001	96.6	0	0
96.600001	96.65	0	0
96.650001	96.7	0	0
96.700001	96.75	0	0
96.750001	96.8	0	0
96.800001	96.85	0	1.217ms
96.850001	96.9	0	1.217ms
96.900001	96.95	0	0
96.950001	97	0	0
97.000001	97.05	0	0
97.050001	97.1	0	0
97.100001	97.15	0	0
97.150001	97.2	0	0
97.200001	97.25	0	0
97.250001	97.3	0	0
97.300001	97.35	0	0
97.350001	97.4	0	0
97.400001	97.45	0	0
97.450001	97.5	0	0
97.500001	97.55	0	0
97.550001	97.6	0	0
97.600001	97.65	0	0
97.650001	97.7	0	0
97.700001	97.75	0	0
97.750001	97.8	0	0
97.800001	97.85	0	0
97.850001	97.9	0	0
97.900001	97.95	0	0
97.950001	98	0	0

98.000001	98.05	0	0
98.050001	98.1	0	0
98.100001	98.15	0	0
98.150001	98.2	0	0
98.200001	98.25	0	0
98.250001	98.3	0	0
98.300001	98.35	0	0
98.350001	98.4	0	0
98.400001	98.45	0	0
98.450001	98.5	0	0
98.500001	98.55	0	0
98.550001	98.6	0	0
98.600001	98.65	0	0
98.650001	98.7	0	0
98.700001	98.75	0	0
98.750001	98.8	0	0
98.800001	98.85	0	0
98.850001	98.9	0	0
98.900001	98.95	0	0
98.950001	99	0	0
99.000001	99.05	0	0
99.050001	99.1	0	0
99.100001	99.15	0	0
99.150001	99.2	0	0
99.200001	99.25	0	0
99.250001	99.3	0	0
99.300001	99.35	0	0
99.350001	99.4	0	0
99.400001	99.45	0	0
99.450001	99.5	0	0
99.500001	99.55	0	0
99.550001	99.6	0	0
99.600001	99.65	0	0
99.650001	99.7	0	0
99.700001	99.75	0	0
99.750001	99.8	0	0
99.800001	99.85	0	0
99.850001	99.9	0	0
99.900001	99.95	0	0
99.950001	100	0	0
100.000001	100.05	0	0
100.050001	100.1	0	0
100.100001	100.15	0	0
100.150001	100.2	0	0
100.200001	100.25	0	0
100.250001	100.3	0	0
100.300001	100.35	0	0
100.350001	100.4	0	0
100.400001	100.45	0	0

100.450001	100.5	0	0
100.500001	100.55	0	0
100.550001	100.6	0	0
100.600001	100.65	0	0
100.650001	100.7	0	0
100.700001	100.75	0	0
100.750001	100.8	0	0
100.800001	100.85	0	0
100.850001	100.9	0	0
100.900001	100.95	0	0
100.950001	101	0	0
101.000001	101.05	0	0
101.050001	101.1	0	0
101.100001	101.15	0	0
101.150001	101.2	0	0
101.200001	101.25	0	0
101.250001	101.3	0	0
101.300001	101.35	0	0
101.350001	101.4	0	0
101.400001	101.45	0	0
101.450001	101.5	0	0
101.500001	101.55	0	0
101.550001	101.6	0	0
101.600001	101.65	0	0
101.650001	101.7	0	0
101.700001	101.75	0	0
101.750001	101.8	0	0
101.800001	101.85	0	0
101.850001	101.9	0	0
101.900001	101.95	0	0
101.950001	102	0	0
102.000001	102.05	0	0
102.050001	102.1	0	0
102.100001	102.15	0	0
102.150001	102.2	0	0
102.200001	102.25	0	0
102.250001	102.3	0	0
102.300001	102.35	0	0
102.350001	102.4	0	0
102.400001	102.45	0	0
102.450001	102.5	0	0
102.500001	102.55	0	0
102.550001	102.6	0	0
102.600001	102.65	0	0
102.650001	102.7	0	0
102.700001	102.75	0	0
102.750001	102.8	0	0
102.800001	102.85	0	0
102.850001	102.9	0	0

102.900001	102.95	0	0
102.950001	103	0	0
103.000001	103.05	0	0
103.050001	103.1	0	0
103.100001	103.15	0	0
103.150001	103.2	0	0
103.200001	103.25	0	0
103.250001	103.3	0	0
103.300001	103.35	0	0
103.350001	103.4	0	0
103.400001	103.45	0	0
103.450001	103.5	0	0
103.500001	103.55	0	0
103.550001	103.6	0	0
103.600001	103.65	0	0
103.650001	103.7	0	0
103.700001	103.75	0	0
103.750001	103.8	0	0
103.800001	103.85	0	0
103.850001	103.9	0	0
103.900001	103.95	0	0
103.950001	104	0	0
104.000001	104.05	0	0
104.050001	104.1	0	0
104.100001	104.15	0	0
104.150001	104.2	0	0
104.200001	104.25	0	0
104.250001	104.3	0	0
104.300001	104.35	0	0
104.350001	104.4	0	0
104.400001	104.45	0	0
104.450001	104.5	0	0
104.500001	104.55	0	0
104.550001	104.6	0	0
104.600001	104.65	0	0
104.650001	104.7	0	0
104.700001	104.75	0	0
104.750001	104.8	0	0
104.800001	104.85	0	0
104.850001	104.9	0	0
104.900001	104.95	0	1.217ms
104.950001	105	0	1.217ms
105.000001	105.05	0	0
105.050001	105.1	0	0
105.100001	105.15	0	0
105.150001	105.2	0	0
105.200001	105.25	0	0
105.250001	105.3	0	0
105.300001	105.35	0	0

105.350001	105.4	0	0
105.400001	105.45	0	0
105.450001	105.5	0	0
105.500001	105.55	0	0
105.550001	105.6	0	0
105.600001	105.65	0	0
105.650001	105.7	0	0
105.700001	105.75	0	0
105.750001	105.8	0	0
105.800001	105.85	0	0
105.850001	105.9	0	0
105.900001	105.95	0	0
105.950001	106	0	0
106.000001	106.05	0	0
106.050001	106.1	0	0
106.100001	106.15	0	0
106.150001	106.2	0	0
106.200001	106.25	0	0
106.250001	106.3	0	0
106.300001	106.35	0	0
106.350001	106.4	0	0
106.400001	106.45	0	0
106.450001	106.5	0	0
106.500001	106.55	0	0
106.550001	106.6	0	0
106.600001	106.65	0	0
106.650001	106.7	0	0
106.700001	106.75	0	0
106.750001	106.8	0	0
106.800001	106.85	0	0
106.850001	106.9	0	0
106.900001	106.95	0	0
106.950001	107	0	0
107.000001	107.05	0	0
107.050001	107.1	0	0
107.100001	107.15	0	0
107.150001	107.2	0	0
107.200001	107.25	0	0
107.250001	107.3	0	0
107.300001	107.35	0	0
107.350001	107.4	0	0
107.400001	107.45	0	0
107.450001	107.5	0	0
107.500001	107.55	0	0
107.550001	107.6	0	0
107.600001	107.65	0	0
107.650001	107.7	0	0
107.700001	107.75	0	0
107.750001	107.8	0	0

107.800001	107.85	0	0
107.850001	107.9	0	0
107.900001	107.95	0	0
107.950001	108	0	0
108.000001	108.05	0	0
108.050001	108.1	0	0
108.100001	108.15	0	0
108.150001	108.2	0	0
108.200001	108.25	0	0
108.250001	108.3	0	0
108.300001	108.35	0	0
108.350001	108.4	0	0
108.400001	108.45	0	0
108.450001	108.5	0	0
108.500001	108.55	0	0
108.550001	108.6	0	0
108.600001	108.65	0	0
108.650001	108.7	0	0
108.700001	108.75	0	0
108.750001	108.8	0	0
108.800001	108.85	0	0
108.850001	108.9	0	0
108.900001	108.95	0	0
108.950001	109	0	0
109.000001	109.05	0	0
109.050001	109.1	0	0
109.100001	109.15	0	0
109.150001	109.2	0	0
109.200001	109.25	0	0
109.250001	109.3	0	0
109.300001	109.35	0	0
109.350001	109.4	0	0
109.400001	109.45	0	0
109.450001	109.5	0	0
109.500001	109.55	0	0
109.550001	109.6	0	0
109.600001	109.65	0	0
109.650001	109.7	0	0
109.700001	109.75	0	0
109.750001	109.8	0	0
109.800001	109.85	0	1.218ms
109.850001	109.9	0	1.218ms
109.900001	109.95	0	0
109.950001	110	0	0
110.000001	110.05	0	0
110.050001	110.1	0	0
110.100001	110.15	0	0
110.150001	110.2	0	0
110.200001	110.25	0	0

110.250001	110.3	0	0
110.300001	110.35	0	0
110.350001	110.4	0	0
110.400001	110.45	0	0
110.450001	110.5	0	0
110.500001	110.55	0	0
110.550001	110.6	0	0
110.600001	110.65	0	0
110.650001	110.7	0	0
110.700001	110.75	0	0
110.750001	110.8	0	0
110.800001	110.85	0	0
110.850001	110.9	0	0
110.900001	110.95	0	0
110.950001	111	0	0
111.000001	111.05	0	0
111.050001	111.1	0	0
111.100001	111.15	0	0
111.150001	111.2	0	0
111.200001	111.25	0	0
111.250001	111.3	0	0
111.300001	111.35	0	0
111.350001	111.4	0	0
111.400001	111.45	0	0
111.450001	111.5	0	0
111.500001	111.55	0	0
111.550001	111.6	0	0
111.600001	111.65	0	0
111.650001	111.7	0	0
111.700001	111.75	0	0
111.750001	111.8	0	0
111.800001	111.85	0	0
111.850001	111.9	0	0
111.900001	111.95	0	0
111.950001	112	0	0
112.000001	112.05	0	0
112.050001	112.1	0	0
112.100001	112.15	0	0
112.150001	112.2	0	0
112.200001	112.25	0	0
112.250001	112.3	0	0
112.300001	112.35	0	0
112.350001	112.4	0	0
112.400001	112.45	0	0
112.450001	112.5	0	0
112.500001	112.55	0	0
112.550001	112.6	0	0
112.600001	112.65	0	0
112.650001	112.7	0	0

112.700001	112.75	0	0
112.750001	112.8	0	0
112.800001	112.85	0	0
112.850001	112.9	0	0
112.900001	112.95	0	0
112.950001	113	0	0
113.000001	113.05	0	0
113.050001	113.1	0	0
113.100001	113.15	0	0
113.150001	113.2	0	0
113.200001	113.25	0	0
113.250001	113.3	0	0
113.300001	113.35	0	0
113.350001	113.4	0	0
113.400001	113.45	0	0
113.450001	113.5	0	0
113.500001	113.55	0	0
113.550001	113.6	0	0
113.600001	113.65	0	0
113.650001	113.7	0	0
113.700001	113.75	0	0
113.750001	113.8	0	0
113.800001	113.85	0	0
113.850001	113.9	0	0
113.900001	113.95	0	0
113.950001	114	0	0
114.000001	114.05	0	0
114.050001	114.1	0	0
114.100001	114.15	0	0
114.150001	114.2	0	0
114.200001	114.25	0	0
114.250001	114.3	0	0
114.300001	114.35	0	0
114.350001	114.4	0	0
114.400001	114.45	0	0
114.450001	114.5	0	0
114.500001	114.55	0	0
114.550001	114.6	0	0
114.600001	114.65	0	0
114.650001	114.7	0	0
114.700001	114.75	0	0
114.750001	114.8	0	0
114.800001	114.85	0	0
114.850001	114.9	0	0
114.900001	114.95	0	0
114.950001	115	0	0
115.000001	115.05	0	0
115.050001	115.1	0	0
115.100001	115.15	0	0

115.150001	115.2	0	0
115.200001	115.25	0	0
115.250001	115.3	0	0
115.300001	115.35	0	0
115.350001	115.4	0	0
115.400001	115.45	0	0
115.450001	115.5	0	0
115.500001	115.55	0	0
115.550001	115.6	0	0
115.600001	115.65	0	0
115.650001	115.7	0	0
115.700001	115.75	0	0
115.750001	115.8	0	0
115.800001	115.85	0	0
115.850001	115.9	0	0
115.900001	115.95	0	0
115.950001	116	0	0
116.000001	116.05	0	0
116.050001	116.1	0	0
116.100001	116.15	0	0
116.150001	116.2	0	0
116.200001	116.25	0	0
116.250001	116.3	0	0
116.300001	116.35	0	0
116.350001	116.4	0	0
116.400001	116.45	0	0
116.450001	116.5	0	0
116.500001	116.55	0	0
116.550001	116.6	0	0
116.600001	116.65	0	0
116.650001	116.7	0	0
116.700001	116.75	0	0
116.750001	116.8	0	0
116.800001	116.85	0	0
116.850001	116.9	0	0
116.900001	116.95	0	0
116.950001	117	0	0
117.000001	117.05	0	0
117.050001	117.1	0	0
117.100001	117.15	0	0
117.150001	117.2	0	0
117.200001	117.25	0	0
117.250001	117.3	0	0
117.300001	117.35	0	0
117.350001	117.4	0	0
117.400001	117.45	0	0
117.450001	117.5	0	0
117.500001	117.55	0	0
117.550001	117.6	0	0

117.600001	117.65	0	0
117.650001	117.7	0	0
117.700001	117.75	0	0
117.750001	117.8	0	0
117.800001	117.85	0	0
117.850001	117.9	0	0
117.900001	117.95	0	1.217ms
117.950001	118	0	1.217ms
118.000001	118.05	0	0
118.050001	118.1	0	0
118.100001	118.15	0	0
118.150001	118.2	0	0
118.200001	118.25	0	0
118.250001	118.3	0	0
118.300001	118.35	0	0
118.350001	118.4	0	0
118.400001	118.45	0	0
118.450001	118.5	0	0
118.500001	118.55	0	0
118.550001	118.6	0	0
118.600001	118.65	0	0
118.650001	118.7	0	0
118.700001	118.75	0	0
118.750001	118.8	0	0
118.800001	118.85	0	0
118.850001	118.9	0	0
118.900001	118.95	0	0
118.950001	119	0	0
119.000001	119.05	0	0
119.050001	119.1	0	0
119.100001	119.15	0	0
119.150001	119.2	0	0
119.200001	119.25	0	0
119.250001	119.3	0	0
119.300001	119.35	0	0
119.350001	119.4	0	0
119.400001	119.45	0	0
119.450001	119.5	0	0
119.500001	119.55	0	0
119.550001	119.6	0	0
119.600001	119.65	0	0
119.650001	119.7	0	0
119.700001	119.75	0	0
119.750001	119.8	0	0
119.800001	119.85	0	0
119.850001	119.9	0	0
119.900001	119.95	0	0
119.950001	120	0	0
120.000001	120.05	0	0

120.050001	120.1	0	0
120.100001	120.15	0	0
120.150001	120.2	0	0
120.200001	120.25	0	0
120.250001	120.3	0	0
120.300001	120.35	0	0
120.350001	120.4	0	0
120.400001	120.45	0	0
120.450001	120.5	0	0
120.500001	120.55	0	0
120.550001	120.6	0	0
120.600001	120.65	0	0
120.650001	120.7	0	0
120.700001	120.75	0	0
120.750001	120.8	0	0
120.800001	120.85	0	0
120.850001	120.9	0	0
120.900001	120.95	0	0
120.950001	121	0	0
121.000001	121.05	0	0
121.050001	121.1	0	0
121.100001	121.15	0	0
121.150001	121.2	0	0
121.200001	121.25	0	0
121.250001	121.3	0	0
121.300001	121.35	0	0
121.350001	121.4	0	0
121.400001	121.45	0	0
121.450001	121.5	0	0
121.500001	121.55	0	0
121.550001	121.6	0	0
121.600001	121.65	0	0
121.650001	121.7	0	0
121.700001	121.75	0	0
121.750001	121.8	0	0
121.800001	121.85	0	0
121.850001	121.9	0	0
121.900001	121.95	0	0
121.950001	122	0	0
122.000001	122.05	0	0
122.050001	122.1	0	0
122.100001	122.15	0	0
122.150001	122.2	0	0
122.200001	122.25	0	0
122.250001	122.3	0	0
122.300001	122.35	0	0
122.350001	122.4	0	0
122.400001	122.45	0	0
122.450001	122.5	0	0

122.500001	122.55	0	0
122.550001	122.6	0	0
122.600001	122.65	0	0
122.650001	122.7	0	0
122.700001	122.75	0	0
122.750001	122.8	0	0
122.800001	122.85	0	0
122.850001	122.9	0	0
122.900001	122.95	0	0
122.950001	123	0	0
123.000001	123.05	0	0
123.050001	123.1	0	0
123.100001	123.15	0	0
123.150001	123.2	0	0
123.200001	123.25	0	0
123.250001	123.3	0	0
123.300001	123.35	0	0
123.350001	123.4	0	0
123.400001	123.45	0	0
123.450001	123.5	0	0
123.500001	123.55	0	0
123.550001	123.6	0	0
123.600001	123.65	0	0
123.650001	123.7	0	0
123.700001	123.75	0	0
123.750001	123.8	0	0
123.800001	123.85	0	0
123.850001	123.9	0	0
123.900001	123.95	0	0
123.950001	124	0	0
124.000001	124.05	0	0
124.050001	124.1	0	0
124.100001	124.15	0	0
124.150001	124.2	0	0
124.200001	124.25	0	0
124.250001	124.3	0	0
124.300001	124.35	0	0
124.350001	124.4	0	0
124.400001	124.45	0	0
124.450001	124.5	0	0
124.500001	124.55	0	0
124.550001	124.6	0	0
124.600001	124.65	0	0
124.650001	124.7	0	0
124.700001	124.75	0	0
124.750001	124.8	0	0
124.800001	124.85	0	0
124.850001	124.9	0	0
124.900001	124.95	0	0

124.950001	125	0	0