FCC Test Report

FCC ID : VQK-F01F

Equipment : Mobile Phone

Model No. : F-01F

Brand Name : FUJITSU

Applicant : FUJITSU LIMITED

Address : 1-1, Kamikodanaka 4-chome, Nakahara-ku,

Kawasaki 211-8588, Japan

Standard : 47 CFR FCC Part 15.407

Received Date : Jul. 01, 2013

Tested Date : Aug. 14 ~ Aug. 18, 2013

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

Iac MRA

Testing Laboratory

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Report No.: FR370110AN Report Version: Rev. 01



Tel: 886-3-271-8666 Fax: 886-3-318-0155

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Release Record

Report No.	Version	Description	Issued Date
FR370110AN	Rev. 01	Initial issue	Sep. 03, 2013

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Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 3.740MHz 41.31 (Margin -14.69dB) - QP	Pass
15.407(b)(1)(2)(3) 15.209	Radiated Emissions	[dBuV/m at 3m]: 11400MHz 52.53 (Margin -1.47dB) - AV	Pass
15.407(a)(1)(2)(3)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)(1)(2)(3)	RF Output Power	Power [dBm]: 5150~5250 MHz:14.66 5250~5350 MHz:14.71 5470~5725 MHz:14.24	Pass
15.407(a)(1)(2)(3)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(a)(6)	Peak Excursion	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

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1 General Description

1.1 Information

1.1.1 Product Details

Product Name	Mobile Phone
Brand Name FUJITSU	
Model Name	F-01F
IMEI Code	357611050019929 & 357611050021396
H/W Version	V2.1.0
S/W Version	R19.8e

1.1.2 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		
а	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	6-54 Mbps		
n (HT20)	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	MCS 0-7		
ac (VHT20)	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	MCS 0-8		
n (HT40)	5150-5250 5250-5350 5470-5725	5190-5230 5270-5310 5510-5670	38-46 [2] 54-62 [2] 102-134 [3]	1	MCS 0-7		
ac (VHT40)	5150-5250 5250-5350 5470-5725	5190-5230 5270-5310 5510-5670	38-46 [2] 54-62 [2] 102-134 [3]	1	MCS 0-8		
ac (VHT80)	5150-5250 5250-5350 5470-5725	5210 5290 5530	42 [1] 58 [1] 106 [1]	1	MCS 0-9		

Note 1: RF output power specifies that Maximum Conducted Output Power.

Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

Note 3: IEEE802.11ac is draft version.

1.1.3 Antenna Details

Ant. No.	Туре	Gain (dBi)	Connector	Remark
1	λ/4 Monopole	-1.0		

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1.1.4 EUT Operational Condition

Supply Voltage		□ DC	
Type of DC Source	☐ Internal DC supply		Battery

1.1.5 Accessories

	Accessories				
No. Equipment Description					
1		Brand Name: Fujitsu limited			
		Model Name: CA54310-0052			
		Power Rating: O/P: 3.75Vdc, 3200mA, 12Wh			

1.1.6 Channel List

802.11 a / H	T20 / VHT20	HT40	/ VHT40
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	134	5670
64	5320	VH	T 80
100	5500	42	5210
104	5520	58	5290
108	5540	106	5530
112	5560	-	-
116	5580	-	-
132	5660	-	-
136	5680	-	-
140	5700	-	-

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1.1.7 Test Tool and Duty Cycle

Test Tool	QRCT, Ver 3.0.6.0					
	Mode	Duty cycle (%)	Duty factor (dB)			
	11a	88.94%	0.51			
	HT20	87.75%	0.57			
Duty Cycle and Duty Factor	HT40	77.16%	1.13			
	VHT20	84.26%	0.74			
	VHT40	73.44%	1.34			
	VHT80	57.56%	2.40			

1.1.8 Power Setting

Channel	Frequency(MHz)	11a	HT20	VHT20
CH 36	5180	14	13	13
CH 40	5200	14	13	13
CH 48	5240	14	13	13
CH 52	5260	14	13	13
CH 60	5300	14	13	13
CH 64	5320	14	13	13
CH 100	5500	14	13	13
CH 116	5580	14	13	13
CH 140	5700	14	13	13

Channel	Frequency(MHz)	HT40	VHT40	VHT80
CH 38	5190	12.5	11	-
CH 46	5230	12.5	11	-
CH 54	5270	12.5	11	-
CH 62	5310	12.5	11	-
CH 102	5510	12	11	-
CH 110	5550	12	11	-
CH 134	5670	12	11	-
CH 42	5210	-	-	11
CH 58	5290	-	-	11
CH 106	5530	-	-	10

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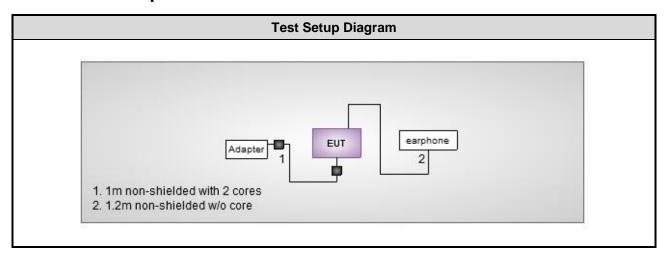
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1.2 Local Support Equipment List

	Support Equipment List								
No.	Equipment	Brand	Model	S/N	FCC ID	Signal cable / Length (m)			
1	Adapter	NTT docomo	AC Adaptor 04			1m non-shielded with 2 cores			
2	Earphone	APPLE	MD827FE/A			1.2m non-shielded w/o core			

Note: Item 1 was provided by client.

1.3 Test Setup Chart



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The Equipment List 1.4

Test Item	Conducted Emission	Conducted Emission					
Test Site	Conduction room 1 / (C	O01-WS)					
Instrument	Manufacturer	Manufacturer Model No. Seria		Calibration Date	Calibration Until		
EMC Receiver	R&S	ESCS 30	100169	Oct. 02, 2012	Oct. 01, 2013		
LISN	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-667	Dec. 04, 2012	Dec. 03, 2013		
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-666	Dec. 04, 2012	Dec. 03, 2013		
ISN	TESEQ	ISN T800	34406	Apr. 08, 2013	Apr. 07, 2014		
ISN	TESEQ	ISN T200A	30494	Apr. 09, 2013	Apr. 08, 2014		
ISN	TESEQ	ISN T8-Cat6	27262	Sep. 17, 2012	Sep. 16, 2013		
ISN	TESEQ	ISN ST08	22589	Jan. 24, 2013	Jan. 23, 2014		
RF Current Probe	FCC	F-33-4	121630	Dec. 04, 2012	Dec. 03, 2013		
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 25, 2012	Dec. 24, 2013		
ESH3-Z6 V-Network(+)	R&S	ESH3-Z6	100920	Nov. 21, 2012	Nov. 20, 2013		
ESH3-Z6 V-Network(-)	R&S	ESH3-Z6	100951	Jan. 30, 2013	Jan. 29, 2014		
Two-Line V-Network	R&S	ENV216	101579	Jan. 07, 2013	Jan. 06, 2014		
50 ohm terminal	NA	50	01	Apr. 22, 2013	Apr. 21, 2014		
50 ohm terminal	NA	50	02	Apr. 22, 2013	Apr. 21, 2014		
50 ohm terminal	NA	50	03	Apr. 22, 2013	Apr. 21, 2014		
50 ohm terminal (Support Unit)	NA	50	04	Apr. 22, 2013	Apr. 21, 2014		
Note: Calibration Inter	val of instruments listed a	above is one year.					

Test Item	RF Conducted	RF Conducted						
Test Site	(TH01-WS)	TH01-WS)						
Instrument	Manufacturer Model No. Serial No. Calibration Date Calibration							
Spectrum Analyzer	R&S	FSV 40	101063	Feb. 18, 2013	Feb. 17, 2014			
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 29, 2012	Nov. 28, 2013			
Power Meter	Anritsu	ML2495A	1241002	Oct. 15, 2012	Oct. 14, 2013			
Power Sensor	Anritsu	MA2411B	1027366	Oct. 24, 2012	Oct. 23, 2013			
Signal Generator	R&S	SMB100A	175727	Jan. 14, 2013	Jan. 13, 2014			
Note: Calibration Inter	val of instruments listed	d above is one year.						

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Test Item	Radiated Emission ab	ove 1GHz			
Test Site	966 chamber1 / (03Ch	H01-WS)			
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
3m semi-anechoic chamber	CHAMPRO	SAC-03	03CH01-WS	Jan. 04, 2013	Jan. 03, 2014
Spectrum Analyzer	R&S	FSV40	101498	Jan. 24, 2013	Jan. 23, 2014
Receiver	R&S	ESR3	101658	Jan. 28, 2013	Jan. 27, 2014
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jan. 11, 2013	Jan. 10, 2014
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Feb. 18, 2013	Feb. 17, 2014
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Jan. 14, 2013	Jan. 13, 2014
Amplifier	Burgeon	BPA-530	100219	Nov. 28, 2012	Nov. 27, 2013
Amplifier	Agilent	83017A	MY39501308	Dec. 18, 2012	Dec. 17, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-001	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-002	Dec. 25, 2012	Dec. 24, 2013
control	EM Electronics	EM1000	60612	N/A	N/A

Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014		
Amplifier MITEQ		AMF-6F-260400 9121372		Apr. 19, 2013	Apr. 18, 2015		
Note: Calibration Interval of instruments listed above is two year.							

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407 ANSI C63.10-2009

FCC KDB 412172

FCC KDB 789033 D01 General UNII Test procedures v01r03

Note: The EUT has been tested and complied with FCC part 15B requirement. FCC Part 15B test results are issued to another report.

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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			
Bandwidth	±74.147 Hz			
Conducted power	±0.717 dB			
Power density	±2.687 dB			
Frequency error	±74.147 Hz			
Temperature	±0.3 °C			
AC conducted emission	±2.43 dB			
Radiated emission	±2.49 dB			

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2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C / 66%	Skys Huang
Radiated Emissions	03CH01-WS	24°C / 65%	Aska Huang Mark Liao
RF Conducted	TH01-WS	24°C / 61%	Brad Wu

FCC site registration No.: 657002IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

Test item	Mode	Test channel
Conducted Emissions Radiated Emissions <1GHz	11a	5240
RF Output Power	11a HT20 HT40 VHT20 VHT40 VHT80	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 5190 / 5230/ 5270 / 5310 / 5510 / 5550 / 5670 5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 5190 / 5230/ 5270 / 5310 / 5510 / 5550 / 5670 5210 / 5290 / 5530
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a HT20 HT40 VHT 80	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 5190 / 5230/ 5270 / 5310 / 5510 / 5550 / 5670 5210 / 5290 / 5530
Peak Excursion	11a HT20 HT40 VHT20 VHT40 VHT80	5240 / 5260 / 5700 5240 / 5320 / 5500 5230 / 5310 / 5670 5240 / 5320 / 5500 5230 / 5270 / 5670 5210 / 5290 / 5530
Frequency Stability	Un-modulation	5320

NOTE:

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The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Y-plane results were found as the worst case and were shown in this report.

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3 Transmitter Test Results

3.1 Conducted Emissions

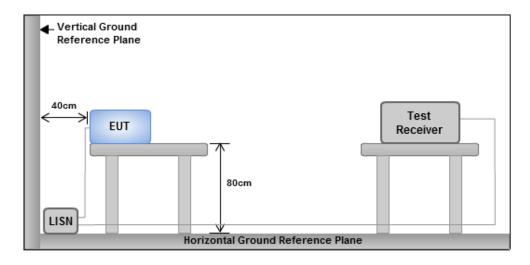
3.1.1 Limit of Conducted Emissions

Conducted Emissions Limit						
Frequency Emission (MHz) Quasi-Peak Average						
0.15-0.5	66 - 56 *	56 - 46 *				
0.5-5	56	46				
5-30	60	50				
Note 1: * Decreases with the logarithm of the frequency.						

3.1.2 Test Procedures

- 1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
- 2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
- 3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
- 4. This measurement was performed with AC 120V/60Hz

3.1.3 Test Setup



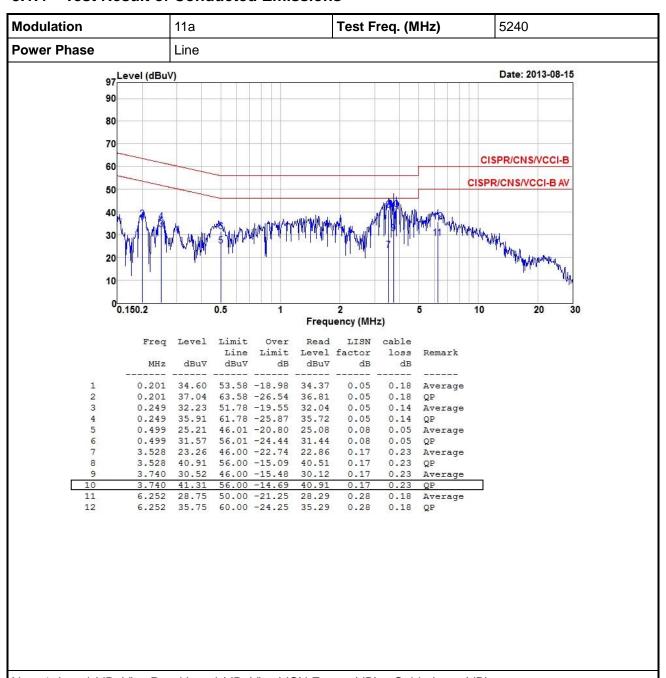
Note: 1. Support units were connected to second LISN.

Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

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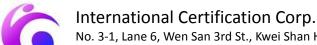
3.1.4 Test Result of Conducted Emissions



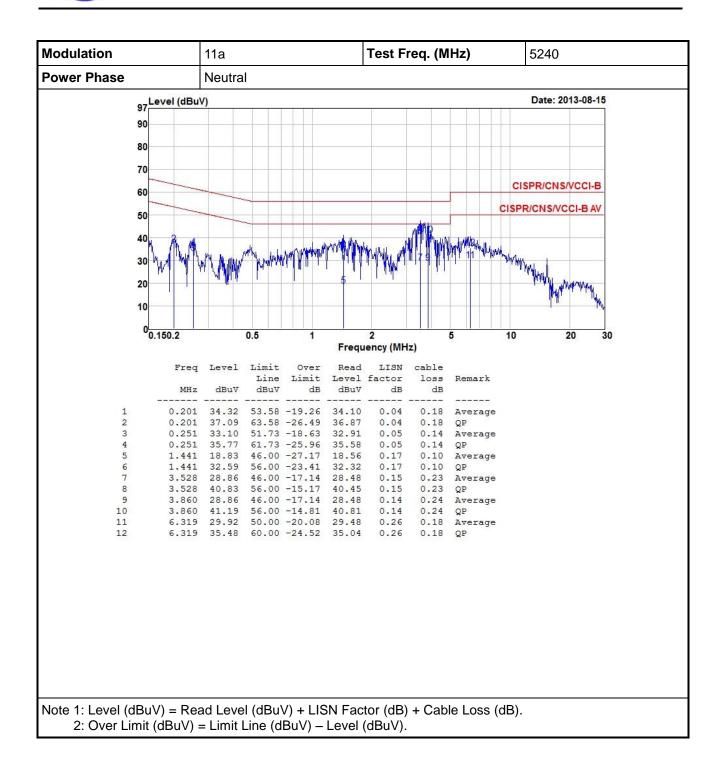
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).

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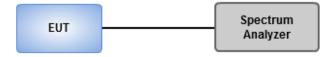
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3.2 Emission Bandwidth

3.2.1 Test Procedures

- 1. Set RBW = approximately 1% of the emission bandwidth.
- 2. Set the VBW > RBW, Detector = Peak.
- 3. Trace mode = max hold.
- 4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

3.2.2 Test Setup



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3.2.3 Test Result of Emission Bandwidth

C	ondition	Emission Bandwidth (MHz)					
N _{TX}	Freq.	26dB Ba	ndwidth	99% Ba	ndwidth	Powe	r Limit
INTX	(MHz)	11a	HT20	11a	HT20	26dB BW	99% BW
1	5180	22.38	22.61	17.19	18.12	17	16.35
1	5200	22.61	22.61	17.19	18.18	17	16.35
1	5240	22.38	22.72	17.19	18.18	17	16.35
1	5260	22.43	22.72	17.19	18.18	24	23.35
1	5300	22.38	22.72	17.19	18.12	24	23.35
1	5320	22.61	22.55	17.19	18.18	24	23.35
1	5500	22.38	22.55	17.19	18.18	24	23.35
1	5580	22.26	22.61	17.19	18.12	24	23.35
1	5700	22.43	22.55	17.25	18.18	24	23.37

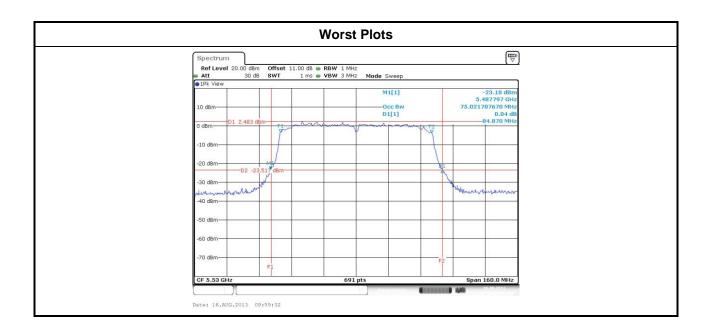
C	ondition		Emission Bandwidth (MHz)				
N _{TX}	Freq.	26dB Bandwidth	99% Bandwidth	Powe	r Limit		
INTX	(MHz)	HT40	HT40	26dB BW	99% BW		
1	5190	45.45	36.93	17	17		
1	5230	45.45	36.93	17	17		
1	5270	45.22	36.93	24	24		
1	5310	45.91	36.82	24	24		
1	5510	45.80	37.05	24	24		
1	5550	45.68	37.05	24	24		
1	5670	45.91	37.05	24	24		

Condition Emission Bandwidth (MHz)					
N _{TX} Freq.	26dB Bandwidth	99% Bandwidth	Power Limit		
INTX	(MHz)	VHT80	VHT80	26dB BW	99% BW
1	5210	83.94	75.02	17	17
1	5290	84.41	75.02	24	24
1	5530	84.87	75.02	24	24

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RF Output Power 3.3

3.3.1 **Limit of RF Output Power**

	Frequency Band (GHz)	Limit
\boxtimes	5.15~5.25	50mW or 4dBm+10 log B
\boxtimes	5.25~5.35	250mW or 11dBm+10 log B
	5.47~5.725	250mW or 11dBm+10 log B
Note	e: "B" is the 26dB emission bandwidth in MHz.	

3.3.2 Test Procedures

Nower meter

Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required

3.3.3 **Test Setup**



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3.3.4 Test Result of Maximum Conducted Output Power

C	Condition		RF Output F	Power (dBm)	
N _{TX}	Freq. (MHz)	11a	HT20	VHT20	PowerLimit
1	5180	14.33	13.54	13.45	17
1	5200	14.39	13.36	13.32	17
1	5240	14.66	13.61	13.58	17
1	5260	14.71	13.43	13.39	24
1	5300	14.67	13.55	13.52	24
1	5320	14.56	13.61	13.58	24
1	5500	13.99	13.53	13.51	24
1	5580	14.09	13.42	13.37	24
1	5700	14.24	13.35	13.24	24

Condition		RF Output Power (dBm)						
N _{TX}	Freq. (MHz)	HT40	VHT40	PowerLimit				
1	5190	13.15	11.67	17				
1	5230	13.19	11.84	17				
1	5270	12.92	11.61	24				
1	5310	13.13	11.53	24				
1	5510	12.42	11.32	24				
1	5550	12.51	11.33	24				
1	5670	12.62	11.41	24				

Condition		RF Output Power (dBm)					
N _{TX}	Freq. (MHz) VHT80		-	PowerLimit			
1	5190	12.14	-	17			
1	5230	11.83	-	24			
1	5270	10.52	-	24			

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3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

	Frequency Band (GHz)	Limit (dBm)
\boxtimes	5.15~5.25	4
\boxtimes	5.25~5.35	11
	5.47~5.725	11

3.4.2 Test Procedures

	M	let	h	a	Ч	S	Α	
	 ıv	ıcı		v	u	_	\neg	

- 1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
- 2. Trace average 100 traces.
- 3. Use the peak marker function to determine the maximum amplitude level.

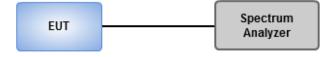
☐ Method SA-2

- 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
- 2. Set sweep time ≥ 10 * (number of points in sweep) * (symbol period of the transmitted signal).
- 3. Perform a single sweep.
- 4. Use the peak marker function to determine the maximum amplitude level.

Method SA-2 Alternative

- 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
- 2. Set sweep time \geq 10 * (number of points in sweep) * (total on/off period of the transmitted signal).
- 3. Perform a single sweep.
- 4. Use the peak marker function to determine the maximum amplitude level.
- 5. Add $10 \log(1/x)$, where x is the duty cycle.

3.4.3 Test Setup



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3.4.4 Test Result of Peak Power Spectral Density

Co	ondition		ı	Peak Power Spectral Density (dBm)						
Modulation Mode	N _{TV}		PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)				
11a	1	5180	0.95	0.51	1.46	4				
11a	1	5200	0.91	0.51	1.42	4				
11a	1	5240	1.04	0.51	1.55	4				
11a	1	5260	1.06	0.51	1.57	11				
11a	1	5300	0.89	0.51	1.40	11				
11a	1	5320	0.91	0.51	1.42	11				
11a	1	5500	0.03	0.51	0.54	11				
11a	1	5580	0.02	0.51	0.53	11				
11a	1	5700	0.14	0.51	0.65	11				

Co	ondition		Peak Power Spectral Density (dBm)						
Modulation N _{TX} Freq. (MHz)		PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)				
HT20	1	5180	-0.34	0.57	0.23	4			
HT20	1	5200	-0.55	0.57	0.02	4			
HT20	1	5240	-0.55	0.57	0.02	4			
HT20	1	5260	-0.49	0.57	0.08	11			
HT20	1	5300	-0.26	0.57	0.31	11			
HT20	1	5320	-0.28	0.57	0.29	11			
HT20	1	5500	-0.87	0.57	-0.30	11			
HT20	1	5580	-0.90	0.57	-0.33	11			
HT20	1	5700	-1.05	0.57	-0.48	11			

Note: D.F is duty factor

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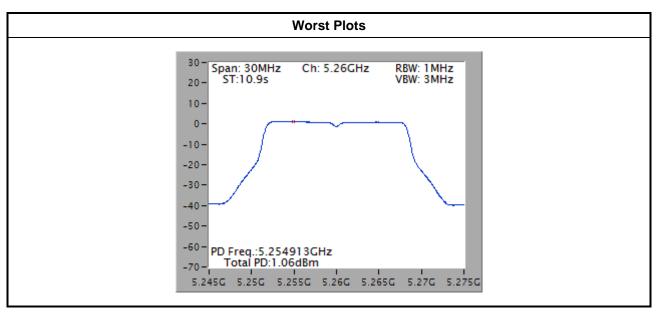


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Co	ondition		ı	Peak Power Spectral Density (dBm)					
Modulation Mode	N _{TX}	N _{TX} Freq. PF w/c (dl		Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)			
HT40	1	5190	-3.83	1.13	-2.70	4			
HT40	1	5230	-4.01	1.13	-2.88	4			
HT40	1	5270	-4.01	1.13	-2.88	11			
HT40	1	5310	-3.87	1.13	-2.74	11			
HT40	1	5510	-4.91	1.13	-3.78	11			
HT40	1	5550	-4.87	1.13	-3.74	11			
HT40	1	5670	-4.80	1.13	-3.67	11			

Co	ondition		Peak Power Spectral Density (dBm)					
Modulation Mode	lodulation N _{TX} Freq. w/o		PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)		
VHT80	1	5210	-8.83	2.40	-6.43	4		
VHT80	1	5290	-9.24	2.40	-6.84	11		
VHT80	1	5530	-10.61	2.40	-8.21	11		

Note: D.F is duty factor



Note: Power density plot without duty factor

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3.5 Peak Excursion

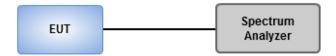
3.5.1 Peak Excursion Limit

Peak excursion of the modulation envelope shall not exceed 13 dB across any 1 MHz bandwidth.

3.5.2 Test Procedures

- 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = peak.
- 2. Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
- 3. Use the peak search function to find the peak of the spectrum.
- 4. Use the procedure of section 3.4.2 to measure the PPSD.
- 5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD

3.5.3 Test Setup



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3.5.4 Test Result of Peak Excursion

Frequenc	y band(MHz)	5150~5250							
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit		
11a	BPSK	1	5240	8.97	0.51	8.46	13		
11a	QPSK	1	5240	9.92	1.02	8.90	13		
11a	16QAM	1	5240	11.54	1.74	9.80	13		
11a	64QAM	1	5240	11.78	2.91	8.87	13		
HT20	BPSK	1	5240	8.34	0.57	7.77	13		
HT20	QPSK	1	5240	10.06	1.03	9.03	13		
HT20	16QAM	1	5240	11.21	1.80	9.41	13		
HT20	64QAM	1	5240	12.03	2.85	9.18	13		
HT40	BPSK	1	5230	10.13	1.13	9.00	13		
HT40	QPSK	1	5230	10.41	1.89	8.52	13		
HT40	16QAM	1	5230	11.53	2.79	8.74	13		
HT40	64QAM	1	5230	12.36	4.04	8.32	13		
VHT20	BPSK	1	5240	8.8	0.74	8.06	13		
VHT20	QPSK	1	5240	9.52	1.31	8.21	13		
VHT20	16QAM	1	5240	10.36	2.12	8.24	13		
VHT20	64QAM	1	5240	11.66	3.07	8.59	13		
VHT20	256QAM	1	5240	11.21	3.94	7.27	13		
VHT40	BPSK	1	5230	9.06	1.34	7.72	13		
VHT40	QPSK	1	5230	12.39	2.26	10.13	13		
VHT40	16QAM	1	5230	11.89	3.25	8.64	13		
VHT40	64QAM	1	5230	12.14	4.39	7.75	13		
VHT40	256QAM	1	5230	13.85	5.05	8.80	13		
VHT80	BPSK	1	5210	11.71	2.40	9.31	13		
VHT80	QPSK	1	5210	11.54	3.36	8.18	13		
VHT80	16QAM	1	5210	11.95	4.75	7.20	13		
VHT80	64QAM	1	5210	12.41	5.49	6.92	13		
VHT80	256QAM	1	5210	13.62	5.88	7.74	13		

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum Peak exclusion = Measured value – duty factor

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Frequency	band(MHz)				5250~5350		
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit
11a	BPSK	1	5260	8.88	0.51	8.37	13
11a	QPSK	1	5260	10.03	1.02	9.01	13
11a	16QAM	1	5260	10.68	1.74	8.94	13
11a	64QAM	1	5260	12.11	2.91	9.20	13
HT20	BPSK	1	5320	9.28	0.57	8.71	13
HT20	QPSK	1	5320	10.1	1.03	9.07	13
HT20	16QAM	1	5320	10.92	1.80	9.12	13
HT20	64QAM	1	5320	12.02	2.85	9.17	13
HT40	BPSK	1	5310	8.84	1.13	7.71	13
HT40	QPSK	1	5310	10.18	1.89	8.29	13
HT40	16QAM	1	5310	12.39	2.79	9.60	13
HT40	64QAM	1	5310	12.82	4.04	8.78	13
VHT20	BPSK	1	5320	8.69	0.74	7.95	13
VHT20	QPSK	1	5320	9.55	1.31	8.24	13
VHT20	16QAM	1	5320	10.18	2.12	8.06	13
VHT20	64QAM	1	5320	11.75	3.07	8.68	13
VHT20	256QAM	1	5320	12.32	3.94	8.38	13
VHT40	BPSK	1	5270	9.97	1.34	8.63	13
VHT40	QPSK	1	5270	12.63	2.26	10.37	13
VHT40	16QAM	1	5270	11.97	3.25	8.72	13
VHT40	64QAM	1	5270	12.19	4.39	7.80	13
VHT40	256QAM	1	5270	13.42	5.05	8.37	13
VHT80	BPSK	1	5290	11.57	2.40	9.17	13
VHT80	QPSK	1	5290	11.83	3.36	8.47	13
VHT80	16QAM	1	5290	12.19	4.75	7.44	13
VHT80	64QAM	1	5290	12.93	5.49	7.44	13
VHT80	256QAM	1	5290	13.94	5.88	8.06	13

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum Peak exclusion = Measured value – duty factor

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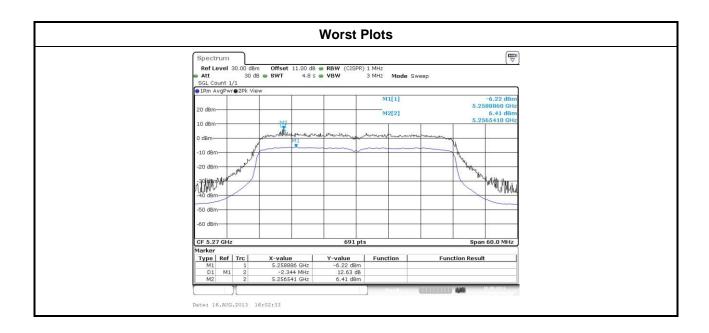
Frequency band(MHz)		5470~5725						
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit	
11a	BPSK	1	5700	9.12	0.51	8.61	13	
11a	QPSK	1	5700	10.8	1.02	9.78	13	
11a	16QAM	1	5700	10.48	1.74	8.74	13	
11a	64QAM	1	5700	11.73	2.91	8.82	13	
HT20	BPSK	1	5700	9.2	0.57	8.63	13	
HT20	QPSK	1	5700	10.58	1.03	9.55	13	
HT20	16QAM	1	5700	10.76	1.80	8.96	13	
HT20	64QAM	1	5700	11.81	2.85	8.96	13	
HT40	BPSK	1	5670	9.29	1.13	8.16	13	
HT40	QPSK	1	5670	11.04	1.89	9.15	13	
HT40	16QAM	1	5670	11.68	2.79	8.89	13	
HT40	64QAM	1	5670	12.49	4.04	8.45	13	
VHT20	BPSK	1	5500	8.69	0.74	7.95	13	
VHT20	QPSK	1	5500	9.67	1.31	8.36	13	
VHT20	16QAM	1	5500	10.02	2.12	7.90	13	
VHT20	64QAM	1	5500	11.79	3.07	8.72	13	
VHT20	256QAM	1	5500	11.44	3.94	7.50	13	
VHT40	BPSK	1	5670	9.94	1.34	8.60	13	
VHT40	QPSK	1	5670	12.48	2.26	10.22	13	
VHT40	16QAM	1	5670	11.87	3.25	8.62	13	
VHT40	64QAM	1	5670	12.29	4.39	7.90	13	
VHT40	256QAM	1	5670	13.2	5.05	8.15	13	
VHT80	BPSK	1	5530	11.37	2.40	8.97	13	
VHT80	QPSK	1	5530	11.4	3.36	8.04	13	
VHT80	16QAM	1	5530	12.41	4.75	7.66	13	
VHT80	64QAM	1	5530	12.83	5.49	7.34	13	
VHT80	256QAM	1	5530	13.89	5.88	8.01	13	

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum Peak exclusion = Measured value – duty factor

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3.6 Transmitter Radiated and Band Edge Emissions

3.6.1 Limit of Transmitter Radiated and Band Edge Emissions

Restricted Band Emissions Limit							
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)				
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300				
0.490~1.705	24000/F(kHz)	33.8 - 23	30				
1.705~30.0	30	29	30				
30~88	100	40	3				
88~216	150	43.5	3				
216~960	200	46	3				
Above 960	500	54	3				

Note 1:

Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit				
Operating Band	Limit			
5.15 - 5.25 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]			
5.25 - 5.35 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]			
5.47 - 5.725 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]			
5.725 - 5.825 GHz	5.715 5.725 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p27 dBm [68.2 dBuV/m@3m]			

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

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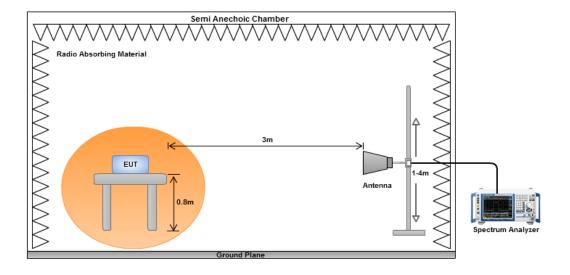
3.6.2 Test Procedures

- Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
- Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
- 3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

- 1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
- 2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
- 3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

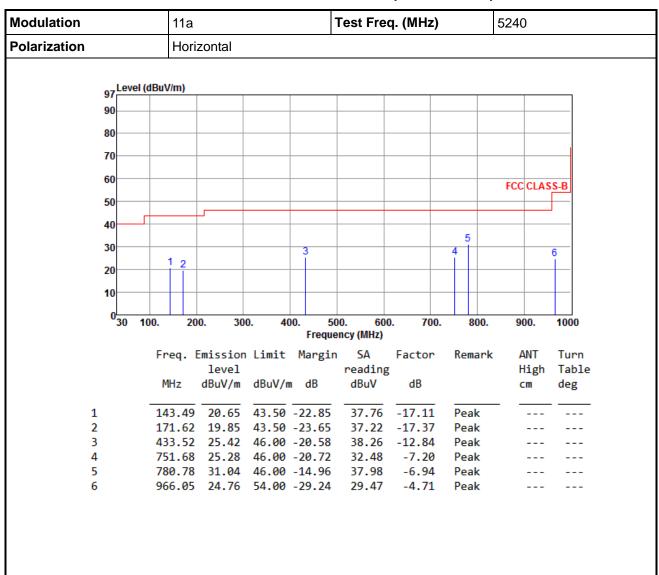
3.6.3 Test Setup



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3.6.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)



Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor, cable loss and amplifier gain

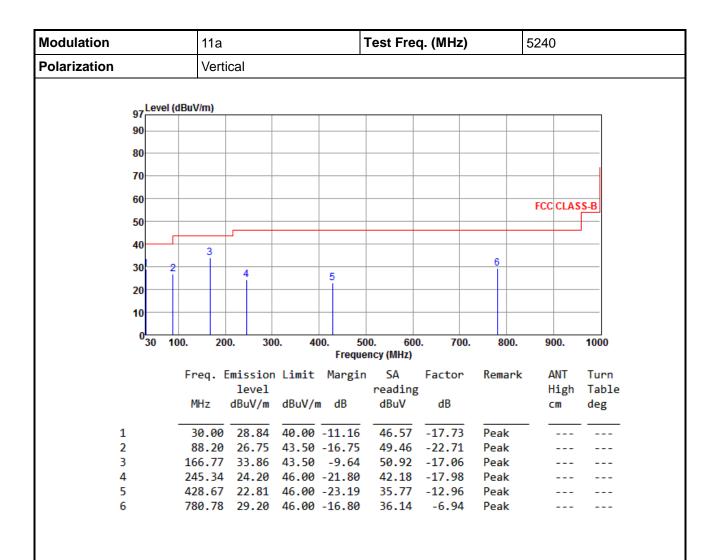
Note 2: Margin (dB) = Emission level (dBuV/m) - Limit (dBuV/m).

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Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor, cable loss and amplifier gain

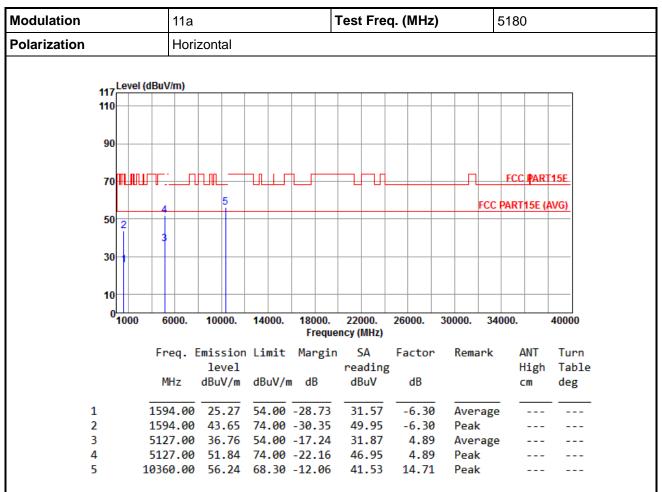
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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3.6.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

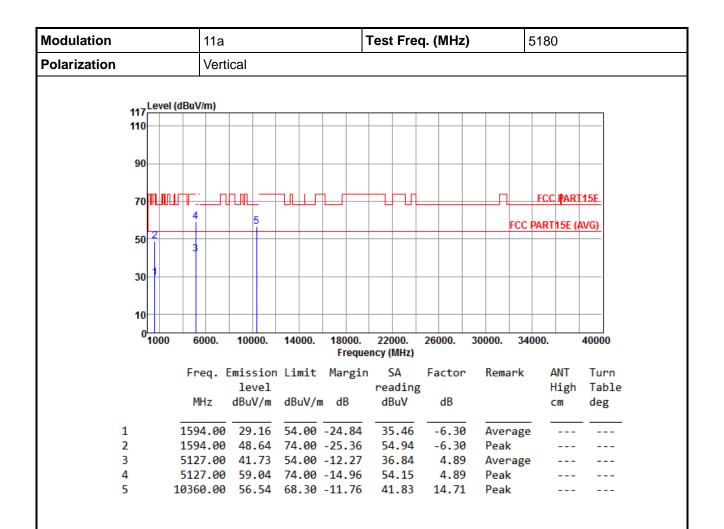
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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38.79

10400.00 56.34 68.30 -11.96

5147.00

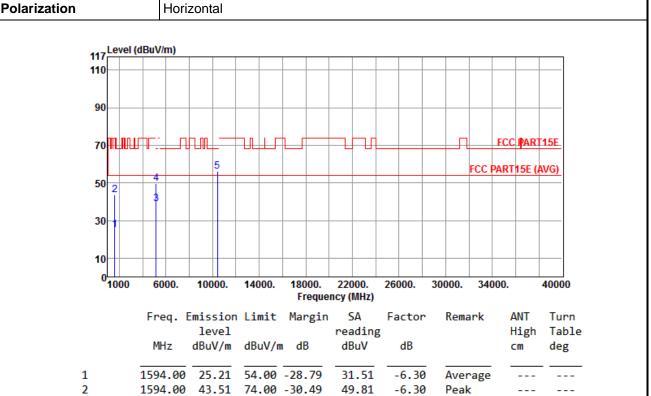
5147.00 49.51

54.00 -15.21

74.00 -24.49

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Modulation 11a Test Freq. (MHz) 5200



33.85

44.57

41.59

4.94

4.94

14.75

Average

Peak

Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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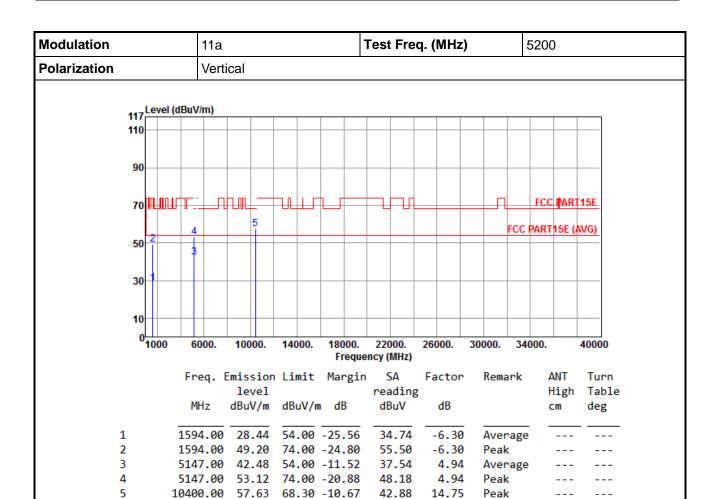
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5



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

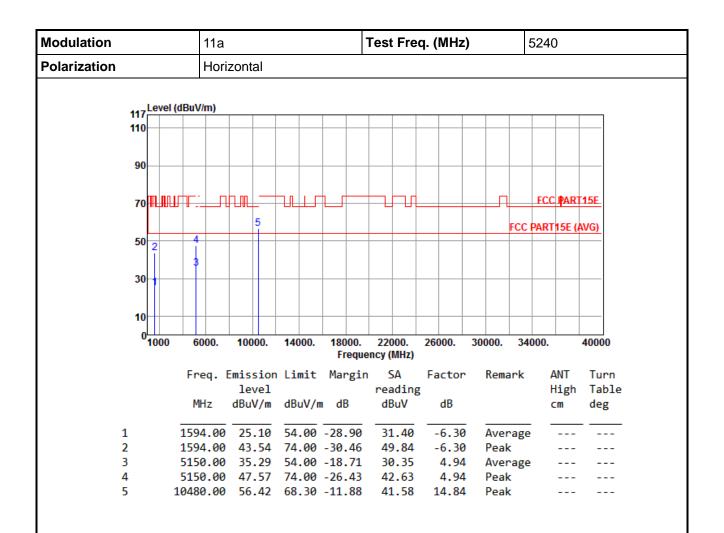
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

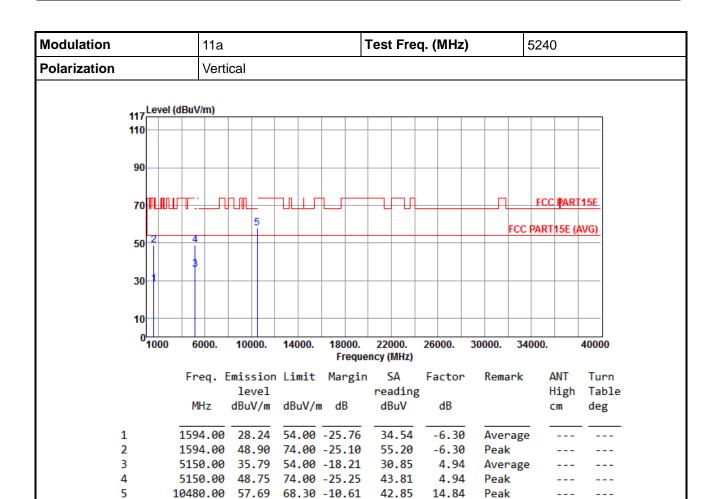
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

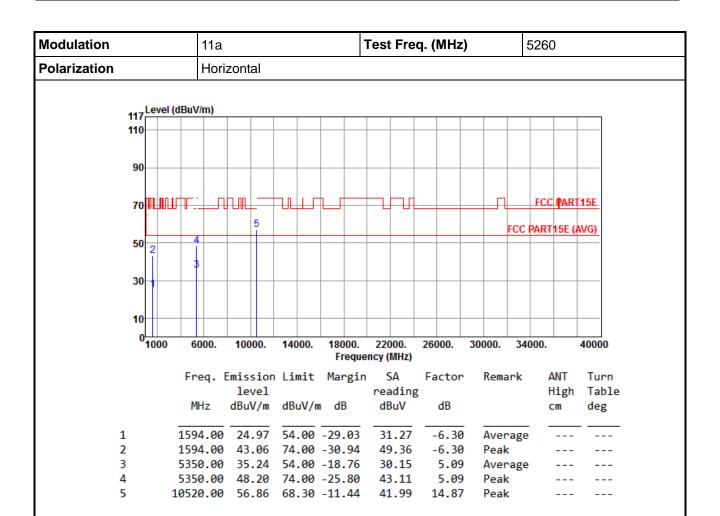
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

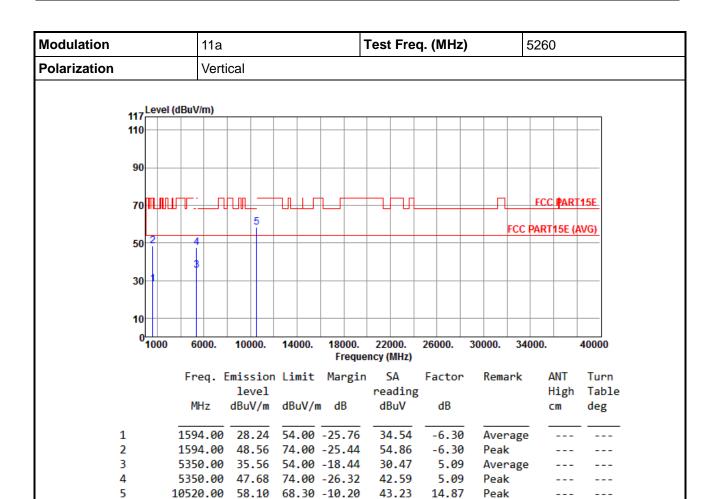
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

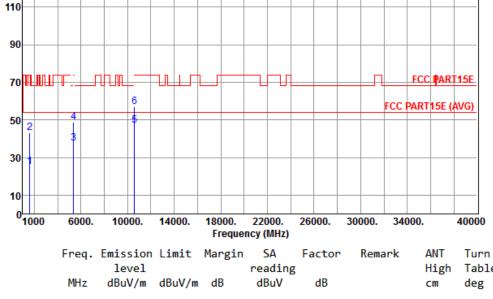


117 Level (dBuV/m)

International Certification Corp.

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C. Tel: 886-3-271-8666 Fax: 886-3-318-0155

Modulation11aTest Freq. (MHz)5300PolarizationHorizontal



		level		reading			High	Table
	MHz	dBuV/m	dBuV/m dB	dBuV	dB		cm	deg
1	1594.00	25.16	54.00 -28.84	31.46	-6.30	Average		
2	1594.00	43.31	74.00 -30.69	49.61	-6.30	Peak		
3	5351.00	37.53	54.00 -16.47	32.44	5.09	Average		
4	5351.00	48.78	74.00 -25.22	43.69	5.09	Peak		
5	10600.00	47.27	54.00 -6.73	32.33	14.94	Average		
6	10600.00	56.93	74.00 -17.07	41.99	14.94	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

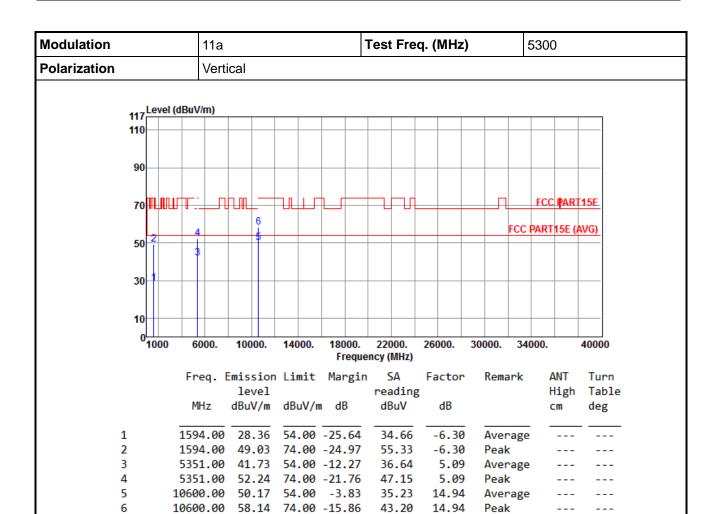
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

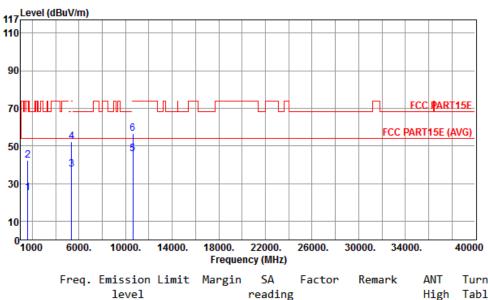
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C. Tel: 886-3-271-8666 Fax: 886-3-318-0155

Modulation11aTest Freq. (MHz)5320PolarizationHorizontal



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	25.11	54.00	-28.89	31.41	-6.30	Average		
2	1594.00	42.48	74.00	-31.52	48.78	-6.30	Peak		
3	5372.00	37.61	54.00	-16.39	32.52	5.09	Average		
4	5372.00	52.12	74.00	-21.88	47.03	5.09	Peak		
5	10640.00	45.70	54.00	-8.30	30.72	14.98	Average		
6	10640.00	56.42	74.00	-17.58	41.44	14.98	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

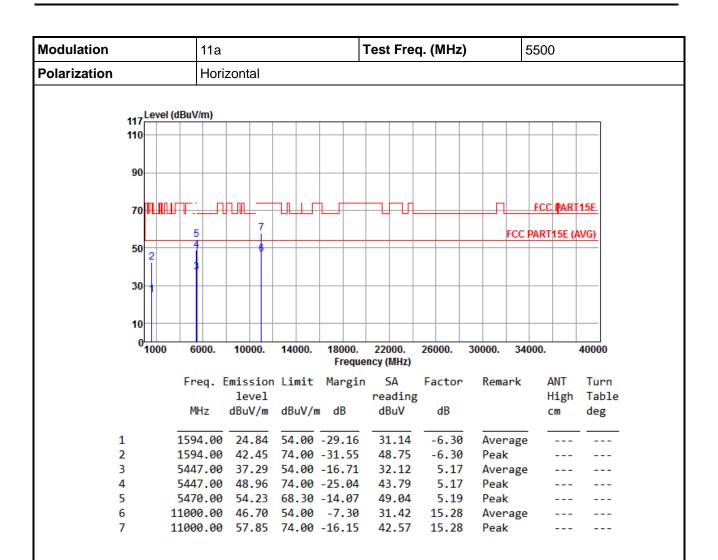
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

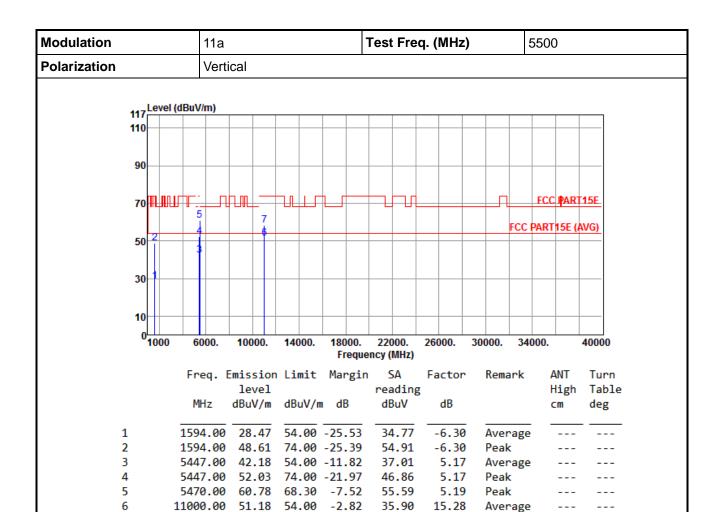
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

74.00 -15.60

43.12

15.28

Peak

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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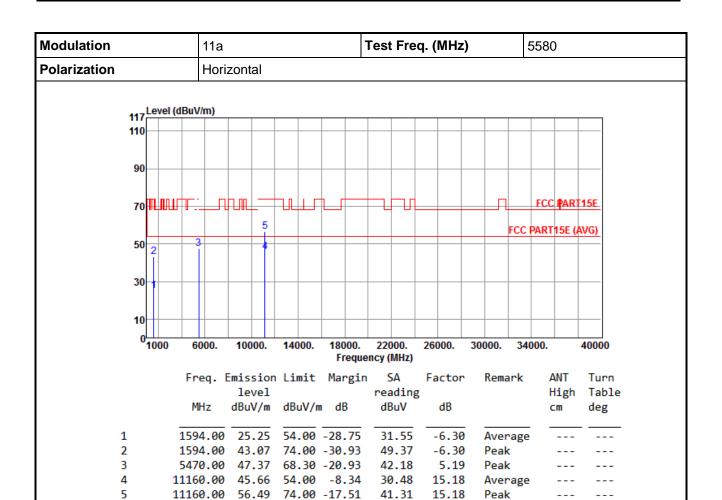
11000.00 58.40

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Modulation11aTest Freq. (MHz)5580PolarizationVertical



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.80	54.00	-25.20	35.10	-6.30	Average		
2	1594.00	49.11	74.00	-24.89	55.41	-6.30	Peak		
3	5470.00	48.91	68.30	-19.39	43.72	5.19	Peak		
4	11160.00	51.12	54.00	-2.88	35.94	15.18	Average		
5	11160.00	58.14	74.00	-15.86	42.96	15.18	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

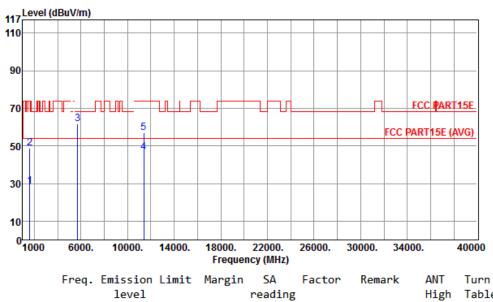
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Modulation11aTest Freq. (MHz)5700PolarizationHorizontal



			reading				Table	
	MHz	dBuV/m	dBuV/m dB	dBuV	dB		cm	deg
1	1594.00	28.57	54.00 -25.43	34.87	-6.30	Average		
2	1594.00	48.92	74.00 -25.08	55.22	-6.30	Peak		
3	5725.00	61.71	68.30 -6.59	56.15	5.56	Peak		
4	11400.00	46.52	54.00 -7.48	31.49	15.03	Average		
5	11400.00	56.88	74.00 -17.12	41.85	15.03	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

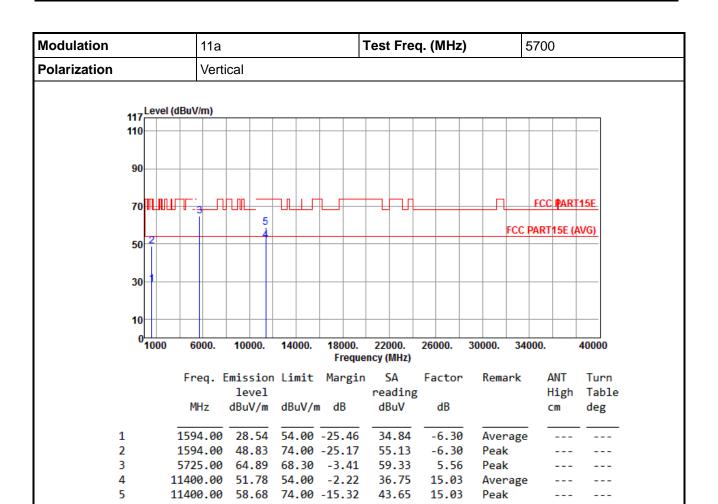
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

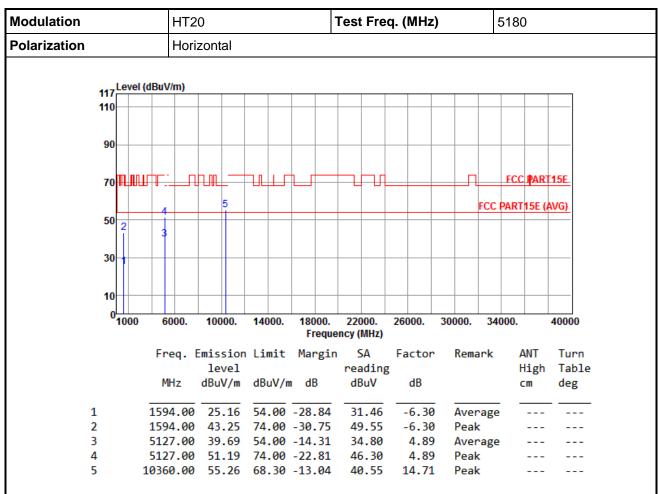
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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3.6.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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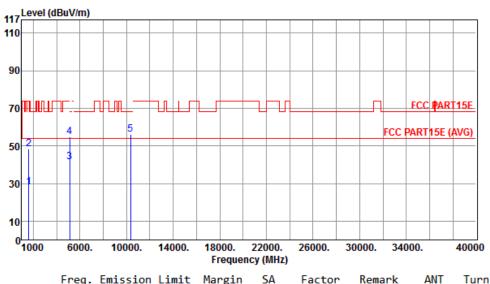
Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C. Tel: 886-3-271-8666 Fax: 886-3-318-0155

 Modulation
 HT20
 Test Freq. (MHz)
 5180

 Polarization
 Vertical



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.26	54.00	-25.74	34.56	-6.30	Average		
2	1594.00	48.41	74.00	-25.59	54.71	-6.30	Peak		
3	5127.00	41.62	54.00	-12.38	36.73	4.89	Average		
4	5127.00	54.71	74.00	-19.29	49.82	4.89	Peak		
5	10360.00	55.93	68.30	-12.37	41.22	14.71	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

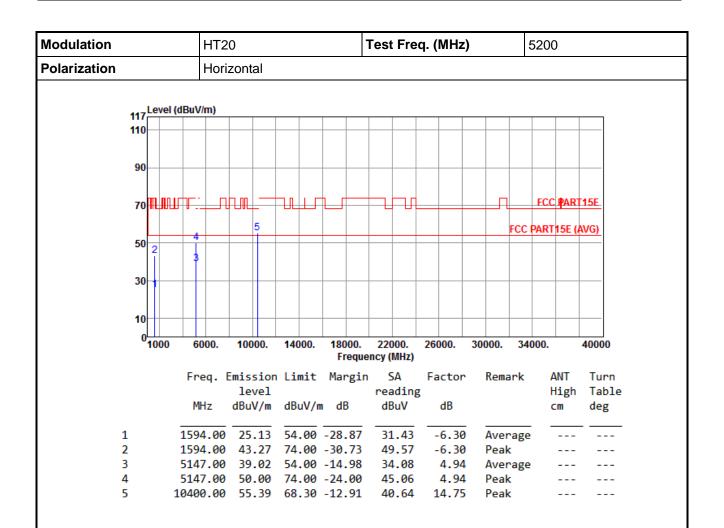
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

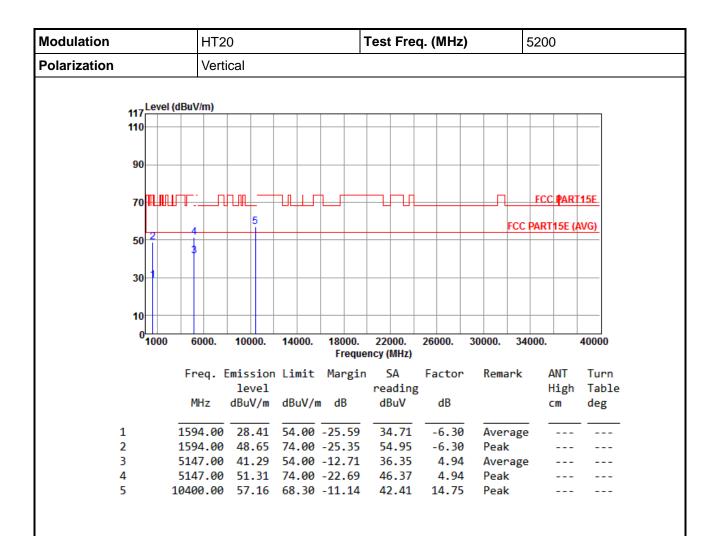
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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ModulationHT20Test Freq. (MHz)5240PolarizationHorizontal



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	25.16	54.00	-28.84	31.46	-6.30	Average		
2	1594.00	42.64	74.00	-31.36	48.94	-6.30	Peak		
3	5150.00	34.53	54.00	-19.47	29.59	4.94	Average		
4	5150.00	47.25	74.00	-26.75	42.31	4.94	Peak		
5	10480.00	55.86	68.30	-12.44	41.02	14.84	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

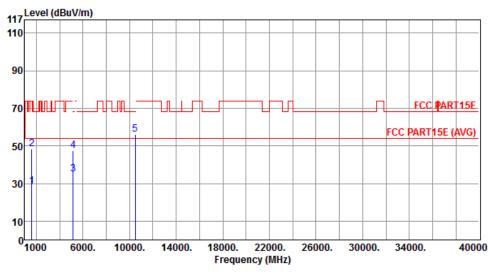
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C. Tel: 886-3-271-8666 Fax: 886-3-318-0155

ModulationHT20Test Freq. (MHz)5240PolarizationVertical



	•	mission level dBuV/m	Limit dBuV/m	Ū	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	28.54	54.00	-25.46	34.84	-6.30	Average		
2	1594.00	48.45	74.00	-25.55	54.75	-6.30	Peak		
3	5150.00	35.04	54.00	-18.96	30.10	4.94	Average		
4	5150.00	47.50	74.00	-26.50	42.56	4.94	Peak		
5	10480.00	56.26	68.30	-12.04	41.42	14.84	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

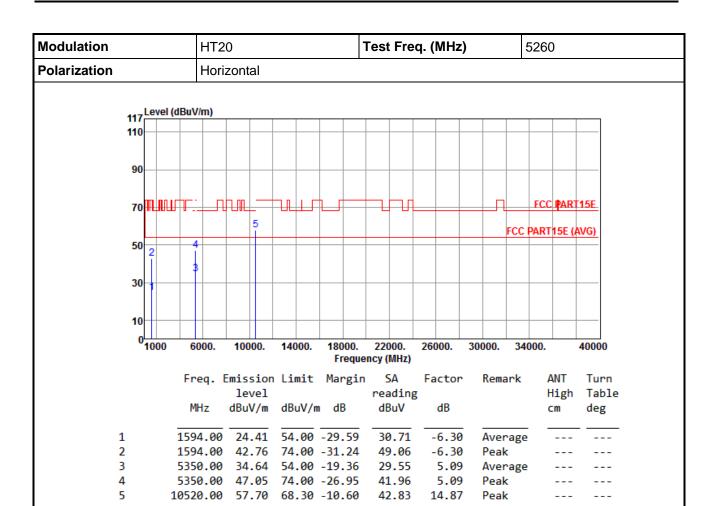
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

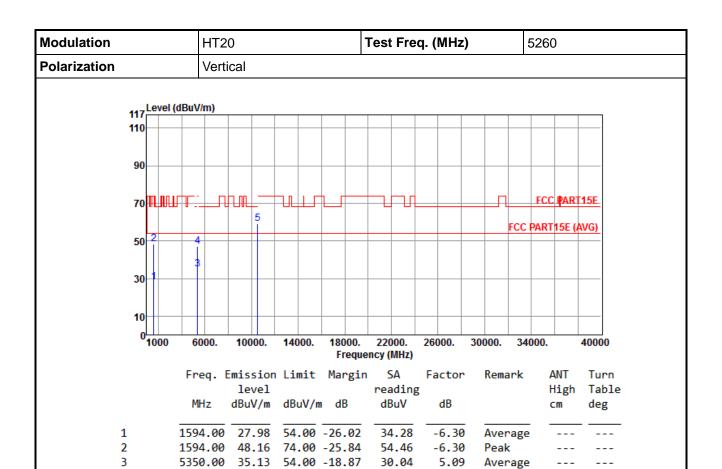
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

74.00 -26.85

42.06

44.28

5.09

14.87

Peak

Peak

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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5

5350.00 47.15

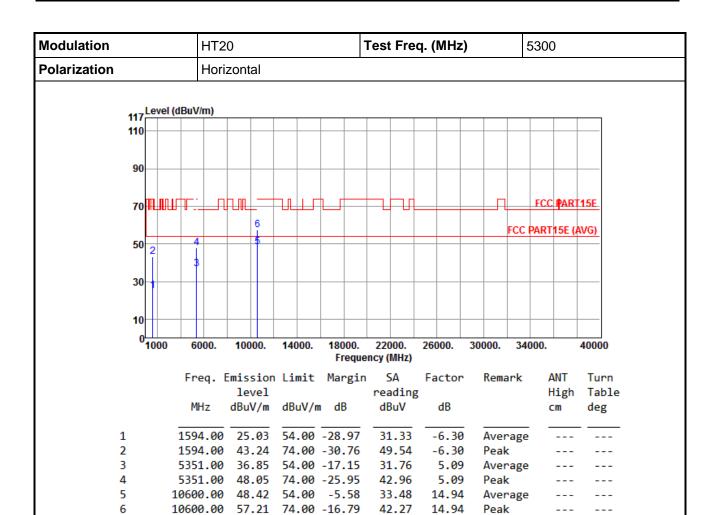
10520.00 59.15 68.30 -9.15

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-271-8666 Fax: 886-3-318-0155



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

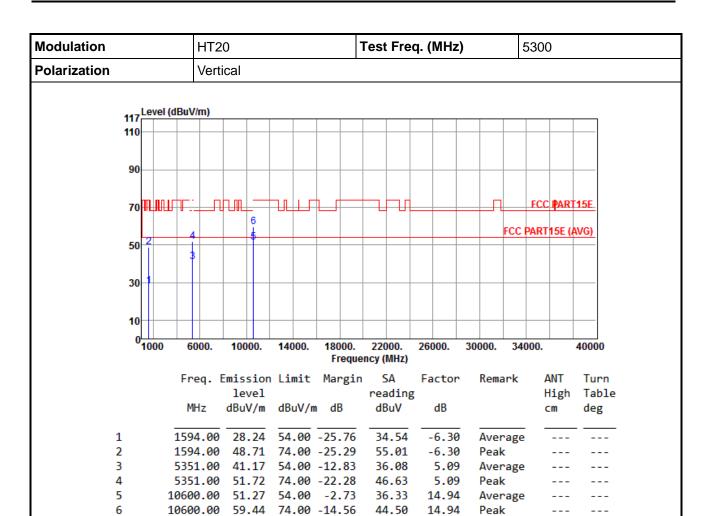
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

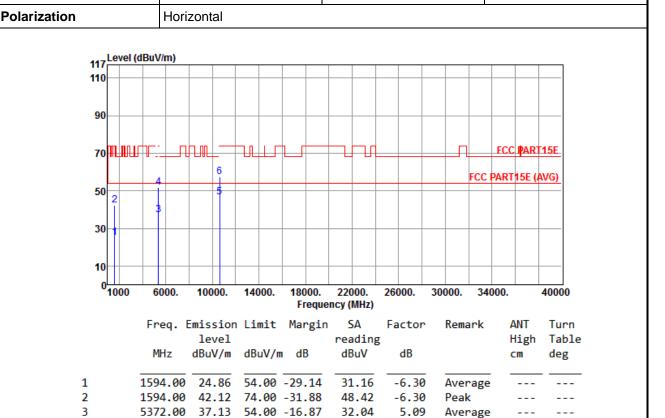
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Modulation HT20 Test Freq. (MHz) 5320



46.77

31.52

42.56

5.09

14.98

14.98

Peak

Peak

Average

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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5

5372.00

10640.00 46.50

51.86

10640.00 57.54 74.00 -16.46

74.00 -22.14

54.00 -7.50

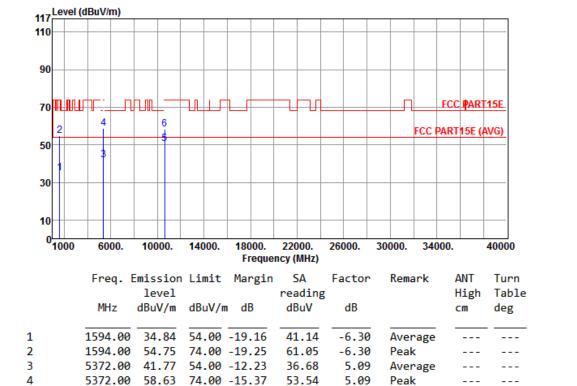
Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C. Tel: 886-3-271-8666 Fax: 886-3-318-0155

 Modulation
 HT20
 Test Freq. (MHz)
 5320

 Polarization
 Vertical



35.49

43.15

14.98

14.98

Average

Peak

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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5

10640.00

50.47

10640.00 58.13 74.00 -15.87

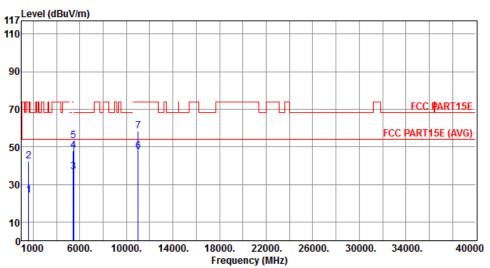
54.00 -3.53

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Modulation	HT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Ū	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	24.21	54.00	-29.79	30.51	-6.30	Average		
2	1594.00	42.14	74.00	-31.86	48.44	-6.30	Peak		
3	5447.00	36.65	54.00	-17.35	31.48	5.17	Average		
4	5447.00	48.00	74.00	-26.00	42.83	5.17	Peak		
5	5470.00	53.11	68.30	-15.19	47.92	5.19	Peak		
6	11000.00	47.52	54.00	-6.48	32.24	15.28	Average		
7	11000.00	58.40	74.00	-15.60	43.12	15.28	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

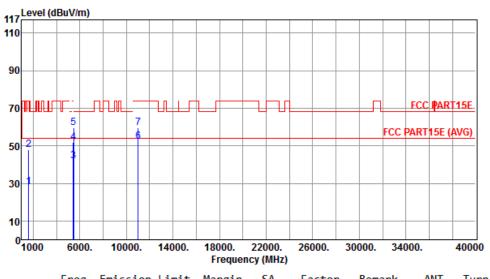
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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ModulationHT20Test Freq. (MHz)5500PolarizationVertical



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Ū	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
		ubu*/	abar,	40	4541	45			a-8
1	1594.00	28.12	54.00	-25.88	34.42	-6.30	Average		
2	1594.00	48.13	74.00	-25.87	54.43	-6.30	Peak		
3	5447.00	41.78	54.00	-12.22	36.61	5.17	Average		
4	5447.00	51.68	74.00	-22.32	46.51	5.17	Peak		
5	5470.00	59.43	68.30	-8.87	54.24	5.19	Peak		
6	11000.00	52.08	54.00	-1.92	36.80	15.28	Average		
7	11000.00	59.53	74.00	-14.47	44.25	15.28	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

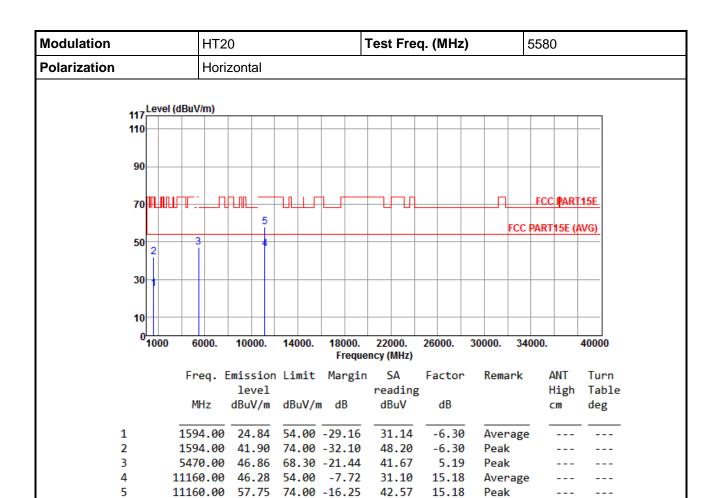
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

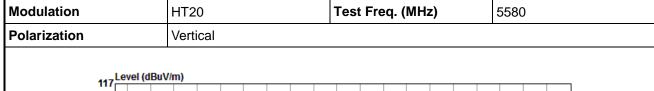
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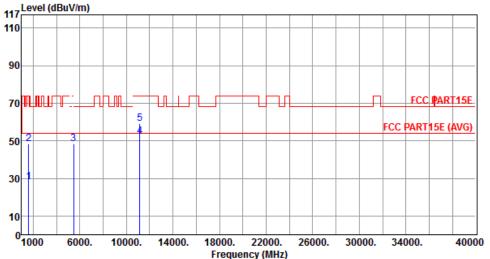
Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.16	54.00	-25.84	34.46	-6.30	Average		
2	1594.00	48.41	74.00	-25.59	54.71	-6.30	Peak		
3	5470.00	48.28	68.30	-20.02	43.09	5.19	Peak		
4	11160.00	52.22	54.00	-1.78	37.04	15.18	Average		
5	11160.00	59.21	74.00	-14.79	44.03	15.18	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

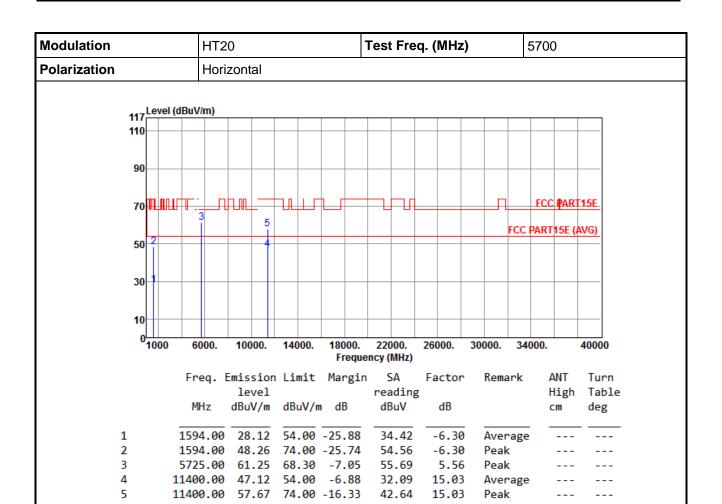
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

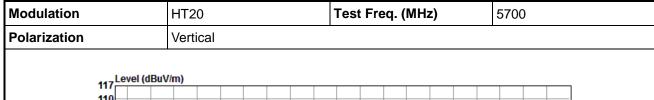
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

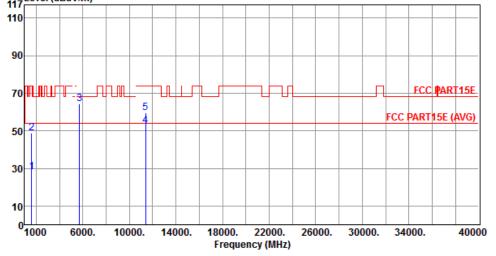
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	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594 00	28.22	5/ 00	_25_78	34.52	-6.30	Average		
2		48.61			54.91	-6.30	Peak		
3	5725.00	64.26	68.30	-4.04	58.70	5.56	Peak		
4	11400.00	2 52.53	54.00	-1.47	37.50	15.03	Average		
5	11400.00	9 59.48	74.00	-14.52	44.45	15.03	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

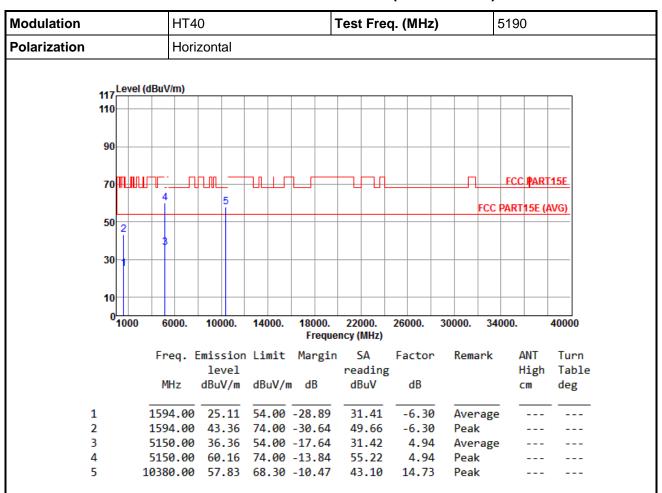
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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3.6.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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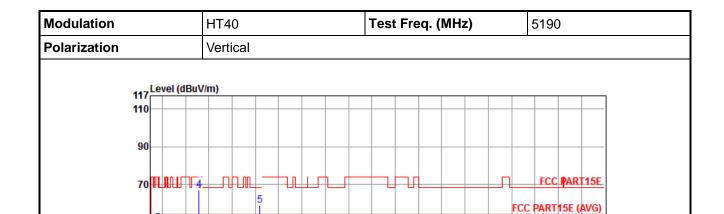
50

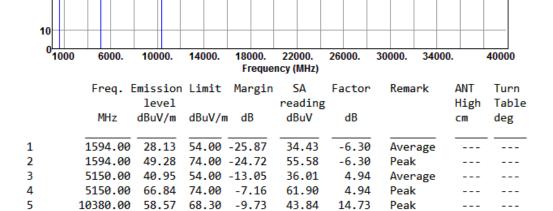
30

International Certification Corp.

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-271-8666 Fax: 886-3-318-0155





Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

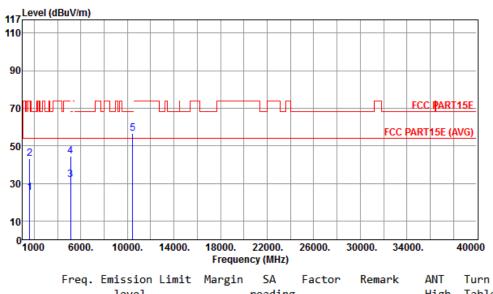
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 Modulation
 HT40
 Test Freq. (MHz)
 5230

 Polarization
 Horizontal



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	25.18	54.00	-28.82	31.48	-6.30	Average		
2	1594.00	43.27	74.00	-30.73	49.57	-6.30	Peak		
3	5127.00	32.02	54.00	-21.98	27.13	4.89	Average		
4	5127.00	44.65	74.00	-29.35	39.76	4.89	Peak		
5	10460.00	56.62	68.30	-11.68	41.80	14.82	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

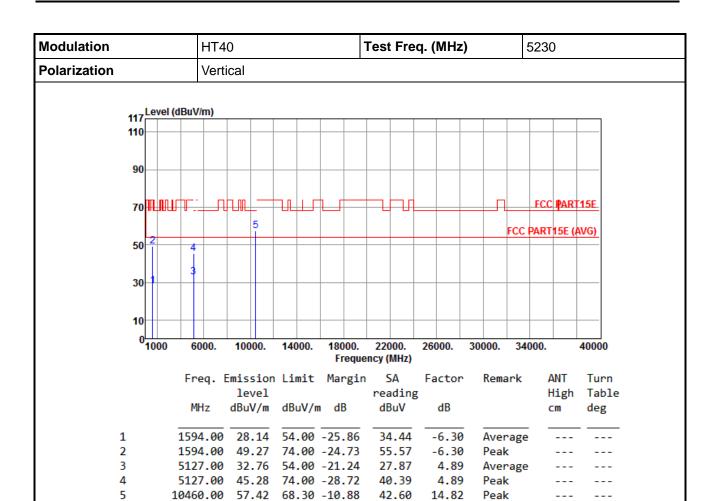
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

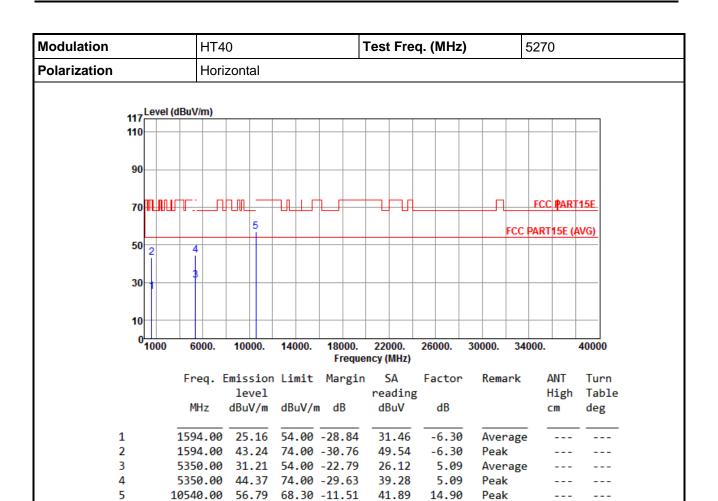
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

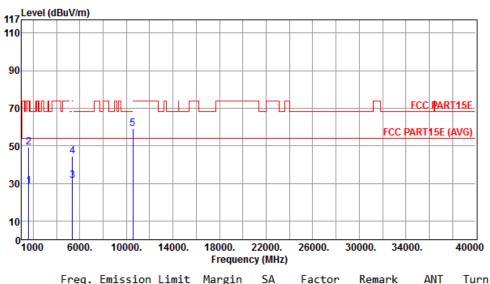
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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ModulationHT40Test Freq. (MHz)5270PolarizationVertical



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.29	54.00	-25.71	34.59	-6.30	Average		
2	1594.00	49.33	74.00	-24.67	55.63	-6.30	Peak		
3	5350.00	31.47	54.00	-22.53	26.38	5.09	Average		
4	5350.00	44.67	74.00	-29.33	39.58	5.09	Peak		
5	10540.00	58.93	68.30	-9.37	44.03	14.90	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

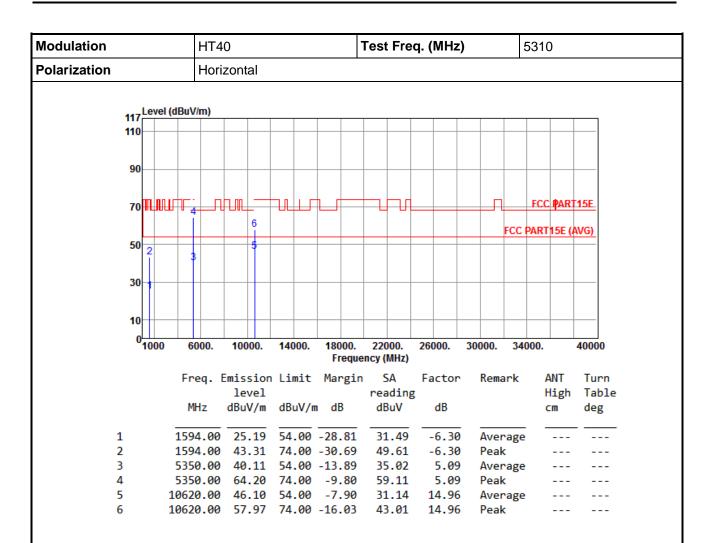
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

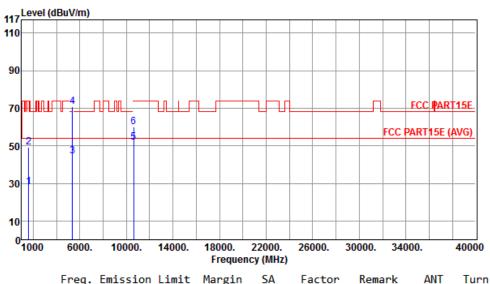
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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ModulationHT40Test Freq. (MHz)5310PolarizationVertical



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.24	54.00	-25.76	34.54	-6.30	Average		
2	1594.00	49.31	74.00	-24.69	55.61	-6.30	Peak		
3	5350.00	44.67	54.00	-9.33	39.58	5.09	Average		
4	5350.00	70.83	74.00	-3.17	65.74	5.09	Peak		
5	10620.00	51.98	54.00	-2.02	37.02	14.96	Average		
6	10620.00	59.87	74.00	-14.13	44.91	14.96	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

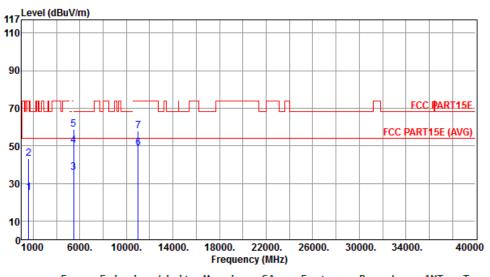
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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ModulationHT40Test Freq. (MHz)5510PolarizationHorizontal



				-					
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	25.11	54.00	-28.89	31.41	-6.30	Average		
2	1594.00	43.24	74.00	-30.76	49.54	-6.30	Peak		
3	5460.00	35.64	54.00	-18.36	30.46	5.18	Average		
4	5460.00	49.90	74.00	-24.10	44.72	5.18	Peak		
5	5470.00	58.71	68.30	-9.59	53.52	5.19	Peak		
6	11020.00	48.58	54.00	-5.42	33.31	15.27	Average		
7	11020.00	57.92	74.00	-16.08	42.65	15.27	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

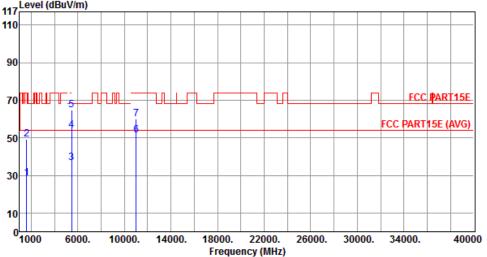
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Modulation	HT40	Test Freq. (MHz)	5510
Polarization	Vertical		
117 Level (di	BuV/m)		



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		CM	deg
1	1594.00	28.45	54.00	-25.55	34.75	-6.30	Average		
2	1594.00	49.36	74.00	-24.64	55.66	-6.30	Peak		
3	5460.00	36.88	54.00	-17.12	31.70	5.18	Average		
4	5460.00	54.09	74.00	-19.91	48.91	5.18	Peak		
5	5470.00	64.64	68.30	-3.66	59.45	5.19	Peak		
6	11020.00	51.51	54.00	-2.49	36.24	15.27	Average		
7	11020.00	59.87	74.00	-14.13	44.60	15.27	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

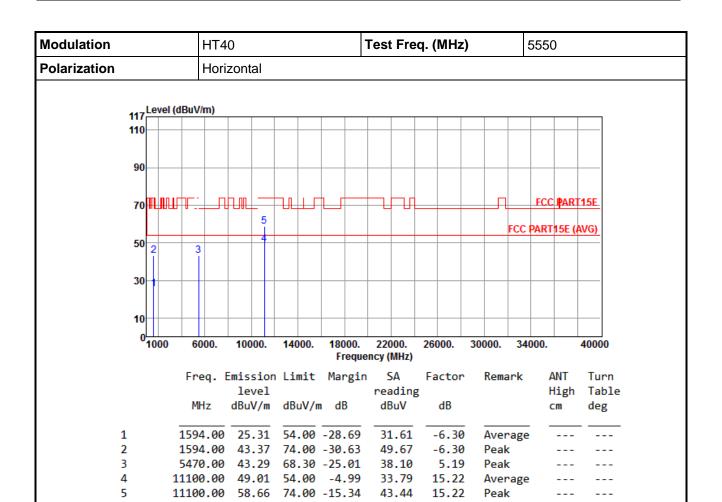
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

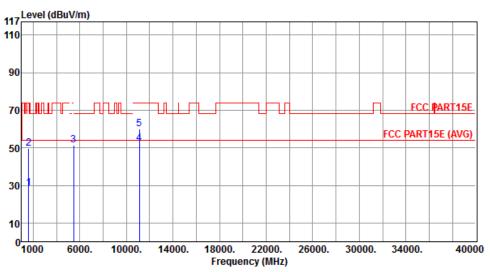
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Modulation	HT40	Test Freq. (MHz)	5550
Polarization	Vertical		



	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.42	54.00	-25.58	34.72	-6.30	Average		
2	1594.00	49.48	74.00	-24.52	55.78	-6.30	Peak		
3	5470.00	51.25	68.30	-17.05	46.06	5.19	Peak		
4	11100.00	52.30	54.00	-1.70	37.08	15.22	Average		
5	11100.00	60.00	74.00	-14.00	44.78	15.22	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

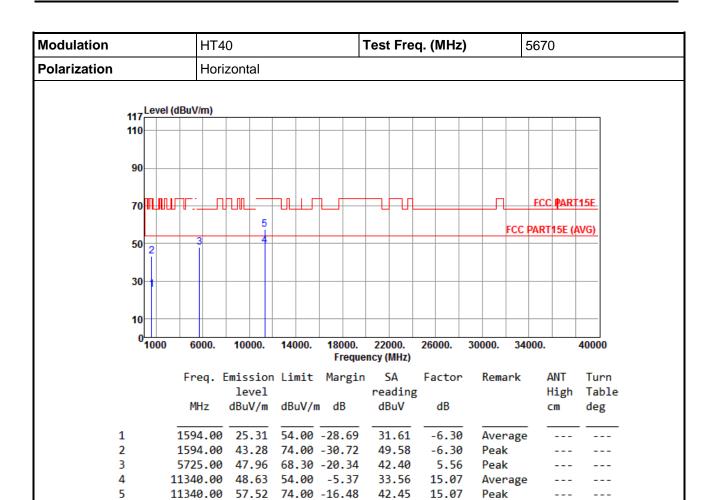
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

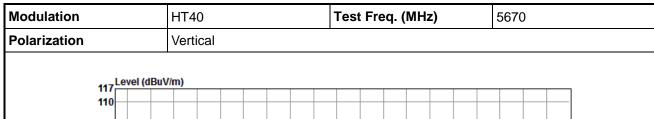
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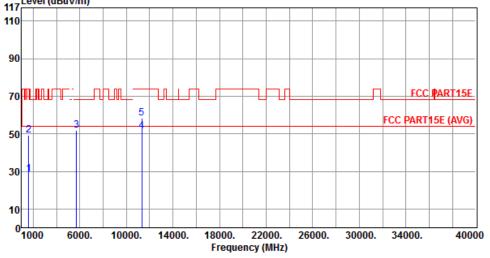
Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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	Freq.	Emission level	Limit	Margin	SA reading		Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.55	54.00	-25.45	34.85	-6.30	Average		
2	1594.00	49.33	74.00	-24.67	55.63	-6.30	Peak		
3	5725.00	51.87	68.30	-16.43	46.31	5.56	Peak		
4	11340.00	51.45	54.00	-2.55	36.38	15.07	Average		
5	11340.00	58.13	74.00	-15.87	43.06	15.07	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

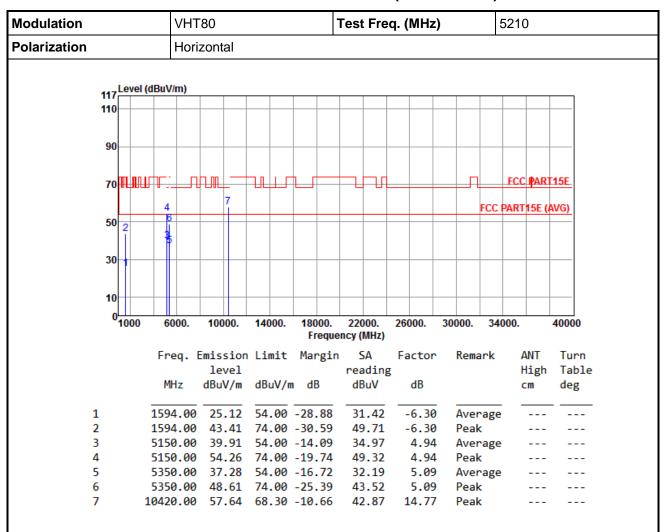
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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3.6.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT80



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

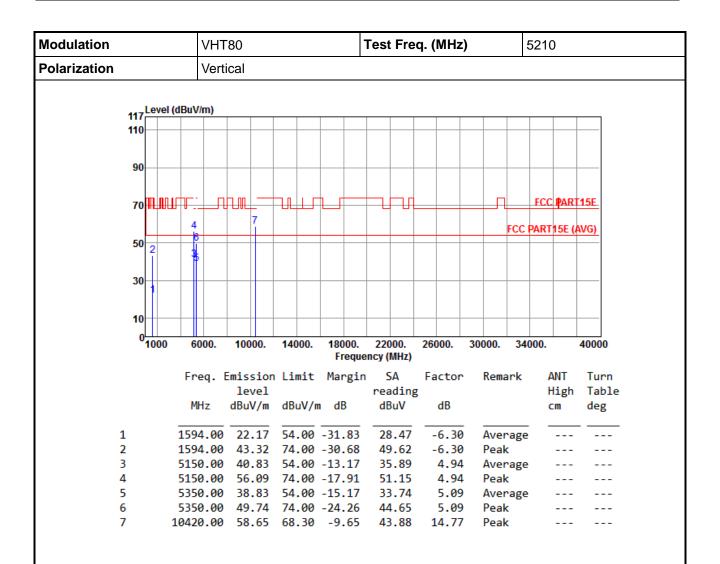
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

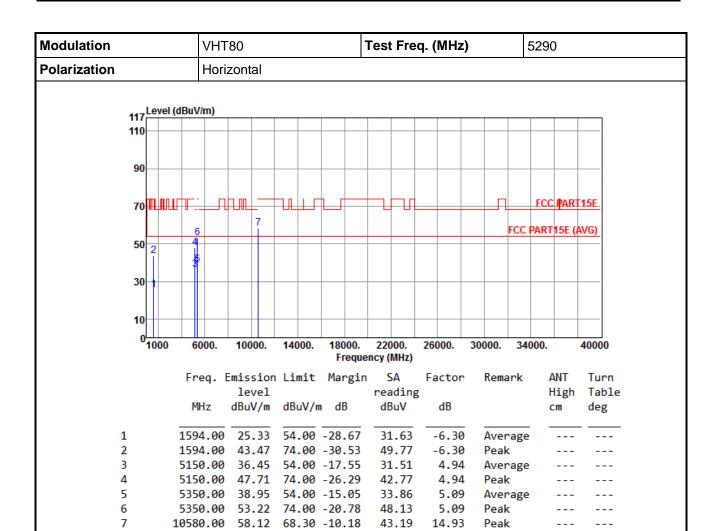
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

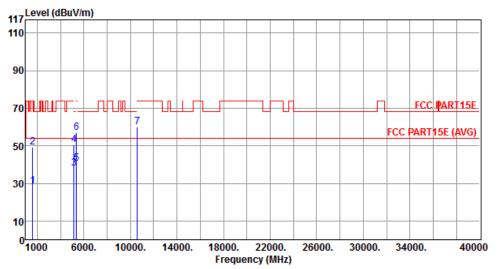
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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ModulationVHT80Test Freq. (MHz)5290PolarizationVertical



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Ū	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
	1112	abav/iii	abav/iii	ab	abav	ub		CIII	ucg
1	1594.00	28.41	54.00	-25.59	34.71	-6.30	Average		
2	1594.00	49.25	74.00	-24.75	55.55	-6.30	Peak		
3	5150.00	37.89	54.00	-16.11	32.95	4.94	Average		
4	5150.00	50.47	74.00	-23.53	45.53	4.94	Peak		
5	5350.00	40.69	54.00	-13.31	35.60	5.09	Average		
6	5350.00	56.90	74.00	-17.10	51.81	5.09	Peak		
7	10580.00	59.80	68.30	-8.50	44.87	14.93	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

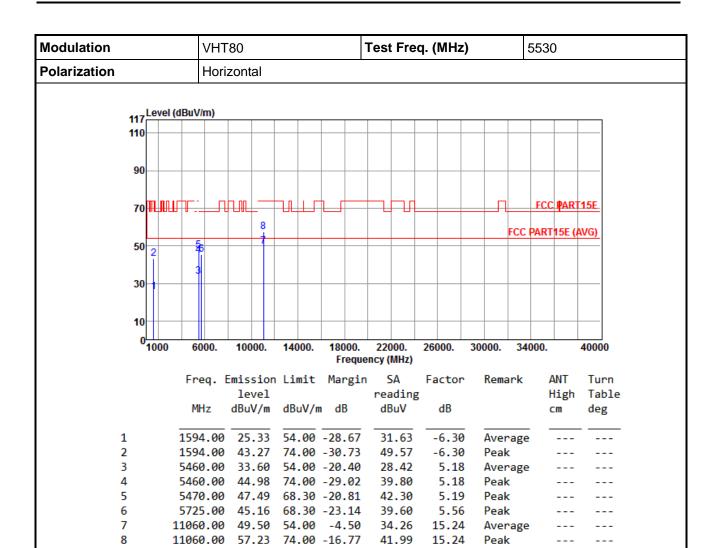
Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

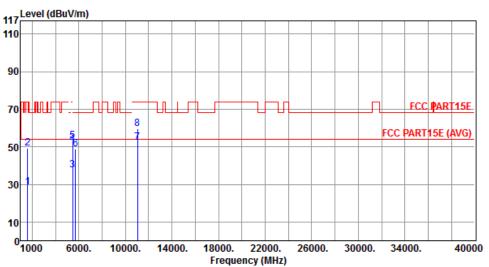
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Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.



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Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



				-					
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	1594.00	28.63	54.00	-25.37	34.93	-6.30	Average		
2	1594.00	49.43	74.00	-24.57	55.73	-6.30	Peak		
3	5460.00	37.63	54.00	-16.37	32.45	5.18	Average		
4	5460.00	51.35	74.00	-22.65	46.17	5.18	Peak		
5	5470.00	53.04	68.30	-15.26	47.85	5.19	Peak		
6	5725.00	48.74	68.30	-19.56	43.18	5.56	Peak		
7	11060.00	52.43	54.00	-1.57	37.19	15.24	Average		
8	11060.00	59.41	74.00	-14.59	44.17	15.24	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 3: For un-restricted bands, unwanted emissions shall be attenuated by at least 20 dB relative to the maximum measured in-band level.

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3.7 Frequency Stability

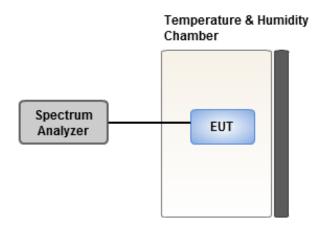
3.7.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.7.2 Test Procedures

- 1. The EUT is installed in an environment test chamber with external power source.
- 2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
- 3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
- 4. When temperature is stabled, measure the frequency stability.
- The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

3.7.3 Test Setup



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3.7.4 Test Result of Frequency Stability

Frequency: 5320 MHz		Frequency Drift (ppm)								
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes						
T20°CVmax	0.86	1.04	1.09	1.20						
T20°CVmin	6.20	5.94	5.79	5.68						
T55°CVnom	3.48	3.40	3.51	3.36						
T50°CVnom	3.56	3.62	3.58	3.53						
T40°CVnom	-0.17	-0.31	-0.27	-0.75						
T30°CVnom	0.17	-0.49	-0.11	0.41						
T20°CVnom	2.26	2.24	1.83	2.11						
T10°CVnom	2.48	2.84	3.05	2.91						
T0°CVnom	1.54	1.68	2.19	1.84						
T-10°CVnom	0.77	0.45	0.44	0.47						
T-20°CVnom	2.30	1.75	1.71	1.41						
T-30°CVnom	0.42	1.00	1.01	0.39						
Vnom [Vdc]: 3.9		Vmax [Vdc]: 4.29	•	Vmin [Vdc]: 3.51						
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30						



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