



JAPAN RADIO TEST REPORT

Equipment : 802.11a/b/g/n/ac RTL8821AE Combo module
Brand Name : REALTEK
Model Name : RTL8821AE
Applicant : Realtek Semiconductor Corp.
No. 2, Innovation Road II, Hsinchu Science Park,
Hsinchu 300, Taiwan
Manufacturer : Realtek Semiconductor Corp.
No. 2, Innovation Road II, Hsinchu Science Park,
Hsinchu 300, Taiwan
Standard : MIC Certification Rule, Article 2 Paragraph 1 Item 19

The product was received on Apr. 26, 2013, and testing was started from Jan. 16, 2019 and completed on Jan. 16, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in MIC Notice No.88 Appendix No.43 and shown compliance with the applicable MIC Ordinance Regulating Radio Equipment Article 49.20 and ARIB STD-T66 technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Cliff Chang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB Ver1.0

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2.1	ORE:5	Frequency Tolerance	PASS	-
2.2	ORE:6	Occupied Bandwidth	PASS	-
2.2	ORE:49.20	Spread Bandwidth / Spread Factor	PASS	-
2.3	ORE:7, Table 3	Unwanted Emission Strength	PASS	-
2.4	ORE:49.20	RF Output Power	PASS	-
2.4	ORE:14	RF Output Power Tolerance	PASS	-
2.5	ORE:24	Secondarily Emitted Radio Wave Strength (RX Spurious)	PASS	-
-	ORE:49.20	Transmission Antenna Gain (EIRP Antenna Power)* ¹	N/A	-
-	ORE:49.20	Transmission Radiation Angle Width (3dB Beamwidth)* ¹	N/A	-
2.6	TR:9	Interference Prevention Function	PASS	-
-	TR:9	Carrier Sense* ²	N/A	-
2.7	ORE:49.20	Hopping Frequency Dwell Time	PASS	-
2.8	ORE:49.20	Construction Protection Confirmation	PASS	-

RLE: Radio Law Enforcement Regulations

ORE: Ordinance Regulating Radio Equipment

TR: Terminal and Other Equipment Regulations

NT: Notification of the Ministry of Internal Affairs and Communications

*¹: If EIRP power of EUT is lower than 12.14dBm/MHz (20MHz) and 9.1279dBm/MHz (40MHz), so "Transmission Antenna Gain" and "Transmission Radiation Angle Width" could be exempted tests.

*²: If OFDM modulation and Occupied Bandwidth $\geq$ 26MHz, Carrier Sense shall be performed.

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Cindy Peng

1. General Information

1.1. Product Details

Items	Description
Product Type	WLAN (1TX, 1RX)
Power Type	From Host System
Modulation	FHSS (GFSK / QPSK /8DPSK)
Data Rate (Mbps)	GFSK: 1 ; $\pi/4$ -DQPSK: 2 ; 8DPSK: 3
Frequency Range	2400 ~ 2483.5MHz
Channel Number	79
Occupied Bandwidth	BR-1Mbps: 80.83 MHz BR-1Mbps_AFH: 21.71 MHz EDR-3Mbps: 81.16 MHz EDR-3Mbps_AFH: 21.40 MHz
Spread Bandwidth	BR-1Mbps: 79.65 MHz BR-1Mbps_AFH: 20.54 MHz EDR-3Mbps: 79.66 MHz EDR-3Mbps_AFH: 20.06 MHz
Spreading Factor	BR-1Mbps: 79.650 BR-1Mbps_AFH: 14.938 EDR-3Mbps: 57.934 EDR-3Mbps_AFH: 14.589
Declaration Output Power	BR-1Mbps: 0.063 mW/MHz BR-1Mbps_AFH: 0.222 mW/MHz EDR-3Mbps: 0.078 mW/MHz EDR-3Mbps_AFH: 0.278 mW/MHz
Measure EIRP Power	BR-1Mbps: -8.50 dBm/MHz BR-1Mbps_AFH: 3.72 dBm/MHz EDR-3Mbps: -7.56 dBm/MHz EDR-3Mbps_AFH: 3.78 dBm/MHz
Carrier Frequencies	Please refer to section 1.4
Antenna	Please refer to section 1.3
Note 1: Bluetooth BR uses a combination of GFSK (1Mbps).	
Note 2: Bluetooth EDR uses a combination of $\pi/4$ -DQPSK (2Mbps) and 8DPSK (3Mbps).	

1.2. Accessories

N/A

1.3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	LYNwave	ALA110-222050-300010	PIFA Antenna	I-PEX	3.5	5.0
2	JOYMAX	TWF-614XMPXX-500	Dipole Antenna	I-PEX	3.0	5.0
3	Realtek	PANT-001	SLOT Antenna	I-PEX	3.33	4.52

There are two configurations of EUT. The more information is listed as below table.

Configuration	Type	Power Type	Antenna Variety	Type of Antenna
1	HMC	PCI-E	Diversity	PIFA with I-PEX connector
				Dipole with I-PEX connector
				SLOT with I-PEX connector
2	HMC	PCI-E	Fixed	PIFA with I-PEX connector
				Dipole with I-PEX connector
				SLOT with I-PEX connector

Note 1: The above information was declared by manufacturer.

Note 2: The more detail information of diversity type and fixed type is listed as below.

For diversity type: (Both of those two antenna connectors can be used.)

<For 2.4GHz Band:>

The EUT supports the antenna with TX/RX diversity function for 2.4GHz WLAN and Bluetooth, but only one of them will be used at the same time.

Base on WLAN's operation mode to select the other antenna to work.

(Ex. Assume Main port was selected to conduct transmitting function in 2.4GHz WLAN, so AUX port was selected in Bluetooth Mode. Vice versa.)

<For 5GHz Band:>

The EUT supports the antenna with TX/RX diversity function for 5GHz WLAN and Bluetooth, and both them can transmit and receive signal simultaneously.

For WLAN function (1TX, 1RX):

Both of Chain 1 and Chain 2 can be used as transmitting/receiving functions, but only one antenna can be used as transmitting/receiving functions at the same time.

Chain 1 generated the worst case than Chain 2, so it is tested and recorded in the report.

For Bluetooth function (1TX, 1RX):

Both of Chain 1 and Chain 2 can be used as transmitting/receiving functions, but only one antenna can be used as transmitting/receiving functions at the same time.

Chain 1 generated the worst case than Chain 2, so it is tested and recorded in the report.

For fixed type: (Chain 1 is designated for 2.4 GHz WLAN function, Chain 2 is designated for 5GHz WLAN and Bluetooth functions.)

For 2.4GHz WLAN function (1TX, 1RX):

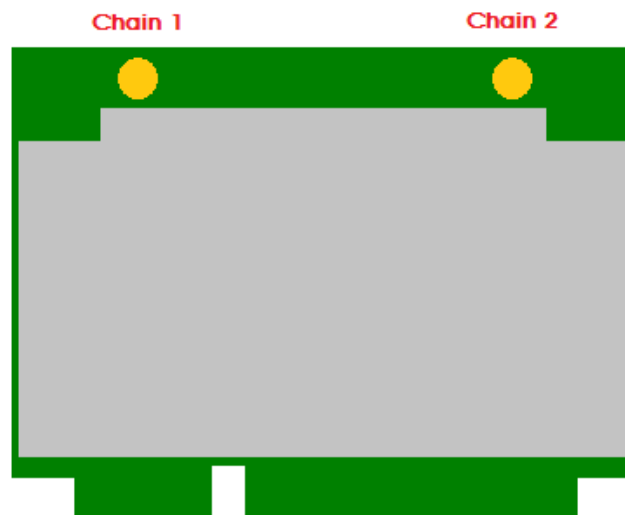
Only Chain 1 can be used as transmitting/receiving functions.

For 5GHz WLAN function (1TX, 1RX):

Only Chain 2 can be used as transmitting/receiving functions.

For Bluetooth function (1TX, 1RX):

Only Chain 2 can be used as transmitting/receiving functions.



1.4. Table for Carrier Frequencies

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	0	2402 MHz	40	2442 MHz
	1	2403 MHz	:	:
	:	:	49	2451 MHz
	20	2422 MHz	50	2452 MHz
	21	2423 MHz	:	:
	:	:	58	2460 MHz
	29	2431 MHz	59	2461 MHz
	30	2432 MHz	:	:
	:	:	77	2479 MHz
	38	2440 MHz	78	2480 MHz
	39	2441 MHz	-	-

1.5. Table for Slight Change

This product is an extension of original one reported under Sporton project number: JR342603-63AE

Below is the illustration for the change of the product with respect to the original one.

Detail Report No.	Gist	Modifications
JR342603-64AE	The total antennas amounted to 345 sets.	There is no hardware or electrical modification made to the applying modular transmitter itself. Adding 2 set of Dipole antenna with lower gain than the original Certificate. Please refer to the Appendix C for detail.

After evaluated, it is not necessary to retest.

1.6. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

For BR-1Mbps:

Test Items	Mode	Data Rate	Channel
Frequency Error	Un-modulation	-	0/39/78
Occupied Bandwidth (99%)	GFSK	1 Mbps	0~78
Spread-spectrum Bandwidth (90%)	GFSK	1 Mbps	0~78
Unwanted Emission Intensity	GFSK	1 Mbps	0/39/78
Antenna Power Error	GFSK	1 Mbps	0/39/78
Limitation of Emission of Receiver	GFSK	1 Mbps	0/39/78
Transmission Antenna Gain	-	-	-
Transmission Radiation Angle Width	-	-	-
Radio Interference Prevention Capability	GFSK	1 Mbps	0/39/78
Hopping Frequency Dwell Time	GFSK	1 Mbps	0~78

Note: EIRP power of EUT is lower than 6.91dBm/MHz, so "Transmission Antenna Gain" and "Transmission Radiation Angle Width" could be exempted tests.

For BR-1Mbps_AFH:

Test Items	Mode	Data Rate	Channel
Frequency Error	Un-modulation	-	20/29/39
Occupied Bandwidth (99%)	GFSK	1 Mbps	20~39
Spread-spectrum Bandwidth (90%)	GFSK	1 Mbps	20~39
Unwanted Emission Intensity	GFSK	1 Mbps	20/29/39
Antenna Power Error	GFSK	1 Mbps	20/29/39
Limitation of Emission of Receiver	GFSK	1 Mbps	20/29/39
Transmission Antenna Gain	-	-	-
Transmission Radiation Angle Width	-	-	-
Radio Interference Prevention Capability	GFSK	1 Mbps	20/29/39
Hopping Frequency Dwell Time	GFSK	1 Mbps	20~39

Note: EIRP power of EUT is lower than 6.91dBm/MHz, so "Transmission Antenna Gain" and "Transmission Radiation Angle Width" could be exempted tests.

For EDR-3Mbps:

Test Items	Mode	Data Rate	Channel
Frequency Error	Un-modulation	-	0/39/78
Occupied Bandwidth (99%)	8DPSK	3 Mbps	0~78
Spread-spectrum Bandwidth (90%)	8DPSK	3 Mbps	0~78
Unwanted Emission Intensity	8DPSK	3 Mbps	0/39/78
Antenna Power Error	8DPSK	3 Mbps	0/39/78
Limitation of Emission of Receiver	8DPSK	3 Mbps	0/39/78
Transmission Antenna Gain	-	-	-
Transmission Radiation Angle Width	-	-	-
Radio Interference Prevention Capability	8DPSK	3 Mbps	0/39/78
Hopping Frequency Dwell Time	8DPSK	3 Mbps	0~78

Note: EIRP power of EUT is lower than 6.91dBm/MHz, so "Transmission Antenna Gain" and "Transmission Radiation Angle Width" could be exempted tests.

For EDR-3Mbps_AFH:

Test Items	Mode	Data Rate	Channel
Frequency Error	Un-modulation	-	39/49/58
Occupied Bandwidth (99%)	8DPSK	3 Mbps	39~58
Spread-spectrum Bandwidth (90%)	8DPSK	3 Mbps	39~58
Unwanted Emission Intensity	8DPSK	3 Mbps	39/49/58
Antenna Power Error	8DPSK	3 Mbps	39/49/58
Limitation of Emission of Receiver	8DPSK	3 Mbps	39/49/58
Transmission Antenna Gain	-	-	-
Transmission Radiation Angle Width	-	-	-
Radio Interference Prevention Capability	8DPSK	3 Mbps	39/49/58
Hopping Frequency Dwell Time	8DPSK	3 Mbps	39~58

Note: EIRP power of EUT is lower than 6.91dBm/MHz, so "Transmission Antenna Gain" and "Transmission Radiation Angle Width" could be exempted tests.

1.7. Table for Testing Locations

Test Site Location					
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.				
TEL:	886-3-656-9065				
FAX:	886-3-656-9085				
Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
TH01-CB	OVEN Room	Hsin Chu	-	-	-

1.8. Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	M1330	N/A
Fixture	REALTEK	PCIE Adapter	N/A

1.9. Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

For BR-1Mbps:

Test Software Version	Realtek Bluetooth MP v2.862 ---RTL8821a		
Frequency	2402 MHz	2441 MHz	2480 MHz
Power Parameters	Default	Default	Default

For BR-1Mbps_AFH:

Test Software Version	Realtek Bluetooth MP v2.862 ---RTL8821a		
Frequency	2422 MHz	2431 MHz	2441 MHz
Power Parameters	Default	Default	Default

For EDR-3Mbps:

Test Software Version	Realtek Bluetooth MP v2.862 ---RTL8821a		
Frequency	2402 MHz	2441 MHz	2480 MHz
Power Parameters	Default	Default	Default

For EDR-3Mbps_AFH:

Test Software Version	Realtek Bluetooth MP v2.862 ---RTL8821a		
Frequency	2441 MHz	2451 MHz	2460 MHz
Power Parameters	Default	Default	Default

2. Test Result

2.1. Frequency Tolerance Measurement

2.1.1. Limit

Item	Limits
Frequency Tolerance	$\leq 50\text{ppm}$

2.1.2. Measuring Instruments and Setting

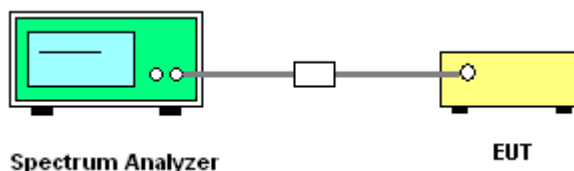
Please refer to section 3 in this report. The following table is the setting of the spectrum.

Spectrum Parameter	Setting
Span Frequency	1 MHz
RBW / VBW	10 kHz / 30 kHz

2.1.3. Test Procedures

1. Frequency accuracy of SA shall be less than 10% of limits tolerance(5ppm)
2. Setting of SA is following as: RBW:10kHz / VBW:30kHz / SPAN: 1MHz / AT: 10dB / Ref: 0dBm
3. Center Frequency: The center frequency of testing for EUT
4. Sweep time: Auto
5. Sweep mode: Continuous sweep
6. Detect mode: Positive peak
7. Mark function: Frequency Counter (Resolution 100Hz)
8. EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value , fc is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than $\pm 50\text{ppm}$

2.1.4. Test Setup Layout



2.1.5. Test Deviation

There is no deviation with the original standard.

2.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in un-modulation function.

**2.1.7. Results of Frequency Tolerance**

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2.Test Result
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2.Test Result
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2.Test Result
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2.Test Result

2.2. Occupied Bandwidth / Spread Bandwidth / Spread Factor Measurement

2.2.1. Limit

Item	Limits
Occupied Band Width:	FH $\leq$ 83.5MHz; OFDM,DS $\leq$ 26MHz; Others $\leq$ 26MHz
Spreading Bandwidth:	$\geq$ 500 kHz (FH, DS)

2.2.2. Measuring Instruments and Setting

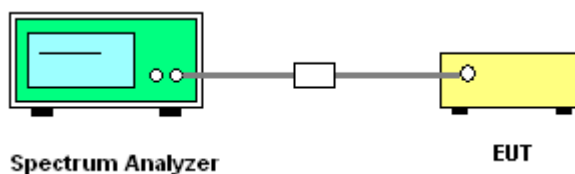
Please refer to section 3 in this report. The following table is the setting of the spectrum.

Power Meter Parameter	Setting
Span Frequency	100 MHz
RBW / VBW	300 kHz

2.2.3. Test Procedures

1. Setting of SA is following as: RBW:300kHz / VBW:300kHz / SPAN: 100MHz / AT: 10dB Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
2. EUT have transmitted the maximum modulation signal and fixed channelize (For DSSS or OFDM Device) or continuous maximum power of hopping mode(For FHSS Device). SA set to 99% of occupied bandwidth to measure occupied bandwidth. The limit is less than 26MHz(For DSSS or OFDM Device) or 83.5MHz(For FHSS Device).
3. SA set to 90% of occupied bandwidth to measure Spread Spectrum Bandwidth and must greater than 500kHz.
4. Spread Spectrum Factor = Spread Spectrum Bandwidth / modulation rate of EUT.
5. Spread Spectrum Factor limit is greater than 5

2.2.4. Test Setup Layout



2.2.5. Test Deviation

There is no deviation with the original standard.

2.2.6. EUT Operation during Test

The EUT was programmed to be in frequency hopping mode.

2.2.7. Results of Occupied Bandwidth / Spread Bandwidth / Spread Factor

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2.Test Result
		9.Spread Factor
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2.Test Result
		9.Spread Factor
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2.Test Result
		9.Spread Factor
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2.Test Result
		9.Spread Factor

2.3. Unwanted Emission Strength Measurement

2.3.1. Limit

Item	Limits
Unwanted Emission	$\leq 2.5 \mu\text{W}$ (2387MHz > f ; 2496.5MHz < f)
Strength	$\leq 25 \mu\text{W}$ (2387MHz $\leq$ f < 2400MHz) and (2483.5MHz < f $\leq$ 2496.5MHz)

2.3.2. Measuring Instruments and Setting

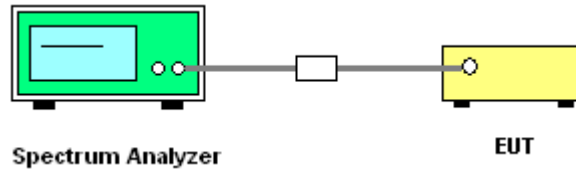
Please refer to section 3 in this report. The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RBW / VBW	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

2.3.3. Test Procedures

1. EUT have transmitted the maximum modulation signal and fixed channelize.
2. Setting of SA is following as: RBW:1MHz / VBW:1MHz / AT: 10dB / Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
3. Setting of SA is following as 30MHz and stop frequency 2387MHz Then to mark peak reading value + cable loss shall be less than 2.5 μ W.
4. SA adjusted to start frequency 2387MHz and stop frequency 2400MHz. Then to mark peak reading value + cable loss shall be less than 25 μ W.
5. SA adjusted to start frequency 2483.5MHz and stop frequency 2496.5MHz Then to mark peak reading value + cable loss shall be less than 25 μ W
6. SA adjusted to start frequency 2496.5MHz and stop frequency 12500MHz Then to mark peak reading value + cable loss shall be less than 2.5 μ W
7. Measure side band spurious as follows: For 2.4GHz band: 2374MHz~2400MHz and 2483.5MHz~2509.5MHz RBW = VBW = 30kHz, Result_Value = Measured_Value + 15.2 [dBm]
8. If the Result_Value is over the requirement, take total sum of 1MHz band centered at the spur frequency like ACLP measurement as Result_Value.

2.3.4. Test Setup Layout



2.3.5. Test Deviation

There is no deviation with the original standard.

2.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.3.7. Test Result of Unwanted Emission Strength

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2.Test Result
		6.Unwanted Emission Intensity
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2.Test Result
		6.Unwanted Emission Intensity
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2.Test Result
		6.Unwanted Emission Intensity
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2.Test Result
		6.Unwanted Emission Intensity

2.4. RF Output Power and RF Output Power Tolerance Measurement

2.4.1. Limit

Item	Limits
Antenna Power Density	$\leq 3\text{mW/MHz}$ (FH form 2427 - 2470.75 MHz) $\leq 10\text{mW/MHz}$ (OFDM,DS from 2400~2483.5MHz) $\leq 10\text{mW}$ (Other from 2400~2483.5MHz)
Antenna Power Error	+20%, -80% (Base on manufacturer declare antenna power density)

2.4.2. Measuring Instruments and Setting

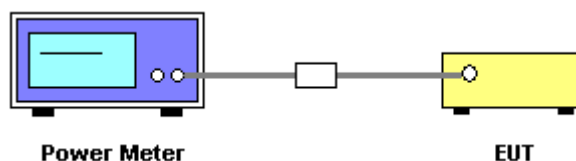
Please refer to section 3 in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Filter No.	Auto
Measurement time	0.135 s ~ 26 s
Used Average Sensor	MA2411B

2.4.3. Test Procedures

1. EUT have transmitted continuous maximum power of hopping mode(For FHSS Device)
2. The antenna power is equal to the power meter value dBm + cable loss dB + $10 \log_{10}$ (1/ pulse time) dB + $10 \log_{10}$ (1/ Spread Spectrum Bandwidth) dB and shall be less than limits (3mW/MHz-FHSS Device).
3. Antenna Power Error is definition that actual measure antenna power tolerance between + 20% to - 80% power range that base on manufacturer declare the conducted power density.

2.4.4. Test Setup Layout



2.4.5. Test Deviation

There is no deviation with the original standard.

2.4.6. EUT Operation during Test

The EUT was programmed to be in normal DH5 frequency hopping mode.

2.4.7. Test Result of RF Output Power and RF Output Power Tolerance

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2.Test Result
		3.Antenna Power (Conducted Power)
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2.Test Result
		3.Antenna Power (Conducted Power)
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2.Test Result
		3.Antenna Power (Conducted Power)
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2.Test Result
		3.Antenna Power (Conducted Power)

2.5. Secondly Emitted Radio Wave Strength (RX Spurious) Measurement

2.5.1. Limit

Item	Limits
RX Spurious Emission:	$\leq 4\text{nW}$ ($f < 1\text{GHz}$)
	$\leq 20\text{nW}$ ($1\text{GHz} \leq f$)

2.5.2. Measuring Instruments and Setting

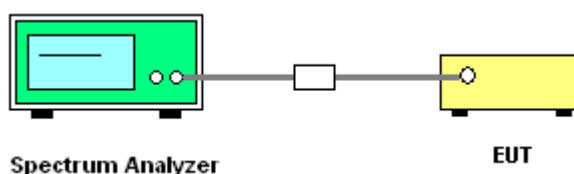
Please refer to section 3 in this report. The following table is the setting of Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RBW	100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions)
VBW	100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

2.5.3. Test Procedures

- EUT have the continuous reception mode and fixed only one channelize.
- Setting of SA is following as RBW / VBW: 100 kHz (below 1GHz emissions) / 1 MHz (above 1GHz emissions) /
AT: 10dB / Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
- SA set RBW: 100kHz and VBW: 100kHz. Then adjust to start frequency 30MHz and stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW
- SA set RBW: 1MHz and VBW: 1MHz. Then adjust to start frequency 1000MHz and stop frequency 12500MHz. Search to mark peak reading value + cable loss shall be less than 20nW
- If power level of lower emissions are more than 1/10 of limit (.0.4nW for $f < 1\text{GHz}$, 2nW for $f \geq 1\text{GHz}$), all those are to be indicated in the 2nd and 3rd lines. If others are 1/10 or less more of the limit, no necessary to be indicated.

2.5.4. Test Setup Layout



2.5.5. Test Deviation

There is no deviation with the original standard.

2.5.6. EUT Operation during Test

The EUT was programmed to be in continuously reception mode.

2.5.7. Test Result of Secondarily Emitted Radio Wave Strength (RX Spurious)

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2.Test Result
		7.Limitation of Collateral Emission of Receiver
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2.Test Result
		7.Limitation of Collateral Emission of Receiver
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2.Test Result
		7.Limitation of Collateral Emission of Receiver
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2.Test Result
		7.Limitation of Collateral Emission of Receiver

2.6. Interference Prevention Function Measurement

2.6.1. Limit

Item	Limits
Identification code	≥ 48 bits

2.6.2. Measuring Instruments and Setting

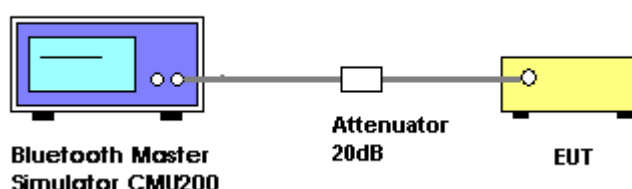
Please refer to section 3 in this report. The following table is the setting of the CMU200.

CMU200 Parameter	Setting
ID code	Master

2.6.3. Test Procedures

- In the case that the EUT has the function of automatically transmitting the identification code: a. Transmit the predetermined identification codes from EUT. b. Check the transmitted identification codes with the demodulator.
- In the case of receiving the identification code: a. Transmit the predetermined identification codes from the counterpart. b. Check if communication is normal. c. Transmit the signals other than predetermined ID codes from the counterpart. d. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

2.6.4. Test Setup Layout



2.6.5. Test Deviation

There is no deviation with the original standard.

2.6.6. EUT Operation during Test

The EUT was programmed to be in normal transmitting mode.

2.6.7. Test Result of Interference Prevention Function

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	2. Test Results (ID Code)
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	2. Test Results (ID Code)
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	2. Test Results (ID Code)
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	2. Test Results (ID Code)

2.7. Hopping Frequency Dwell Time Measurement

2.7.1. Limit

Item	Limits
Hopping Freq. Dwell Time	$\leq 0.4 \text{ sec (In } 0.4 \text{ sec} \times \text{spreading rate)}$

2.7.2. Measuring Instruments and Setting

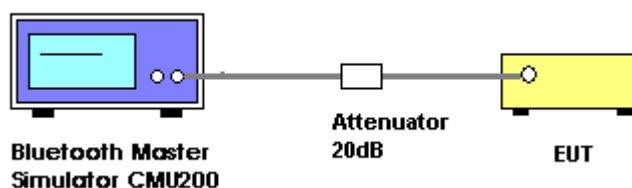
Please refer to section 3 in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
RBW / VBW	1 MHz
Span	0 MHz
Sweep	Single
Detector	Peak
Trigger mode	Video

2.7.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser
2. Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.
3. Use a video trigger with the trigger level set to enable triggering only on full pulses.
4. Sweep Time is more than once pulse time.
5. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
6. Measure the maximum time duration of one single pulse.
7. Set the EUT for DH5, DH3 and DH1 packet transmitting.
8. Measure the maximum time duration of one single pulse.
9. DH5 Packet permit maximum $1600 / 79 / 6 = 3.37$ hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $3.37 \times 31.6 = 106.6$ within $0.4 \text{ sec} \times \text{spreading rate}$ [seconds].

2.7.4. Test Setup Layout



2.7.5. Test Deviation

There is no deviation with the original standard.

2.7.6. EUT Operation during Test

The EUT was programmed to be in DH5 transmitting mode.

2.7.7. Test Result of Hopping Frequency Dwell Time

Reference Documents	Mode	Test Item
Appendix B. 19-BT-F1D - BR-1Mbps	GFSK	8. Hopping Frequency Dwell Time
Appendix B. 19-BT-F1D - BR-1Mbps_AFH	GFSK	8. Hopping Frequency Dwell Time
Appendix B. 19-BT-F1D - EDR-3Mbps	8DPSK	8. Hopping Frequency Dwell Time
Appendix B. 19-BT-F1D - EDR-3Mbps_AFH	8DPSK	8. Hopping Frequency Dwell Time

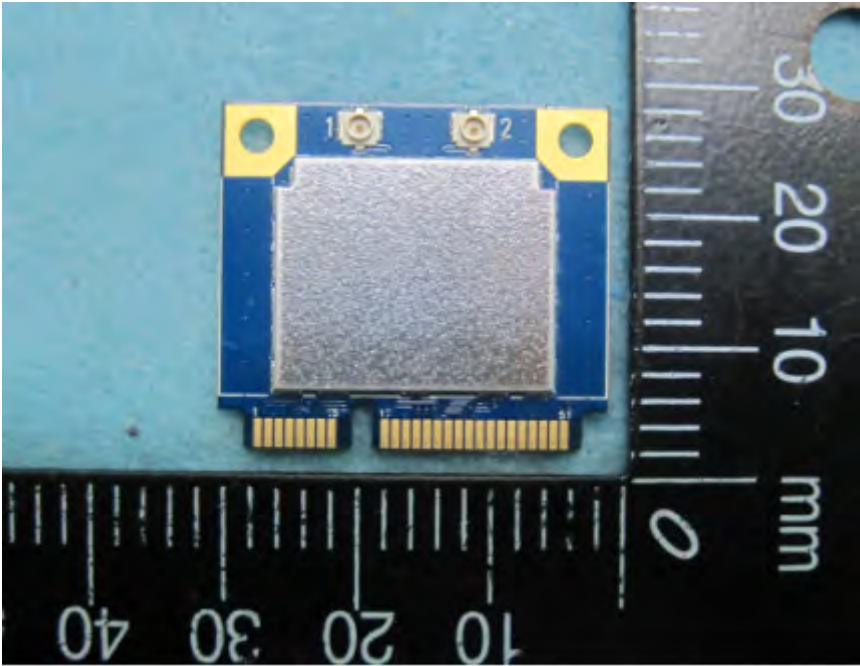
2.8. Construction Protection Confirmation Method

2.8.1. Limit

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

2.8.2. Confirmation Method

The RF and modulation portions are protected against illegal modification as following method:

Protected Method	Description
Shielding Case	RF and Modulation components are covered with shielding case and this shielding case is soldered 



3. List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Calibration Method	Calibration Agent Name	Remark
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jun. 22, 2018	Jun. 21, 2019	c)	C	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	c)	B	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz – 26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	c)	B	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	c)	A	Conducted (TH01-CB)
Digital Multimeters	Fluke	15B+	42390498 WS	N/A	Oct. 18, 2018	Oct. 17, 2019	c)	A	Conducted (TH01-CB)

Note:

1. Calibration Interval of instruments listed above is one year.
2. N.C.R. means Non-Calibration required.
3. Calibration Agent Name: Describe calibration agent name with its country name, and symbols in "Calibration Agent Name" shows the agent names as follows,
A: Electronics Testing Center, Taiwan.
B: Sporton INTERNATIONAL Inc., Taiwan.
C: ROHDE&SCHWARZ., Taiwan.
4. Calibration Method
 - a) : Calibration conducted by the National Institute of Information and Communications Technology or a designated calibration agency under Article 102-18 paragraph (1)
 - b) : Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)
 - c) : Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)
 - d) : Calibration conducted by using other equipment that listed above from a) to c)

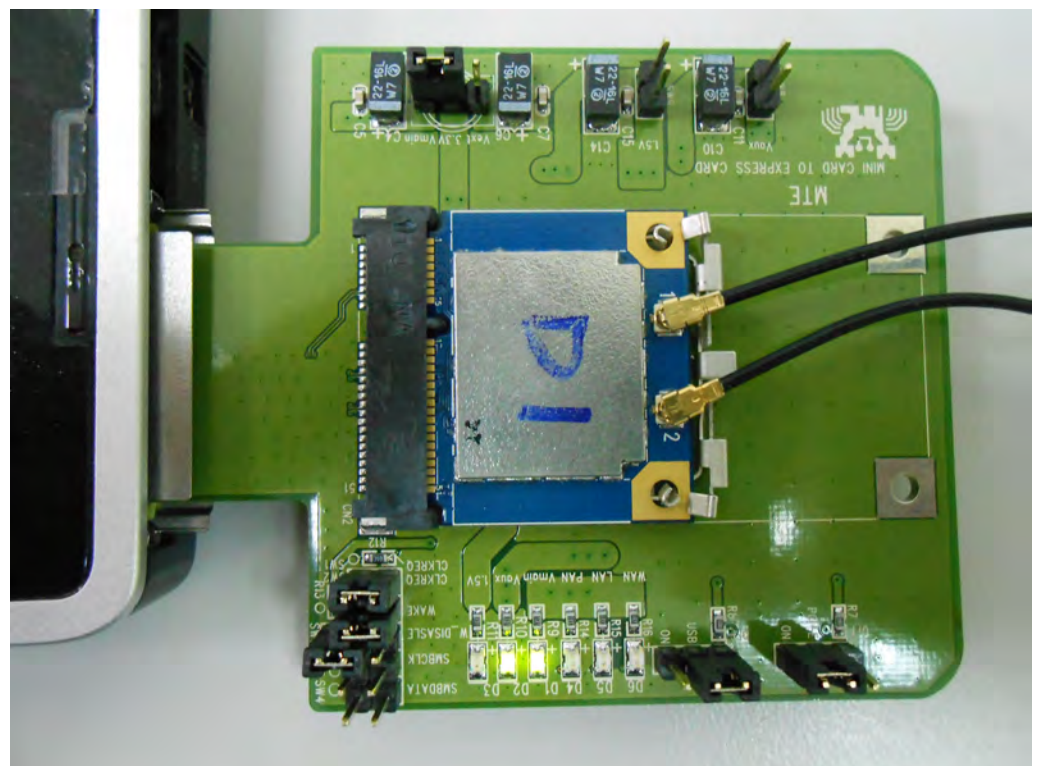
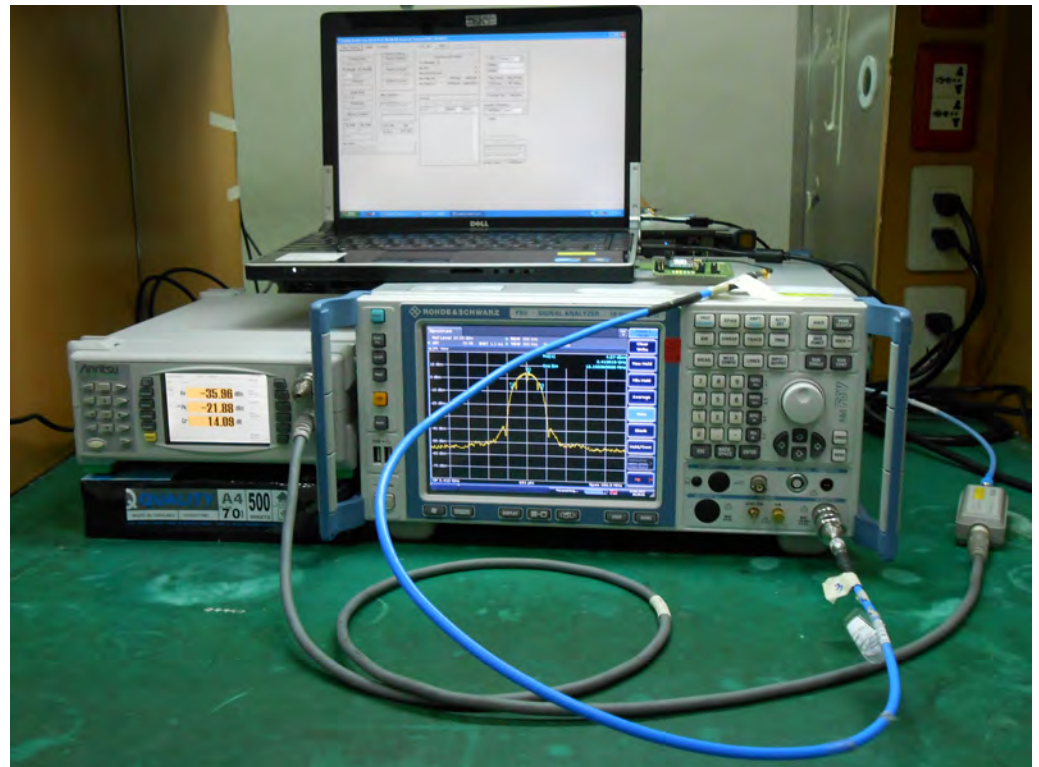


4. Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission	1.7 dB	Confidence levels of 95%
Radio frequency	6.6×10^{-8} MHz	Confidence levels of 95%

Appendix A. Test Photos

1. Photographs of Test Configuration



Appendix B 19-BT-F1D

Sporton No.	JR342603-64AE
Test Date	2019/1/16
Test Location	SPORTON Lab.
Temp. / Humid.	25°C / 34%
Test Conducted By	
Name	Ron Huang
Department	Radio Service Group

1. General Information

Specified Radio Equipment	Class	Article 2 Paragraph 1 Item 19	Model	RTL8821AE	
	Type of Emission	F1D	Serial No.	NA	
	Modulation Type	GFSK	Antenna Power	0.063	mW/MHz
	Frequency	2402~2480 MHz			

2. Test Results

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)								Remarks	
	Test Frequency	MHz	2402	2441	2480						Low/Mid/High of test frequency range	
	Measured Frequency	MHz	2401.989	2440.988	2479.988						RBW : 30 kHz ; VBW : 30 kHz : SP : 300kHz	
	Frequency Error	ppm	-4.75	-4.92	-4.84						Limit ≤ 50 ppm	
	Occupied Bandwidth	MHz	80.83								Limit ≤ 83.5 MHz (RBW/VBW : 1MHz)	
	Spread-spectrum Bandwidth	MHz	79.65								Spread Factor Limit ≥ 5 (DSSS and FHSS)	
	Unwanted Emission Intensity (Power emission within 1MHz bandwidth)	※ 1	μ W/MHz	0.0098	0.0062	0.0055						Limit ≤ 2.5 μ W/MHz (-26 dBm/MHz)
		※ 2	μ W/MHz	11.0917	0.0089	0.0081						Limit ≤ 25 μ W/MHz (-16 dBm/MHz)
		※ 3	μ W/MHz	0.0094	0.0091	0.2028						Limit ≤ 25 μ W/MHz (-16 dBm/MHz)
		※ 4	μ W/MHz	0.0644	0.0703	0.0851						Limit ≤ 2.5 μ W/MHz (-26 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.063									Limit ≤ 3 nW/MHz (4.77 dBm/MHz)
	Antenna Power Error	mW/MHz	0.000									
		%	0.00									Limit + 20% ~ - 80%
	Limitation of Collateral Emission of Receiver	※ 5	nW	0.0257	0.0262	0.0236						Limit ≤ 4 nW (-54 dBm)
		※ 6	nW	9.0157	7.5509	6.5615						Limit ≤ 20 nW (-47 dBm)
	Hopping Frequency Dwell Time	sec	0.3097	0.3097	0.3097							Limit ≤ 0.4 sec (In 0.4 sec $\times$ spreading rate)
Radio Interference Prevention Function	ID Code	Good, MAC Address: 00-E0-4C-02-F0-A8										
	Carrier Sense	NR	NR	NR							NR: Not Require	

※ 1: Frequency Band 1 (30 MHz $\leq f \leq 2387$ MHz) ※ 4: Frequency Band 4 (2496.5 MHz $\leq f < 12.5$ GHz)

※ 2: Frequency Band 2 (2387 MHz $< f \leq 2400$ MHz) ※ 5: Frequency Band 5 (30 MHz $\leq f < 1000$ MHz)

※ 3: Frequency Band 3 (2483.5 MHz $\leq f < 2496.5$ MHz) ※ 6: Frequency Band 6 (1000 MHz $\leq f < 12.5$ GHz)

3. Antenna Power (Conducted Power)

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)						Remarks		
	Test Frequency	MHz	2402 ~ 2480								
	Power Meter Raw from EUT	dBm	7.01								
	Duty Cycle Factor	dB	0.00						Duty Factor = $10 \times 10\log_{10}(1/\text{Duty Cycle})$		
	Spreading Bandwidth Factor	dB	-19.01						BW Factor = $10 \times 10\log_{10}(1/\text{Spreading BW})$		
	Antenna Power (Conducted)	dBm/MHz	-12.00						Limit ≤ 3 mW/MHz (4.77 dBm/MHz)		
	Antenna Power (Conducted)	mW/MHz	0.063								
	Antenna Power Error	mW	0.000								
		%	0.00						Limit + 20% ~ - 80%		
	Transmitter ON _{Time}	msec				1.0000			RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz		
	Transmitter (ON+OFF) _{Time}	msec				1.0000					
	Transmitter Duty Cycle	%				100.00%					

4. Transmission Radiation Angle Width (Note: This test item will not be applied to EIRP power of EUT is lower than 6.91dBm/MHz.)

No.	Antenna Power	Antenna			Cable			Total Gain D=B-C	EIRP F=A+D	Permitted Angle	Judgement	Remarks (Antenna Model)	
	A	Type	Gain B	3dB Beam- width Horizontal	3dB Beam- width Vertical	Model	Length						Loss C
	(dBm/MHz)		(dBi)	(Degree)	(Degree)		(m)						(dB)
1	-12.00	PIFA	3.50	-	-	-	-	0.00	3.50	-8.50	360.00	Good	ALA110-222050-300010
2	-12.00	DIPOLE	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	TWF-614XMPXX-500
3	-12.00	SLOT	3.33	-	-	-	-	0.00	3.33	-8.67	360.00	Good	PANT-001
4	-12.00	PIFA	0.85	-	-	-	-	0.00	0.85	-11.15	360.00	Good	SKW10WMPB01+A
5	-12.00	PIFA	0.42	-	-	-	-	0.00	0.42	-11.58	360.00	Good	SK65EWMPB01+A
6	-12.00	PIFA	2.72	-	-	-	-	0.00	2.72	-9.28	360.00	Good	DC33001AD00
7	-12.00	PIFA	0.87	-	-	-	-	0.00	0.87	-11.13	360.00	Good	DC33001AC00
8	-12.00	PIFA	2.08	-	-	-	-	0.00	2.08	-9.92	360.00	Good	L01RF019-DT-R (31-502717)
9	-12.00	PIFA	1.36	-	-	-	-	0.00	1.36	-10.64	360.00	Good	SKAEUWMPB01+B
10	-12.00	PIFA	0.82	-	-	-	-	0.00	0.82	-11.18	360.00	Good	SKA91WMPB02+A
11	-12.00	PIFA	2.14	-	-	-	-	0.00	2.14	-9.86	360.00	Good	W550EU WM-1
12	-12.00	PIFA	-0.63	-	-	-	-	0.00	-0.63	-12.63	360.00	Good	APP6P-700781
13	-12.00	PIFA	-0.13	-	-	-	-	0.00	-0.13	-12.13	360.00	Good	ATM6P-70100
14	-12.00	PIFA	-0.58	-	-	-	-	0.00	-0.58	-12.58	360.00	Good	DQ6G1SG5800
15	-12.00	PIFA	-0.70	-	-	-	-	0.00	-0.70	-12.70	360.00	Good	DQ60QTLI200
16	-12.00	PIFA	1.15	-	-	-	-	0.00	1.15	-10.85	360.00	Good	81.EKG15.G30
17	-12.00	PIFA	0.90	-	-	-	-	0.00	0.90	-11.10	360.00	Good	CAN4313LC0613WLA4
18	-12.00	PIFA	0.60	-	-	-	-	0.00	0.60	-11.40	360.00	Good	81.EKG15.G37
19	-12.00	PIFA	1.89	-	-	-	-	0.00	1.89	-10.11	360.00	Good	PANT11A00008-1
20	-12.00	PIFA	0.60	-	-	-	-	0.00	0.60	-11.40	360.00	Good	WDAN-T1RH2
21	-12.00	PIFA	0.21	-	-	-	-	0.00	0.21	-11.79	360.00	Good	SKX71WMPB01+B
22	-12.00	PIFA	-0.29	-	-	-	-	0.00	-0.29	-12.29	360.00	Good	L01RF009-R
23	-12.00	PIFA	0.72	-	-	-	-	0.00	0.72	-11.28	360.00	Good	SKW25WMPB01+A
24	-12.00	PIFA	-0.17	-	-	-	-	0.00	-0.17	-12.17	360.00	Good	SK549WMPB01+A
25	-12.00	PIFA	2.53	-	-	-	-	0.00	2.53	-9.47	360.00	Good	W350ETQ WM-2
26	-12.00	PIFA	-1.28	-	-	-	-	0.00	-1.28	-13.28	360.00	Good	SKW34WMPB02+A
27	-12.00	PIFA	2.60	-	-	-	-	0.00	2.60	-9.40	360.00	Good	IA-120266
28	-12.00	PIFA	0.24	-	-	-	-	0.00	0.24	-11.76	360.00	Good	25.90AH8.001
29	-12.00	PIFA	1.28	-	-	-	-	0.00	1.28	-10.72	360.00	Good	25.90AH8.011
30	-12.00	PIFA	-0.27	-	-	-	-	0.00	-0.27	-12.27	360.00	Good	25.90AH8.021
31	-12.00	PIFA	-0.11	-	-	-	-	0.00	-0.11	-12.11	360.00	Good	25.90AJB.001
32	-12.00	PIFA	-1.14	-	-	-	-	0.00	-1.14	-13.14	360.00	Good	25.90AJC.001
33	-12.00	PIFA	2.74	-	-	-	-	0.00	2.74	-9.26	360.00	Good	25.90ALR.001
34	-12.00	PIFA	1.91	-	-	-	-	0.00	1.91	-10.09	360.00	Good	25.90AAK.001
35	-12.00	PIFA	1.29	-	-	-	-	0.00	1.29	-10.71	360.00	Good	25.90AAL.011
36	-12.00	PIFA	-2.20	-	-	-	-	0.00	-2.20	-14.20	360.00	Good	25.90ALR.011
37	-12.00	PIFA	-0.60	-	-	-	-	0.00	-0.60	-12.60	360.00	Good	25.90AJC.011
38	-12.00	PIFA	1.59	-	-	-	-	0.00	1.59	-10.41	360.00	Good	25.90AJC.011
39	-12.00	PIFA	1.33	-	-	-	-	0.00	1.33	-10.67	360.00	Good	ATP6P -700001
40	-12.00	DIPOLE	0.45	-	-	-	-	0.00	0.45	-11.55	360.00	Good	DAM-14-H-DB-800-10-17
41	-12.00	PIFA	1.05	-	-	-	-	0.00	1.05	-10.95	360.00	Good	SK110WMPB01+A
42	-12.00	PIFA	-1.61	-	-	-	-	0.00	-1.61	-13.61	360.00	Good	SKW23WMPB01+A
43	-12.00	PIFA	0.20	-	-	-	-	0.00	0.20	-11.80	360.00	Good	SK740WMPB02+A
44	-12.00	PIFA	1.95	-	-	-	-	0.00	1.95	-10.05	360.00	Good	APP6P-700968

45	-12.00	PIFA	0.46	-	-	-	-	0.00	0.46	-11.54	360.00	Good	SKCZTWMPB01+A
46	-12.00	PIFA	1.48	-	-	-	-	0.00	1.48	-10.52	360.00	Good	SK670WMPB01+A
47	-12.00	PIFA	1.75	-	-	-	-	0.00	1.75	-10.25	360.00	Good	K05007012102
48	-12.00	PIFA	2.70	-	-	-	-	0.00	2.70	-9.30	360.00	Good	K05007013402
49	-12.00	PIFA	2.04	-	-	-	-	0.00	2.04	-9.96	360.00	Good	K05007012803
50	-12.00	PIFA	2.53	-	-	-	-	0.00	2.53	-9.47	360.00	Good	K05007015501
51	-12.00	PIFA	2.85	-	-	-	-	0.00	2.85	-9.15	360.00	Good	K05007014501
52	-12.00	PIFA	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	K05007014201
53	-12.00	PIFA	1.85	-	-	-	-	0.00	1.85	-10.15	360.00	Good	K05007014901
54	-12.00	PIFA	1.94	-	-	-	-	0.00	1.94	-10.06	360.00	Good	K05007015001
55	-12.00	PIFA	2.23	-	-	-	-	0.00	2.23	-9.77	360.00	Good	1510-0122-0022(IA-120073)
56	-12.00	PIFA	0.78	-	-	-	-	0.00	0.78	-11.22	360.00	Good	SK547WMPB02+A
57	-12.00	PIFA	3.03	-	-	-	-	0.00	3.03	-8.97	360.00	Good	SK840WMPB01+B_SN
58	-12.00	PIFA	3.20	-	-	-	-	0.00	3.20	-8.80	360.00	Good	SKX51WMPB01+C
59	-12.00	PIFA	2.76	-	-	-	-	0.00	2.76	-9.24	360.00	Good	SKX51WMPB02+C
60	-12.00	PIFA	1.79	-	-	-	-	0.00	1.79	-10.21	360.00	Good	SK81WMPB01+A
61	-12.00	PIFA	2.88	-	-	-	-	0.00	2.88	-9.12	360.00	Good	SKW2UWMPB01+A
62	-12.00	PIFA	3.14	-	-	-	-	0.00	3.14	-8.86	360.00	Good	SKW31WMPB01+A
63	-12.00	PIFA	-1.84	-	-	-	-	0.00	-1.84	-13.84	360.00	Good	SKM11WMPB03+A
64	-12.00	PIFA	2.91	-	-	-	-	0.00	2.91	-9.09	360.00	Good	SKC45WMPB03+B
65	-12.00	PIFA	3.17	-	-	-	-	0.00	3.17	-8.83	360.00	Good	SKW24WMPB01+B
66	-12.00	PIFA	0.76	-	-	-	-	0.00	0.76	-11.24	360.00	Good	SK555WMPB01+B
67	-12.00	PIFA	0.76	-	-	-	-	0.00	0.76	-11.24	360.00	Good	SK945WMPB01+B
68	-12.00	PIFA	1.86	-	-	-	-	0.00	1.86	-10.14	360.00	Good	SK94TWMPB01+B
69	-12.00	PIFA	-0.03	-	-	-	-	0.00	-0.03	-12.03	360.00	Good	SK50SWMPB01+A
70	-12.00	PIFA	0.60	-	-	-	-	0.00	0.60	-11.40	360.00	Good	APP6P-701010
71	-12.00	PIFA	0.60	-	-	-	-	0.00	0.60	-11.40	360.00	Good	WA-P-LB-02-094
72	-12.00	PIFA	2.02	-	-	-	-	0.00	2.02	-9.98	360.00	Good	25CA0-295000-J3R
73	-12.00	PIFA	1.86	-	-	-	-	0.00	1.86	-10.14	360.00	Good	SK94TWMPB01+D
74	-12.00	PIFA	1.51	-	-	-	-	0.00	1.51	-10.49	360.00	Good	RFA-25-AP158-70300AU
75	-12.00	PIFA	0.49	-	-	-	-	0.00	0.49	-11.51	360.00	Good	L01RF050-YT-R
76	-12.00	PIFA	-0.29	-	-	-	-	0.00	-0.29	-12.29	360.00	Good	L01RF009-R
77	-12.00	PIFA	-0.84	-	-	-	-	0.00	-0.84	-12.84	360.00	Good	14007-01300600
78	-12.00	PIFA	-1.14	-	-	-	-	0.00	-1.14	-13.14	360.00	Good	APP6P-700944
79	-12.00	DIPOLE	1.29	-	-	-	-	0.00	1.29	-10.71	360.00	Good	14007-00410200
80	-12.00	PIFA	-2.73	-	-	-	-	0.00	-2.73	-14.73	360.00	Good	C497-520058-A
81	-12.00	PIFA	-2.79	-	-	-	-	0.00	-2.79	-14.79	360.00	Good	C497-520059-A
82	-12.00	PIFA	1.95	-	-	-	-	0.00	1.95	-10.05	360.00	Good	25CA0-210001-375/2000000000109
83	-12.00	DIPOLE	1.76	-	-	-	-	0.00	1.76	-10.24	360.00	Good	UC7WFI0005
84	-12.00	PIFA	1.87	-	-	-	-	0.00	1.87	-10.13	360.00	Good	F.OG.FS-6004-001(025.9003S.0001)
85	-12.00	PIFA	1.94	-	-	-	-	0.00	1.94	-10.06	360.00	Good	025.9003R.0001(81.EBC15.GAJ)
86	-12.00	PIFA	3.46	-	-	-	-	0.00	3.46	-8.54	360.00	Good	UC7WFI0002A02
87	-12.00	PIFA	1.57	-	-	-	-	0.00	1.57	-10.43	360.00	Good	L01RF051-DT-R
88	-12.00	PIFA	1.70	-	-	-	-	0.00	1.70	-10.30	360.00	Good	L01RF054-DT-R
89	-12.00	PIFA	1.01	-	-	-	-	0.00	1.01	-10.99	360.00	Good	APP6P-701052
90	-12.00	PIFA	2.74	-	-	-	-	0.00	2.74	-9.26	360.00	Good	IA-130052
91	-12.00	PIFA	1.78	-	-	-	-	0.00	1.78	-10.22	360.00	Good	IAH-1400XX
92	-12.00	PIFA	0.61	-	-	-	-	0.00	0.61	-11.39	360.00	Good	APP6P-701052
93	-12.00	PIFA	-0.27	-	-	-	-	0.00	-0.27	-12.27	360.00	Good	APP6P-701162
94	-12.00	PIFA	2.81	-	-	-	-	0.00	2.81	-9.19	360.00	Good	IA-140029
95	-12.00	PIFA	2.74	-	-	-	-	0.00	2.74	-9.26	360.00	Good	1510-0119-0205
96	-12.00	PIFA	-0.97	-	-	-	-	0.00	-0.97	-12.97	360.00	Good	25.90AH1.001 (81.EEW15.GAT)
97	-12.00	PIFA	-0.97	-	-	-	-	0.00	-0.97	-12.97	360.00	Good	81.EEW15.GAT
98	-12.00	PIFA	1.85	-	-	-	-	0.00	1.85	-10.15	360.00	Good	APP6P-701213
99	-12.00	PIFA	1.64	-	-	-	-	0.00	1.64	-10.36	360.00	Good	MSA-3409-25GCI-A1
100	-12.00	PIFA	0.41	-	-	-	-	0.00	0.41	-11.59	360.00	Good	WA-P-LB-01-101
101	-12.00	PIFA	0.84	-	-	-	-	0.00	0.84	-11.16	360.00	Good	LA05RF805-1H
102	-12.00	PIFA	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	MSA-3822-25GCI-A1
103	-12.00	PIFA	1.74	-	-	-	-	0.00	1.74	-10.26	360.00	Good	SE-ECA10-002
104	-12.00	PIFA	2.66	-	-	-	-	0.00	2.66	-9.34	360.00	Good	DC33001M000 / T-543-9021035-1
105	-12.00	PIFA	1.61	-	-	-	-	0.00	1.61	-10.39	360.00	Good	SE-ECVY3-001
106	-12.00	PIFA	1.79	-	-	-	-	0.00	1.79	-10.21	360.00	Good	T-543-9021013-A
107	-12.00	PIFA	0.52	-	-	-	-	0.00	0.52	-11.48	360.00	Good	0ACCN013037
108	-12.00	PIFA	-0.43	-	-	-	-	0.00	-0.43	-12.43	360.00	Good	L01RF039-DT-R
109	-12.00	PIFA	1.82	-	-	-	-	0.00	1.82	-10.18	360.00	Good	APP6P-701194
110	-12.00	PIFA	2.73	-	-	-	-	0.00	2.73	-9.27	360.00	Good	IAH-140030
111	-12.00	PIFA	2.98	-	-	-	-	0.00	2.98	-9.02	360.00	Good	IAH-140030
112	-12.00	PIFA	1.82	-	-	-	-	0.00	1.82	-10.18	360.00	Good	APP6P-701194
113	-12.00	PIFA	2.20	-	-	-	-	0.00	2.20	-9.80	360.00	Good	APP6P-701233
114	-12.00	PIFA	1.31	-	-	-	-	0.00	1.31	-10.69	360.00	Good	1415-040A000/ ANTA0ZP09021WLAN1
115	-12.00	PIFA	1.08	-	-	-	-	0.00	1.08	-10.92	360.00	Good	DC33001NS00 / APP6Y-700054
116	-12.00	PIFA	0.94	-	-	-	-	0.00	0.94	-11.06	360.00	Good	260-24055
117	-12.00	PIFA	-0.45	-	-	-	-	0.00	-0.45	-12.45	360.00	Good	DC33001O600 (81EAS15.G72)
118	-12.00	PIFA	1.99	-	-	-	-	0.00	1.99	-10.01	360.00	Good	APP6P-701314
119	-12.00	PIFA	-1.36	-	-	-	-	0.00	-1.36	-13.36	360.00	Good	APM6Y-700023
120	-12.00	PIFA	2.74	-	-	-	-	0.00	2.74	-9.26	360.00	Good	LB001LC018
121	-12.00	PIFA	0.82	-	-	-	-	0.00	0.82	-11.18	360.00	Good	DC330160310
122	-12.00	PIFA	1.27	-	-	-	-	0.00	1.27	-10.73	360.00	Good	DC330017L00
123	-12.00	PIFA	1.25	-	-	-	-	0.00	1.25	-10.75	360.00	Good	DC330017G10
124	-12.00	PIFA	1.83	-	-	-	-	0.00	1.83	-10.17	360.00	Good	DC330160410
125	-12.00	PIFA	1.60	-	-	-	-	0.00	1.60	-10.40	360.00	Good	DC330017L00
126	-12.00	PIFA	2.85	-	-	-	-	0.00	2.85	-9.15	360.00	Good	DC330017J10
127	-12.00	PIFA	-0.20	-	-	-	-	0.00	-0.20	-12.20	360.00	Good	LB302LC302
128	-12.00	PIFA	0.10	-	-	-	-	0.00	0.10	-11.90	360.00	Good	T-543-3010220-1
129	-12.00	PIFA	-1.33	-	-	-	-	0.00	-1.33	-13.33	360.00	Good	N1P6Y-200001
130	-12.00	PIFA	0.61	-	-	-	-	0.00	0.61	-11.39	360.00	Good	N1P6Y-200000
131	-12.00	PIFA	1.58	-	-	-	-	0.00	1.58	-10.42	360.00	Good	DQ6S15G7300 (81EAS15.G73)
132	-12.00	PIFA	0.45	-	-	-	-	0.00	0.45	-11.55	360.00	Good	DQ6S15G7700 (81EAS15.G77)
133	-12.00	PIFA	0.79	-	-	-	-	0.00	0.79	-11.21	360.00	Good	DQ601008900
134	-12.00	PIFA	-0.88	-	-	-	-	0.00	-0.88	-12.88	360.00	Good	DQ601009700
135	-12.00	PIFA	-0.44	-	-	-	-	0.00	-0.44	-12.44	360.00	Good	APP6Y-700261
136	-12.00	PIFA	1.64	-	-	-	-	0.00	1.64	-10.36	360.00	Good	DQ6S15G7400
137	-12.00	PIFA	2.98	-	-	-	-	0.00	2.98	-9.02	360.00	Good	0ACCN015004N
138	-12.00	PIFA	0.21	-	-	-	-	0.00	0.21	-11.79	360.00	Good	T-543-9021077-1
139	-12.00	PIFA	1.60	-	-	-	-	0.00	1.60	-10.40	360.00	Good	AAM6Y-200002

140	-12.00	PIFA	2.49	-	-	-	-	0.00	2.49	-9.51	360.00	Good	IAH150012
141	-12.00	PIFA	2.90	-	-	-	-	0.00	2.90	-9.10	360.00	Good	81800T029
142	-12.00	PIFA	0.32	-	-	-	-	0.00	0.32	-11.68	360.00	Good	L01RF056-DT-R
143	-12.00	PIFA	-1.90	-	-	-	-	0.00	-1.90	-13.90	360.00	Good	L01RF064-DT-R
144	-12.00	PIFA	0.36	-	-	-	-	0.00	0.36	-11.64	360.00	Good	025.900CR.0001
145	-12.00	PIFA	2.23	-	-	-	-	0.00	2.23	-9.77	360.00	Good	025.900CR.0011
146	-12.00	PIFA	1.00	-	-	-	-	0.00	1.00	-11.00	360.00	Good	025.900CP.0001
147	-12.00	PIFA	-2.21	-	-	-	-	0.00	-2.21	-14.21	360.00	Good	025.9006P.0001
148	-12.00	PIFA	-0.84	-	-	-	-	0.00	-0.84	-12.84	360.00	Good	025.9006P.0011
149	-12.00	PIFA	2.46	-	-	-	-	0.00	2.46	-9.54	360.00	Good	IAH-150012
150	-12.00	PIFA	-0.04	-	-	-	-	0.00	-0.04	-12.04	360.00	Good	L01RF072-DT-R/ L01RF031-DT-R
151	-12.00	PIFA	1.92	-	-	-	-	0.00	1.92	-10.08	360.00	Good	AAP6Y-100000
152	-12.00	PIFA	1.61	-	-	-	-	0.00	1.61	-10.39	360.00	Good	T-543-9021081-1
153	-12.00	PIFA	1.94	-	-	-	-	0.00	1.94	-10.06	360.00	Good	AAP6Y-100004
154	-12.00	PIFA	2.43	-	-	-	-	0.00	2.43	-9.57	360.00	Good	T-543-9021080-1
155	-12.00	PIFA	-1.29	-	-	-	-	0.00	-1.29	-13.29	360.00	Good	260-26073
156	-12.00	PIFA	1.40	-	-	-	-	0.00	1.40	-10.60	360.00	Good	LOERF003-DT-R (025.900BR.0001)
157	-12.00	PIFA	1.78	-	-	-	-	0.00	1.78	-10.22	360.00	Good	DC33001EH00
158	-12.00	PIFA	0.61	-	-	-	-	0.00	0.61	-11.39	360.00	Good	DC33001EJ10
159	-12.00	PIFA	1.75	-	-	-	-	0.00	1.75	-10.25	360.00	Good	DC33001DU00
160	-12.00	PIFA	1.69	-	-	-	-	0.00	1.69	-10.31	360.00	Good	DC33001DX00
161	-12.00	PIFA	2.08	-	-	-	-	0.00	2.08	-9.92	360.00	Good	DC33001DV00
162	-12.00	PIFA	1.86	-	-	-	-	0.00	1.86	-10.14	360.00	Good	DC33001DW00
163	-12.00	PIFA	0.95	-	-	-	-	0.00	0.95	-11.05	360.00	Good	DC33001DB00
164	-12.00	PIFA	1.87	-	-	-	-	0.00	1.87	-10.13	360.00	Good	DC33001D900
165	-12.00	PIFA	0.10	-	-	-	-	0.00	0.10	-11.90	360.00	Good	UC7WFI0009A
166	-12.00	Dipole	2.56	-	-	-	-	0.00	2.56	-9.44	360.00	Good	RFA-25-C2M2-M10-1
167	-12.00	PIFA	0.64	-	-	-	-	0.00	0.64	-11.36	360.00	Good	0ACCN014009N (DC33001MI00)
168	-12.00	PIFA	0.74	-	-	-	-	0.00	0.74	-11.26	360.00	Good	T-543-9021043-1 (DC33001MD00)
169	-12.00	PIFA	-2.10	-	-	-	-	0.00	-2.10	-14.10	360.00	Good	ADP6Y-100003
170	-12.00	PIFA	2.38	-	-	-	-	0.00	2.38	-9.62	360.00	Good	APM6Y-700021
171	-12.00	PIFA	0.53	-	-	-	-	0.00	0.53	-11.47	360.00	Good	025.900ED.0011
172	-12.00	PIFA	1.95	-	-	-	-	0.00	1.95	-10.05	360.00	Good	025.900ED.0001
173	-12.00	Dipole	2.40	-	-	-	-	0.00	2.40	-9.60	360.00	Good	T000CCD-80
174	-12.00	Dipole	2.30	-	-	-	-	0.00	2.30	-9.70	360.00	Good	T000CCD-250
175	-12.00	Dipole	2.46	-	-	-	-	0.00	2.46	-9.54	360.00	Good	RFDPA870918EMLB302
176	-12.00	Dipole	2.44	-	-	-	-	0.00	2.44	-9.56	360.00	Good	RFDPA870940EMLB303
177	-12.00	PIFA	-1.36	-	-	-	-	0.00	-1.36	-13.36	360.00	Good	APM6Y-700023
178	-12.00	PIFA	-1.68	-	-	-	-	0.00	-1.68	-13.68	360.00	Good	WA-M-LB-02-087
179	-12.00	PIFA	-1.29	-	-	-	-	0.00	-1.29	-13.29	360.00	Good	14008-01320100
180	-12.00	PIFA	1.94	-	-	-	-	0.00	1.94	-10.06	360.00	Good	ANP6P-100002
181	-12.00	PIFA	-1.68	-	-	-	-	0.00	-1.68	-13.68	360.00	Good	WA-M-LB-01-059
182	-12.00	PIFA	-1.21	-	-	-	-	0.00	-1.21	-13.21	360.00	Good	025.900G0.0001
183	-12.00	PIFA	-1.67	-	-	-	-	0.00	-1.67	-13.67	360.00	Good	025.900G0.0011
184	-12.00	PIFA	0.66	-	-	-	-	0.00	0.66	-11.34	360.00	Good	025.900FJ.0011
185	-12.00	PIFA	0.13	-	-	-	-	0.00	0.13	-11.87	360.00	Good	025.900FJ.0001
186	-12.00	Dipole	2.42	-	-	-	-	0.00	2.42	-9.58	360.00	Good	RFDPA870900SMLB801+RFCBA100618SF6B302
187	-12.00	Dipole	2.06	-	-	-	-	0.00	2.06	-9.94	360.00	Good	RFDPA870900SMLB801+RFCBA100640SF6B302
188	-12.00	PIFA	1.10	-	-	-	-	0.00	1.10	-10.90	360.00	Good	WA-P-LB-02-311
189	-12.00	PIFA	1.68	-	-	-	-	0.00	1.68	-10.32	360.00	Good	DC33001V100
190	-12.00	PIFA	0.08	-	-	-	-	0.00	0.08	-11.92	360.00	Good	DC33001V110
191	-12.00	PIFA	1.34	-	-	-	-	0.00	1.34	-10.66	360.00	Good	025.900I2.0011
192	-12.00	PIFA	2.57	-	-	-	-	0.00	2.57	-9.43	360.00	Good	025.900I4.0011
193	-12.00	PIFA	1.44	-	-	-	-	0.00	1.44	-10.56	360.00	Good	AAP6Y-100027
194	-12.00	PIFA	1.82	-	-	-	-	0.00	1.82	-10.18	360.00	Good	AAP6Y-100027
195	-12.00	PIFA	-1.69	-	-	-	-	0.00	-1.69	-13.69	360.00	Good	DQ61QNL3P00 (WDAN-1QNL3P32-DH)
196	-12.00	PIFA	-0.64	-	-	-	-	0.00	-0.64	-12.64	360.00	Good	L01RF075-DT-R
197	-12.00	PIFA	1.92	-	-	-	-	0.00	1.92	-10.08	360.00	Good	025.900I2.0001
198	-12.00	PIFA	1.87	-	-	-	-	0.00	1.87	-10.13	360.00	Good	025.900I4.0001
199	-12.00	PIFA	0.73	-	-	-	-	0.00	0.73	-11.27	360.00	Good	HHA14WIPB01+A(43R-A14001-0300)
200	-12.00	PIFA	1.54	-	-	-	-	0.00	1.54	-10.46	360.00	Good	HHA15WIPB02+C(43R-A15001-0300)
201	-12.00	PIFA	1.17	-	-	-	-	0.00	1.17	-10.83	360.00	Good	HHA15WIPB03+B(43R-A15001-0320)
202	-12.00	PIFA	1.50	-	-	-	-	0.00	1.50	-10.50	360.00	Good	HHB11WIPB02+B
203	-12.00	PIFA	0.85	-	-	-	-	0.00	0.85	-11.15	360.00	Good	HHB14WIPB03+A
204	-12.00	PIFA	2.23	-	-	-	-	0.00	2.23	-9.77	360.00	Good	HHD18WIPB02+C(43R-DA1801-0310)
205	-12.00	PIFA	1.17	-	-	-	-	0.00	1.17	-10.83	360.00	Good	AWPD23F-074A4031
206	-12.00	PIFA	0.61	-	-	-	-	0.00	0.61	-11.39	360.00	Good	AWPD23F-074B4031
207	-12.00	PIFA	-4.82	-	-	-	-	0.00	-4.82	-16.82	360.00	Good	AWPD24F-074B4031
208	-12.00	PIFA	0.04	-	-	-	-	0.00	0.04	-11.96	360.00	Good	AWPD25F-074B4031
209	-12.00	PIFA	1.62	-	-	-	-	0.00	1.62	-10.38	360.00	Good	HHDH9WIPB02+B(43R-DH9BW1-0310)
210	-12.00	PIFA	-0.07	-	-	-	-	0.00	-0.07	-12.07	360.00	Good	HHD54WIPB01+A(43R-DS4701-0300)
211	-12.00	PIFA	3.02	-	-	-	-	0.00	3.02	-8.98	360.00	Good	HHE10WIPB01+C(43R-E10001-0301)
212	-12.00	PIFA	2.61	-	-	-	-	0.00	2.61	-9.39	360.00	Good	HHT13WIPB01+A(43R-E10BT1-0300)
213	-12.00	PIFA	1.82	-	-	-	-	0.00	1.82	-10.18	360.00	Good	AWPD22F-074I4031
214	-12.00	PIFA	3.13	-	-	-	-	0.00	3.13	-8.87	360.00	Good	AWPD22F-074J4031
215	-12.00	PIFA	1.38	-	-	-	-	0.00	1.38	-10.62	360.00	Good	HHW08WIPB01+B(43R-H14BW1-0300)
216	-12.00	PIFA	-1.74	-	-	-	-	0.00	-1.74	-13.74	360.00	Good	AWPD18F-074A4031
217	-12.00	PIFA	-2.61	-	-	-	-	0.00	-2.61	-14.61	360.00	Good	AWPD25F-074C4031
218	-12.00	PIFA	3.13	-	-	-	-	0.00	3.13	-8.87	360.00	Good	AWPD22F-074J4031
219	-12.00	PIFA	0.70	-	-	-	-	0.00	0.70	-11.30	360.00	Good	AWPD18F-074A4031
220	-12.00	PIFA	2.65	-	-	-	-	0.00	2.65	-9.35	360.00	Good	HHNH5WIPB01+A(43R-NH5001-0300)
221	-12.00	PIFA	2.60	-	-	-	-	0.00	2.60	-9.40	360.00	Good	HHNH3WIPB01+A(43R-NI3BT1-0300)
222	-12.00	PIFA	1.62	-	-	-	-	0.00	1.62	-10.38	360.00	Good	HHU01WIPB01+A(43R-NUCBU1-0300)
223	-12.00	PIFA	2.28	-	-	-	-	0.00	2.28	-9.72	360.00	Good	HHT03WIPB02+A
224	-12.00	PIFA	2.49	-	-	-	-	0.00	2.49	-9.51	360.00	Good	HHW03WIPB01+B(43R-SFFBW1-0300)
225	-12.00	PIFA	-0.70	-	-	-	-	0.00	-0.70	-12.70	360.00	Good	43R-SFFBT1-2110
226	-12.00	PIFA	-0.70	-	-	-	-	0.00	-0.70	-12.70	360.00	Good	43R-SFFBW1-2110
227	-12.00	PIFA	1.29	-	-	-	-	0.00	1.29	-10.71	360.00	Good	AWPD18F-074G4031
228	-12.00	PIFA	2.67	-	-	-	-	0.00	2.67	-9.33	360.00	Good	HHL06WIPB01+A(43R-WA0ML1-0300)
229	-12.00	PIFA	2.78	-	-	-	-	0.00	2.78	-9.22	360.00	Good	HHWA0WIPB02+D(43R-WA0TM1-0310)
230	-12.00	PIFA	2.35	-	-	-	-	0.00	2.35	-9.65	360.00	Good	HHXS3WIPB01+C(43R-XS3501-0300)
231	-12.00	PIFA	3.11	-	-	-	-	0.00	3.11	-8.89	360.00	Good	HHN08WIPB01+D
232	-12.00	Dipole	2.32	-	-	-	-	0.00	2.32	-9.68	360.00	Good	RFDPA870900SBLB808
233	-12.00	Dipole	2.20	-	-	-	-	0.00	2.20	-9.80	360.00	Good	RFDPA870900SMLB801
234	-12.00	Dipole	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	RFDPA870911EMLB301
235	-12.00	Dipole	2.87	-	-	-	-	0.00	2.87	-9.13	360.00	Good	RFDPA870914EMLB301

236	-12.00	Dipole	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	RFDPA870914EMLB302
237	-12.00	Dipole	3.00	-	-	-	-	0.00	3.00	-9.00	360.00	Good	RFDPA870940EMLB304
238	-12.00	PIFA	1.00	-	-	-	-	0.00	1.00	-11.00	360.00	Good	HHE14WIPB03+(43R-E14D31-0301)
239	-12.00	PIFA	0.61	-	-	-	-	0.00	0.61	-11.39	360.00	Good	RFMTA331211EMLB301
240	-12.00	PIFA	1.62	-	-	-	-	0.00	1.62	-10.38	360.00	Good	RFMTA331229EMLB301
241	-12.00	PIFA	2.47	-	-	-	-	0.00	2.47	-9.53	360.00	Good	RFA-25-AP252-70-500
242	-12.00	PIFA	-0.30	-	-	-	-	0.00	-0.30	-12.30	360.00	Good	ANP6Y-100113
243	-12.00	PIFA	1.66	-	-	-	-	0.00	1.66	-10.34	360.00	Good	AAP6Y-100023
244	-12.00	PIFA	2.19	-	-	-	-	0.00	2.19	-9.81	360.00	Good	0ACCN015036N
245	-12.00	PIFA	3.11	-	-	-	-	0.00	3.11	-8.89	360.00	Good	BAUKO1730B-M
246	-12.00	PIFA	0.50	-	-	-	-	0.00	0.50	-11.50	360.00	Good	DQ6U15G7100
247	-12.00	PIFA	1.85	-	-	-	-	0.00	1.85	-10.15	360.00	Good	DQ6U15G6500
248	-12.00	PIFA	2.81	-	-	-	-	0.00	2.81	-9.19	360.00	Good	DQ6U15G7700
249	-12.00	PIFA	1.95	-	-	-	-	0.00	1.95	-10.05	360.00	Good	DQ6U15G7900
250	-12.00	PIFA	0.38	-	-	-	-	0.00	0.38	-11.62	360.00	Good	ANP6Y-100071
251	-12.00	PIFA	-0.68	-	-	-	-	0.00	-0.68	-12.68	360.00	Good	0ACCN015030N
252	-12.00	PIFA	0.05	-	-	-	-	0.00	0.05	-11.95	360.00	Good	T-543-9021113-2
253	-12.00	PIFA	-0.39	-	-	-	-	0.00	-0.39	-12.39	360.00	Good	ANP6Y-100073
254	-12.00	PIFA	-0.51	-	-	-	-	0.00	-0.51	-12.51	360.00	Good	0ACCN015032N
255	-12.00	PIFA	0.09	-	-	-	-	0.00	0.09	-11.91	360.00	Good	T-543-9021114-2
256	-12.00	PIFA	-0.34	-	-	-	-	0.00	-0.34	-12.34	360.00	Good	F.OG.UH-6008-004-00
257	-12.00	PIFA	0.33	-	-	-	-	0.00	0.33	-11.67	360.00	Good	T-543-9021106-3
258	-12.00	PIFA	-0.34	-	-	-	-	0.00	-0.34	-12.34	360.00	Good	F.OG.UH-6008-004-00
259	-12.00	PIFA	2.57	-	-	-	-	0.00	2.57	-9.43	360.00	Good	WA-F-LB-02-089
260	-12.00	PIFA	0.06	-	-	-	-	0.00	0.06	-11.94	360.00	Good	T-543-9021105-3
261	-12.00	PIFA	0.19	-	-	-	-	0.00	0.19	-11.81	360.00	Good	T-543-9021104-1
262	-12.00	PIFA	0.20	-	-	-	-	0.00	0.20	-11.80	360.00	Good	T-543-9021103-A
263	-12.00	Dipole	2.38	-	-	-	-	0.00	2.38	-9.62	360.00	Good	AN2450-5706RS
264	-12.00	Dipole	2.38	-	-	-	-	0.00	2.38	-9.62	360.00	Good	AN2450-5706RS
265	-12.00	PIFA	0.94	-	-	-	-	0.00	0.94	-11.06	360.00	Good	APP6Y-700127
266	-12.00	PIFA	-0.29	-	-	-	-	0.00	-0.29	-12.29	360.00	Good	ANTA02P09041WLAN4
267	-12.00	PIFA	1.35	-	-	-	-	0.00	1.35	-10.65	360.00	Good	DC33001F400
268	-12.00	PIFA	2.92	-	-	-	-	0.00	2.92	-9.08	360.00	Good	DC33001F510
269	-12.00	PIFA	1.57	-	-	-	-	0.00	1.57	-10.43	360.00	Good	DC33001F700
270	-12.00	PIFA	2.41	-	-	-	-	0.00	2.41	-9.59	360.00	Good	DC33001F610
271	-12.00	PIFA	1.71	-	-	-	-	0.00	1.71	-10.29	360.00	Good	DC33001F800
272	-12.00	PIFA	2.14	-	-	-	-	0.00	2.14	-9.86	360.00	Good	DC33001FA00
273	-12.00	PIFA	1.21	-	-	-	-	0.00	1.21	-10.79	360.00	Good	DC33001F110
274	-12.00	PIFA	1.52	-	-	-	-	0.00	1.52	-10.48	360.00	Good	DC33001EX00
275	-12.00	PIFA	-1.60	-	-	-	-	0.00	-1.60	-13.60	360.00	Good	DC33001EW10
276	-12.00	PIFA	0.73	-	-	-	-	0.00	0.73	-11.27	360.00	Good	DC33001F210
277	-12.00	PIFA	1.56	-	-	-	-	0.00	1.56	-10.44	360.00	Good	DC33001EY00
278	-12.00	PIFA	2.94	-	-	-	-	0.00	2.94	-9.06	360.00	Good	DC33001EZ10
279	-12.00	PIFA	0.87	-	-	-	-	0.00	0.87	-11.13	360.00	Good	DC33001F000
280	-12.00	PIFA	1.46	-	-	-	-	0.00	1.46	-10.54	360.00	Good	DC33001F300
281	-12.00	PIFA	1.20	-	-	-	-	0.00	1.20	-10.80	360.00	Good	JUM2452PO VX1
282	-12.00	PIFA	1.27	-	-	-	-	0.00	1.27	-10.73	360.00	Good	350502200-600-G
283	-12.00	PIFA	2.06	-	-	-	-	0.00	2.06	-9.94	360.00	Good	DC330018D00
284	-12.00	PIFA	1.21	-	-	-	-	0.00	1.21	-10.79	360.00	Good	290-40253
285	-12.00	PIFA	0.70	-	-	-	-	0.00	0.70	-11.30	360.00	Good	HHD56WIPB01+A
286	-12.00	PIFA	-0.46	-	-	-	-	0.00	-0.46	-12.46	360.00	Good	HH02UWIPB01+B
287	-12.00	PIFA	-2.02	-	-	-	-	0.00	-2.02	-14.02	360.00	Good	HHW0LWIPB01+D
288	-12.00	PIFA	3.29	-	-	-	-	0.00	3.29	-8.71	360.00	Good	HH02AWIPB01+A
289	-12.00	PIFA	1.71	-	-	-	-	0.00	1.71	-10.29	360.00	Good	HHW01WIPB01+B
290	-12.00	PIFA	2.31	-	-	-	-	0.00	2.31	-9.69	360.00	Good	HHW08WIPB01+B
291	-12.00	PIFA	1.62	-	-	-	-	0.00	1.62	-10.38	360.00	Good	HHX50WIPB01+B
292	-12.00	PIFA	0.52	-	-	-	-	0.00	0.52	-11.48	360.00	Good	HHX50WIPB01+B
293	-12.00	PIFA	2.81	-	-	-	-	0.00	2.81	-9.19	360.00	Good	HHX90WIPB02+A
294	-12.00	PIFA	-1.75	-	-	-	-	0.00	-1.75	-13.75	360.00	Good	HHE03WIPB01+D
295	-12.00	PIFA	0.93	-	-	-	-	0.00	0.93	-11.07	360.00	Good	HHE23WIPB01+D
296	-12.00	PIFA	1.95	-	-	-	-	0.00	1.95	-10.05	360.00	Good	HHCT3WIPB01+A
297	-12.00	PIFA	0.35	-	-	-	-	0.00	0.35	-11.65	360.00	Good	HH5V5WIPB01+A
298	-12.00	Dipole	2.25	-	-	-	-	0.00	2.25	-9.75	360.00	Good	HHXPCAPD101+A
299	-12.00	Dipole	2.21	-	-	-	-	0.00	2.21	-9.79	360.00	Good	HHXPCAPD102+A
300	-12.00	PIFA	2.41	-	-	-	-	0.00	2.41	-9.59	360.00	Good	610-INNEP0005-A
301	-12.00	PIFA	2.89	-	-	-	-	0.00	2.89	-9.11	360.00	Good	610-INNEP0002-A
302	-12.00	PIFA	2.80	-	-	-	-	0.00	2.80	-9.20	360.00	Good	610-INNEP0004-A
303	-12.00	PIFA	0.28	-	-	-	-	0.00	0.28	-11.72	360.00	Good	ANTA0AA11131WLAN1
304	-12.00	PIFA	2.98	-	-	-	-	0.00	2.98	-9.02	360.00	Good	AJDP2J-B0004
305	-12.00	PIFA	2.77	-	-	-	-	0.00	2.77	-9.23	360.00	Good	AJDP2J-C0002
306	-12.00	PIFA	2.37	-	-	-	-	0.00	2.37	-9.63	360.00	Good	ALA160-222022-000002
307	-12.00	PIFA	-1.18	-	-	-	-	0.00	-1.18	-13.18	360.00	Good	ANP6P-100005
308	-12.00	PIFA	-0.70	-	-	-	-	0.00	-0.70	-12.70	360.00	Good	LA05RF895-1H
309	-12.00	PIFA	1.30	-	-	-	-	0.00	1.30	-10.70	360.00	Good	DC33001GA00
310	-12.00	PIFA	2.87	-	-	-	-	0.00	2.87	-9.13	360.00	Good	DC33001GB00
311	-12.00	PIFA	2.45	-	-	-	-	0.00	2.45	-9.55	360.00	Good	M01-50908019-R
312	-12.00	PIFA	2.80	-	-	-	-	0.00	2.80	-9.20	360.00	Good	DC33001GP00
313	-12.00	PIFA	0.65	-	-	-	-	0.00	0.65	-11.35	360.00	Good	DC33001GV00
314	-12.00	PIFA	-1.00	-	-	-	-	0.00	-1.00	-13.00	360.00	Good	DC33001GX00
315	-12.00	PIFA	1.66	-	-	-	-	0.00	1.66	-10.34	360.00	Good	DC33001GM00
316	-12.00	PIFA	2.56	-	-	-	-	0.00	2.56	-9.44	360.00	Good	DC33001GK00
317	-12.00	PIFA	2.89	-	-	-	-	0.00	2.89	-9.11	360.00	Good	DC33001GQ00
318	-12.00	PIFA	1.98	-	-	-	-	0.00	1.98	-10.02	360.00	Good	DC33001GN00
319	-12.00	PIFA	2.32	-	-	-	-	0.00	2.32	-9.68	360.00	Good	DC33001GL00
320	-12.00	PIFA	-0.28	-	-	-	-	0.00	-0.28	-12.28	360.00	Good	DC33001GD00
321	-12.00	PIFA	-0.05	-	-	-	-	0.00	-0.05	-12.05	360.00	Good	DC33001GC00
322	-12.00	PIFA	-0.04	-	-	-	-	0.00	-0.04	-12.04	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
323	-12.00	PIFA	-0.04	-	-	-	-	0.00	-0.04	-12.04	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
324	-12.00	PIFA	0.45	-	-	-	-	0.00	0.45	-11.55	360.00	Good	L01RF066-DT-R
325	-12.00	PIFA	0.32	-	-	-	-	0.00	0.32	-11.68	360.00	Good	L01RF066-DT-R
326	-12.00	PIFA	-0.10	-	-	-	-	0.00	-0.10	-12.10	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
327	-12.00	PIFA	1.59	-	-	-	-	0.00	1.59	-10.41	360.00	Good	L01RF091-DT-R/ L01RF092-DT-R
328	-12.00	Dipole	2.96	-	-	-	-	0.00	2.96	-9.04	360.00	Good	MA231.LBC.002
329	-12.00	PIFA	-0.02	-	-	-	-	0.00	-0.02	-12.02	360.00	Good	WSA.2458.A.301151
330	-12.00	PIFA	2.96	-	-	-	-	0.00	2.96	-9.04	360.00	Good	MA231.LBC.002

331	-12.00	PIFA	0.45	-	-	-	-	0.00	0.45	-11.55	360.00	Good	L01RF 066-DT-R
332	-12.00	PIFA	-4.07	-	-	-	-	0.00	-4.07	-16.07	360.00	Good	L01RF 068-DT-R
333	-12.00	PIFA	2.89	-	-	-	-	0.00	2.89	-9.11	360.00	Good	DC33001GQ00
334	-12.00	PIFA	1.98	-	-	-	-	0.00	1.98	-10.02	360.00	Good	DC33001GN00
335	-12.00	PIFA	2.32	-	-	-	-	0.00	2.32	-9.68	360.00	Good	DC33001GL00
336	-12.00	PIFA	2.23	-	-	-	-	0.00	2.23	-9.77	360.00	Good	DC33001GT00
337	-12.00	PIFA	2.02	-	-	-	-	0.00	2.02	-9.98	360.00	Good	DC33001GS00
338	-12.00	PIFA	1.71	-	-	-	-	0.00	1.71	-10.29	360.00	Good	DC33001GR00
339	-12.00	PIFA	-1.00	-	-	-	-	0.00	-1.00	-13.00	360.00	Good	DC33001GX00
340	-12.00	PIFA	0.65	-	-	-	-	0.00	0.65	-11.35	360.00	Good	DC33001GV00
341	-12.00	PIFA	-1.32	-	-	-	-	0.00	-1.32	-13.32	360.00	Good	AM149000C10
342	-12.00	PIFA	0.70	-	-	-	-	0.00	0.70	-11.30	360.00	Good	AM149000C00
343	-12.00	Dipole	2.30	-	-	-	-	0.00	2.30	-9.70	360.00	Good	SM1WFI0123A
344	-12.00	Dipole	2.90	-	-	-	-	0.00	2.90	-9.10	360.00	Good	AN2450-5511BRS-SMALFR8-3230A-00X00R
345	-12.00	Dipole	2.56	-	-	-	-	0.00	2.56	-9.44	360.00	Good	RFA-25-C2M2-U-M70

5. Unwanted Emission Intensity

Unwanted Emission Intensity	Test Voltage		V	Normal Voltage (3.3V)									Remarks
	Test Frequency		MHz	2402	2441	2480							
	Unwanted Emission Frequency	※ 1	MHz	2288.01	2226.74	2273.86							RBW : 1 MHz ; VBW : 1 MHz
		※ 2	MHz	2400.00	2394.36	2400.00							
		※ 3	MHz	2493.48	2490.70	2483.50							
		※ 4	MHz	3196.75	3256.77	3296.78							
	Cable Loss	※ 1	dB	1.31	1.31	1.31							
		※ 2	dB	1.31	1.31	1.31							
		※ 3	dB	1.31	1.31	1.31							
		※ 4	dB	2.20	2.20	2.20							
	Spectrum Raw	※ 1	dBm	-51.41	-53.36	-53.87							
		※ 2	dBm	-20.86	-51.81	-52.23							
		※ 3	dBm	-51.60	-51.73	-38.24							
		※ 4	dBm	-44.11	-43.73	-42.90							
	Unwanted Emission Intensity	※ 1	dBm	-50.10	-52.05	-52.56							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	dBm	-19.55	-50.50	-50.92							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	dBm	-50.29	-50.42	-36.93							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	dBm	-41.91	-41.53	-40.70							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
	Unwanted Emission Intensity	※ 1	μW	0.0098	0.0062	0.0055							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	μW	11.0917	0.0089	0.0081							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	μW	0.0094	0.0091	0.2028							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	μW	0.0644	0.0703	0.0851							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

6. Limitation of Collateral Emission of Receiver

Limitation of Collateral Emission	Test Voltage		V	Normal Voltage (3.3V)									Remarks	
	Test Frequency		MHz	2402.0	2441.0	2480.0								
	Spurious Emission Frequency	※ 5	MHz	949.56	425.71	398.72							1st	30MHz~1000MHz:: Maximum emission and all emissions beyond 1/10 of the limitation must be indicated.
		※ 5	MHz	-	-	-							2nd	
		※ 5	MHz	-	-	-							3rd	
		※ 6	MHz	3185.00	3254.00	3300.00							1st	1000MHz~12.5GHz:: Maximum emission and all emissions beyond 1/10 of the limitation must be indicated.
		※ 6	MHz	-	-	-							2nd	
		※ 6	MHz	-	-	-							3rd	
	Cable Loss	※ 5	dB	1.31	1.31	1.31							1st	
		※ 5	dB	-	-	-							2nd	
		※ 5	dB	-	-	-							3rd	
		※ 6	dB	2.20	2.20	2.20							1st	
		※ 6	dB	-	-	-							2nd	
		※ 6	dB	-	-	-							3rd	
	Spectrum Raw	※ 5	dBm	-77.21	-77.12	-77.58							1st	
		※ 5	dBm	-	-	-							2nd	
		※ 5	dBm	-	-	-							3rd	
		※ 6	dBm	-52.65	-53.42	-54.03							1st	
		※ 6	dBm	-	-	-							2nd	
		※ 6	dBm	-	-	-							3rd	
	Spurious Emission Intensity	※ 5	dBm	-75.90	-75.81	-76.27							1st	Limit ≤ 4 nW (-54 dBm) RBW : 100 kHz ; VBW : 100 kHz
		※ 5	dBm	-	-	-							2nd	
		※ 5	dBm	-	-	-							3rd	
		※ 6	dBm	-50.45	-51.22	-51.83							1st	Limit ≤ 20 nW (-47 dBm) RBW : 1 MHz ; VBW : 1 MHz
		※ 6	dBm	-	-	-							2nd	
		※ 6	dBm	-	-	-							3rd	
	Spurious Emission Intensity	※ 5	nW	0.0257	0.0262	0.0236							Total Emission Power	
		※ 5	nW	0.0257	0.0262	0.0236							1st	Limit ≤ 4 nW (-54 dBm) RBW : 100 kHz ; VBW : 100 kHz
		※ 5	nW	-	-	-							2nd	
		※ 5	nW	-	-	-							3rd	
		※ 6	nW	9.0157	7.5509	6.5615							Total Emission Power	
		※ 6	nW	9.0157	7.5509	6.5615							1st	Limit ≤ 20 nW (-47 dBm) RBW : 1 MHz ; VBW : 1 MHz
※ 6		nW	-	-	-							2nd		
※ 6		nW	-	-	-							3rd		

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

7. Hopping Frequency Dwell Time

DH5	Test Voltage	V	Normal Voltage (3.3V)								Remarks
	Test Frequency	MHz	2402	2441	2480						Limit ≤ 0.4 sec (In 0.4 sec × spreading rate) RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz The total sum of holding time at arbitrary frequencies within the time multiplied 0.4 sec by the spreading rate
	Pulse Duration	msec	2.8800	2.8800	2.8800						
	Measurement Time	sec	31.86	31.86	31.86						
	Dwell Time	sec	0.3097	0.3097	0.3097						

8. Spread Factor

Spread Factor	Test Voltage	V	Normal Voltage (3.3V)			Remarks
	Test Frequency	MHz	2402 ~ 2480			
	Spread-Spectrum Bandwidth	MHz	79.65			
	Modulation Rate	Mcps	1.000			
	Spread Factor		79.650			Spread Factor Limit ≥ 5 (DSSS and FHSS)

Appendix B 19-BT-F1D

Sporton No.	JR342603-64AE
Test Date	2019/1/16
Test Location	SPORTON Lab.
Temp. / Humid.	25°C / 34%
Test Conducted By	Ron Huang
Department	Radio Service Group

1. General Information

Specified Radio Equipment	Class	Article 2 Paragraph 1 Item 19	Model	RTL8821AE	
	Type of Emission	F1D	Serial No.	NA	
	Modulation Type	GFSK	Antenna Power	0.222	mW/MHz
	Frequency	2422~2441 MHz			

2. Test Results

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)									Remarks
	Test Frequency	MHz	2422	2431	2441							Low/Mid/High of test frequency range
	Measured Frequency	MHz	2421.989	2430.988	2440.988							RBW : 30 kHz ; VBW : 30 kHz ; SP : 300kHz
	Frequency Error	ppm	-4.71	-4.94	-4.92							Limit ≤ 50 ppm
	Occupied Bandwidth	MHz	21.71									Limit ≤ 83.5 MHz (RBW/VBW : 1MHz)
	Spread-spectrum Bandwidth	MHz	20.54									Spread Factor Limit ≥ 5 (DSSS and FHSS)
	Unwanted Emission Intensity (Power emission within 1MHz bandwidth)	※ 1	μW/MHz	0.0069	0.0061	0.0062						Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	μW/MHz	0.0107	0.0086	0.0089						Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	μW/MHz	0.0080	0.0078	0.0091						Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	μW/MHz	0.0615	0.0740	0.0703						Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.222									Limit ≤ 3 mW/MHz (4.77 dBm/MHz)
	Antenna Power Error	mW/MHz	0.000									
		%	0.00									Limit + 20% ~ - 80%
	Limitation of Collateral Emission of Receiver	※ 5	nW	0.0204	0.0205	0.0262						Limit ≤ 4 nW (-54 dBm)
		※ 6	nW	8.8512	8.3176	7.5509						Limit ≤ 20 nW (-47 dBm)
	Hopping Frequency Dwell Time	sec	0.3155	0.3155	0.3155							Limit ≤ 0.4 sec (In 0.4 sec × spreading rate)
Radio Interference Prevention Function		ID Code	Good, MAC Address: 00-E0-4C-02-F0-A8									
		Carrier Sense	NR	NR	NR							NR: Not Require

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

3. Antenna Power (Conducted Power)

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)									Remarks
	Test Frequency	MHz	2422~2441 MHz									
	Power Meter Raw from EUT	dBm	6.59									
	Duty Cycle Factor	dB	0.00									Duty Factor = 10 × 10Log ₁₀ (1/Duty Cycle)
	Spreading Bandwidth Factor	dB	-13.13									BW Factor = 10 × 10Log ₁₀ (1/Spreading BW)
	Antenna Power (Conducted)	dBm/MHz	-6.54									Limit ≤ 3 mW/MHz (4.77 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.222									
	Antenna Power Error	mW	0.000									
		%	0.00									Limit + 20% ~ - 80%
	Transmitter ON _{Time}	msec	1.0000									RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz
	Transmitter (ON+OFF) _{Time}	msec	1.0000									
	Transmitter Duty Cycle	%	100.00%									

4. Transmission Radiation Angle Width (Note: This test item will not be applied to EIRP power of EUT is lower than 6.91dBm/MHz.)

No.	Antenna Power		Antenna			Cable			Total Gain D=B+C	EIRP F=A+D	Permitted Angle	Judgement	Remarks (Antenna Model)
	A	Type	Gain B	3dB Beam-width Horizontal	3dB Beam-width Vertical	Model	Length	Loss C					
	(dBm/MHz)		(dBi)	(Degree)	(Degree)		(m)	(dB)	(dBi)	(dBm/MHz)	(Degree)		
1	0.22	PIFA	3.50	-	-	-	-	0.00	3.50	3.72	360.00	Good	ALA110-222050-300010
2	0.22	DIPOLE	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	TWF-614XMPXX-500
3	0.22	SLOT	3.33	-	-	-	-	0.00	3.33	3.55	360.00	Good	PANT-001
4	0.22	PIFA	0.85	-	-	-	-	0.00	0.85	1.07	360.00	Good	SKW10WMPB01+A
5	0.22	PIFA	0.42	-	-	-	-	0.00	0.42	0.64	360.00	Good	SK65EWMPO1+A
6	0.22	PIFA	2.72	-	-	-	-	0.00	2.72	2.94	360.00	Good	DC33001AD00
7	0.22	PIFA	0.87	-	-	-	-	0.00	0.87	1.09	360.00	Good	DC33001AC00
8	0.22	PIFA	2.08	-	-	-	-	0.00	2.08	2.30	360.00	Good	L01RF019-DT-R (31-502717)
9	0.22	PIFA	1.36	-	-	-	-	0.00	1.36	1.58	360.00	Good	SKAEUWMPB01+B
10	0.22	PIFA	0.82	-	-	-	-	0.00	0.82	1.04	360.00	Good	SKA91WMPB02+A
11	0.22	PIFA	2.14	-	-	-	-	0.00	2.14	2.36	360.00	Good	W550EU WM-1
12	0.22	PIFA	-0.63	-	-	-	-	0.00	-0.63	-0.41	360.00	Good	APP6P-700781
13	0.22	PIFA	-0.13	-	-	-	-	0.00	-0.13	0.09	360.00	Good	ATM6P-70100
14	0.22	PIFA	-0.58	-	-	-	-	0.00	-0.58	-0.36	360.00	Good	DQ6G15G5800
15	0.22	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.48	360.00	Good	DQ60QTL1200
16	0.22	PIFA	1.15	-	-	-	-	0.00	1.15	1.37	360.00	Good	81.EKG15.G30
17	0.22	PIFA	0.90	-	-	-	-	0.00	0.90	1.12	360.00	Good	CAN4313LC0613WLA4
18	0.22	PIFA	0.60	-	-	-	-	0.00	0.60	0.82	360.00	Good	81.EKG15.G37
19	0.22	PIFA	1.89	-	-	-	-	0.00	1.89	2.11	360.00	Good	PANT11A00008-1
20	0.22	PIFA	0.60	-	-	-	-	0.00	0.60	0.82	360.00	Good	WDAN-T1RH2
21	0.22	PIFA	0.21	-	-	-	-	0.00	0.21	0.43	360.00	Good	SKX71WMPB01+B
22	0.22	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.07	360.00	Good	L01RF009-R
23	0.22	PIFA	0.72	-	-	-	-	0.00	0.72	0.94	360.00	Good	SKW25WMPB01+A
24	0.22	PIFA	-0.17	-	-	-	-	0.00	-0.17	0.05	360.00	Good	SK549WMPB01+A
25	0.22	PIFA	2.53	-	-	-	-	0.00	2.53	2.75	360.00	Good	W350ETQ WM-2
26	0.22	PIFA	-1.28	-	-	-	-	0.00	-1.28	-1.06	360.00	Good	SKW34WMPB02+A
27	0.22	PIFA	2.60	-	-	-	-	0.00	2.60	2.82	360.00	Good	JA-120266
28	0.22	PIFA	0.24	-	-	-	-	0.00	0.24	0.46	360.00	Good	25.90AH8.001
29	0.22	PIFA	1.28	-	-	-	-	0.00	1.28	1.50	360.00	Good	25.90AH8.011
30	0.22	PIFA	-0.27	-	-	-	-	0.00	-0.27	-0.05	360.00	Good	25.90AH8.021
31	0.22	PIFA	-0.11	-	-	-	-	0.00	-0.11	0.11	360.00	Good	25.90AJB.001
32	0.22	PIFA	-1.14	-	-	-	-	0.00	-1.14	-0.92	360.00	Good	25.90AJC.001
33	0.22	PIFA	2.74	-	-	-	-	0.00	2.74	2.96	360.00	Good	25.90ALR.001
34	0.22	PIFA	1.91	-	-	-	-	0.00	1.91	2.13	360.00	Good	25.90AAK.001
35	0.22	PIFA	1.29	-	-	-	-	0.00	1.29	1.51	360.00	Good	25.90AAL.011
36	0.22	PIFA	-2.20	-	-	-	-	0.00	-2.20	-1.98	360.00	Good	25.90ALR.011
37	0.22	PIFA	-0.60	-	-	-	-	0.00	-0.60	-0.38	360.00	Good	25.90AJC.011
38	0.22	PIFA	1.59	-	-	-	-	0.00	1.59	1.81	360.00	Good	25.90AJC.011
39	0.22	PIFA	1.33	-	-	-	-	0.00	1.33	1.55	360.00	Good	ATP6P -700001
40	0.22	Dipole	0.45	-	-	-	-	0.00	0.45	0.67	360.00	Good	DAM-14-H-DB-800-10-17
41	0.22	PIFA	1.05	-	-	-	-	0.00	1.05	1.27	360.00	Good	SK110WMPB01+A
42	0.22	PIFA	-1.61	-	-	-	-	0.00	-1.61	-1.39	360.00	Good	SKW23WMPB01+A
43	0.22	PIFA	0.20	-	-	-	-	0.00	0.20	0.42	360.00	Good	SK740WMPB02+A
44	0.22	PIFA	1.95	-	-	-	-	0.00	1.95	2.17	360.00	Good	APP6P-700968

45	0.22	PIFA	0.46	-	-	-	-	0.00	0.46	0.68	360.00	Good	SKCZTWMPB01+A
46	0.22	PIFA	1.48	-	-	-	-	0.00	1.48	1.70	360.00	Good	SK670WMPB01+A
47	0.22	PIFA	1.75	-	-	-	-	0.00	1.75	1.97	360.00	Good	K05007012102
48	0.22	PIFA	2.70	-	-	-	-	0.00	2.70	2.92	360.00	Good	K05007013402
49	0.22	PIFA	2.04	-	-	-	-	0.00	2.04	2.26	360.00	Good	K05007012803
50	0.22	PIFA	2.53	-	-	-	-	0.00	2.53	2.75	360.00	Good	K05007015501
51	0.22	PIFA	2.85	-	-	-	-	0.00	2.85	3.07	360.00	Good	K05007014501
52	0.22	PIFA	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	K05007014201
53	0.22	PIFA	1.85	-	-	-	-	0.00	1.85	2.07	360.00	Good	K05007014901
54	0.22	PIFA	1.94	-	-	-	-	0.00	1.94	2.16	360.00	Good	K05007015001
55	0.22	PIFA	2.23	-	-	-	-	0.00	2.23	2.45	360.00	Good	1510-0122-0022(1A-120073)
56	0.22	PIFA	0.78	-	-	-	-	0.00	0.78	1.00	360.00	Good	SK547WMPB02+A
57	0.22	PIFA	3.03	-	-	-	-	0.00	3.03	3.25	360.00	Good	SK840WMPB01+B_SN
58	0.22	PIFA	3.20	-	-	-	-	0.00	3.20	3.42	360.00	Good	SKX51WMPB01+C
59	0.22	PIFA	2.76	-	-	-	-	0.00	2.76	2.98	360.00	Good	SKX51WMPB02+C
60	0.22	PIFA	1.79	-	-	-	-	0.00	1.79	2.01	360.00	Good	SK81WMPB01+A
61	0.22	PIFA	2.88	-	-	-	-	0.00	2.88	3.10	360.00	Good	SKW2UWMPB01+A
62	0.22	PIFA	3.14	-	-	-	-	0.00	3.14	3.36	360.00	Good	SKW31WMPB01+A
63	0.22	PIFA	-1.84	-	-	-	-	0.00	-1.84	-1.62	360.00	Good	SKM11WMPB03+A
64	0.22	PIFA	2.91	-	-	-	-	0.00	2.91	3.13	360.00	Good	SKC45WMPB03+B
65	0.22	PIFA	3.17	-	-	-	-	0.00	3.17	3.39	360.00	Good	SKW24WMPB01+B
66	0.22	PIFA	0.76	-	-	-	-	0.00	0.76	0.98	360.00	Good	SK555WMPB01+B
67	0.22	PIFA	0.76	-	-	-	-	0.00	0.76	0.98	360.00	Good	SK94SWMPB01+B
68	0.22	PIFA	1.86	-	-	-	-	0.00	1.86	2.08	360.00	Good	SK94TWMPB01+B
69	0.22	PIFA	-0.03	-	-	-	-	0.00	-0.03	0.19	360.00	Good	SK50SWMPB01+A
70	0.22	PIFA	0.60	-	-	-	-	0.00	0.60	0.82	360.00	Good	APP6P-701010
71	0.22	PIFA	0.60	-	-	-	-	0.00	0.60	0.82	360.00	Good	WA-P-LB-02-094
72	0.22	PIFA	2.02	-	-	-	-	0.00	2.02	2.24	360.00	Good	25CA0-295000-J3R
73	0.22	PIFA	1.86	-	-	-	-	0.00	1.86	2.08	360.00	Good	SK94TWMPB01+D
74	0.22	PIFA	1.51	-	-	-	-	0.00	1.51	1.73	360.00	Good	RFA-25-AP158-70300AU
75	0.22	PIFA	0.49	-	-	-	-	0.00	0.49	0.71	360.00	Good	L01RF050-YT-R
76	0.22	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.07	360.00	Good	L01RF009-R
77	0.22	PIFA	-0.84	-	-	-	-	0.00	-0.84	-0.62	360.00	Good	14007-01300600
78	0.22	PIFA	-1.14	-	-	-	-	0.00	-1.14	-0.92	360.00	Good	APP6P-700944
79	0.22	DIPOLE	1.29	-	-	-	-	0.00	1.29	1.51	360.00	Good	14007-00410200
80	0.22	PIFA	-2.73	-	-	-	-	0.00	-2.73	-2.51	360.00	Good	C497-520058-A
81	0.22	PIFA	-2.79	-	-	-	-	0.00	-2.79	-2.57	360.00	Good	C497-520059-A
82	0.22	PIFA	1.95	-	-	-	-	0.00	1.95	2.17	360.00	Good	25CA0-210001-J7S/2000000000109
83	0.22	Dipole	1.76	-	-	-	-	0.00	1.76	1.98	360.00	Good	UC7WFI0005
84	0.22	PIFA	1.87	-	-	-	-	0.00	1.87	2.09	360.00	Good	F.0G.FS-6004-001(025.90035.0001)
85	0.22	PIFA	1.94	-	-	-	-	0.00	1.94	2.16	360.00	Good	025.9003R.0001(81.EBC15.GAJ)
86	0.22	PIFA	3.46	-	-	-	-	0.00	3.46	3.68	360.00	Good	UC7WFI0002A02
87	0.22	PIFA	1.57	-	-	-	-	0.00	1.57	1.79	360.00	Good	L01RF051-DT-R
88	0.22	PIFA	1.70	-	-	-	-	0.00	1.70	1.92	360.00	Good	L01RF054-DT-R
89	0.22	PIFA	1.01	-	-	-	-	0.00	1.01	1.23	360.00	Good	APP6P-701052
90	0.22	PIFA	2.74	-	-	-	-	0.00	2.74	2.96	360.00	Good	IA-130052
91	0.22	PIFA	1.78	-	-	-	-	0.00	1.78	2.00	360.00	Good	IAH-1400XX
92	0.22	PIFA	0.61	-	-	-	-	0.00	0.61	0.83	360.00	Good	APP6P-701052
93	0.22	PIFA	-0.27	-	-	-	-	0.00	-0.27	-0.05	360.00	Good	APP6P-701162
94	0.22	PIFA	2.81	-	-	-	-	0.00	2.81	3.03	360.00	Good	IA-140029
95	0.22	PIFA	2.74	-	-	-	-	0.00	2.74	2.96	360.00	Good	1510-0119-0205
96	0.22	PIFA	-0.97	-	-	-	-	0.00	-0.97	-0.75	360.00	Good	25.90AH1.001 (81.EEW15.GAT)
97	0.22	PIFA	-0.97	-	-	-	-	0.00	-0.97	-0.75	360.00	Good	81.EEW15.GAT
98	0.22	PIFA	1.85	-	-	-	-	0.00	1.85	2.07	360.00	Good	APP6P-701213
99	0.22	PIFA	1.64	-	-	-	-	0.00	1.64	1.86	360.00	Good	MSA-3409-25GC1-A1
100	0.22	PIFA	0.41	-	-	-	-	0.00	0.41	0.63	360.00	Good	WA-P-LB-01-101
101	0.22	PIFA	0.84	-	-	-	-	0.00	0.84	1.06	360.00	Good	LA05RF805-1H
102	0.22	PIFA	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	MSA-3822-25GC1-A1
103	0.22	PIFA	1.74	-	-	-	-	0.00	1.74	1.96	360.00	Good	SE-ECA10-002
104	0.22	PIFA	2.66	-	-	-	-	0.00	2.66	2.88	360.00	Good	DC33001M000 / T-543-9021035-1
105	0.22	PIFA	1.61	-	-	-	-	0.00	1.61	1.83	360.00	Good	SE-ECVY3-001
106	0.22	PIFA	1.79	-	-	-	-	0.00	1.79	2.01	360.00	Good	T-543-9021013-A
107	0.22	PIFA	0.52	-	-	-	-	0.00	0.52	0.74	360.00	Good	0ACCN013037
108	0.22	PIFA	-0.43	-	-	-	-	0.00	-0.43	-0.21	360.00	Good	L01RF039-DT-R
109	0.22	PIFA	1.82	-	-	-	-	0.00	1.82	2.04	360.00	Good	APP6P-701194
110	0.22	PIFA	2.73	-	-	-	-	0.00	2.73	2.95	360.00	Good	IAH-140030
111	0.22	PIFA	2.98	-	-	-	-	0.00	2.98	3.20	360.00	Good	IAH-140030
112	0.22	PIFA	1.82	-	-	-	-	0.00	1.82	2.04	360.00	Good	APP6P-701194
113	0.22	PIFA	2.20	-	-	-	-	0.00	2.20	2.42	360.00	Good	APP6P-701233
114	0.22	PIFA	1.31	-	-	-	-	0.00	1.31	1.53	360.00	Good	1415-040A000/ ANTA02P09021WLAN1
115	0.22	PIFA	1.08	-	-	-	-	0.00	1.08	1.30	360.00	Good	DC33001NS00 / APP6Y-700054
116	0.22	PIFA	0.94	-	-	-	-	0.00	0.94	1.16	360.00	Good	260-24055
117	0.22	PIFA	-0.45	-	-	-	-	0.00	-0.45	-0.23	360.00	Good	DC330010600 (81EAAS15.G72)
118	0.22	PIFA	1.99	-	-	-	-	0.00	1.99	2.21	360.00	Good	APP6P-701314
119	0.22	PIFA	-1.36	-	-	-	-	0.00	-1.36	-1.14	360.00	Good	APM6Y-700023
120	0.22	PIFA	2.74	-	-	-	-	0.00	2.74	2.96	360.00	Good	LB001LC018
121	0.22	PIFA	0.82	-	-	-	-	0.00	0.82	1.04	360.00	Good	DC330160310
122	0.22	PIFA	1.27	-	-	-	-	0.00	1.27	1.49	360.00	Good	DC330017L00
123	0.22	PIFA	1.25	-	-	-	-	0.00	1.25	1.47	360.00	Good	DC330017G10
124	0.22	PIFA	1.83	-	-	-	-	0.00	1.83	2.05	360.00	Good	DC330160410
125	0.22	PIFA	1.60	-	-	-	-	0.00	1.60	1.82	360.00	Good	DC330017L00
126	0.22	PIFA	2.85	-	-	-	-	0.00	2.85	3.07	360.00	Good	DC330017J10
127	0.22	PIFA	-0.20	-	-	-	-	0.00	-0.20	0.02	360.00	Good	LB302LC302
128	0.22	PIFA	0.10	-	-	-	-	0.00	0.10	0.32	360.00	Good	T-543-3010220-1
129	0.22	PIFA	-1.33	-	-	-	-	0.00	-1.33	-1.11	360.00	Good	N1P6Y-200001
130	0.22	PIFA	0.61	-	-	-	-	0.00	0.61	0.83	360.00	Good	N1P6Y-200000
131	0.22	PIFA	1.58	-	-	-	-	0.00	1.58	1.80	360.00	Good	DQ6S15G7300 (81EAAS15.G73)
132	0.22	PIFA	0.45	-	-	-	-	0.00	0.45	0.67	360.00	Good	DQ6S15G7700 (81EAAS15.G77)
133	0.22	PIFA	0.79	-	-	-	-	0.00	0.79	1.01	360.00	Good	DQ601008900
134	0.22	PIFA	-0.88	-	-	-	-	0.00	-0.88	-0.66	360.00	Good	DQ601009700
135	0.22	PIFA	-0.44	-	-	-	-	0.00	-0.44	-0.22	360.00	Good	APP6Y-700261
136	0.22	PIFA	1.64	-	-	-	-	0.00	1.64	1.86	360.00	Good	DQ6S15G7400
137	0.22	PIFA	2.98	-	-	-	-	0.00	2.98	3.20	360.00	Good	0ACCN015004N
138	0.22	PIFA	0.21	-	-	-	-	0.00	0.21	0.43	360.00	Good	T-543-9021077-1
139	0.22	PIFA	1.60	-	-	-	-	0.00	1.60	1.82	360.00	Good	AAM6Y-200002

140	0.22	PIFA	2.49	-	-	-	-	0.00	2.49	2.71	360.00	Good	IAH150012
141	0.22	PIFA	2.90	-	-	-	-	0.00	2.90	3.12	360.00	Good	81800T029
142	0.22	PIFA	0.32	-	-	-	-	0.00	0.32	0.54	360.00	Good	L01RF056-DT-R
143	0.22	PIFA	-1.90	-	-	-	-	0.00	-1.90	-1.68	360.00	Good	L01RF064-DT-R
144	0.22	PIFA	0.36	-	-	-	-	0.00	0.36	0.58	360.00	Good	025.900CR.0001
145	0.22	PIFA	2.23	-	-	-	-	0.00	2.23	2.45	360.00	Good	025.900CR.0011
146	0.22	PIFA	1.00	-	-	-	-	0.00	1.00	1.22	360.00	Good	025.900CP.0001
147	0.22	PIFA	-2.21	-	-	-	-	0.00	-2.21	-1.99	360.00	Good	025.9006P.0001
148	0.22	PIFA	-0.84	-	-	-	-	0.00	-0.84	-0.62	360.00	Good	025.9006P.0011
149	0.22	PIFA	2.46	-	-	-	-	0.00	2.46	2.68	360.00	Good	IAH-150012
150	0.22	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.18	360.00	Good	L01RF072-DT-R/ L01RF031-DT-R
151	0.22	PIFA	1.92	-	-	-	-	0.00	1.92	2.14	360.00	Good	AAP6Y-100000
152	0.22	PIFA	1.61	-	-	-	-	0.00	1.61	1.83	360.00	Good	T-543-9021081-1
153	0.22	PIFA	1.94	-	-	-	-	0.00	1.94	2.16	360.00	Good	AAP6Y-100004
154	0.22	PIFA	2.43	-	-	-	-	0.00	2.43	2.65	360.00	Good	T-543-9021080-1
155	0.22	PIFA	-1.29	-	-	-	-	0.00	-1.29	-1.07	360.00	Good	260-26073
156	0.22	PIFA	1.40	-	-	-	-	0.00	1.40	1.62	360.00	Good	LOERF003-DT-R (025.900BR.0001)
157	0.22	PIFA	1.78	-	-	-	-	0.00	1.78	2.00	360.00	Good	DC33001EH00
158	0.22	PIFA	0.61	-	-	-	-	0.00	0.61	0.83	360.00	Good	DC33001EI10
159	0.22	PIFA	1.75	-	-	-	-	0.00	1.75	1.97	360.00	Good	DC33001DU00
160	0.22	PIFA	1.69	-	-	-	-	0.00	1.69	1.91	360.00	Good	DC33001DX00
161	0.22	PIFA	2.08	-	-	-	-	0.00	2.08	2.30	360.00	Good	DC33001DV00
162	0.22	PIFA	1.86	-	-	-	-	0.00	1.86	2.08	360.00	Good	DC33001DW00
163	0.22	PIFA	0.95	-	-	-	-	0.00	0.95	1.17	360.00	Good	DC33001DB00
164	0.22	PIFA	1.87	-	-	-	-	0.00	1.87	2.09	360.00	Good	DC33001D900
165	0.22	PIFA	0.10	-	-	-	-	0.00	0.10	0.32	360.00	Good	UC7WFI0009A
166	0.22	Dipole	2.56	-	-	-	-	0.00	2.56	2.78	360.00	Good	RFA-25-C2M2-M10-1
167	0.22	PIFA	0.64	-	-	-	-	0.00	0.64	0.86	360.00	Good	OACCN014009N (DC33001MI00)
168	0.22	PIFA	0.74	-	-	-	-	0.00	0.74	0.96	360.00	Good	T-543-9021043-1 (DC33001MD00)
169	0.22	PIFA	-2.10	-	-	-	-	0.00	-2.10	-1.88	360.00	Good	ADP6Y-100003
170	0.22	PIFA	2.38	-	-	-	-	0.00	2.38	2.60	360.00	Good	APM6Y-700021
171	0.22	PIFA	0.53	-	-	-	-	0.00	0.53	0.75	360.00	Good	025.900ED.0011
172	0.22	PIFA	1.95	-	-	-	-	0.00	1.95	2.17	360.00	Good	025.900ED.0001
173	0.22	Dipole	2.40	-	-	-	-	0.00	2.40	2.62	360.00	Good	T000CCD-80
174	0.22	Dipole	2.30	-	-	-	-	0.00	2.30	2.52	360.00	Good	T000CCD-250
175	0.22	Dipole	2.46	-	-	-	-	0.00	2.46	2.68	360.00	Good	RFDPA870918EMLB302
176	0.22	Dipole	2.44	-	-	-	-	0.00	2.44	2.66	360.00	Good	RFDPA870940EMLB303
177	0.22	PIFA	-1.36	-	-	-	-	0.00	-1.36	-1.14	360.00	Good	APM6Y-700023
178	0.22	PIFA	-1.68	-	-	-	-	0.00	-1.68	-1.46	360.00	Good	WA-M-LB-02-087
179	0.22	PIFA	-1.29	-	-	-	-	0.00	-1.29	-1.07	360.00	Good	14008-01320100
180	0.22	PIFA	1.94	-	-	-	-	0.00	1.94	2.16	360.00	Good	ANP6P-100002
181	0.22	PIFA	-1.68	-	-	-	-	0.00	-1.68	-1.46	360.00	Good	WA-M-LB-01-059
182	0.22	PIFA	-1.21	-	-	-	-	0.00	-1.21	-0.99	360.00	Good	025.900G0.0001
183	0.22	PIFA	-1.67	-	-	-	-	0.00	-1.67	-1.45	360.00	Good	025.900G0.0011
184	0.22	PIFA	0.66	-	-	-	-	0.00	0.66	0.88	360.00	Good	025.900FJ.0011
185	0.22	PIFA	0.13	-	-	-	-	0.00	0.13	0.35	360.00	Good	025.900FJ.0001
186	0.22	Dipole	2.42	-	-	-	-	0.00	2.42	2.64	360.00	Good	RFDPA870900SMLB801+RFCBA100618SF6B302
187	0.22	Dipole	2.06	-	-	-	-	0.00	2.06	2.28	360.00	Good	RFDPA870900SMLB801+RFCBA100640SF6B302
188	0.22	PIFA	1.10	-	-	-	-	0.00	1.10	1.32	360.00	Good	WA-P-LB-02-311
189	0.22	PIFA	1.68	-	-	-	-	0.00	1.68	1.90	360.00	Good	DC33001V100
190	0.22	PIFA	0.08	-	-	-	-	0.00	0.08	0.30	360.00	Good	DC33001V110
191	0.22	PIFA	1.34	-	-	-	-	0.00	1.34	1.56	360.00	Good	025.900I2.0011
192	0.22	PIFA	2.57	-	-	-	-	0.00	2.57	2.79	360.00	Good	025.900I4.0011
193	0.22	PIFA	1.44	-	-	-	-	0.00	1.44	1.66	360.00	Good	AAP6Y-100027
194	0.22	PIFA	1.82	-	-	-	-	0.00	1.82	2.04	360.00	Good	AAP6Y-100027
195	0.22	PIFA	-1.69	-	-	-	-	0.00	-1.69	-1.47	360.00	Good	DQ61QNL3P00 (WDAN-1QNL3P32-DH)
196	0.22	PIFA	-0.64	-	-	-	-	0.00	-0.64	-0.42	360.00	Good	L01RF075-DT-R
197	0.22	PIFA	1.92	-	-	-	-	0.00	1.92	2.14	360.00	Good	025.900I2.0001
198	0.22	PIFA	1.87	-	-	-	-	0.00	1.87	2.09	360.00	Good	025.900I4.0001
199	0.22	PIFA	0.73	-	-	-	-	0.00	0.73	0.95	360.00	Good	HHA14WIPB01+A(43R-A14001-0300)
200	0.22	PIFA	1.54	-	-	-	-	0.00	1.54	1.76	360.00	Good	HHA15WIPB02+C(43R-A15001-0300)
201	0.22	PIFA	1.17	-	-	-	-	0.00	1.17	1.39	360.00	Good	HHA15WIPB03+B(43R-A15001-0320)
202	0.22	PIFA	1.50	-	-	-	-	0.00	1.50	1.72	360.00	Good	HHB11WIPB02+B
203	0.22	PIFA	0.85	-	-	-	-	0.00	0.85	1.07	360.00	Good	HHB14WIPB03+A
204	0.22	PIFA	2.23	-	-	-	-	0.00	2.23	2.45	360.00	Good	HHD18WIPB02+C(43R-DA1801-0310)
205	0.22	PIFA	1.17	-	-	-	-	0.00	1.17	1.39	360.00	Good	AWPD23F-074A4031
206	0.22	PIFA	0.61	-	-	-	-	0.00	0.61	0.83	360.00	Good	AWPD23F-074B4031
207	0.22	PIFA	-4.82	-	-	-	-	0.00	-4.82	-4.60	360.00	Good	AWPD24F-074B4031
208	0.22	PIFA	0.04	-	-	-	-	0.00	0.04	0.26	360.00	Good	AWPD25F-074B4031
209	0.22	PIFA	1.62	-	-	-	-	0.00	1.62	1.84	360.00	Good	HHDH9WIPB02+B(43R-DH9BW1-0310)
210	0.22	PIFA	-0.07	-	-	-	-	0.00	-0.07	0.15	360.00	Good	HHDS4WIPB01+A(43R-DS4701-0300)
211	0.22	PIFA	3.02	-	-	-	-	0.00	3.02	3.24	360.00	Good	HHE10WIPB01+C(43R-E10001-0301)
212	0.22	PIFA	2.61	-	-	-	-	0.00	2.61	2.83	360.00	Good	HHT13WIPB01+A(43R-E10BT1-0300)
213	0.22	PIFA	1.82	-	-	-	-	0.00	1.82	2.04	360.00	Good	AWPD22F-074I4031
214	0.22	PIFA	3.13	-	-	-	-	0.00	3.13	3.35	360.00	Good	AWPD22F-074J4031
215	0.22	PIFA	1.38	-	-	-	-	0.00	1.38	1.60	360.00	Good	HHW08WIPB01+B(43R-H14BW1-0300)
216	0.22	PIFA	-1.74	-	-	-	-	0.00	-1.74	-1.52	360.00	Good	AWPD18F-074A4031
217	0.22	PIFA	-2.61	-	-	-	-	0.00	-2.61	-2.39	360.00	Good	AWPD25F-074C4031
218	0.22	PIFA	3.13	-	-	-	-	0.00	3.13	3.35	360.00	Good	AWPD22F-074J4031
219	0.22	PIFA	0.70	-	-	-	-	0.00	0.70	0.92	360.00	Good	AWPD18F-074A4031
220	0.22	PIFA	2.65	-	-	-	-	0.00	2.65	2.87	360.00	Good	HHNH5WIPB01+A(43R-NH5001-0300)
221	0.22	PIFA	2.60	-	-	-	-	0.00	2.60	2.82	360.00	Good	HHNI3WIPB01+A(43R-NI3BT1-0300)
222	0.22	PIFA	1.62	-	-	-	-	0.00	1.62	1.84	360.00	Good	HHU01WIPB01+A(43R-NUCBU1-0300)
223	0.22	PIFA	2.28	-	-	-	-	0.00	2.28	2.50	360.00	Good	HHT03WIPB02+A
224	0.22	PIFA	2.49	-	-	-	-	0.00	2.49	2.71	360.00	Good	HHW03WIPB01+B(43R-SFFBW1-0300)
225	0.22	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.48	360.00	Good	43R-SFFBT1-2110
226	0.22	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.48	360.00	Good	43R-SFFBW1-2110
227	0.22	PIFA	1.29	-	-	-	-	0.00	1.29	1.51	360.00	Good	AWPD18F-074G4031
228	0.22	PIFA	2.67	-	-	-	-	0.00	2.67	2.89	360.00	Good	HHL06WIPB01+A(43R-WA0ML1-0300)
229	0.22	PIFA	2.78	-	-	-	-	0.00	2.78	3.00	360.00	Good	HHWA0WIPB02+D(43R-WA0TM1-0310)
230	0.22	PIFA	2.35	-	-	-	-	0.00	2.35	2.57	360.00	Good	HHXS3WIPB01+C(43R-XS3501-0300)
231	0.22	PIFA	3.11	-	-	-	-	0.00	3.11	3.33	360.00	Good	HHN08WIPB01+D
232	0.22	Dipole	2.32	-	-	-	-	0.00	2.32	2.54	360.00	Good	RFDPA870900SBLB808
233	0.22	Dipole	2.20	-	-	-	-	0.00	2.20	2.42	360.00	Good	RFDPA870900SMLB801
234	0.22	Dipole	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	RFDPA870911EMLB301
235	0.22	Dipole	2.87	-	-	-	-	0.00	2.87	3.09	360.00	Good	RFDPA870914EMLB301

236	0.22	Dipole	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	RFDPA870914EMLB302
237	0.22	Dipole	3.00	-	-	-	-	0.00	3.00	3.22	360.00	Good	RFDPA870940EMLB304
238	0.22	PIFA	1.00	-	-	-	-	0.00	1.00	1.22	360.00	Good	HHE14WIPB03+A(43R-E14D31-0301)
239	0.22	PIFA	0.61	-	-	-	-	0.00	0.61	0.83	360.00	Good	RFMTA331211EMLB301
240	0.22	PIFA	1.62	-	-	-	-	0.00	1.62	1.84	360.00	Good	RFMTA331229EMLB301
241	0.22	PIFA	2.47	-	-	-	-	0.00	2.47	2.69	360.00	Good	RFA-25-AP252-70-500
242	0.22	PIFA	-0.30	-	-	-	-	0.00	-0.30	-0.08	360.00	Good	ANP6Y-100113
243	0.22	PIFA	1.66	-	-	-	-	0.00	1.66	1.88	360.00	Good	AAP6Y-100023
244	0.22	PIFA	2.19	-	-	-	-	0.00	2.19	2.41	360.00	Good	0ACCN015036N
245	0.22	PIFA	3.11	-	-	-	-	0.00	3.11	3.33	360.00	Good	BAUKO1730B-M
246	0.22	PIFA	0.50	-	-	-	-	0.00	0.50	0.72	360.00	Good	DQ6U15G7100
247	0.22	PIFA	1.85	-	-	-	-	0.00	1.85	2.07	360.00	Good	DQ6U15G6500
248	0.22	PIFA	2.81	-	-	-	-	0.00	2.81	3.03	360.00	Good	DQ6U15G7700
249	0.22	PIFA	1.95	-	-	-	-	0.00	1.95	2.17	360.00	Good	DQ6U15G7900
250	0.22	PIFA	0.38	-	-	-	-	0.00	0.38	0.60	360.00	Good	ANP6Y-100071
251	0.22	PIFA	-0.68	-	-	-	-	0.00	-0.68	-0.46	360.00	Good	0ACCN015030N
252	0.22	PIFA	0.05	-	-	-	-	0.00	0.05	0.27	360.00	Good	T-543-9021113-2
253	0.22	PIFA	-0.39	-	-	-	-	0.00	-0.39	-0.17	360.00	Good	ANP6Y-100073
254	0.22	PIFA	-0.51	-	-	-	-	0.00	-0.51	-0.29	360.00	Good	0ACCN015032N
255	0.22	PIFA	0.09	-	-	-	-	0.00	0.09	0.31	360.00	Good	T-543-9021114-2
256	0.22	PIFA	-0.34	-	-	-	-	0.00	-0.34	-0.12	360.00	Good	F.0G.UH-6008-004-00
257	0.22	PIFA	0.33	-	-	-	-	0.00	0.33	0.55	360.00	Good	T-543-9021106-3
258	0.22	PIFA	-0.34	-	-	-	-	0.00	-0.34	-0.12	360.00	Good	F.0G.UH-6008-004-00
259	0.22	PIFA	2.57	-	-	-	-	0.00	2.57	2.79	360.00	Good	WA-F-LB-02-089
260	0.22	PIFA	0.06	-	-	-	-	0.00	0.06	0.28	360.00	Good	T-543-9021105-3
261	0.22	PIFA	0.19	-	-	-	-	0.00	0.19	0.41	360.00	Good	T-543-9021104-1
262	0.22	PIFA	0.20	-	-	-	-	0.00	0.20	0.42	360.00	Good	T-543-9021103-A
263	0.22	Dipole	2.38	-	-	-	-	0.00	2.38	2.60	360.00	Good	AN2450-5706RS
264	0.22	Dipole	2.38	-	-	-	-	0.00	2.38	2.60	360.00	Good	AN2450-5706RS
265	0.22	PIFA	0.94	-	-	-	-	0.00	0.94	1.16	360.00	Good	APP6Y-700127
266	0.22	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.07	360.00	Good	ANTA0ZP09041WLAN4
267	0.22	PIFA	1.35	-	-	-	-	0.00	1.35	1.57	360.00	Good	DC33001F400
268	0.22	PIFA	2.92	-	-	-	-	0.00	2.92	3.14	360.00	Good	DC33001F510
269	0.22	PIFA	1.57	-	-	-	-	0.00	1.57	1.79	360.00	Good	DC33001F700
270	0.22	PIFA	2.41	-	-	-	-	0.00	2.41	2.63	360.00	Good	DC33001F610
271	0.22	PIFA	1.71	-	-	-	-	0.00	1.71	1.93	360.00	Good	DC33001FB00
272	0.22	PIFA	2.14	-	-	-	-	0.00	2.14	2.36	360.00	Good	DC33001FA00
273	0.22	PIFA	1.21	-	-	-	-	0.00	1.21	1.43	360.00	Good	DC33001F110
274	0.22	PIFA	1.52	-	-	-	-	0.00	1.52	1.74	360.00	Good	DC33001EX00
275	0.22	PIFA	-1.60	-	-	-	-	0.00	-1.60	-1.38	360.00	Good	DC33001EW10
276	0.22	PIFA	0.73	-	-	-	-	0.00	0.73	0.95	360.00	Good	DC33001F210
277	0.22	PIFA	1.56	-	-	-	-	0.00	1.56	1.78	360.00	Good	DC33001EY00
278	0.22	PIFA	2.94	-	-	-	-	0.00	2.94	3.16	360.00	Good	DC33001EZ10
279	0.22	PIFA	0.87	-	-	-	-	0.00	0.87	1.09	360.00	Good	DC33001F000
280	0.22	PIFA	1.46	-	-	-	-	0.00	1.46	1.68	360.00	Good	DC33001F300
281	0.22	PIFA	1.20	-	-	-	-	0.00	1.20	1.42	360.00	Good	JUM2452PO VX1
282	0.22	PIFA	1.27	-	-	-	-	0.00	1.27	1.49	360.00	Good	350502200-600-G
283	0.22	PIFA	2.06	-	-	-	-	0.00	2.06	2.28	360.00	Good	DC330018D00
284	0.22	PIFA	1.21	-	-	-	-	0.00	1.21	1.43	360.00	Good	290-40253
285	0.22	PIFA	0.70	-	-	-	-	0.00	0.70	0.92	360.00	Good	HHDS6WIPB01+A
286	0.22	PIFA	-0.46	-	-	-	-	0.00	-0.46	-0.24	360.00	Good	HH02UWIPB01+B
287	0.22	PIFA	-2.02	-	-	-	-	0.00	-2.02	-1.80	360.00	Good	HHW0LWIPB01+D
288	0.22	PIFA	3.29	-	-	-	-	0.00	3.29	3.51	360.00	Good	HH02AWIPB01+A
289	0.22	PIFA	1.71	-	-	-	-	0.00	1.71	1.93	360.00	Good	HHW01WIPB01+B
290	0.22	PIFA	2.31	-	-	-	-	0.00	2.31	2.53	360.00	Good	HHW08WIPB01+B
291	0.22	PIFA	1.62	-	-	-	-	0.00	1.62	1.84	360.00	Good	HHX50WIPB01+B
292	0.22	PIFA	0.52	-	-	-	-	0.00	0.52	0.74	360.00	Good	HHX50WIPB01+B
293	0.22	PIFA	2.81	-	-	-	-	0.00	2.81	3.03	360.00	Good	HHX90WIPB02+A
294	0.22	PIFA	-1.75	-	-	-	-	0.00	-1.75	-1.53	360.00	Good	HHE03WIPB01+D
295	0.22	PIFA	0.93	-	-	-	-	0.00	0.93	1.15	360.00	Good	HHE23WIPB01+A
296	0.22	PIFA	1.95	-	-	-	-	0.00	1.95	2.17	360.00	Good	HHCT3WIPB01+A
297	0.22	PIFA	0.35	-	-	-	-	0.00	0.35	0.57	360.00	Good	HH5V5WIPB01+A
298	0.22	Dipole	2.25	-	-	-	-	0.00	2.25	2.47	360.00	Good	HHXPCAPDI01+A
299	0.22	Dipole	2.21	-	-	-	-	0.00	2.21	2.43	360.00	Good	HHXPCAPDI02+A
300	0.22	PIFA	2.41	-	-	-	-	0.00	2.41	2.63	360.00	Good	610-INNEP0005-A
301	0.22	PIFA	2.89	-	-	-	-	0.00	2.89	3.11	360.00	Good	610-INNEP0002-A
302	0.22	PIFA	2.80	-	-	-	-	0.00	2.80	3.02	360.00	Good	610-INNEP0004-A
303	0.22	PIFA	0.28	-	-	-	-	0.00	0.28	0.50	360.00	Good	ANTA0AA11131WLAN1
304	0.22	PIFA	2.98	-	-	-	-	0.00	2.98	3.20	360.00	Good	AJDP2J-B0004
305	0.22	PIFA	2.77	-	-	-	-	0.00	2.77	2.99	360.00	Good	AJDP2J-C0002
306	0.22	PIFA	2.37	-	-	-	-	0.00	2.37	2.59	360.00	Good	ALA160-222022-000002
307	0.22	PIFA	-1.18	-	-	-	-	0.00	-1.18	-0.96	360.00	Good	ANP6P-100005
308	0.22	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.48	360.00	Good	LA05RF895-1H
309	0.22	PIFA	1.30	-	-	-	-	0.00	1.30	1.52	360.00	Good	DC33001GA00
310	0.22	PIFA	2.87	-	-	-	-	0.00	2.87	3.09	360.00	Good	DC33001GB00
311	0.22	PIFA	2.45	-	-	-	-	0.00	2.45	2.67	360.00	Good	M01-50908019-R
312	0.22	PIFA	2.80	-	-	-	-	0.00	2.80	3.02	360.00	Good	DC33001GP00
313	0.22	PIFA	0.65	-	-	-	-	0.00	0.65	0.87	360.00	Good	DC33001GV00
314	0.22	PIFA	-1.00	-	-	-	-	0.00	-1.00	-0.78	360.00	Good	DC33001GX00
315	0.22	PIFA	1.66	-	-	-	-	0.00	1.66	1.88	360.00	Good	DC33001GM00
316	0.22	PIFA	2.56	-	-	-	-	0.00	2.56	2.78	360.00	Good	DC33001GK00
317	0.22	PIFA	2.89	-	-	-	-	0.00	2.89	3.11	360.00	Good	DC33001GQ00
318	0.22	PIFA	1.98	-	-	-	-	0.00	1.98	2.20	360.00	Good	DC33001GN00
319	0.22	PIFA	2.32	-	-	-	-	0.00	2.32	2.54	360.00	Good	DC33001GL00
320	0.22	PIFA	-0.28	-	-	-	-	0.00	-0.28	-0.06	360.00	Good	DC33001GD00
321	0.22	PIFA	-0.05	-	-	-	-	0.00	-0.05	0.17	360.00	Good	DC33001GC00
322	0.22	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.18	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
323	0.22	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.18	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
324	0.22	PIFA	0.45	-	-	-	-	0.00	0.45	0.67	360.00	Good	L01RF066-DT-R
325	0.22	PIFA	0.32	-	-	-	-	0.00	0.32	0.54	360.00	Good	L01RF066-DT-R
326	0.22	PIFA	-0.10	-	-	-	-	0.00	-0.10	0.12	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
327	0.22	PIFA	1.59	-	-	-	-	0.00	1.59	1.81	360.00	Good	L01RF091-DT-R/ L01RF092-DT-R
328	0.22	Dipole	2.96	-	-	-	-	0.00	2.96	3.18	360.00	Good	MA231.LBC.002
329	0.22	PIFA	-0.02	-	-	-	-	0.00	-0.02	0.20	360.00	Good	WSA.2458.A.301151
330	0.22	PIFA	2.96	-	-	-	-	0.00	2.96	3.18	360.00	Good	MA231.LBC.002

Appendix B 19-BT-F1D

Sporton No.	JR342603-64AE
Test Date	2019/1/16
Test Location	SPORTON Lab.
Temp. / Humid.	25°C / 34%
Test Conducted By	
Name	Ron Huang
Department	Radio Service Group

1. General Information

Specified Radio Equipment	Class	Article 2 Paragraph 1 Item 19	Model	RTL8821AE	
	Type of Emission	F1D	Serial No.	NA	
	Modulation Type	8DPSK	Antenna Power	0.078	mW/MHz
	Frequency	2402~2480 MHz			

2. Test Results

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)								Remarks
	Test Frequency	MHz	2402	2441	2480						Low/Mid/High of test frequency range
	Measured Frequency	MHz	2401.989	2440.988	2479.988						RBW : 30 kHz ; VBW : 30 kHz ; SP : 300kHz
	Frequency Error	ppm	-4.75	-4.92	-4.84						Limit ≤ 50 ppm
	Occupied Bandwidth	MHz	81.16								Limit ≤ 83.5 MHz (RBW/VBW : 1MHz)
	Spread-spectrum Bandwidth	MHz	79.66								Spread Factor Limit ≥ 5 (DSSS and FHSS)
	Unwanted Emission Intensity (Power emission within 1MHz bandwidth)	※ 1	μW/MHz	0.0076	0.0068	0.0060					Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	μW/MHz	24.7742	0.0104	0.0071					Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	μW/MHz	0.0086	0.0079	0.2716					Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	μW/MHz	0.0769	0.0659	0.0736					Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.078								Limit ≤ 3 mW/MHz (4.77 dBm/MHz)
	Antenna Power Error	mW/MHz	0.000								
		%	0.00								Limit + 20% ~ - 80%
	Limitation of Collateral Emission of Receiver	※ 5	nW	0.0256	0.0239	0.0206					Limit ≤ 4 nW (-54 dBm)
		※ 6	nW	8.4723	7.6033	6.4121					Limit ≤ 20 nW (-47 dBm)
	Hopping Frequency Dwell Time	sec	0.3098	0.3098	0.3098						Limit ≤ 0.4 sec (In 0.4 sec × spreading rate)
Radio Interference Prevention Function		ID Code	Good, MAC Address: 00-E0-4C-02-F0-A8								
		Carrier Sense	NR	NR	NR						NR: Not Require

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

3. Antenna Power (Conducted Power)

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)							Remarks
	Test Frequency	MHz	2402 ~ 2480							
	Power Meter Raw from EUT	dBm	7.95							
	Duty Cycle Factor	dB	0.00							Duty Factor = 10 × 10Log ₁₀ (1/Duty Cycle)
	Spreading Bandwidth Factor	dB	-19.01							BW Factor = 10 × 10Log ₁₀ (1/Spreading BW)
	Antenna Power (Conducted)	dBm/MHz	-11.06							Limit ≤ 3 mW/MHz (4.77 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.078							
	Antenna Power Error	mW/MHz	0.000							
		%	0.00							Limit + 20% ~ - 80%
	Transmitter ON _{Time}	msec	1.0000							RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz
	Transmitter (ON+OFF) _{Time}	msec	1.0000							
	Transmitter Duty Cycle	%	100.00%							

4. Transmission Radiation Angle Width (Note: This test item will not be applied to EIRP power of EUT is lower than 6.91dBm/MHz.)

No.	Antenna Power		Antenna			Cable			Total Gain D=B+C	EIRP F=A+D	Permitted Angle	Judgement	Remarks (Antenna Model)
	A	Type	Gain B	3dB Beam-width Horizontal	3dB Beam-width Vertical	Model	Length	Loss C					
	(dBm/MHz)		(dBi)	(Degree)	(Degree)		(m)	(dB)	(dBi)	(dBm/MHz)	(Degree)		
1	-11.06	PIFA	3.50	-	-	-	-	0.00	3.50	-7.56	360.00	Good	ALA110-222050-300010
2	-11.06	DIPOLE	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	TWF-614XMPXX-500
3	-11.06	SLOT	3.33	-	-	-	-	0.00	3.33	-7.73	360.00	Good	PANT-001
4	-11.06	PIFA	0.85	-	-	-	-	0.00	0.85	-10.21	360.00	Good	SKW10WMPB01+A
5	-11.06	PIFA	0.42	-	-	-	-	0.00	0.42	-10.64	360.00	Good	SK65EWMPB01+A
6	-11.06	PIFA	2.72	-	-	-	-	0.00	2.72	-8.34	360.00	Good	DC33001AD00
7	-11.06	PIFA	0.87	-	-	-	-	0.00	0.87	-10.19	360.00	Good	DC33001AC00
8	-11.06	PIFA	2.08	-	-	-	-	0.00	2.08	-8.98	360.00	Good	L01RF019-DT-R (31-502717)
9	-11.06	PIFA	1.36	-	-	-	-	0.00	1.36	-9.70	360.00	Good	SKAEUWMPB01+B
10	-11.06	PIFA	0.82	-	-	-	-	0.00	0.82	-10.24	360.00	Good	SKA91WMPB02+A
11	-11.06	PIFA	2.14	-	-	-	-	0.00	2.14	-8.92	360.00	Good	W550EU WM-1
12	-11.06	PIFA	-0.63	-	-	-	-	0.00	-0.63	-11.69	360.00	Good	APP6P-700781
13	-11.06	PIFA	-0.13	-	-	-	-	0.00	-0.13	-11.19	360.00	Good	ATM6P-70100
14	-11.06	PIFA	-0.58	-	-	-	-	0.00	-0.58	-11.64	360.00	Good	DQ6G15G5800
15	-11.06	PIFA	-0.70	-	-	-	-	0.00	-0.70	-11.76	360.00	Good	DQ60QTL1200
16	-11.06	PIFA	1.15	-	-	-	-	0.00	1.15	-9.91	360.00	Good	81.EKG15.G30
17	-11.06	PIFA	0.90	-	-	-	-	0.00	0.90	-10.16	360.00	Good	CAM4313LC0613WLA4
18	-11.06	PIFA	0.60	-	-	-	-	0.00	0.60	-10.46	360.00	Good	81.EKG15.G37
19	-11.06	PIFA	1.89	-	-	-	-	0.00	1.89	-9.17	360.00	Good	PANT11A00008-1
20	-11.06	PIFA	0.60	-	-	-	-	0.00	0.60	-10.46	360.00	Good	WDAN-T1RH2
21	-11.06	PIFA	0.21	-	-	-	-	0.00	0.21	-10.85	360.00	Good	SKX71WMPB01+B
22	-11.06	PIFA	-0.29	-	-	-	-	0.00	-0.29	-11.35	360.00	Good	L01RF009-R
23	-11.06	PIFA	0.72	-	-	-	-	0.00	0.72	-10.34	360.00	Good	SKW25WMPB01+A
24	-11.06	PIFA	-0.17	-	-	-	-	0.00	-0.17	-11.23	360.00	Good	SK549WMPB01+A
25	-11.06	PIFA	2.53	-	-	-	-	0.00	2.53	-8.53	360.00	Good	W350ETQ WM-2
26	-11.06	PIFA	-1.28	-	-	-	-	0.00	-1.28	-12.34	360.00	Good	SKW34WMPB02+A
27	-11.06	PIFA	2.60	-	-	-	-	0.00	2.60	-8.46	360.00	Good	IA-120266
28	-11.06	PIFA	0.24	-	-	-	-	0.00	0.24	-10.82	360.00	Good	25.90AH8.001
29	-11.06	PIFA	1.28	-	-	-	-	0.00	1.28	-9.78	360.00	Good	25.90AH8.011
30	-11.06	PIFA	-0.27	-	-	-	-	0.00	-0.27	-11.33	360.00	Good	25.90AH8.021
31	-11.06	PIFA	-0.11	-	-	-	-	0.00	-0.11	-11.17	360.00	Good	25.90AJB.001
32	-11.06	PIFA	-1.14	-	-	-	-	0.00	-1.14	-12.20	360.00	Good	25.90AJC.001
33	-11.06	PIFA	2.74	-	-	-	-	0.00	2.74	-8.32	360.00	Good	25.90ALR.001
34	-11.06	PIFA	1.91	-	-	-	-	0.00	1.91	-9.15	360.00	Good	25.90AAK.001
35	-11.06	PIFA	1.29	-	-	-	-	0.00	1.29	-9.77	360.00	Good	25.90AAL.011
36	-11.06	PIFA	-2.20	-	-	-	-	0.00	-2.20	-13.26	360.00	Good	25.90ALR.011
37	-11.06	PIFA	-0.60	-	-	-	-	0.00	-0.60	-11.66	360.00	Good	25.90AJC.011
38	-11.06	PIFA	1.59	-	-	-	-	0.00	1.59	-9.47	360.00	Good	25.90AJC.011
39	-11.06	PIFA	1.33	-	-	-	-	0.00	1.33	-9.73	360.00	Good	ATP6P -700001
40	-11.06	DIPOLE	0.45	-	-	-	-	0.00	0.45	-10.61	360.00	Good	DAM-14-H-DB-800-10-17
41	-11.06	PIFA	1.05	-	-	-	-	0.00	1.05	-10.01	360.00	Good	SK110WMPB01+A
42	-11.06	PIFA	-1.61	-	-	-	-	0.00	-1.61	-12.67	360.00	Good	SKW23WMPB01+A
43	-11.06	PIFA	0.20	-	-	-	-	0.00	0.20	-10.86	360.00	Good	SK740WMPB02+A
44	-11.06	PIFA	1.95	-	-	-	-	0.00	1.95	-9.11	360.00	Good	APP6P-700968

45	-11.06	PIFA	0.46	-	-	-	-	0.00	0.46	-10.60	360.00	Good	SKCZTWMPB01+A
46	-11.06	PIFA	1.48	-	-	-	-	0.00	1.48	-9.58	360.00	Good	SK670WMPB01+A
47	-11.06	PIFA	1.75	-	-	-	-	0.00	1.75	-9.31	360.00	Good	K05007012102
48	-11.06	PIFA	2.70	-	-	-	-	0.00	2.70	-8.36	360.00	Good	K05007013402
49	-11.06	PIFA	2.04	-	-	-	-	0.00	2.04	-9.02	360.00	Good	K05007012803
50	-11.06	PIFA	2.53	-	-	-	-	0.00	2.53	-8.53	360.00	Good	K05007015501
51	-11.06	PIFA	2.85	-	-	-	-	0.00	2.85	-8.21	360.00	Good	K05007014501
52	-11.06	PIFA	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	K05007014201
53	-11.06	PIFA	1.85	-	-	-	-	0.00	1.85	-9.21	360.00	Good	K05007014901
54	-11.06	PIFA	1.94	-	-	-	-	0.00	1.94	-9.12	360.00	Good	K05007015001
55	-11.06	PIFA	2.23	-	-	-	-	0.00	2.23	-8.83	360.00	Good	1510-0122-0022(1A-120073)
56	-11.06	PIFA	0.78	-	-	-	-	0.00	0.78	-10.28	360.00	Good	SK547WMPB02+A
57	-11.06	PIFA	3.03	-	-	-	-	0.00	3.03	-8.03	360.00	Good	SK840WMPB01+B_SN
58	-11.06	PIFA	3.20	-	-	-	-	0.00	3.20	-7.86	360.00	Good	SKX51WMPB01+C
59	-11.06	PIFA	2.76	-	-	-	-	0.00	2.76	-8.30	360.00	Good	SKX51WMPB02+C
60	-11.06	PIFA	1.79	-	-	-	-	0.00	1.79	-9.27	360.00	Good	SK81WMPB01+A
61	-11.06	PIFA	2.88	-	-	-	-	0.00	2.88	-8.18	360.00	Good	SKW2UWMPB01+A
62	-11.06	PIFA	3.14	-	-	-	-	0.00	3.14	-7.92	360.00	Good	SKW31WMPB01+A
63	-11.06	PIFA	-1.84	-	-	-	-	0.00	-1.84	-12.90	360.00	Good	SKM11WMPB03+A
64	-11.06	PIFA	2.91	-	-	-	-	0.00	2.91	-8.15	360.00	Good	SKC45WMPB03+B
65	-11.06	PIFA	3.17	-	-	-	-	0.00	3.17	-7.89	360.00	Good	SKW24WMPB01+B
66	-11.06	PIFA	0.76	-	-	-	-	0.00	0.76	-10.30	360.00	Good	SK555WMPB01+B
67	-11.06	PIFA	0.76	-	-	-	-	0.00	0.76	-10.30	360.00	Good	SK94SWMPB01+B
68	-11.06	PIFA	1.86	-	-	-	-	0.00	1.86	-9.20	360.00	Good	SK94TWMPB01+B
69	-11.06	PIFA	-0.03	-	-	-	-	0.00	-0.03	-11.09	360.00	Good	SK50SWMPB01+A
70	-11.06	PIFA	0.60	-	-	-	-	0.00	0.60	-10.46	360.00	Good	APP6P-701010
71	-11.06	PIFA	0.60	-	-	-	-	0.00	0.60	-10.46	360.00	Good	WA-P-LB-02-094
72	-11.06	PIFA	2.02	-	-	-	-	0.00	2.02	-9.04	360.00	Good	25CA0-295000-J3R
73	-11.06	PIFA	1.86	-	-	-	-	0.00	1.86	-9.20	360.00	Good	SK94TWMPB01+D
74	-11.06	PIFA	1.51	-	-	-	-	0.00	1.51	-9.55	360.00	Good	RFA-25-AP158-70300AU
75	-11.06	PIFA	0.49	-	-	-	-	0.00	0.49	-10.57	360.00	Good	L01RF050-YT-R
76	-11.06	PIFA	-0.29	-	-	-	-	0.00	-0.29	-11.35	360.00	Good	L01RF009-R
77	-11.06	PIFA	-0.84	-	-	-	-	0.00	-0.84	-11.90	360.00	Good	14007-01300600
78	-11.06	PIFA	-1.14	-	-	-	-	0.00	-1.14	-12.20	360.00	Good	APP6P-700944
79	-11.06	DIPOLE	1.29	-	-	-	-	0.00	1.29	-9.77	360.00	Good	14007-00410200
80	-11.06	PIFA	-2.73	-	-	-	-	0.00	-2.73	-13.79	360.00	Good	C497-520058-A
81	-11.06	PIFA	-2.79	-	-	-	-	0.00	-2.79	-13.85	360.00	Good	C497-520059-A
82	-11.06	PIFA	1.95	-	-	-	-	0.00	1.95	-9.11	360.00	Good	25CA0-210001-J7S/2000000000109
83	-11.06	DIPOLE	1.76	-	-	-	-	0.00	1.76	-9.30	360.00	Good	UC7WFI0005
84	-11.06	PIFA	1.87	-	-	-	-	0.00	1.87	-9.19	360.00	Good	F.0G.FS-6004-001(025.90035.0001)
85	-11.06	PIFA	1.94	-	-	-	-	0.00	1.94	-9.12	360.00	Good	025.9003R.0001(81.EBC15.GA)
86	-11.06	PIFA	3.46	-	-	-	-	0.00	3.46	-7.60	360.00	Good	UC7WFI0002A02
87	-11.06	PIFA	1.57	-	-	-	-	0.00	1.57	-9.49	360.00	Good	L01RF051-DT-R
88	-11.06	PIFA	1.70	-	-	-	-	0.00	1.70	-9.36	360.00	Good	L01RF054-DT-R
89	-11.06	PIFA	1.01	-	-	-	-	0.00	1.01	-10.05	360.00	Good	APP6P-701052
90	-11.06	PIFA	2.74	-	-	-	-	0.00	2.74	-8.32	360.00	Good	IA-130052
91	-11.06	PIFA	1.78	-	-	-	-	0.00	1.78	-9.28	360.00	Good	IAH-1400XX
92	-11.06	PIFA	0.61	-	-	-	-	0.00	0.61	-10.45	360.00	Good	APP6P-701052
93	-11.06	PIFA	-0.27	-	-	-	-	0.00	-0.27	-11.33	360.00	Good	APP6P-701162
94	-11.06	PIFA	2.81	-	-	-	-	0.00	2.81	-8.25	360.00	Good	IA-140029
95	-11.06	PIFA	2.74	-	-	-	-	0.00	2.74	-8.32	360.00	Good	1510-0119-0205
96	-11.06	PIFA	-0.97	-	-	-	-	0.00	-0.97	-12.03	360.00	Good	25.90AH1.001 (81.EEW15.GAT)
97	-11.06	PIFA	-0.97	-	-	-	-	0.00	-0.97	-12.03	360.00	Good	81.EEW15.GAT
98	-11.06	PIFA	1.85	-	-	-	-	0.00	1.85	-9.21	360.00	Good	APP6P-701213
99	-11.06	PIFA	1.64	-	-	-	-	0.00	1.64	-9.42	360.00	Good	MSA-3409-25GC1-A1
100	-11.06	PIFA	0.41	-	-	-	-	0.00	0.41	-10.65	360.00	Good	WA-P-LB-01-101
101	-11.06	PIFA	0.84	-	-	-	-	0.00	0.84	-10.22	360.00	Good	LA05RF805-1H
102	-11.06	PIFA	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	MSA-3822-25GC1-A1
103	-11.06	PIFA	1.74	-	-	-	-	0.00	1.74	-9.32	360.00	Good	SE-ECA10-002
104	-11.06	PIFA	2.66	-	-	-	-	0.00	2.66	-8.40	360.00	Good	DC33001M000 / T-543-9021035-1
105	-11.06	PIFA	1.61	-	-	-	-	0.00	1.61	-9.45	360.00	Good	SE-ECVY3-001
106	-11.06	PIFA	1.79	-	-	-	-	0.00	1.79	-9.27	360.00	Good	T-543-9021013-A
107	-11.06	PIFA	0.52	-	-	-	-	0.00	0.52	-10.54	360.00	Good	0ACCN013037
108	-11.06	PIFA	-0.43	-	-	-	-	0.00	-0.43	-11.49	360.00	Good	L01RF039-DT-R
109	-11.06	PIFA	1.82	-	-	-	-	0.00	1.82	-9.24	360.00	Good	APP6P-701194
110	-11.06	PIFA	2.73	-	-	-	-	0.00	2.73	-8.33	360.00	Good	IAH-140030
111	-11.06	PIFA	2.98	-	-	-	-	0.00	2.98	-8.08	360.00	Good	IAH-140030
112	-11.06	PIFA	1.82	-	-	-	-	0.00	1.82	-9.24	360.00	Good	APP6P-701194
113	-11.06	PIFA	2.20	-	-	-	-	0.00	2.20	-8.86	360.00	Good	APP6P-701233
114	-11.06	PIFA	1.31	-	-	-	-	0.00	1.31	-9.75	360.00	Good	1415-040A000 / ANTA02P09021WLAN1
115	-11.06	PIFA	1.08	-	-	-	-	0.00	1.08	-9.98	360.00	Good	DC33001NS00 / APP6Y-700054
116	-11.06	PIFA	0.94	-	-	-	-	0.00	0.94	-10.12	360.00	Good	260-24055
117	-11.06	PIFA	-0.45	-	-	-	-	0.00	-0.45	-11.51	360.00	Good	DC330010600 (81EAA515.G72)
118	-11.06	PIFA	1.99	-	-	-	-	0.00	1.99	-9.07	360.00	Good	APP6P-701314
119	-11.06	PIFA	-1.36	-	-	-	-	0.00	-1.36	-12.42	360.00	Good	APM6Y-700023
120	-11.06	PIFA	2.74	-	-	-	-	0.00	2.74	-8.32	360.00	Good	LB001LC018
121	-11.06	PIFA	0.82	-	-	-	-	0.00	0.82	-10.24	360.00	Good	DC330160310
122	-11.06	PIFA	1.27	-	-	-	-	0.00	1.27	-9.79	360.00	Good	DC330017L00
123	-11.06	PIFA	1.25	-	-	-	-	0.00	1.25	-9.81	360.00	Good	DC330017G10
124	-11.06	PIFA	1.83	-	-	-	-	0.00	1.83	-9.23	360.00	Good	DC330160410
125	-11.06	PIFA	1.60	-	-	-	-	0.00	1.60	-9.46	360.00	Good	DC330017L00
126	-11.06	PIFA	2.85	-	-	-	-	0.00	2.85	-8.21	360.00	Good	DC330017J10
127	-11.06	PIFA	-0.20	-	-	-	-	0.00	-0.20	-11.26	360.00	Good	LB302LC302
128	-11.06	PIFA	0.10	-	-	-	-	0.00	0.10	-10.96	360.00	Good	T-543-3010220-1
129	-11.06	PIFA	-1.33	-	-	-	-	0.00	-1.33	-12.39	360.00	Good	N1P6Y-200001
130	-11.06	PIFA	0.61	-	-	-	-	0.00	0.61	-10.45	360.00	Good	N1P6Y-200000
131	-11.06	PIFA	1.58	-	-	-	-	0.00	1.58	-9.48	360.00	Good	DQ6S15G7300 (81EAA515.G73)
132	-11.06	PIFA	0.45	-	-	-	-	0.00	0.45	-10.61	360.00	Good	DQ6S15G7700 (81EAA515.G77)
133	-11.06	PIFA	0.79	-	-	-	-	0.00	0.79	-10.27	360.00	Good	DQ601008900
134	-11.06	PIFA	-0.88	-	-	-	-	0.00	-0.88	-11.94	360.00	Good	DQ601009700
135	-11.06	PIFA	-0.44	-	-	-	-	0.00	-0.44	-11.50	360.00	Good	APP6Y-700261
136	-11.06	PIFA	1.64	-	-	-	-	0.00	1.64	-9.42	360.00	Good	DQ6S15G7400
137	-11.06	PIFA	2.98	-	-	-	-	0.00	2.98	-8.08	360.00	Good	0ACCN015004N
138	-11.06	PIFA	0.21	-	-	-	-	0.00	0.21	-10.85	360.00	Good	T-543-9021077-1
139	-11.06	PIFA	1.60	-	-	-	-	0.00	1.60	-9.46	360.00	Good	AAM6Y-200002

140	-11.06	PIFA	2.49	-	-	-	-	0.00	2.49	-8.57	360.00	Good	IAH150012
141	-11.06	PIFA	2.90	-	-	-	-	0.00	2.90	-8.16	360.00	Good	81800T029
142	-11.06	PIFA	0.32	-	-	-	-	0.00	0.32	-10.74	360.00	Good	L01RF056-DT-R
143	-11.06	PIFA	-1.90	-	-	-	-	0.00	-1.90	-12.96	360.00	Good	L01RF064-DT-R
144	-11.06	PIFA	0.36	-	-	-	-	0.00	0.36	-10.70	360.00	Good	025.900CR.0001
145	-11.06	PIFA	2.23	-	-	-	-	0.00	2.23	-8.83	360.00	Good	025.900CR.0011
146	-11.06	PIFA	1.00	-	-	-	-	0.00	1.00	-10.06	360.00	Good	025.900CP.0001
147	-11.06	PIFA	-2.21	-	-	-	-	0.00	-2.21	-13.27	360.00	Good	025.9006P.0001
148	-11.06	PIFA	-0.84	-	-	-	-	0.00	-0.84	-11.90	360.00	Good	025.9006P.0011
149	-11.06	PIFA	2.46	-	-	-	-	0.00	2.46	-8.60	360.00	Good	IAH-150012
150	-11.06	PIFA	-0.04	-	-	-	-	0.00	-0.04	-11.10	360.00	Good	L01RF072-DT-R/ L01RF031-DT-R
151	-11.06	PIFA	1.92	-	-	-	-	0.00	1.92	-9.14	360.00	Good	AAP6Y-100000
152	-11.06	PIFA	1.61	-	-	-	-	0.00	1.61	-9.45	360.00	Good	T-543-9021081-1
153	-11.06	PIFA	1.94	-	-	-	-	0.00	1.94	-9.12	360.00	Good	AAP6Y-100004
154	-11.06	PIFA	2.43	-	-	-	-	0.00	2.43	-8.63	360.00	Good	T-543-9021080-1
155	-11.06	PIFA	-1.29	-	-	-	-	0.00	-1.29	-12.35	360.00	Good	260-26073
156	-11.06	PIFA	1.40	-	-	-	-	0.00	1.40	-9.66	360.00	Good	L0ERF003-DT-R (025.900BR.0001)
157	-11.06	PIFA	1.78	-	-	-	-	0.00	1.78	-9.28	360.00	Good	DC33001EH00
158	-11.06	PIFA	0.61	-	-	-	-	0.00	0.61	-10.45	360.00	Good	DC33001EJ10
159	-11.06	PIFA	1.75	-	-	-	-	0.00	1.75	-9.31	360.00	Good	DC33001DU00
160	-11.06	PIFA	1.69	-	-	-	-	0.00	1.69	-9.37	360.00	Good	DC33001DX00
161	-11.06	PIFA	2.08	-	-	-	-	0.00	2.08	-8.98	360.00	Good	DC33001DV00
162	-11.06	PIFA	1.86	-	-	-	-	0.00	1.86	-9.20	360.00	Good	DC33001DW00
163	-11.06	PIFA	0.95	-	-	-	-	0.00	0.95	-10.11	360.00	Good	DC33001DB00
164	-11.06	PIFA	1.87	-	-	-	-	0.00	1.87	-9.19	360.00	Good	DC33001D900
165	-11.06	PIFA	0.10	-	-	-	-	0.00	0.10	-10.96	360.00	Good	UC7WFI0009A
166	-11.06	Dipole	2.56	-	-	-	-	0.00	2.56	-8.50	360.00	Good	RFA-25-C2M2-M10-1
167	-11.06	PIFA	0.64	-	-	-	-	0.00	0.64	-10.42	360.00	Good	0ACCN014009N (DC33001M100)
168	-11.06	PIFA	0.74	-	-	-	-	0.00	0.74	-10.32	360.00	Good	T-543-9021043-1 (DC33001MD00)
169	-11.06	PIFA	-2.10	-	-	-	-	0.00	-2.10	-13.16	360.00	Good	ADP6Y-100003
170	-11.06	PIFA	2.38	-	-	-	-	0.00	2.38	-8.68	360.00	Good	APM6Y-700021
171	-11.06	PIFA	0.53	-	-	-	-	0.00	0.53	-10.53	360.00	Good	025.900ED.0011
172	-11.06	PIFA	1.95	-	-	-	-	0.00	1.95	-9.11	360.00	Good	025.900ED.0001
173	-11.06	Dipole	2.40	-	-	-	-	0.00	2.40	-8.66	360.00	Good	T000CCD-80
174	-11.06	Dipole	2.30	-	-	-	-	0.00	2.30	-8.76	360.00	Good	T000CCD-250
175	-11.06	Dipole	2.46	-	-	-	-	0.00	2.46	-8.60	360.00	Good	RFDPA870918EMLB302
176	-11.06	Dipole	2.44	-	-	-	-	0.00	2.44	-8.62	360.00	Good	RFDPA870940EMLB303
177	-11.06	PIFA	-1.36	-	-	-	-	0.00	-1.36	-12.42	360.00	Good	APM6Y-700023
178	-11.06	PIFA	-1.68	-	-	-	-	0.00	-1.68	-12.74	360.00	Good	WA-M-LB-02-087
179	-11.06	PIFA	-1.29	-	-	-	-	0.00	-1.29	-12.35	360.00	Good	14008-01320100
180	-11.06	PIFA	1.94	-	-	-	-	0.00	1.94	-9.12	360.00	Good	ANP6P-100002
181	-11.06	PIFA	-1.68	-	-	-	-	0.00	-1.68	-12.74	360.00	Good	WA-M-LB-01-059
182	-11.06	PIFA	-1.21	-	-	-	-	0.00	-1.21	-12.27	360.00	Good	025.900G0.0001
183	-11.06	PIFA	-1.67	-	-	-	-	0.00	-1.67	-12.73	360.00	Good	025.900G0.0011
184	-11.06	PIFA	0.66	-	-	-	-	0.00	0.66	-10.40	360.00	Good	025.900FJ.0011
185	-11.06	PIFA	0.13	-	-	-	-	0.00	0.13	-10.93	360.00	Good	025.900FJ.0001
186	-11.06	Dipole	2.42	-	-	-	-	0.00	2.42	-8.64	360.00	Good	RFDPA870900SMLB801+RFCBA100618SF6B302
187	-11.06	Dipole	2.06	-	-	-	-	0.00	2.06	-9.00	360.00	Good	RFDPA870900SMLB801+RFCBA100640SF6B302
188	-11.06	PIFA	1.10	-	-	-	-	0.00	1.10	-9.96	360.00	Good	WA-P-LB-02-311
189	-11.06	PIFA	1.68	-	-	-	-	0.00	1.68	-9.38	360.00	Good	DC33001V100
190	-11.06	PIFA	0.08	-	-	-	-	0.00	0.08	-10.98	360.00	Good	DC33001V110
191	-11.06	PIFA	1.34	-	-	-	-	0.00	1.34	-9.72	360.00	Good	025.900I2.0011
192	-11.06	PIFA	2.57	-	-	-	-	0.00	2.57	-8.49	360.00	Good	025.900I4.0011
193	-11.06	PIFA	1.44	-	-	-	-	0.00	1.44	-9.62	360.00	Good	AAP6Y-100027
194	-11.06	PIFA	1.82	-	-	-	-	0.00	1.82	-9.24	360.00	Good	AAP6Y-100027
195	-11.06	PIFA	-1.69	-	-	-	-	0.00	-1.69	-12.75	360.00	Good	DQ61QNL3P00 (WDAN-1QNL3P32-DH)
196	-11.06	PIFA	-0.64	-	-	-	-	0.00	-0.64	-11.70	360.00	Good	L01RF075-DT-R
197	-11.06	PIFA	1.92	-	-	-	-	0.00	1.92	-9.14	360.00	Good	025.900I2.0001
198	-11.06	PIFA	1.87	-	-	-	-	0.00	1.87	-9.19	360.00	Good	025.900I4.0001
199	-11.06	PIFA	0.73	-	-	-	-	0.00	0.73	-10.33	360.00	Good	HHA14WIPB01+A(43R-A14001-0300)
200	-11.06	PIFA	1.54	-	-	-	-	0.00	1.54	-9.52	360.00	Good	HHA15WIPB02+C(43R-A15001-0300)
201	-11.06	PIFA	1.17	-	-	-	-	0.00	1.17	-9.89	360.00	Good	HHA15WIPB03+B(43R-A15001-0320)
202	-11.06	PIFA	1.50	-	-	-	-	0.00	1.50	-9.56	360.00	Good	HHB11WIPB02+B
203	-11.06	PIFA	0.85	-	-	-	-	0.00	0.85	-10.21	360.00	Good	HHB14WIPB03+A
204	-11.06	PIFA	2.23	-	-	-	-	0.00	2.23	-8.83	360.00	Good	HHD18WIPB02+C(43R-DA1801-0310)
205	-11.06	PIFA	1.17	-	-	-	-	0.00	1.17	-9.89	360.00	Good	AWPD23F-074A4031
206	-11.06	PIFA	0.61	-	-	-	-	0.00	0.61	-10.45	360.00	Good	AWPD23F-074B4031
207	-11.06	PIFA	-4.82	-	-	-	-	0.00	-4.82	-15.88	360.00	Good	AWPD24F-074B4031
208	-11.06	PIFA	0.04	-	-	-	-	0.00	0.04	-11.02	360.00	Good	AWPD25F-074B4031
209	-11.06	PIFA	1.62	-	-	-	-	0.00	1.62	-9.44	360.00	Good	HHDH9WIPB02+B(43R-DH9BW1-0310)
210	-11.06	PIFA	-0.07	-	-	-	-	0.00	-0.07	-11.13	360.00	Good	HHDS4WIPB01+A(43R-DS4701-0300)
211	-11.06	PIFA	3.02	-	-	-	-	0.00	3.02	-8.04	360.00	Good	HHE10WIPB01+C(43R-E10001-0301)
212	-11.06	PIFA	2.61	-	-	-	-	0.00	2.61	-8.45	360.00	Good	HHT13WIPB01+A(43R-E10BT1-0300)
213	-11.06	PIFA	1.82	-	-	-	-	0.00	1.82	-9.24	360.00	Good	AWPD22F-074I4031
214	-11.06	PIFA	3.13	-	-	-	-	0.00	3.13	-7.93	360.00	Good	AWPD22F-074J4031
215	-11.06	PIFA	1.38	-	-	-	-	0.00	1.38	-9.68	360.00	Good	HHW08WIPB01+B(43R-H14BW1-0300)
216	-11.06	PIFA	-1.74	-	-	-	-	0.00	-1.74	-12.80	360.00	Good	AWPD18F-074A4031
217	-11.06	PIFA	-2.61	-	-	-	-	0.00	-2.61	-13.67	360.00	Good	AWPD25F-074C4031
218	-11.06	PIFA	3.13	-	-	-	-	0.00	3.13	-7.93	360.00	Good	AWPD22F-074J4031
219	-11.06	PIFA	0.70	-	-	-	-	0.00	0.70	-10.36	360.00	Good	AWPD18F-074A4031
220	-11.06	PIFA	2.65	-	-	-	-	0.00	2.65	-8.41	360.00	Good	HHNH5WIPB01+A(43R-NH5001-0300)
221	-11.06	PIFA	2.60	-	-	-	-	0.00	2.60	-8.46	360.00	Good	HHNI3WIPB01+A(43R-NI3BT1-0300)
222	-11.06	PIFA	1.62	-	-	-	-	0.00	1.62	-9.44	360.00	Good	HHU01WIPB01+A(43R-NUCBU1-0300)
223	-11.06	PIFA	2.28	-	-	-	-	0.00	2.28	-8.78	360.00	Good	HHT03WIPB02+A
224	-11.06	PIFA	2.49	-	-	-	-	0.00	2.49	-8.57	360.00	Good	HHW03WIPB01+B(43R-SFFBW1-0300)
225	-11.06	PIFA	-0.70	-	-	-	-	0.00	-0.70	-11.76	360.00	Good	43R-SFFBT1-2110
226	-11.06	PIFA	-0.70	-	-	-	-	0.00	-0.70	-11.76	360.00	Good	43R-SFFBW1-2110
227	-11.06	PIFA	1.29	-	-	-	-	0.00	1.29	-9.77	360.00	Good	AWPD18F-074G4031
228	-11.06	PIFA	2.67	-	-	-	-	0.00	2.67	-8.39	360.00	Good	HHL06WIPB01+A(43R-WA0ML1-0300)
229	-11.06	PIFA	2.78	-	-	-	-	0.00	2.78	-8.28	360.00	Good	HHWA0WIPB02+D(43R-WA0TM1-0310)
230	-11.06	PIFA	2.35	-	-	-	-	0.00	2.35	-8.71	360.00	Good	HHXS3WIPB01+C(43R-XS3501-0300)
231	-11.06	PIFA	3.11	-	-	-	-	0.00	3.11	-7.95	360.00	Good	HHN08WIPB01+D
232	-11.06	Dipole	2.32	-	-	-	-	0.00	2.32	-8.74	360.00	Good	RFDPA870900SBLB808
233	-11.06	Dipole	2.20	-	-	-	-	0.00	2.20	-8.86	360.00	Good	RFDPA870900SMLB801
234	-11.06	Dipole	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	RFDPA870911EMLB301
235	-11.06	Dipole	2.87	-	-	-	-	0.00	2.87	-8.19	360.00	Good	RFDPA870914EMLB301

236	-11.06	Dipole	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	RFDPA870914EMLB302
237	-11.06	Dipole	3.00	-	-	-	-	0.00	3.00	-8.06	360.00	Good	RFDPA870940EMLB304
238	-11.06	PIFA	1.00	-	-	-	-	0.00	1.00	-10.06	360.00	Good	HHE14WIPB03+A(43R-E14D31-0301)
239	-11.06	PIFA	0.61	-	-	-	-	0.00	0.61	-10.45	360.00	Good	RFMTA331211EMLB301
240	-11.06	PIFA	1.62	-	-	-	-	0.00	1.62	-9.44	360.00	Good	RFMTA331229EMLB301
241	-11.06	PIFA	2.47	-	-	-	-	0.00	2.47	-8.59	360.00	Good	RFA-25-AP252-70-500
242	-11.06	PIFA	-0.30	-	-	-	-	0.00	-0.30	-11.36	360.00	Good	ANP6Y-100113
243	-11.06	PIFA	1.66	-	-	-	-	0.00	1.66	-9.40	360.00	Good	AAP6Y-100023
244	-11.06	PIFA	2.19	-	-	-	-	0.00	2.19	-8.87	360.00	Good	0ACCN015036N
245	-11.06	PIFA	3.11	-	-	-	-	0.00	3.11	-7.95	360.00	Good	BAUKO1730B-M
246	-11.06	PIFA	0.50	-	-	-	-	0.00	0.50	-10.56	360.00	Good	DQ6U15G7100
247	-11.06	PIFA	1.85	-	-	-	-	0.00	1.85	-9.21	360.00	Good	DQ6U15G6500
248	-11.06	PIFA	2.81	-	-	-	-	0.00	2.81	-8.25	360.00	Good	DQ6U15G7700
249	-11.06	PIFA	1.95	-	-	-	-	0.00	1.95	-9.11	360.00	Good	DQ6U15G7900
250	-11.06	PIFA	0.38	-	-	-	-	0.00	0.38	-10.68	360.00	Good	ANP6Y-100071
251	-11.06	PIFA	-0.68	-	-	-	-	0.00	-0.68	-11.74	360.00	Good	0ACCN015030N
252	-11.06	PIFA	0.05	-	-	-	-	0.00	0.05	-11.01	360.00	Good	T-543-9021113-2
253	-11.06	PIFA	-0.39	-	-	-	-	0.00	-0.39	-11.45	360.00	Good	ANP6Y-100073
254	-11.06	PIFA	-0.51	-	-	-	-	0.00	-0.51	-11.57	360.00	Good	0ACCN015032N
255	-11.06	PIFA	0.09	-	-	-	-	0.00	0.09	-10.97	360.00	Good	T-543-9021114-2
256	-11.06	PIFA	-0.34	-	-	-	-	0.00	-0.34	-11.40	360.00	Good	F.0G.UH-6008-004-00
257	-11.06	PIFA	0.33	-	-	-	-	0.00	0.33	-10.73	360.00	Good	T-543-9021106-3
258	-11.06	PIFA	-0.34	-	-	-	-	0.00	-0.34	-11.40	360.00	Good	F.0G.UH-6008-004-00
259	-11.06	PIFA	2.57	-	-	-	-	0.00	2.57	-8.49	360.00	Good	WA-F-LB-02-089
260	-11.06	PIFA	0.06	-	-	-	-	0.00	0.06	-11.00	360.00	Good	T-543-9021105-3
261	-11.06	PIFA	0.19	-	-	-	-	0.00	0.19	-10.87	360.00	Good	T-543-9021104-1
262	-11.06	PIFA	0.20	-	-	-	-	0.00	0.20	-10.86	360.00	Good	T-543-9021103-A
263	-11.06	Dipole	2.38	-	-	-	-	0.00	2.38	-8.68	360.00	Good	AN2450-5706RS
264	-11.06	Dipole	2.38	-	-	-	-	0.00	2.38	-8.68	360.00	Good	AN2450-5706RS
265	-11.06	PIFA	0.94	-	-	-	-	0.00	0.94	-10.12	360.00	Good	APP6Y-700127
266	-11.06	PIFA	-0.29	-	-	-	-	0.00	-0.29	-11.35	360.00	Good	ANTA0ZP09041WLAN4
267	-11.06	PIFA	1.35	-	-	-	-	0.00	1.35	-9.71	360.00	Good	DC33001F400
268	-11.06	PIFA	2.92	-	-	-	-	0.00	2.92	-8.14	360.00	Good	DC33001F510
269	-11.06	PIFA	1.57	-	-	-	-	0.00	1.57	-9.49	360.00	Good	DC33001F700
270	-11.06	PIFA	2.41	-	-	-	-	0.00	2.41	-8.65	360.00	Good	DC33001F610
271	-11.06	PIFA	1.71	-	-	-	-	0.00	1.71	-9.35	360.00	Good	DC33001F800
272	-11.06	PIFA	2.14	-	-	-	-	0.00	2.14	-8.92	360.00	Good	DC33001FA00
273	-11.06	PIFA	1.21	-	-	-	-	0.00	1.21	-9.85	360.00	Good	DC33001F110
274	-11.06	PIFA	1.52	-	-	-	-	0.00	1.52	-9.54	360.00	Good	DC33001EX00
275	-11.06	PIFA	-1.60	-	-	-	-	0.00	-1.60	-12.66	360.00	Good	DC33001EW10
276	-11.06	PIFA	0.73	-	-	-	-	0.00	0.73	-10.33	360.00	Good	DC33001F210
277	-11.06	PIFA	1.56	-	-	-	-	0.00	1.56	-9.50	360.00	Good	DC33001EY00
278	-11.06	PIFA	2.94	-	-	-	-	0.00	2.94	-8.12	360.00	Good	DC33001EZ10
279	-11.06	PIFA	0.87	-	-	-	-	0.00	0.87	-10.19	360.00	Good	DC33001F000
280	-11.06	PIFA	1.46	-	-	-	-	0.00	1.46	-9.60	360.00	Good	DC33001F300
281	-11.06	PIFA	1.20	-	-	-	-	0.00	1.20	-9.86	360.00	Good	JUM2452PO VX1
282	-11.06	PIFA	1.27	-	-	-	-	0.00	1.27	-9.79	360.00	Good	350502200-600-G
283	-11.06	PIFA	2.06	-	-	-	-	0.00	2.06	-9.00	360.00	Good	DC33001BD00
284	-11.06	PIFA	1.21	-	-	-	-	0.00	1.21	-9.85	360.00	Good	290-40253
285	-11.06	PIFA	0.70	-	-	-	-	0.00	0.70	-10.36	360.00	Good	HHDS6WIPB01+A
286	-11.06	PIFA	-0.46	-	-	-	-	0.00	-0.46	-11.52	360.00	Good	HH02UWIPB01+B
287	-11.06	PIFA	-2.02	-	-	-	-	0.00	-2.02	-13.08	360.00	Good	HHW0LWIPB01+D
288	-11.06	PIFA	3.29	-	-	-	-	0.00	3.29	-7.77	360.00	Good	HH02AWIPB01+A
289	-11.06	PIFA	1.71	-	-	-	-	0.00	1.71	-9.35	360.00	Good	HHW01WIPB01+B
290	-11.06	PIFA	2.31	-	-	-	-	0.00	2.31	-8.75	360.00	Good	HHW08WIPB01+B
291	-11.06	PIFA	1.62	-	-	-	-	0.00	1.62	-9.44	360.00	Good	HHX50WIPB01+B
292	-11.06	PIFA	0.52	-	-	-	-	0.00	0.52	-10.54	360.00	Good	HHX50WIPB01+B
293	-11.06	PIFA	2.81	-	-	-	-	0.00	2.81	-8.25	360.00	Good	HHX90WIPB02+A
294	-11.06	PIFA	-1.75	-	-	-	-	0.00	-1.75	-12.81	360.00	Good	HHE03WIPB01+D
295	-11.06	PIFA	0.93	-	-	-	-	0.00	0.93	-10.13	360.00	Good	HHE23WIPB01+D
296	-11.06	PIFA	1.95	-	-	-	-	0.00	1.95	-9.11	360.00	Good	HHCT3WIPB01+A
297	-11.06	PIFA	0.35	-	-	-	-	0.00	0.35	-10.71	360.00	Good	HHV5WIPB01+A
298	-11.06	Dipole	2.25	-	-	-	-	0.00	2.25	-8.81	360.00	Good	HHXPCAPD101+A
299	-11.06	Dipole	2.21	-	-	-	-	0.00	2.21	-8.85	360.00	Good	HHXPCAPD102+A
300	-11.06	PIFA	2.41	-	-	-	-	0.00	2.41	-8.65	360.00	Good	610-INNEP0005-A
301	-11.06	PIFA	2.89	-	-	-	-	0.00	2.89	-8.17	360.00	Good	610-INNEP0002-A
302	-11.06	PIFA	2.80	-	-	-	-	0.00	2.80	-8.26	360.00	Good	610-INNEP0004-A
303	-11.06	PIFA	0.28	-	-	-	-	0.00	0.28	-10.78	360.00	Good	ANTA0AA11131WLAN1
304	-11.06	PIFA	2.98	-	-	-	-	0.00	2.98	-8.08	360.00	Good	AJDP2J-B0004
305	-11.06	PIFA	2.77	-	-	-	-	0.00	2.77	-8.29	360.00	Good	AJDP2J-C0002
306	-11.06	PIFA	2.37	-	-	-	-	0.00	2.37	-8.69	360.00	Good	ALA160-222022-000002
307	-11.06	PIFA	-1.18	-	-	-	-	0.00	-1.18	-12.24	360.00	Good	ANP6P-100005
308	-11.06	PIFA	-0.70	-	-	-	-	0.00	-0.70	-11.76	360.00	Good	LA05RF895-1H
309	-11.06	PIFA	1.30	-	-	-	-	0.00	1.30	-9.76	360.00	Good	DC33001GA00
310	-11.06	PIFA	2.87	-	-	-	-	0.00	2.87	-8.19	360.00	Good	DC33001GB00
311	-11.06	PIFA	2.45	-	-	-	-	0.00	2.45	-8.61	360.00	Good	M01-50908019-R
312	-11.06	PIFA	2.80	-	-	-	-	0.00	2.80	-8.26	360.00	Good	DC33001GP00
313	-11.06	PIFA	0.65	-	-	-	-	0.00	0.65	-10.41	360.00	Good	DC33001GV00
314	-11.06	PIFA	-1.00	-	-	-	-	0.00	-1.00	-12.06	360.00	Good	DC33001GX00
315	-11.06	PIFA	1.66	-	-	-	-	0.00	1.66	-9.40	360.00	Good	DC33001GM00
316	-11.06	PIFA	2.56	-	-	-	-	0.00	2.56	-8.50	360.00	Good	DC33001GK00
317	-11.06	PIFA	2.89	-	-	-	-	0.00	2.89	-8.17	360.00	Good	DC33001GQ00
318	-11.06	PIFA	1.98	-	-	-	-	0.00	1.98	-9.08	360.00	Good	DC33001GN00
319	-11.06	PIFA	2.32	-	-	-	-	0.00	2.32	-8.74	360.00	Good	DC33001GL00
320	-11.06	PIFA	-0.28	-	-	-	-	0.00	-0.28	-11.34	360.00	Good	DC33001GD00
321	-11.06	PIFA	-0.05	-	-	-	-	0.00	-0.05	-11.11	360.00	Good	DC33001GC00
322	-11.06	PIFA	-0.04	-	-	-	-	0.00	-0.04	-11.10	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
323	-11.06	PIFA	-0.04	-	-	-	-	0.00	-0.04	-11.10	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
324	-11.06	PIFA	0.45	-	-	-	-	0.00	0.45	-10.61	360.00	Good	L01RF066-DT-R
325	-11.06	PIFA	0.32	-	-	-	-	0.00	0.32	-10.74	360.00	Good	L01RF066-DT-R
326	-11.06	PIFA	-0.10	-	-	-	-	0.00	-0.10	-11.16	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
327	-11.06	PIFA	1.59	-	-	-	-	0.00	1.59	-9.47	360.00	Good	L01RF091-DT-R/ L01RF092-DT-R
328	-11.06	Dipole	2.96	-	-	-	-	0.00	2.96	-8.10	360.00	Good	MA231.LBC.002
329	-11.06	PIFA	-0.02	-	-	-	-	0.00	-0.02	-11.08	360.00	Good	WSA.2458.A.301151
330	-11.06	PIFA	2.96	-	-	-	-	0.00	2.96	-8.10	360.00	Good	MA231.LBC.002

331	-11.06	PIFA	0.45	-	-	-	-	0.00	0.45	-10.61	360.00	Good	L01RF 066-DT-R
332	-11.06	PIFA	-4.07	-	-	-	-	0.00	-4.07	-15.13	360.00	Good	L01RF 068-DT-R
333	-11.06	PIFA	2.89	-	-	-	-	0.00	2.89	-8.17	360.00	Good	DC33001GQ00
334	-11.06	PIFA	1.98	-	-	-	-	0.00	1.98	-9.08	360.00	Good	DC33001GN00
335	-11.06	PIFA	2.32	-	-	-	-	0.00	2.32	-8.74	360.00	Good	DC33001GL00
336	-11.06	PIFA	2.23	-	-	-	-	0.00	2.23	-8.83	360.00	Good	DC33001GT00
337	-11.06	PIFA	2.02	-	-	-	-	0.00	2.02	-9.04	360.00	Good	DC33001GS00
338	-11.06	PIFA	1.71	-	-	-	-	0.00	1.71	-9.35	360.00	Good	DC33001GR00
339	-11.06	PIFA	-1.00	-	-	-	-	0.00	-1.00	-12.06	360.00	Good	DC33001GX00
340	-11.06	PIFA	0.65	-	-	-	-	0.00	0.65	-10.41	360.00	Good	DC33001GV00
341	-11.06	PIFA	-1.32	-	-	-	-	0.00	-1.32	-12.38	360.00	Good	AM149000C10
342	-11.06	PIFA	0.70	-	-	-	-	0.00	0.70	-10.36	360.00	Good	AM149000C00
343	-11.06	Dipole	2.30	-	-	-	-	0.00	2.30	-8.76	360.00	Good	SM1WFI0123A
344	-11.06	Dipole	2.90	-	-	-	-	0.00	2.90	-8.16	360.00	Good	AN2450-5511BRS-SMALFR8-3230A-00X00R
345	-11.06	Dipole	2.56	-	-	-	-	0.00	2.56	-8.50	360.00	Good	RFA-25-C2M2-U-M70

5. Unwanted Emission Intensity

	Test Voltage		V	Normal Voltage (3.3V)									Remarks
	Test Frequency		MHz	2402	2441	2480							
Unwanted Emission Frequency		※ 1	MHz	2363.43	2165.44	798.38							RBW : 1 MHz ; VBW : 1 MHz
		※ 2	MHz	2400.00	2389.00	2395.53							
		※ 3	MHz	2493.64	2485.16	2483.50							
		※ 4	MHz	3196.75	3256.77	3296.78							
Cable Loss		※ 1	dB	1.31	1.31	1.31							
		※ 2	dB	1.31	1.31	1.31							
		※ 3	dB	1.31	1.31	1.31							
		※ 4	dB	2.20	2.20	2.20							
Spectrum Raw		※ 1	dBm	-52.52	-52.97	-53.53							
		※ 2	dBm	-17.37	-51.15	-52.82							
		※ 3	dBm	-51.94	-52.36	-36.97							
		※ 4	dBm	-43.34	-44.01	-43.53							
Unwanted Emission Intensity		※ 1	dBm	-51.21	-51.66	-52.22							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	dBm	-16.06	-49.84	-51.51							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	dBm	-50.63	-51.05	-35.66							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	dBm	-41.14	-41.81	-41.33							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
Unwanted Emission Intensity		※ 1	μW	0.0076	0.0068	0.0060							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)
		※ 2	μW	24.7742	0.0104	0.0071							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 3	μW	0.0086	0.0079	0.2716							Limit ≤ 25 μW/MHz (-16 dBm/MHz)
		※ 4	μW	0.0769	0.0659	0.0736							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

6. Limitation of Collateral Emission of Receiver

	Test Voltage		V	Normal Voltage (3.3V)									Remarks
	Test Frequency		MHz	2402.0	2441.0	2480.0							
Spurious Emission Frequency		※ 5	MHz	319.06	369.50	280.26							1st 30MHz~1000MHz:: Maximum emission and all emissions beyond 1/10 of the limitation must be indicated.
		※ 5	MHz	-	-	-							
		※ 5	MHz	-	-	-							
		※ 6	MHz	3185.00	3254.00	3300.00							1st 1000MHz~12.5GHz:: Maximum emission and all emissions beyond 1/10 of the limitation must be indicated.
		※ 6	MHz	-	-	-							
		※ 6	MHz	-	-	-							
Cable Loss		※ 5	dB	1.31	1.31	1.31							1st
		※ 5	dB	-	-	-							2nd
		※ 5	dB	-	-	-							3rd
		※ 6	dB	2.20	2.20	2.20							1st
		※ 6	dB	-	-	-							2nd
		※ 6	dB	-	-	-							3rd
Spectrum Raw		※ 5	dBm	-77.22	-77.52	-78.17							1st
		※ 5	dBm	-	-	-							2nd
		※ 5	dBm	-	-	-							3rd
		※ 6	dBm	-52.92	-53.39	-54.13							1st
		※ 6	dBm	-	-	-							2nd
		※ 6	dBm	-	-	-							3rd
Spurious Emission Intensity		※ 5	dBm	-75.91	-76.21	-76.86							1st Limit ≤ 4 nW (-54 dBm)
		※ 5	dBm	-	-	-							2nd RBW : 100 kHz ; VBW : 100 kHz
		※ 5	dBm	-	-	-							3rd
		※ 6	dBm	-50.72	-51.19	-51.93							1st Limit ≤ 20 nW (-47 dBm)
		※ 6	dBm	-	-	-							2nd RBW : 1 MHz ; VBW : 1 MHz
		※ 6	dBm	-	-	-							3rd
Spurious Emission Intensity		※ 5	nW	0.0256	0.0239	0.0206							Total Emission Power
		※ 5	nW	0.0256	0.0239	0.0206							1st Limit ≤ 4 nW (-54 dBm)
		※ 5	nW	-	-	-							2nd RBW : 100 kHz ; VBW : 100 kHz
		※ 6	nW	8.4723	7.6033	6.4121							3rd Total Emission Power
		※ 6	nW	8.4723	7.6033	6.4121							1st Limit ≤ 20 nW (-47 dBm)
		※ 6	nW	-	-	-							2nd RBW : 1 MHz ; VBW : 1 MHz
		※ 6	nW	-	-	-							3rd

※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz)

※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

7. Hopping Frequency Dwell Time

	Test Voltage		V	Normal Voltage (3.3V)									Remarks
	Test Frequency		MHz	2402	2441	2480							
DH5	Pulse Duration		msec	2.8800	2.8800	2.8800							Limit ≤ 0.4 sec (In 0.4 sec × spreading rate)
	Measurement Time		sec	31.86	31.86	31.86							RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz
	Dwell Time		sec	0.3098	0.3098	0.3098							The total sum of holding time at arbitrary frequencies within the time multiplied 0.4 sec by the spreading rate

8. Spread Factor

	Test Voltage		V	Normal Voltage (3.3V)									Remarks
	Test Frequency		MHz	2402 ~ 2480									
Spread Factor	Spread-Spectrum Bandwidth		MHz	79.66									
	Modulation Rate		Mcps	1.375									
	Spread Factor			57.934									Spread Factor Limit ≥ 5 (DSSS and FHSS)

Appendix B 19-BT-F1D

Sporton No.	JR342603-64AE
Test Date	2019/1/16
Test Location	SPORTON Lab.
Temp. / Humid.	25°C / 34%
Test Conducted By	
Name	Ron Huang
Department	Radio Service Group

1. General Information

Specified Radio Equipment	Class	Article 2 Paragraph 1 Item 19	Model	RTL8821AE	
	Type of Emission	F1D	Serial No.	NA	
	Modulation Type	8DPSK	Antenna Power	0.278	mW/MHz
	Frequency	2441~2460MHz			

2. Test Results

Test Voltage	V	Normal Voltage (3.3V)									Remarks
Test Frequency	MHz	2441	2451	2460							Low/Mid/High of test frequency range
Measured Frequency	MHz	2440.989	2450.988	2459.988							RBW : 30 kHz ; VBW : 30 kHz : SP : 300kHz
Frequency Error	ppm	-4.67	-4.90	-4.88							Limit ≤ 50 ppm
Occupied Bandwidth	MHz	21.40									Limit ≤ 83.5 MHz (RBW/VBW : 1MHz)
Spread-spectrum Bandwidth	MHz	20.06									Spread Factor Limit ≥ 5 (DSSS and FHSS)
Unwanted Emission Intensity (Power emission within 1MHz bandwidth)	※ 1	μ W/MHz	0.0068	0.0066	0.0068						Limit ≤ 2.5 μ W/MHz (-26 dBm/MHz)
	※ 2	μ W/MHz	0.0104	0.0079	0.0091						Limit ≤ 25 μ W/MHz (-16 dBm/MHz)
	※ 3	μ W/MHz	0.0079	0.0121	0.0093						Limit ≤ 25 μ W/MHz (-16 dBm/MHz)
	※ 4	μ W/MHz	0.0659	0.0818	0.0619						Limit ≤ 2.5 μ W/MHz (-26 dBm/MHz)
Antenna Power (Conducted)	mW/MHz	0.278									Limit ≤ 3 mW/MHz (4.77 dBm/MHz)
Antenna Power Error	%	0.00									Limit + 20% ~ - 80%
Limitation of Collateral Emission of Receiver	※ 5	nW	0.0239	0.0241	0.0238						Limit ≤ 4 nW (-54 dBm)
	※ 6	nW	7.6033	7.5162	8.2035						Limit ≤ 20 nW (-47 dBm)
Hopping Frequency Dwell Time	sec	0.0780	0.0780	0.0780							Limit ≤ 0.4 sec (In 0.4 sec $\times$ spreading rate)
Radio Interference Prevention Function	ID Code	Good, MAC Address: 00-E0-4C-02-F0-A8									
	Carrier Sense	NR	NR	NR							NR: Not Require

※ 1: Frequency Band 1 (30 MHz $\leq$ f $\leq$ 2387 MHz) ※ 4: Frequency Band 4 (2496.5 MHz $\leq$ f < 12.5 GHz)

※ 2: Frequency Band 2 (2387 MHz < f $\leq$ 2400 MHz)

※ 5: Frequency Band 5 (30 MHz $\leq$ f < 1000 MHz)

※ 3: Frequency Band 3 (2483.5 MHz $\leq$ f < 2496.5 MHz)

※ 6: Frequency Band 6 (1000 MHz $\leq$ f < 12.5 GHz)

3. Antenna Power (Conducted Power)

Testing for Electrical Specification	Test Voltage	V	Normal Voltage (3.3V)			Remarks
	Test Frequency	MHz	2441~2460MHz			
	Power Meter Raw from EUT	dBm	7.46			
	Duty Cycle Factor	dB	0.00			Duty Factor = $10 \times 10\text{Log}_{10}(1/\text{Duty Cycle})$
	Spreading Bandwidth Factor	dB	-13.02			BW Factor = $10 \times 10\text{Log}_{10}(1/\text{Spreading BW})$
	Antenna Power (Conducted)	dBm/MHz	-5.56			Limit $\leq 3 \text{ mW/MHz}$ (4.77 dBm/MHz)
	Antenna Power (Conducted)	mW/MHz	0.278			
	Antenna Power Error	mW	0.000			
		%	0.00			Limit + 20% ~ - 80%
	Transmitter ON _{Time}	msec	1.0000			RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz
Transmitter (ON+OFF) _{Time}	msec	1.0000				
Transmitter Duty Cycle	%	100.00%				

4. Transmission Radiation Angle Width (Note: This test item will not be applied to EIRP power of EUT is lower than 6.91dBm/MHz.)

No.	Antenna Power	Antenna				Cable			Total Gain D=B+C	EIRP F=A+D	Permitted Angle	Judgement	Remarks (Antenna Model)
	A	Type	Gain B	3dB Beam- width Horizontal	3dB Beam- width Vertical	Model	Length	Loss C					
			(dBi)	(Degree)	(Degree)								
	(dBm/MHz)						(m)	(dB)	(dBi)	(dBm/MHz)	(Degree)		
1	0.28	PIFA	3.50	-	-	-	-	0.00	3.50	3.78	360.00	Good	ALA110-222050-300010
2	0.28	DIPOLE	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	TWF-614XMPXX-500
3	0.28	SLOT	3.33	-	-	-	-	0.00	3.33	3.61	360.00	Good	PANT-001
4	0.28	PIFA	0.85	-	-	-	-	0.00	0.85	1.13	360.00	Good	SKW10WMPB01+A
5	0.28	PIFA	0.42	-	-	-	-	0.00	0.42	0.70	360.00	Good	SK65EWMPB01+A
6	0.28	PIFA	2.72	-	-	-	-	0.00	2.72	3.00	360.00	Good	DC33001AD00
7	0.28	PIFA	0.87	-	-	-	-	0.00	0.87	1.15	360.00	Good	DC33001AC00
8	0.28	PIFA	2.08	-	-	-	-	0.00	2.08	2.36	360.00	Good	L01RF019-DT-R (31-502717)
9	0.28	PIFA	1.36	-	-	-	-	0.00	1.36	1.64	360.00	Good	SKAEUWMPB01+B
10	0.28	PIFA	0.82	-	-	-	-	0.00	0.82	1.10	360.00	Good	SKA91WMPB02+A
11	0.28	PIFA	2.14	-	-	-	-	0.00	2.14	2.42	360.00	Good	W550EU WM-1
12	0.28	PIFA	-0.63	-	-	-	-	0.00	-0.63	-0.35	360.00	Good	APP6P-700781
13	0.28	PIFA	-0.13	-	-	-	-	0.00	-0.13	0.15	360.00	Good	ATM6P-70100
14	0.28	PIFA	-0.58	-	-	-	-	0.00	-0.58	-0.30	360.00	Good	DQ6G15G5800
15	0.28	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.42	360.00	Good	DQ60QTLI200
16	0.28	PIFA	1.15	-	-	-	-	0.00	1.15	1.43	360.00	Good	81.EKG15.G30
17	0.28	PIFA	0.90	-	-	-	-	0.00	0.90	1.18	360.00	Good	CAN4313LC0613WLA4
18	0.28	PIFA	0.60	-	-	-	-	0.00	0.60	0.88	360.00	Good	81.EKG15.G37
19	0.28	PIFA	1.89	-	-	-	-	0.00	1.89	2.17	360.00	Good	PANT11A00008-1
20	0.28	PIFA	0.60	-	-	-	-	0.00	0.60	0.88	360.00	Good	WDAN-T1RH2
21	0.28	PIFA	0.21	-	-	-	-	0.00	0.21	0.49	360.00	Good	SKX71WMPB01+B
22	0.28	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.01	360.00	Good	L01RF009-R
23	0.28	PIFA	0.72	-	-	-	-	0.00	0.72	1.00	360.00	Good	SKW25WMPB01+A
24	0.28	PIFA	-0.17	-	-	-	-	0.00	-0.17	0.11	360.00	Good	SK549WMPB01+A
25	0.28	PIFA	2.53	-	-	-	-	0.00	2.53	2.81	360.00	Good	W350ETQ WM-2
26	0.28	PIFA	-1.28	-	-	-	-	0.00	-1.28	-1.00	360.00	Good	SKW34WMPB02+A
27	0.28	PIFA	2.60	-	-	-	-	0.00	2.60	2.88	360.00	Good	IA-120266
28	0.28	PIFA	0.24	-	-	-	-	0.00	0.24	0.52	360.00	Good	25.90AH8.001
29	0.28	PIFA	1.28	-	-	-	-	0.00	1.28	1.56	360.00	Good	25.90AH8.011
30	0.28	PIFA	-0.27	-	-	-	-	0.00	-0.27	0.01	360.00	Good	25.90AH8.021
31	0.28	PIFA	-0.11	-	-	-	-	0.00	-0.11	0.17	360.00	Good	25.90AJB.001
32	0.28	PIFA	-1.14	-	-	-	-	0.00	-1.14	-0.86	360.00	Good	25.90AJC.001
33	0.28	PIFA	2.74	-	-	-	-	0.00	2.74	3.02	360.00	Good	25.90ALR.001
34	0.28	PIFA	1.91	-	-	-	-	0.00	1.91	2.19	360.00	Good	25.90AAK.001
35	0.28	PIFA	1.29	-	-	-	-	0.00	1.29	1.57	360.00	Good	25.90AAL.011
36	0.28	PIFA	-2.20	-	-	-	-	0.00	-2.20	-1.92	360.00	Good	25.90ALR.011
37	0.28	PIFA	-0.60	-	-	-	-	0.00	-0.60	-0.32	360.00	Good	25.90AJC.011
38	0.28	PIFA	1.59	-	-	-	-	0.00	1.59	1.87	360.00	Good	25.90AJC.011
39	0.28	PIFA	1.33	-	-	-	-	0.00	1.33	1.61	360.00	Good	ATP6P -700001
40	0.28	DIPOLE	0.45	-	-	-	-	0.00	0.45	0.73	360.00	Good	DAM-14-H-DB-800-10-17
41	0.28	PIFA	1.05	-	-	-	-	0.00	1.05	1.33	360.00	Good	SK110WMPB01+A
42	0.28	PIFA	-1.61	-	-	-	-	0.00	-1.61	-1.33	360.00	Good	SKW23WMPB01+A
43	0.28	PIFA	0.20	-	-	-	-	0.00	0.20	0.48	360.00	Good	SK740WMPB02+A
44	0.28	PIFA	1.95	-	-	-	-	0.00	1.95	2.23	360.00	Good	APP6P-700968

45	0.28	PIFA	0.46	-	-	-	-	0.00	0.46	0.74	360.00	Good	SKCZTWMPB01+A
46	0.28	PIFA	1.48	-	-	-	-	0.00	1.48	1.76	360.00	Good	SK670WMPB01+A
47	0.28	PIFA	1.75	-	-	-	-	0.00	1.75	2.03	360.00	Good	K05007012102
48	0.28	PIFA	2.70	-	-	-	-	0.00	2.70	2.98	360.00	Good	K05007013402
49	0.28	PIFA	2.04	-	-	-	-	0.00	2.04	2.32	360.00	Good	K05007012803
50	0.28	PIFA	2.53	-	-	-	-	0.00	2.53	2.81	360.00	Good	K05007015501
51	0.28	PIFA	2.85	-	-	-	-	0.00	2.85	3.13	360.00	Good	K05007014501
52	0.28	PIFA	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	K05007014201
53	0.28	PIFA	1.85	-	-	-	-	0.00	1.85	2.13	360.00	Good	K05007014901
54	0.28	PIFA	1.94	-	-	-	-	0.00	1.94	2.22	360.00	Good	K05007015001
55	0.28	PIFA	2.23	-	-	-	-	0.00	2.23	2.51	360.00	Good	1510-0122-0022(IA-120073)
56	0.28	PIFA	0.78	-	-	-	-	0.00	0.78	1.06	360.00	Good	SK547WMPB02+A
57	0.28	PIFA	3.03	-	-	-	-	0.00	3.03	3.31	360.00	Good	SK840WMPB01+B_SN
58	0.28	PIFA	3.20	-	-	-	-	0.00	3.20	3.48	360.00	Good	SKX51WMPB01+C
59	0.28	PIFA	2.76	-	-	-	-	0.00	2.76	3.04	360.00	Good	SKX51WMPB02+C
60	0.28	PIFA	1.79	-	-	-	-	0.00	1.79	2.07	360.00	Good	SK81WMPB01+A
61	0.28	PIFA	2.88	-	-	-	-	0.00	2.88	3.16	360.00	Good	SKW2UWMPB01+A
62	0.28	PIFA	3.14	-	-	-	-	0.00	3.14	3.42	360.00	Good	SKW31WMPB01+A
63	0.28	PIFA	-1.84	-	-	-	-	0.00	-1.84	-1.56	360.00	Good	SKM11WMPB03+A
64	0.28	PIFA	2.91	-	-	-	-	0.00	2.91	3.19	360.00	Good	SKC45WMPB03+B
65	0.28	PIFA	3.17	-	-	-	-	0.00	3.17	3.45	360.00	Good	SKW24WMPB01+B
66	0.28	PIFA	0.76	-	-	-	-	0.00	0.76	1.04	360.00	Good	SK555WMPB01+B
67	0.28	PIFA	0.76	-	-	-	-	0.00	0.76	1.04	360.00	Good	SK945WMPB01+B
68	0.28	PIFA	1.86	-	-	-	-	0.00	1.86	2.14	360.00	Good	SK94TWMPB01+B
69	0.28	PIFA	-0.03	-	-	-	-	0.00	-0.03	0.25	360.00	Good	SK50S5WMPB01+A
70	0.28	PIFA	0.60	-	-	-	-	0.00	0.60	0.88	360.00	Good	APP6P-701010
71	0.28	PIFA	0.60	-	-	-	-	0.00	0.60	0.88	360.00	Good	WA-P-LB-02-094
72	0.28	PIFA	2.02	-	-	-	-	0.00	2.02	2.30	360.00	Good	25CA0-295000-J3R
73	0.28	PIFA	1.86	-	-	-	-	0.00	1.86	2.14	360.00	Good	SK94TWMPB01+D
74	0.28	PIFA	1.51	-	-	-	-	0.00	1.51	1.79	360.00	Good	RFA-25-AP158-70300AU
75	0.28	PIFA	0.49	-	-	-	-	0.00	0.49	0.77	360.00	Good	L01RF050-YT-R
76	0.28	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.01	360.00	Good	L01RF009-R
77	0.28	PIFA	-0.84	-	-	-	-	0.00	-0.84	-0.56	360.00	Good	14007-01300600
78	0.28	PIFA	-1.14	-	-	-	-	0.00	-1.14	-0.86	360.00	Good	APP6P-700944
79	0.28	DIPOLE	1.29	-	-	-	-	0.00	1.29	1.57	360.00	Good	14007-00410200
80	0.28	PIFA	-2.73	-	-	-	-	0.00	-2.73	-2.45	360.00	Good	C497-520058-A
81	0.28	PIFA	-2.79	-	-	-	-	0.00	-2.79	-2.51	360.00	Good	C497-520059-A
82	0.28	PIFA	1.95	-	-	-	-	0.00	1.95	2.23	360.00	Good	25CA0-210001-J7S/2000000000109
83	0.28	DIPOLE	1.76	-	-	-	-	0.00	1.76	2.04	360.00	Good	UC7WFI0005
84	0.28	PIFA	1.87	-	-	-	-	0.00	1.87	2.15	360.00	Good	F.0G.FS-6004-001(025.9003S.0001)
85	0.28	PIFA	1.94	-	-	-	-	0.00	1.94	2.22	360.00	Good	025.9003R.0001(81.EBC15.GAJ)
86	0.28	PIFA	3.46	-	-	-	-	0.00	3.46	3.74	360.00	Good	UC7WFI0002A02
87	0.28	PIFA	1.57	-	-	-	-	0.00	1.57	1.85	360.00	Good	L01RF051-DT-R
88	0.28	PIFA	1.70	-	-	-	-	0.00	1.70	1.98	360.00	Good	L01RF054-DT-R
89	0.28	PIFA	1.01	-	-	-	-	0.00	1.01	1.29	360.00	Good	APP6P-701052
90	0.28	PIFA	2.74	-	-	-	-	0.00	2.74	3.02	360.00	Good	IA-130052
91	0.28	PIFA	1.78	-	-	-	-	0.00	1.78	2.06	360.00	Good	IAH-1400XX
92	0.28	PIFA	0.61	-	-	-	-	0.00	0.61	0.89	360.00	Good	APP6P-701052
93	0.28	PIFA	-0.27	-	-	-	-	0.00	-0.27	0.01	360.00	Good	APP6P-701162
94	0.28	PIFA	2.81	-	-	-	-	0.00	2.81	3.09	360.00	Good	IA-140029
95	0.28	PIFA	2.74	-	-	-	-	0.00	2.74	3.02	360.00	Good	1510-0119-0205
96	0.28	PIFA	-0.97	-	-	-	-	0.00	-0.97	-0.69	360.00	Good	25.90AH1.001 (81.EEW15.GAT)
97	0.28	PIFA	-0.97	-	-	-	-	0.00	-0.97	-0.69	360.00	Good	81.EEW15.GAT
98	0.28	PIFA	1.85	-	-	-	-	0.00	1.85	2.13	360.00	Good	APP6P-701213
99	0.28	PIFA	1.64	-	-	-	-	0.00	1.64	1.92	360.00	Good	MSA-3409-25GC1-A1
100	0.28	PIFA	0.41	-	-	-	-	0.00	0.41	0.69	360.00	Good	WA-P-LB-01-101
101	0.28	PIFA	0.84	-	-	-	-	0.00	0.84	1.12	360.00	Good	LA05RF805-1H
102	0.28	PIFA	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	MSA-3822-25GC1-A1
103	0.28	PIFA	1.74	-	-	-	-	0.00	1.74	2.02	360.00	Good	SE-ECA10-002
104	0.28	PIFA	2.66	-	-	-	-	0.00	2.66	2.94	360.00	Good	DC33001M000 / T-543-9021035-1
105	0.28	PIFA	1.61	-	-	-	-	0.00	1.61	1.89	360.00	Good	SE-ECVY3-001
106	0.28	PIFA	1.79	-	-	-	-	0.00	1.79	2.07	360.00	Good	T-543-9021013-A
107	0.28	PIFA	0.52	-	-	-	-	0.00	0.52	0.80	360.00	Good	0ACCN013037
108	0.28	PIFA	-0.43	-	-	-	-	0.00	-0.43	-0.15	360.00	Good	L01RF039-DT-R
109	0.28	PIFA	1.82	-	-	-	-	0.00	1.82	2.10	360.00	Good	APP6P-701194
110	0.28	PIFA	2.73	-	-	-	-	0.00	2.73	3.01	360.00	Good	IAH-140030
111	0.28	PIFA	2.98	-	-	-	-	0.00	2.98	3.26	360.00	Good	IAH-140030
112	0.28	PIFA	1.82	-	-	-	-	0.00	1.82	2.10	360.00	Good	APP6P-701194
113	0.28	PIFA	2.20	-	-	-	-	0.00	2.20	2.48	360.00	Good	APP6P-701233
114	0.28	PIFA	1.31	-	-	-	-	0.00	1.31	1.59	360.00	Good	1415-040A000/ ANTA0ZP09021WLAN1
115	0.28	PIFA	1.08	-	-	-	-	0.00	1.08	1.36	360.00	Good	DC33001NS00 / APP6Y-700054
116	0.28	PIFA	0.94	-	-	-	-	0.00	0.94	1.22	360.00	Good	260-24055
117	0.28	PIFA	-0.45	-	-	-	-	0.00	-0.45	-0.17	360.00	Good	DC33001O600 (81EAAS15.G72)
118	0.28	PIFA	1.99	-	-	-	-	0.00	1.99	2.27	360.00	Good	APP6P-701314
119	0.28	PIFA	-1.36	-	-	-	-	0.00	-1.36	-1.08	360.00	Good	APM6Y-700023
120	0.28	PIFA	2.74	-	-	-	-	0.00	2.74	3.02	360.00	Good	LB001LC018
121	0.28	PIFA	0.82	-	-	-	-	0.00	0.82	1.10	360.00	Good	DC330160310
122	0.28	PIFA	1.27	-	-	-	-	0.00	1.27	1.55	360.00	Good	DC330017L00
123	0.28	PIFA	1.25	-	-	-	-	0.00	1.25	1.53	360.00	Good	DC330017G10
124	0.28	PIFA	1.83	-	-	-	-	0.00	1.83	2.11	360.00	Good	DC330160410
125	0.28	PIFA	1.60	-	-	-	-	0.00	1.60	1.88	360.00	Good	DC330017L00
126	0.28	PIFA	2.85	-	-	-	-	0.00	2.85	3.13	360.00	Good	DC330017J10
127	0.28	PIFA	-0.20	-	-	-	-	0.00	-0.20	0.08	360.00	Good	LB302LC302
128	0.28	PIFA	0.10	-	-	-	-	0.00	0.10	0.38	360.00	Good	T-543-3010220-1
129	0.28	PIFA	-1.33	-	-	-	-	0.00	-1.33	-1.05	360.00	Good	N1P6Y-200001
130	0.28	PIFA	0.61	-	-	-	-	0.00	0.61	0.89	360.00	Good	N1P6Y-200000
131	0.28	PIFA	1.58	-	-	-	-	0.00	1.58	1.86	360.00	Good	DQ6S15G7300 (81EAAS15.G73)
132	0.28	PIFA	0.45	-	-	-	-	0.00	0.45	0.73	360.00	Good	DQ6S15G7700 (81EAAS15.G77)
133	0.28	PIFA	0.79	-	-	-	-	0.00	0.79	1.07	360.00	Good	DQ601008900
134	0.28	PIFA	-0.88	-	-	-	-	0.00	-0.88	-0.60	360.00	Good	DQ601009700
135	0.28	PIFA	-0.44	-	-	-	-	0.00	-0.44	-0.16	360.00	Good	APP6Y-700261
136	0.28	PIFA	1.64	-	-	-	-	0.00	1.64	1.92	360.00	Good	DQ6S15G7400
137	0.28	PIFA	2.98	-	-	-	-	0.00	2.98	3.26	360.00	Good	0ACCN015004N
138	0.28	PIFA	0.21	-	-	-	-	0.00	0.21	0.49	360.00	Good	T-543-9021077-1
139	0.28	PIFA	1.60	-	-	-	-	0.00	1.60	1.88	360.00	Good	AAM6Y-200002

140	0.28	PIFA	2.49	-	-	-	-	0.00	2.49	2.77	360.00	Good	JAH150012
141	0.28	PIFA	2.90	-	-	-	-	0.00	2.90	3.18	360.00	Good	81800T029
142	0.28	PIFA	0.32	-	-	-	-	0.00	0.32	0.60	360.00	Good	L01RF056-DT-R
143	0.28	PIFA	-1.90	-	-	-	-	0.00	-1.90	-1.62	360.00	Good	L01RF064-DT-R
144	0.28	PIFA	0.36	-	-	-	-	0.00	0.36	0.64	360.00	Good	025.900CR.0001
145	0.28	PIFA	2.23	-	-	-	-	0.00	2.23	2.51	360.00	Good	025.900CR.0011
146	0.28	PIFA	1.00	-	-	-	-	0.00	1.00	1.28	360.00	Good	025.900CP.0001
147	0.28	PIFA	-2.21	-	-	-	-	0.00	-2.21	-1.93	360.00	Good	025.9006P.0001
148	0.28	PIFA	-0.84	-	-	-	-	0.00	-0.84	-0.56	360.00	Good	025.9006P.0011
149	0.28	PIFA	2.46	-	-	-	-	0.00	2.46	2.74	360.00	Good	JAH1-150012
150	0.28	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.24	360.00	Good	L01RF072-DT-R/ L01RF031-DT-R
151	0.28	PIFA	1.92	-	-	-	-	0.00	1.92	2.20	360.00	Good	AAP6Y-100000
152	0.28	PIFA	1.61	-	-	-	-	0.00	1.61	1.89	360.00	Good	T-543-9021081-1
153	0.28	PIFA	1.94	-	-	-	-	0.00	1.94	2.22	360.00	Good	AAP6Y-100004
154	0.28	PIFA	2.43	-	-	-	-	0.00	2.43	2.71	360.00	Good	T-543-9021080-1
155	0.28	PIFA	-1.29	-	-	-	-	0.00	-1.29	-1.01	360.00	Good	260-26073
156	0.28	PIFA	1.40	-	-	-	-	0.00	1.40	1.68	360.00	Good	LOERF003-DT-R (025.900BR.0001)
157	0.28	PIFA	1.78	-	-	-	-	0.00	1.78	2.06	360.00	Good	DC33001EH00
158	0.28	PIFA	0.61	-	-	-	-	0.00	0.61	0.89	360.00	Good	DC33001EJ10
159	0.28	PIFA	1.75	-	-	-	-	0.00	1.75	2.03	360.00	Good	DC33001DU00
160	0.28	PIFA	1.69	-	-	-	-	0.00	1.69	1.97	360.00	Good	DC33001DX00
161	0.28	PIFA	2.08	-	-	-	-	0.00	2.08	2.36	360.00	Good	DC33001DV00
162	0.28	PIFA	1.86	-	-	-	-	0.00	1.86	2.14	360.00	Good	DC33001DW00
163	0.28	PIFA	0.95	-	-	-	-	0.00	0.95	1.23	360.00	Good	DC33001DB00
164	0.28	PIFA	1.87	-	-	-	-	0.00	1.87	2.15	360.00	Good	DC33001D900
165	0.28	PIFA	0.10	-	-	-	-	0.00	0.10	0.38	360.00	Good	UC7WF10009A
166	0.28	Dipole	2.56	-	-	-	-	0.00	2.56	2.84	360.00	Good	RFA-25-C2M2-M10-1
167	0.28	PIFA	0.64	-	-	-	-	0.00	0.64	0.92	360.00	Good	0ACCN014009N (DC33001M100)
168	0.28	PIFA	0.74	-	-	-	-	0.00	0.74	1.02	360.00	Good	T-543-9021043-1 (DC33001MD00)
169	0.28	PIFA	-2.10	-	-	-	-	0.00	-2.10	-1.82	360.00	Good	ADP6Y-100003
170	0.28	PIFA	2.38	-	-	-	-	0.00	2.38	2.66	360.00	Good	APM6Y-700021
171	0.28	PIFA	0.53	-	-	-	-	0.00	0.53	0.81	360.00	Good	025.900ED.0011
172	0.28	PIFA	1.95	-	-	-	-	0.00	1.95	2.23	360.00	Good	025.900ED.0001
173	0.28	Dipole	2.40	-	-	-	-	0.00	2.40	2.68	360.00	Good	T000CCD-80
174	0.28	Dipole	2.30	-	-	-	-	0.00	2.30	2.58	360.00	Good	T000CCD-250
175	0.28	Dipole	2.46	-	-	-	-	0.00	2.46	2.74	360.00	Good	RFDPA870918EMLB302
176	0.28	Dipole	2.44	-	-	-	-	0.00	2.44	2.72	360.00	Good	RFDPA870940EMLB303
177	0.28	PIFA	-1.36	-	-	-	-	0.00	-1.36	-1.08	360.00	Good	APM6Y-700023
178	0.28	PIFA	-1.68	-	-	-	-	0.00	-1.68	-1.40	360.00	Good	WA-M-LB-02-087
179	0.28	PIFA	-1.29	-	-	-	-	0.00	-1.29	-1.01	360.00	Good	14008-01320100
180	0.28	PIFA	1.94	-	-	-	-	0.00	1.94	2.22	360.00	Good	ANP6P-100002
181	0.28	PIFA	-1.68	-	-	-	-	0.00	-1.68	-1.40	360.00	Good	WA-M-LB-01-059
182	0.28	PIFA	-1.21	-	-	-	-	0.00	-1.21	-0.93	360.00	Good	025.900G0.0001
183	0.28	PIFA	-1.67	-	-	-	-	0.00	-1.67	-1.39	360.00	Good	025.900G0.0011
184	0.28	PIFA	0.66	-	-	-	-	0.00	0.66	0.94	360.00	Good	025.900FJ.0011
185	0.28	PIFA	0.13	-	-	-	-	0.00	0.13	0.41	360.00	Good	025.900FJ.0001
186	0.28	Dipole	2.42	-	-	-	-	0.00	2.42	2.70	360.00	Good	RFDPA870900SMLB801+RFCBA100618SF6B302
187	0.28	Dipole	2.06	-	-	-	-	0.00	2.06	2.34	360.00	Good	RFDPA870900SMLB801+RFCBA100640SF6B302
188	0.28	PIFA	1.10	-	-	-	-	0.00	1.10	1.38	360.00	Good	WA-P-LB-02-311
189	0.28	PIFA	1.68	-	-	-	-	0.00	1.68	1.96	360.00	Good	DC33001V100
190	0.28	PIFA	0.08	-	-	-	-	0.00	0.08	0.36	360.00	Good	DC33001V110
191	0.28	PIFA	1.34	-	-	-	-	0.00	1.34	1.62	360.00	Good	025.900I2.0011
192	0.28	PIFA	2.57	-	-	-	-	0.00	2.57	2.85	360.00	Good	025.900I4.0011
193	0.28	PIFA	1.44	-	-	-	-	0.00	1.44	1.72	360.00	Good	AAP6Y-100027
194	0.28	PIFA	1.82	-	-	-	-	0.00	1.82	2.10	360.00	Good	AAP6Y-100027
195	0.28	PIFA	-1.69	-	-	-	-	0.00	-1.69	-1.41	360.00	Good	DQ61QNL3P00 (WDAN-1QNL3P32-DH)
196	0.28	PIFA	-0.64	-	-	-	-	0.00	-0.64	-0.36	360.00	Good	L01RF075-DT-R
197	0.28	PIFA	1.92	-	-	-	-	0.00	1.92	2.20	360.00	Good	025.900I2.0001
198	0.28	PIFA	1.87	-	-	-	-	0.00	1.87	2.15	360.00	Good	025.900I4.0001
199	0.28	PIFA	0.73	-	-	-	-	0.00	0.73	1.01	360.00	Good	HHA14WIPB01+A(43R-A14001-0300)
200	0.28	PIFA	1.54	-	-	-	-	0.00	1.54	1.82	360.00	Good	HHA15WIPB02+C(43R-A15001-0300)
201	0.28	PIFA	1.17	-	-	-	-	0.00	1.17	1.45	360.00	Good	HHA15WIPB03+B(43R-A15001-0320)
202	0.28	PIFA	1.50	-	-	-	-	0.00	1.50	1.78	360.00	Good	HHB11WIPB02+B
203	0.28	PIFA	0.85	-	-	-	-	0.00	0.85	1.13	360.00	Good	HHB14WIPB03+A
204	0.28	PIFA	2.23	-	-	-	-	0.00	2.23	2.51	360.00	Good	HHD18WIPB02+C(43R-DA1801-0310)
205	0.28	PIFA	1.17	-	-	-	-	0.00	1.17	1.45	360.00	Good	AWPD23F-074A4031
206	0.28	PIFA	0.61	-	-	-	-	0.00	0.61	0.89	360.00	Good	AWPD23F-074B4031
207	0.28	PIFA	-4.82	-	-	-	-	0.00	-4.82	-4.54	360.00	Good	AWPD24F-074B4031
208	0.28	PIFA	0.04	-	-	-	-	0.00	0.04	0.32	360.00	Good	AWPD25F-074B4031
209	0.28	PIFA	1.62	-	-	-	-	0.00	1.62	1.90	360.00	Good	HHDH9WIPB02+B(43R-DH9BW1-0310)
210	0.28	PIFA	-0.07	-	-	-	-	0.00	-0.07	0.21	360.00	Good	HHDS4WIPB01+A(43R-DS4701-0300)
211	0.28	PIFA	3.02	-	-	-	-	0.00	3.02	3.30	360.00	Good	HHE10WIPB01+C(43R-E10001-0301)
212	0.28	PIFA	2.61	-	-	-	-	0.00	2.61	2.89	360.00	Good	HHT13WIPB01+A(43R-E10BT1-0300)
213	0.28	PIFA	1.82	-	-	-	-	0.00	1.82	2.10	360.00	Good	AWPD22F-074I4031
214	0.28	PIFA	3.13	-	-	-	-	0.00	3.13	3.41	360.00	Good	AWPD22F-074J4031
215	0.28	PIFA	1.38	-	-	-	-	0.00	1.38	1.66	360.00	Good	HHW08WIPB01+B(43R-H14BW1-0300)
216	0.28	PIFA	-1.74	-	-	-	-	0.00	-1.74	-1.46	360.00	Good	AWPD18F-074A4031
217	0.28	PIFA	-2.61	-	-	-	-	0.00	-2.61	-2.33	360.00	Good	AWPD25F-074C4031
218	0.28	PIFA	3.13	-	-	-	-	0.00	3.13	3.41	360.00	Good	AWPD22F-074J4031
219	0.28	PIFA	0.70	-	-	-	-	0.00	0.70	0.98	360.00	Good	AWPD18F-074A4031
220	0.28	PIFA	2.65	-	-	-	-	0.00	2.65	2.93	360.00	Good	HHNH5WIPB01+A(43R-NH5001-0300)
221	0.28	PIFA	2.60	-	-	-	-	0.00	2.60	2.88	360.00	Good	HHNI3WIPB01+A(43R-NI3BT1-0300)
222	0.28	PIFA	1.62	-	-	-	-	0.00	1.62	1.90	360.00	Good	HHU01WIPB01+A(43R-NUCBU1-0300)
223	0.28	PIFA	2.28	-	-	-	-	0.00	2.28	2.56	360.00	Good	HHT03WIPB02+A
224	0.28	PIFA	2.49	-	-	-	-	0.00	2.49	2.77	360.00	Good	HHW03WIPB01+B(43R-SFFBW1-0300)
225	0.28	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.42	360.00	Good	43R-SFFBT1-2110
226	0.28	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.42	360.00	Good	43R-SFFBW1-2110
227	0.28	PIFA	1.29	-	-	-	-	0.00	1.29	1.57	360.00	Good	AWPD18F-074G4031
228	0.28	PIFA	2.67	-	-	-	-	0.00	2.67	2.95	360.00	Good	HHL06WIPB01+A(43R-WA0ML1-0300)
229	0.28	PIFA	2.78	-	-	-	-	0.00	2.78	3.06	360.00	Good	HHWA0WIPB02+D(43R-WA0TM1-0310)
230	0.28	PIFA	2.35	-	-	-	-	0.00	2.35	2.63	360.00	Good	HHXS3WIPB01+C(43R-XS3501-0300)
231	0.28	PIFA	3.11	-	-	-	-	0.00	3.11	3.39	360.00	Good	HHN08WIPB01+D
232	0.28	Dipole	2.32	-	-	-	-	0.00	2.32	2.60	360.00	Good	RFDPA870900SBLB808
233	0.28	Dipole	2.20	-	-	-	-	0.00	2.20	2.48	360.00	Good	RFDPA870900SMLB801
234	0.28	Dipole	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	RFDPA870911EMLB301
235	0.28	Dipole	2.87	-	-	-	-	0.00	2.87	3.15	360.00	Good	RFDPA870914EMLB301

236	0.28	Dipole	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	RFDPA870914EMLB302
237	0.28	Dipole	3.00	-	-	-	-	0.00	3.00	3.28	360.00	Good	RFDPA870940EMLB304
238	0.28	PIFA	1.00	-	-	-	-	0.00	1.00	1.28	360.00	Good	HHE14WIPB03+A(43R-E14D31-0301)
239	0.28	PIFA	0.61	-	-	-	-	0.00	0.61	0.89	360.00	Good	RFMTA331211EMLB301
240	0.28	PIFA	1.62	-	-	-	-	0.00	1.62	1.90	360.00	Good	RFMTA331229EMLB301
241	0.28	PIFA	2.47	-	-	-	-	0.00	2.47	2.75	360.00	Good	RFA-25-AP252-70-500
242	0.28	PIFA	-0.30	-	-	-	-	0.00	-0.30	-0.02	360.00	Good	ANP6Y-100113
243	0.28	PIFA	1.66	-	-	-	-	0.00	1.66	1.94	360.00	Good	AAP6Y-100023
244	0.28	PIFA	2.19	-	-	-	-	0.00	2.19	2.47	360.00	Good	OACCN015036N
245	0.28	PIFA	3.11	-	-	-	-	0.00	3.11	3.39	360.00	Good	BAUKO1730B-M
246	0.28	PIFA	0.50	-	-	-	-	0.00	0.50	0.78	360.00	Good	DQ6U15G7100
247	0.28	PIFA	1.85	-	-	-	-	0.00	1.85	2.13	360.00	Good	DQ6U15G6500
248	0.28	PIFA	2.81	-	-	-	-	0.00	2.81	3.09	360.00	Good	DQ6U15G7700
249	0.28	PIFA	1.95	-	-	-	-	0.00	1.95	2.23	360.00	Good	DQ6U15G7900
250	0.28	PIFA	0.38	-	-	-	-	0.00	0.38	0.66	360.00	Good	ANP6Y-100071
251	0.28	PIFA	-0.68	-	-	-	-	0.00	-0.68	-0.40	360.00	Good	OACCN015030N
252	0.28	PIFA	0.05	-	-	-	-	0.00	0.05	0.33	360.00	Good	T-543-9021113-2
253	0.28	PIFA	-0.39	-	-	-	-	0.00	-0.39	-0.11	360.00	Good	ANP6Y-100073
254	0.28	PIFA	-0.51	-	-	-	-	0.00	-0.51	-0.23	360.00	Good	OACCN015032N
255	0.28	PIFA	0.09	-	-	-	-	0.00	0.09	0.37	360.00	Good	T-543-9021114-2
256	0.28	PIFA	-0.34	-	-	-	-	0.00	-0.34	-0.06	360.00	Good	F.0G.UH-6008-004-00
257	0.28	PIFA	0.33	-	-	-	-	0.00	0.33	0.61	360.00	Good	T-543-9021106-3
258	0.28	PIFA	-0.34	-	-	-	-	0.00	-0.34	-0.06	360.00	Good	F.0G.UH-6008-004-00
259	0.28	PIFA	2.57	-	-	-	-	0.00	2.57	2.85	360.00	Good	WA-F-LB-02-089
260	0.28	PIFA	0.06	-	-	-	-	0.00	0.06	0.34	360.00	Good	T-543-9021105-3
261	0.28	PIFA	0.19	-	-	-	-	0.00	0.19	0.47	360.00	Good	T-543-9021104-1
262	0.28	PIFA	0.20	-	-	-	-	0.00	0.20	0.48	360.00	Good	T-543-9021103-A
263	0.28	Dipole	2.38	-	-	-	-	0.00	2.38	2.66	360.00	Good	AN2450-5706RS
264	0.28	Dipole	2.38	-	-	-	-	0.00	2.38	2.66	360.00	Good	AN2450-5706RS
265	0.28	PIFA	0.94	-	-	-	-	0.00	0.94	1.22	360.00	Good	APP6Y-700127
266	0.28	PIFA	-0.29	-	-	-	-	0.00	-0.29	-0.01	360.00	Good	ANTA02P09041WLAN4
267	0.28	PIFA	1.35	-	-	-	-	0.00	1.35	1.63	360.00	Good	DC33001F400
268	0.28	PIFA	2.92	-	-	-	-	0.00	2.92	3.20	360.00	Good	DC33001F510
269	0.28	PIFA	1.57	-	-	-	-	0.00	1.57	1.85	360.00	Good	DC33001F700
270	0.28	PIFA	2.41	-	-	-	-	0.00	2.41	2.69	360.00	Good	DC33001F610
271	0.28	PIFA	1.71	-	-	-	-	0.00	1.71	1.99	360.00	Good	DC33001F800
272	0.28	PIFA	2.14	-	-	-	-	0.00	2.14	2.42	360.00	Good	DC33001FA00
273	0.28	PIFA	1.21	-	-	-	-	0.00	1.21	1.49	360.00	Good	DC33001F110
274	0.28	PIFA	1.52	-	-	-	-	0.00	1.52	1.80	360.00	Good	DC33001EX00
275	0.28	PIFA	-1.60	-	-	-	-	0.00	-1.60	-1.32	360.00	Good	DC33001EW10
276	0.28	PIFA	0.73	-	-	-	-	0.00	0.73	1.01	360.00	Good	DC33001F210
277	0.28	PIFA	1.56	-	-	-	-	0.00	1.56	1.84	360.00	Good	DC33001EY00
278	0.28	PIFA	2.94	-	-	-	-	0.00	2.94	3.22	360.00	Good	DC33001EZ10
279	0.28	PIFA	0.87	-	-	-	-	0.00	0.87	1.15	360.00	Good	DC33001F000
280	0.28	PIFA	1.46	-	-	-	-	0.00	1.46	1.74	360.00	Good	DC33001F300
281	0.28	PIFA	1.20	-	-	-	-	0.00	1.20	1.48	360.00	Good	JUM2452PO VX1
282	0.28	PIFA	1.27	-	-	-	-	0.00	1.27	1.55	360.00	Good	350502200-600-G
283	0.28	PIFA	2.06	-	-	-	-	0.00	2.06	2.34	360.00	Good	DC330018D00
284	0.28	PIFA	1.21	-	-	-	-	0.00	1.21	1.49	360.00	Good	290-40253
285	0.28	PIFA	0.70	-	-	-	-	0.00	0.70	0.98	360.00	Good	HHDS6WIPB01+A
286	0.28	PIFA	-0.46	-	-	-	-	0.00	-0.46	-0.18	360.00	Good	HH02UWIPB01+B
287	0.28	PIFA	-2.02	-	-	-	-	0.00	-2.02	-1.74	360.00	Good	HHW0LWIPB01+D
288	0.28	PIFA	3.29	-	-	-	-	0.00	3.29	3.57	360.00	Good	HH02AWIPB01+A
289	0.28	PIFA	1.71	-	-	-	-	0.00	1.71	1.99	360.00	Good	HHW01WIPB01+B
290	0.28	PIFA	2.31	-	-	-	-	0.00	2.31	2.59	360.00	Good	HHW08WIPB01+B
291	0.28	PIFA	1.62	-	-	-	-	0.00	1.62	1.90	360.00	Good	HHX50WIPB01+B
292	0.28	PIFA	0.52	-	-	-	-	0.00	0.52	0.80	360.00	Good	HHX50WIPB01+B
293	0.28	PIFA	2.81	-	-	-	-	0.00	2.81	3.09	360.00	Good	HHX90WIPB02+A
294	0.28	PIFA	-1.75	-	-	-	-	0.00	-1.75	-1.47	360.00	Good	HHE03WIPB01+D
295	0.28	PIFA	0.93	-	-	-	-	0.00	0.93	1.21	360.00	Good	HHE23WIPB01+D
296	0.28	PIFA	1.95	-	-	-	-	0.00	1.95	2.23	360.00	Good	HHCT3WIPB01+A
297	0.28	PIFA	0.35	-	-	-	-	0.00	0.35	0.63	360.00	Good	HH5V5WIPB01+A
298	0.28	Dipole	2.25	-	-	-	-	0.00	2.25	2.53	360.00	Good	HHXPCAPDI01+A
299	0.28	Dipole	2.21	-	-	-	-	0.00	2.21	2.49	360.00	Good	HHXPCAPDI02+A
300	0.28	PIFA	2.41	-	-	-	-	0.00	2.41	2.69	360.00	Good	610-INNEP0005-A
301	0.28	PIFA	2.89	-	-	-	-	0.00	2.89	3.17	360.00	Good	610-INNEP0002-A
302	0.28	PIFA	2.80	-	-	-	-	0.00	2.80	3.08	360.00	Good	610-INNEP0004-A
303	0.28	PIFA	0.28	-	-	-	-	0.00	0.28	0.56	360.00	Good	ANTA0AA11131WLAN1
304	0.28	PIFA	2.98	-	-	-	-	0.00	2.98	3.26	360.00	Good	AJDP2J-B0004
305	0.28	PIFA	2.77	-	-	-	-	0.00	2.77	3.05	360.00	Good	AJDP2J-C0002
306	0.28	PIFA	2.37	-	-	-	-	0.00	2.37	2.65	360.00	Good	ALA160-222022-000002
307	0.28	PIFA	-1.18	-	-	-	-	0.00	-1.18	-0.90	360.00	Good	ANP6P-100005
308	0.28	PIFA	-0.70	-	-	-	-	0.00	-0.70	-0.42	360.00	Good	LA05RF895-1H
309	0.28	PIFA	1.30	-	-	-	-	0.00	1.30	1.58	360.00	Good	DC33001GA00
310	0.28	PIFA	2.87	-	-	-	-	0.00	2.87	3.15	360.00	Good	DC33001GB00
311	0.28	PIFA	2.45	-	-	-	-	0.00	2.45	2.73	360.00	Good	M01-50908019-R
312	0.28	PIFA	2.80	-	-	-	-	0.00	2.80	3.08	360.00	Good	DC33001GP00
313	0.28	PIFA	0.65	-	-	-	-	0.00	0.65	0.93	360.00	Good	DC33001GV00
314	0.28	PIFA	-1.00	-	-	-	-	0.00	-1.00	-0.72	360.00	Good	DC33001GX00
315	0.28	PIFA	1.66	-	-	-	-	0.00	1.66	1.94	360.00	Good	DC33001GM00
316	0.28	PIFA	2.56	-	-	-	-	0.00	2.56	2.84	360.00	Good	DC33001GK00
317	0.28	PIFA	2.89	-	-	-	-	0.00	2.89	3.17	360.00	Good	DC33001GQ00
318	0.28	PIFA	1.98	-	-	-	-	0.00	1.98	2.26	360.00	Good	DC33001GN00
319	0.28	PIFA	2.32	-	-	-	-	0.00	2.32	2.60	360.00	Good	DC33001GL00
320	0.28	PIFA	-0.28	-	-	-	-	0.00	-0.28	0.00	360.00	Good	DC33001GD00
321	0.28	PIFA	-0.05	-	-	-	-	0.00	-0.05	0.23	360.00	Good	DC33001GC00
322	0.28	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.24	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
323	0.28	PIFA	-0.04	-	-	-	-	0.00	-0.04	0.24	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
324	0.28	PIFA	0.45	-	-	-	-	0.00	0.45	0.73	360.00	Good	L01RF066-DT-R
325	0.28	PIFA	0.32	-	-	-	-	0.00	0.32	0.60	360.00	Good	L01RF066-DT-R
326	0.28	PIFA	-0.10	-	-	-	-	0.00	-0.10	0.18	360.00	Good	L01RF031-DT-R/ L01RF062-DT-R
327	0.28	PIFA	1.59	-	-	-	-	0.00	1.59	1.87	360.00	Good	L01RF091-DT-R/ L01RF092-DT-R
328	0.28	Dipole	2.96	-	-	-	-	0.00	2.96	3.24	360.00	Good	MA231.LBC.002
329	0.28	PIFA	-0.02	-	-	-	-	0.00	-0.02	0.26	360.00	Good	WSA.2458.A.301151
330	0.28	PIFA	2.96	-	-	-	-	0.00	2.96	3.24	360.00	Good	MA231.LBC.002

331	0.28	PIFA	0.45	-	-	-	-	0.00	0.45	0.73	360.00	Good	L01RF 066-DT-R
332	0.28	PIFA	-4.07	-	-	-	-	0.00	-4.07	-3.79	360.00	Good	L01RF 068-DT-R
333	0.28	PIFA	2.89	-	-	-	-	0.00	2.89	3.17	360.00	Good	DC33001GQ00
334	0.28	PIFA	1.98	-	-	-	-	0.00	1.98	2.26	360.00	Good	DC33001GN00
335	0.28	PIFA	2.32	-	-	-	-	0.00	2.32	2.60	360.00	Good	DC33001GL00
336	0.28	PIFA	2.23	-	-	-	-	0.00	2.23	2.51	360.00	Good	DC33001GT00
337	0.28	PIFA	2.02	-	-	-	-	0.00	2.02	2.30	360.00	Good	DC33001GS00
338	0.28	PIFA	1.71	-	-	-	-	0.00	1.71	1.99	360.00	Good	DC33001GR00
339	0.28	PIFA	-1.00	-	-	-	-	0.00	-1.00	-0.72	360.00	Good	DC33001GX00
340	0.28	PIFA	0.65	-	-	-	-	0.00	0.65	0.93	360.00	Good	DC33001GV00
341	0.28	PIFA	-1.32	-	-	-	-	0.00	-1.32	-1.04	360.00	Good	AM149000C10
342	0.28	PIFA	0.70	-	-	-	-	0.00	0.70	0.98	360.00	Good	AM149000C00
343	0.28	Dipole	2.30	-	-	-	-	0.00	2.30	2.58	360.00	Good	SM1WF10123A
344	0.28	Dipole	2.90	-	-	-	-	0.00	2.90	3.18	360.00	Good	AN2450-5511BRS-SMALFR8-3230A-00X00R
345	0.28	Dipole	2.56	-	-	-	-	0.00	2.56	2.84	360.00	Good	RFA-25-C2M2-U-M70

5. Unwanted Emission Intensity

Unwanted Emission Intensity	Test Voltage	V	Normal Voltage (3.3V)									Remarks	
	Test Frequency	MHz	2441	2451	2460								
	※ 1	MHz	2165.44	222.01	2387.00							RBW : 1 MHz ; VBW : 1 MHz	
	※ 2	MHz	2389.00	2395.39	2391.76								
	※ 3	MHz	2485.16	2491.25	2486.82								
	※ 4	MHz	3256.77	3256.77	3216.75								
	※ 1	dB	1.31	1.31	1.31							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)	
	※ 2	dB	1.31	1.31	1.31								
	※ 3	dB	1.31	1.31	1.31								
	※ 4	dB	2.20	2.20	2.20								
	※ 1	dBm	-52.97	-53.09	-52.98							Limit ≤ 25 μW/MHz (-16 dBm/MHz)	
	※ 2	dBm	-51.15	-52.33	-51.70								
	※ 3	dBm	-52.36	-50.50	-51.64								
	※ 4	dBm	-44.01	-43.07	-44.28								
	※ 1	dBm	-51.66	-51.78	-51.67							Limit ≤ 2.5 μW/MHz (-26 dBm/MHz)	
	※ 2	dBm	-49.84	-51.02	-50.39								
	※ 3	dBm	-51.05	-49.19	-50.33								
	※ 4	dBm	-41.81	-40.87	-42.08								
	※ 1	μW	0.0068	0.0066	0.0068							Limit ≤ 25 μW/MHz (-16 dBm/MHz)	
	※ 2	μW	0.0104	0.0079	0.0091								
	※ 3	μW	0.0079	0.0121	0.0093								
	※ 4	μW	0.0659	0.0818	0.0619								

- ※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz) ※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)
 ※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz) ※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)
 ※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz) ※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

6. Limitation of Collateral Emission of Receiver

Limitation of Collateral Emission	Test Voltage	V	Normal Voltage (3.3V)									Remarks	
	Test Frequency	MHz	2441	2451	2460								
	※ 5	MHz	369.50	66.86	123.12							1st 30MHz~1000MHz:: Maximum emission and 2nd all emissions beyond 1/10 of the limitation 3rd must be indicated.	
	※ 5	MHz	-	-	-								
	※ 5	MHz	-	-	-								
	※ 6	MHz	3254.00	3254.00	3277.00								
	※ 6	MHz	-	-	-							1st 1000MHz~12.5GHz:: Maximum emission and 2nd all emissions beyond 1/10 of the limitation 3rd must be indicated.	
	※ 6	MHz	-	-	-								
	※ 6	MHz	-	-	-								
	※ 5	dB	1.31	1.31	1.31							1st 2nd 3rd	
	※ 5	dB	-	-	-								
	※ 5	dB	-	-	-								
	※ 6	dB	2.20	2.20	2.20								
	※ 6	dB	-	-	-							1st 2nd 3rd	
	※ 6	dB	-	-	-								
	※ 6	dB	-	-	-								
	※ 5	dBm	-77.52	-77.49	-77.55							1st 2nd 3rd	
	※ 5	dBm	-	-	-								
	※ 5	dBm	-	-	-								
	※ 6	dBm	-53.39	-53.44	-53.06								
	※ 6	dBm	-	-	-							1st 2nd 3rd	
	※ 6	dBm	-	-	-								
	※ 6	dBm	-	-	-								
	※ 5	dBm	-76.21	-76.18	-76.24							1st Limit ≤ 4 nW (-54 dBm) 2nd RBW : 100 kHz ; VBW : 100 kHz 3rd	
	※ 5	dBm	-	-	-								
	※ 5	dBm	-	-	-								
	※ 6	dBm	-51.19	-51.24	-50.86								
	※ 6	dBm	-	-	-							1st Limit ≤ 20 nW (-47 dBm) 2nd RBW : 1 MHz ; VBW : 1 MHz 3rd	
	※ 6	dBm	-	-	-								
	※ 6	dBm	-	-	-								
	※ 5	nW	0.0239	0.0241	0.0238							Total Emission Power 1st 2nd Limit ≤ 4 nW (-54 dBm) 3rd RBW : 100 kHz ; VBW : 100 kHz	
	※ 5	nW	0.0239	0.0241	0.0238								
	※ 5	nW	-	-	-								
	※ 6	nW	7.6033	7.5162	8.2035								
	※ 6	nW	7.6033	7.5162	8.2035							Total Emission Power 1st 2nd Limit ≤ 20 nW (-47 dBm) 3rd RBW : 1 MHz ; VBW : 1 MHz	
	※ 6	nW	-	-	-								
	※ 6	nW	-	-	-								
	※ 6	nW	-	-	-								

- ※ 1: Frequency Band 1 (30 MHz ≤ f ≤ 2387 MHz) ※ 4: Frequency Band 4 (2496.5 MHz ≤ f < 12.5 GHz)
 ※ 2: Frequency Band 2 (2387 MHz < f ≤ 2400 MHz) ※ 5: Frequency Band 5 (30 MHz ≤ f < 1000 MHz)
 ※ 3: Frequency Band 3 (2483.5 MHz ≤ f < 2496.5 MHz) ※ 6: Frequency Band 6 (1000 MHz ≤ f < 12.5 GHz)

7. Hopping Frequency Dwell Time

DHE	Test Voltage	V	Normal Voltage (3.3V)						Remarks	
	Test Frequency	MHz	2441	2451	2460				Limit ≤ 0.4 sec (In 0.4 sec × spreading rate) RBW : 1 MHz ; VBW : 1 MHz ; SP : 0Hz The total sum of holding time at arbitrary frequencies within the time multiplied 0.4 sec by the spreading rate	
	Pulse Duration	msec	2.8800	2.8800	2.8800					
	Measurement Time	sec	8.02	8.02	8.02					
	Dwell Time	sec	0.0780	0.0780	0.0780					

8. Spread Factor

Spread Factor	Test Voltage	V	Normal Voltage (3.3V)						Remarks	
	Test Frequency	MHz	2441~2460MHz						Spread Factor Limit ≥ 5 (DSSS and FHSS)	
	Spread-Spectrum Bandwidth	MHz	20.06							
	Modulation Rate	Mcps	1.375							
	Spread Factor		14.589							

Power Supply Voltage Fluctuation Test

Voltage Fluctuation Test	Normal Voltage	High Voltage + 10 % of Normal Voltage	Low Voltage - 10 % of Normal Voltage
Input DC Power	3.30	3.63	2.97
Output DC Power	3.30	3.28	3.31
Voltage Variation (%)	-	-0.61%	0.30%

Note: Voltage Variation (%) = (Output High or Low Voltage - Output Normal Voltage) / Output Normal Voltage X 100

During the input supply voltage to the EUT from the external power source is varied by + / - 10 %, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than + / - 1 %. Exempt extremely high and low supply voltage condition tests, EUT only operated in normal voltage to test all regulations.

Appendix C. Antenna List

Table for Filed Antenna

No.	Brand	Ant. Type	Con. Type	Peak Gain (dBi)		Model No.
				2.4GHz	5GHz	
01	LYNwave	PIFA	IPEX	TX1: 3.5	5	TX1: ALA110-222050-300010
02	JOYMAX	DIPOL E	IPEX	TX1: 3.0	5	TX1: TWF-614XMPXX-500
03	Realtek	SLOT	IPEX	TX1:3.33	4.52	TX1: PANT-001
04	Well Green	PIFA	IPEX	TX1: 0.85 TX2: 0.44	0.75 1.24	TX1: SKW10WMPB01+A TX2: SKW10WMPB02+A
05	Well Green	PIFA	IPEX	TX1: 0.42 TX2: -0.13	0.11 1.27	TX1: SK65EWMPB01+A TX2: SK650WMPB02+A
06	JESS-LINK	PIFA	IPEX	TX1: 2.72 TX2: 0.07	1.52 0.91	TX1: DC33001AD00 TX2: DC33001AD00
07	HIGH-TEK	PIFA	IPEX	TX1: -0.93 TX2: 0.87	1.48 0.96	TX1: DC33001AC00 TX2: DC33001AC00
08	Luxshared	PIFA	IPEX	TX1: 2.08 TX2: 0.14	3.62 -1.91	TX1: L01RF019-DT-R (31-502717) TX2: L01RF021-DT-R (31-502716)
09	Well Green	PIFA	IPEX	TX1: 0.55 TX2: 1.36	1.26 3.74	TX1: SKAEUWMPB01+B TX2: SKAEUWMPB01+B
10	Well Green	PIFA	IPEX	TX1: 0.82 TX2: -2.23	0.94 2.18	TX1: SKA91WMPB02+A TX2: SKA91WMPB01+A
11	Wgt	PIFA	IPEX	TX1: 2.14 TX2: 1.92	1.72 2.65	TX1: W550EU WM-1 TX2: W550EU WM-2
12	Acon	PIFA	IPEX	TX1: -0.63 TX2: -3.39	-0.71 0.12	TX1: APP6P-700781 TX2: APP6P-700782
13	Acon	PIFA	IPEX	TX1: -0.13 TX2: -0.23	1.34 -0.63	TX1: ATM6P-70100 TX2: ATM6P-70200
14	WNC	PIFA	IPEX	TX1: -0.58 TX2: -1.48	-0.67 -0.47	TX1: DQ6G15G5800 TX2: DQ6G15G5700
15	Zhan Yun	PIFA	IPEX	TX1: -0.70 TX2: -1.20	-0.13 0.80	TX1: DQ60QTLI200 TX2: DQ60QTLI201
16	WNC	PIFA	IPEX	TX1: 1.15 TX2: 0.59	-0.51 -0.04	TX1: 81.EKG15.G30 TX2: 81.EKG15.G29
17	YAGEO	PIFA	IPEX	TX1: 0.59 TX2: 0.90	0.35 0.95	TX1: CAN4313LC0613WLA3 TX2: CAN4313LC0613WLA4

18	WNC	PIFA	IPEX	TX1: 0.18 TX2: 0.60	1.92 1.50	TX1: 81.EKG15.G38 TX2: 81.EKG15.G37
19	JESS-LINK	PIFA	IPEX	TX1: 1.89 TX2: 1.56	-0.07 -0.09	TX1: PANT11A00008-1 TX2: PANT11A00009-1
20	Foxconn	PIFA	IPEX	TX1: 0.21 TX2: 0.60	1.23 -0.36	TX1: WDAN-T1RH1 TX2: WDAN-T1RH2
21	Well Green	PIFA	IPEX	TX1: 0.21 TX2: -0.75	1.65 1.15	TX1: SKX71WMPB01+B TX2: SK370WMPB01+B
22	Luxshared	PIFA	IPEX	TX1: -0.6 TX2: -0.29	0.74 0.98	TX1: L01RF008-R TX2: L01RF009-R
23	Well Green	PIFA	IPEX	TX1: 0.72 TX2: 0.49	-0.72 -0.71	TX1: SKW25WMPB01+A TX2: SKW25WMPB01+A
24	Well Green	PIFA	IPEX	TX1: -0.17 TX2: -2.24	-0.13 0.03	TX1: SK549WMPB01+A TX2: SK549WMPB02+A
25	Wgt	PIFA	IPEX	TX1: 1.7 TX2: 2.53	2.2 2.78	TX1: W350ETQ WM-1 TX2: W350ETQ WM-2
26	Well Green	PIFA	IPEX	TX1: -1.93 TX2: -1.28	-1.13 1.08	TX1: SKW54WMPB01+C TX2: SKW34WMPB02+A
27	Joinsoon	PIFA	IPEX	TX1: 2.6 TX2: 0.53	2.61 2.60	TX1: IA-120266 TX2: IA-120267
28	WNC	PIFA	IPEX	TX1: 0.24 TX2: -0.58	2.85 -0.16	TX1: 25.90AH8.001 TX2: 25.90AH7.001
29	Wieson	PIFA	IPEX	TX1: 1.28 TX2: 0.34	3.84 2.60	TX1: 25.90AH8.011 TX2: 25.90AH7.011
30	Yageo	PIFA	IPEX	TX1: -0.27 TX2: -0.88	1.42 0.33	TX1: 25.90AH8.021 TX2: 25.90AH7.021
31	Yageo	PIFA	IPEX	TX1: -0.11 TX2: -0.68	0.42 0.34	TX1: 25.90AJB.001 TX2: 25.90AJC.001
32	Yageo	PIFA	IPEX	TX1: -1.32 TX2: -1.14	2.94 1.89	TX1: 25.90AJB.001 TX2: 25.90AJC.001
33	Yageo	PIFA	IPEX	TX1: 2.74 TX2: 0.63	0.07 0.46	TX1: 25.90ALR.001 TX2: 25.90ALQ.001
34	WNC	PIFA	IPEX	TX1: -0.61 TX2: 1.91	2.23 -0.40	TX1: 25.90AAL.001 TX2: 25.90AAK.001

35	TE Connectivity	PIFA	IPEX	TX1: 1.29 TX2: 0.04	1.25 1.08	TX1: 25.90AAL.011 TX2: 25.90AAK.011
36	HIGH-TEK	PIFA	IPEX	TX1: -2.20 TX2: -2.20	0.1 0.7	TX1: 25.90ALR.011 TX2: 25.90ALQ.011
37	HIGH-TEK	PIFA	IPEX	TX1: -0.70 TX2: -0.60	0.55 0.14	TX1: 25.90AJB.011 TX2: 25.90AJC.011
38	HIGH-TEK	PIFA	IPEX	TX1: -0.42 TX2: 1.59	2.27 -0.05	TX1: 25.90AJB.011 TX2: 25.90AJC.011
39	ACON	PIFA	IPEX	TX1: 0.96 TX2: 1.33	1.27 1.61	TX1: ATP6P -700000 TX2: ATP6P -700001
40	INPAQ Technology	Dipole	IPEX	TX1: -1.1 TX2: 0.45	1.59 -0.02	TX1: DAM-14-H-DB-800-10-17 TX2: DAM-14-H-DB-800-10-17
41	Well Green	PIFA	IPEX	TX1: 1.05 TX2: -0.41	1.08 2.32	TX1: SK110WMPB01+A TX2: SK110WMPB02+A
42	Well Green	PIFA	IPEX	TX1: -1.61 TX2: -2.84	-0.14 -0.96	TX1: SKW23WMPB01+A TX2: SKW23WMPB02+A
43	Well Green	PIFA	IPEX	TX1: -0.93 TX2: 0.20	0.96 0.86	TX1: SK740WMPB01+A TX2: SK740WMPB02+A
44	ACON	PIFA	IPEX	TX1: -1.26 TX2: 1.95	2.56 1.34	TX1: APP6P-700969 TX2: APP6P-700968
45	WGT	PIFA	IPEX	TX1: 0.46 TX2: -0.79	2.8 1.03	TX1: SKCZTWMPB01+A TX2: SKCZTWMPB02+A
46	WGT	PIFA	IPEX	TX1: 1.48 TX2: 1.15	-0.44 0.42	TX1: SK670WMPB01+A TX2: SK670WMPB02+A
47	FVC	PIFA	IPEX	TX1: 1.58 TX2: 1.75	2.54 2.24	K05007012102
48	FVC	PIFA	IPEX	TX1: 2.7 TX2: 2.19	1.57 2.94	K05007013402
49	FVC	PIFA	IPEX	TX1: 1.51 TX2: 2.04	2.99 3.02	K05007012803
50	FVC	PIFA	IPEX	TX1: 2.53 TX2: 2.28	2.86 3.19	K05007015501
51	FVC	PIFA	IPEX	TX1: 2.85 TX2: 1.59	2.46 2.91	K05007014501
52	FVC	PIFA	IPEX	TX1: 3 TX2: 1.52	2.82 2.21	K05007014201

53	FVC	PIFA	IPEX	TX1: 1.85	1.35	K05007014901
54	FVC	PIFA	IPEX	TX1: 1.94	1.99	K05007015001
55	JEM	PIFA	IPEX	TX1: 2.23 TX2: 2.21	1.69 1.84	1510-0122-0022(IA-120073)
56	WGT	PIFA	IPEX	TX1: -0.66 TX2: 0.78	-0.19 2.06	TX1: SK547WMPB01+A TX2: SK547WMPB02+A
57	WGT	PIFA	IPEX	TX1: 3.03 TX2: 0.55	3.16 0.90	TX1: SK840WMPB01+B_SN TX2: SK840WMPB01+B_SN
58	WGT	PIFA	IPEX	TX1: 3.2	2.28	SKX51WMPB01+C
59	WGT	PIFA	IPEX	TX1: 2.76	2.51	SKX51WMPB02+C
60	WGT	PIFA	IPEX	TX1: 1.79 TX2: 0.66	1.49 -0.40	TX1: SK81WMPB01+A TX2: SK81WMPB02+A
61	WGT	PIFA	IPEX	TX1: 1.36 TX2: 2.88	1.92 3.16	SKW2UWMPB01+A
62	WGT	PIFA	IPEX	TX1: 1.85 TX2: 3.14	1.74 2.1	SKW31WMPB01+A
63	WGT	PIFA	IPEX	TX1: -1.84 TX2: -2.93	0.44 1.35	TX1: SKM11WMPB03+A TX2: SKM11WMPB02+D
64	WGT	PIFA	IPEX	TX1: 2.46 TX2: 2.91	2.9 2.67	SKC45WMPB03+B
65	WGT	PIFA	IPEX	TX1: 1.25 TX2: 3.17	1.95 2.42	SKW24WMPB01+B
66	WGT	PIFA	IPEX	TX1: 0.76 TX2: 0.09	1.97 0.56	TX1: SK555WMPB01+B TX2: SK555WMPB02+B
67	WGT	PIFA	IPEX	TX1: 0.76 TX2: 0.46	1.12 1.44	TX1: SK94SWMPB01+B TX2: SK94SWMPB01+B
68	WGT	PIFA	IPEX	TX1: 1.32 TX2: 1.86	2.59 1.57	TX1: SK94TWMPB01+B TX2: SK94TWMPB01+B
69	WGT	PIFA	IPEX	TX1: -0.03 TX2: -0.13	1.25 2.13	TX1: SK50SWMPB01+A TX2: SK50SWMPB02+A
70	ACON	PIFA	IPEX	TX1: 0.60 TX2: 0.03	1.23 2.45	TX1: APP6P-701010 TX2: APP6P-701011
71	INPAQ	PIFA	IPEX	TX1: 0.60 TX2: 0.03	1.23 2.45	TX1: WA-P-LB-02-094 TX2: WA-P-LB-01-057
72	JEM	PIFA	IPEX	TX1: 1.52 TX2: 2.02	4.40 2.40	TX1: 25CA0-075000-J3R TX2: 25CA0-295000-J3R

73	WGT	PIFA	IPEX	TX1: 1.32 TX2: 1.86	2.59 1.57	TX1: SK94TWMPB01+D TX2: SK94TWMPB01+D
74	Aristotle	PIFA	IPEX	TX1: -0.14 TX2: 1.51	2.15 2.13	TX1: RFA-25-AP158-70B80MA TX2: RFA-25-AP158-70300AU
75	Luxshare	PIFA	IPEX	TX1: 0.45 TX2: 0.49	1.2 -0.39	TX1: L01RF049-YT-R TX2: L01RF050-YT-R
76	Luxshare	PIFA	IPEX	TX1: -0.6 TX2: -0.29	0.74 0.98	TX1: L01RF008-R TX2: L01RF009-R
77	MAG.LAYERS	PIFA	IPEX	TX1: -0.84 TX2: -2.28	1.46 1.37	TX1: 14007-01300600 TX2: 14007-01300700
78	ACON	PIFA	IPEX	TX1: -1.14 TX2: -5.09	1.34 1.51	TX1: APP6P-700944 TX2: APP6P-700945
79	INPAQ	DIPOL E	IPEX	TX1: 1.13 TX2: 1.29	1.33 1.94	14007-00410200
80	WHAYU	PIFA	IPEX	TX1: -3.31 TX2: -2.73	-3.925 -3.77	TX1: C497-520057-A TX2: C497-520058-A
81	WHAYU	PIFA	IPEX	TX1: -2.79 TX2: -3.12	-3.72 -2.46	TX1: C497-520059-A TX2: C497-520060-A
82	JYT	PIFA	IPEX	TX1: 1.69 TX2: 1.95	0.92 0.73	TX1: 25CA0-060000-J7S 20000000000108 TX2: 25CA0-210001-J7S 20000000000109
83	Wanshih	Dipole	IPEX	TX1: 1.76 TX2: 1.75	1.47 0.92	UC7WFI0005
84	Speed	PIFA	IPEX	TX1: 1.87 TX2: -0.09	1.29 0.59	TX1: F.0G.FS-6004-001 (025.9003S.0001) TX2: F.0G.FS-6004-002 (025.9003T.0001)
85	WNC	PIFA	IPEX	TX1: 1.90 TX2: 1.94	2.79 1.25	TX1: 025.9003Q.0001 (81.EBC15.GAH) TX2: 025.9003R.0001 (81.EBC15.GAJ)
86	Wanshih	PIFA	IPEX	TX1: 2.99 TX2: 3.46	3.12 2.80	TX1: UC7WFI0001 A03 TX2: UC7WFI0002 A02
87	Luxshare	PIFA	IPEX	TX1: 1.57 TX2: -1.49	0 -1.06	TX1: L01RF051-DT-R TX2: L01RF052-DT-R

88	Luxshare	PIFA	IPEX	TX1: 1.7 TX2: -0.93	1.74 -1.21	TX1: L01RF054-DT-R TX2: L01RF053-DT-R
89	ACON	PIFA	IPEX	TX1: 0.62 TX2: 1.01	-0.46 2.44	APP6P-701052
90	JEM	PIFA	IPEX	TX1: 2.74 TX2: 1.06	0.25 1.56	IA-130052
91	JEM	PIFA	IPEX	TX1: 1.78 TX2: 0.96	1.05 0.12	TX1: IAH-1400XX TX2: IAH-1400XX
92	ACON	PIFA	IPEX	TX1: 0.61 TX2: 0.22	-0.65 1.9	APP6P-701052
93	ACON	PIFA	IPEX	TX1: -0.27 TX2: -0.58	0.35 0.52	APP6P-701162
94	JEM	PIFA	IPEX	TX1: 2.81 TX2: 0.41	2.14 2.87	IA-140029
95	JEM	PIFA	IPEX	TX1: 2.74 TX2: 1.06	0.25 1.56	TX1: 1510-0119-0205 TX2: 1510-0119-0205
96	WNC	PIFA	IPEX	TX1: -2.20 TX2: -0.97	-3.08 4.03	TX1: 25.90AH0.001 (81.EEW15.GAS) TX2: 25.90AH1.001 (81.EEW15.GAT)
97	WNC	PIFA	IPEX	TX1: -2.20 TX2: -0.97	-3.08 4.03	TX1: 81.EEW15.GAS TX2: 81.EEW15.GAT
98	ACON	PIFA	IPEX	TX1: 1.85 TX2: 0.28	1.78 -0.58	TX1: APP6P-701213 TX2: APP6P-701214
99	MAG	PIFA	IPEX	TX1: 1.64 TX2: 1.33	1.00 2.04	TX1: MSA-3409-25GC1-A1 TX2: MSA-3310-25GC1-A2
100	INPAQ	PIFA	IPEX	TX1: -1.13 TX2: 0.41	-0.64 -0.50	TX1: WA-P-LB-02-179 TX2: WA-P-LB-01-101
101	LUXSHARE	PIFA	IPEX	TX1: 0.15 TX2: 0.84	-0.33 -0.33	TX1: LA05RF804-1H TX2: LA05RF805-1H
102	MAG	PIFA	IPEX	TX1: 3.0 TX2: 3.0	4.0 4.0	TX1: MSA-3822-25GC1-A1 TX2: MSA-3822-25GC1-A2
103	Smart Approach	PIFA	IPEX	TX1: 1.19 TX2: 1.74	1.67 0.98	TX1: SE-ECA10-001 TX2: SE-ECA10-002
104	TONGDA	PIFA	IPEX	TX1: 2.66 TX2: -0.48	2.16 1.21	TX1: DC33001M000 / T-543-9021035-1 TX2: DC33001M010 / T-543-9021035-2

105	Smart Approach	PIFA	IPEX	TX1: 1.45 TX2: 1.61	1.49 1.76	TX1: SE-ECVY3-001 TX2: SE-ECVY3-001
106	TONGDA	PIFA	IPEX	TX1: 1.79 TX2: 0.60	2.05 0.15	TX1: T-543-9021013-A TX2: T-543-9021013-A
107	HIGH-TEK	PIFA	IPEX	TX1: 0.52 TX2: -0.10	1.90 -1.33	TX1: 0ACCN013037 TX2: 0ACCN013037
108	Luxshare	PIFA	IPEX	TX1: -1.69 TX2: -0.43	1.01 1.14	TX1: L01RF038-DT-R TX2: L01RF039-DT-R
109	ACON	PIFA	IPEX	TX1: 1.82 TX2: 1.22	0.81 0.32	TX1: APP6P-701194 TX2: APP6P-701194
110	JEM	PIFA	IPEX	TX1: 2.73 TX2: 2.45	2.34 0.07	TX1: IAH-140030 TX2: IAH-140030
111	JEM	PIFA	IPEX	TX1: 2.88 TX2: 2.98	1.03 -0.25	TX1: IAH-140030 TX2: IAH-140030
112	ACON	PIFA	IPEX	TX1: 1.82 TX2: 1.22	0.81 0.32	TX1: APP6P-701194 TX2: APP6P-701194
113	ACON	PIFA	IPEX	TX1: 1.85 TX2: 2.20	2.91 2.22	TX1: APP6P-701232 TX2: APP6P-701233
114	YAGEO	PIFA	IPEX	TX1: 1.31 TX2: -1.35	0.89 1.32	TX1: 1415-040A000/ ANTA0ZP09021WLAN1 TX2: 1415-0407000/ ANTA0ZP09021WLAN2
115	ACON	PIFA	IPEX	TX1: 1.08 TX2: -0.33	0.82 0.28	TX1: DC33001NS00 / APP6Y-700054 TX2: DC33001NS00 / APP6Y-700054
116	HONGLIN	PIFA	IPEX	TX1: 0.91 TX2: 0.94	0.45 -1.11	TX1: 260-24055 TX2: 260-24055
117	WNC	PIFA	IPEX	TX1: -1.51 TX2: -0.45	2.13 -0.59	TX1: DC33001O600 (81EAAS15.G72) TX2: DC33001O600 (81EAAS15.G72)
118	ACON	PIFA	IPEX	TX1: 1.99 TX2: 1.90	1.97 1.79	TX1: APP6P-701314 TX2: APP6P-701315
119	ACON	PIFA	IPEX	TX1: -1.36	-1.84	TX1: APM6Y-700023
120	LUXSHARE	PIFA	IPEX	TX1: 2.74 TX2: 1.71	3.19 -1.36	TX1: LB001LC018 TX2: LB001LC019

121	HONGLIN	PIFA	IPEX	TX1: 0.38 TX2: 0.82	0.98 0.18	TX1: DC330160300 TX2: DC330160310
122	LUXSHARE	PIFA	IPEX	TX1: 1.27 TX2: -0.1	2.9 2.50	TX1: DC330017L00 TX2: DC330017L10
123	Speed	PIFA	IPEX	TX1: 0.23 TX2: 1.25	2.29 2.48	TX1: DC330017G00 TX2: DC330017G10
124	HONGLIN	PIFA	IPEX	TX1: 1.51 TX2: 1.83	1.63 2.70	TX1: DC330160400 TX2: DC330160410
125	LUXSHARE	PIFA	IPEX	TX1: 1.60 TX2: 0.84	1.39 2.22	TX1: DC330017L00 TX2: DC330017L10
126	Speed	PIFA	IPEX	TX1: 1.87 TX2: 2.85	2.73 2.51	TX1: DC330017J00 TX2: DC330017J10
127	LUXSHAREICT	PIFA	IPEX	TX1: -0.2 TX2: -1.49	-1.93 -0.83	TX1: LB302LC302 TX2: LB304LC304
128	TongDa	PIFA	IPEX	TX1: 0.10 TX2: -1.30	-0.80 -2.73	TX1: T-543-3010220-1 TX2: T-543-3010220-2
129	ACON	PIFA	IPEX	TX1: -1.67 TX2: -1.33	-1.81 -1.62	TX1: N1P6Y-200001 TX2: N1P6Y-200001
130	ACON	PIFA	IPEX	TX1: 0.61 TX2: -2.75	-1.15 -1.05	TX1: N1P6Y-200000 TX2: N1P6Y-200000
131	WNC	PIFA	IPEX	TX1: 1.58 TX2: 0.66	-1.35 -0.05	TX1: DQ6S15G7300 (81EAAS15.G73) TX2: DQ6S15G7300 (81EAAS15.G73)
132	WNC	PIFA	IPEX	TX1: 0.45 TX2: -0.65	0.39 -0.36	TX1: DQ6S15G7700 (81EAAS15.G77) TX2: DQ6S15G7700 (81EAAS15.G77)
133	SIMYA	PIFA	IPEX	TX1: 0.79 TX2: -0.65	-0.86 -1.33	TX1: DQ601008900 TX2: DQ601008900
134	SIMYA	PIFA	IPEX	TX1: -1.37 TX2: -0.88	0.47 -1.02	TX1: DQ601009700 TX2: DQ601009700
135	ACON	PIFA	IPEX	TX1: -0.44 TX2: -1.09	-0.68 -3.08	TX1: APP6Y-700261 TX2: APP6Y-700261
136	WNC	PIFA	IPEX	TX1: 1.64 TX2: -0.95	-0.39 -0.41	TX1: DQ6S15G7400 TX2: 81EAAS15.G74
137	High-Tek	PIFA	IPEX	TX1: 0.47 TX2: 2.98	3.08 3.24	TX1: 0ACCN015004N TX2: 0ACCN015005N

138	Tongda	PIFA	IPEX	TX1: 0.12 TX2: 0.21	1.67 2.80	TX1: T-543-9021077-1 TX2: T-543-9021077-2
139	ACON	PIFA	IPEX	TX1: -1.6 TX2: 1.6	1.5 0.8	TX1: AAM6Y-200002 TX2: AAM6Y-200002
140	JEM	PIFA	IPEX	TX1: 0.15 TX2: 2.49	0.22 0.55	TX1: IAH150012 TX2: IAH150012
141	ECT	PIFA	IPEX	TX1: 2.45 TX2: 2.90	2.87 2.51	TX1: 81800T029 TX2: 81800T029
142	LUXSHARE-ICT	PIFA	IPEX	TX1: 0.32 TX2: -2	0.85 -0.33	TX1: L01RF056-DT-R TX2: L01RF055-DT-R
143	LUXSHARE-ICT	PIFA	IPEX	TX1: -1.9 TX2: -3.82	-2.31 -2.83	TX1: L01RF064-DT-R TX2: L01RF063-DT-R
144	High-Tek	PIFA	IPEX	TX1: -0.11 TX2: 0.36	2.48 2.19	TX1: 025.900CR.0001 TX2: 025.900CS.0001
145	WNC	PIFA	IPEX	TX1: 2.23 TX2: -0.15	-3.04 -1.39	TX1: 025.900CR.0011 TX2: 025.900CS.0011
146	High-Tek	PIFA	IPEX	TX1: 1 TX2: -0.89	2.67 1.03	TX1: 025.900CP.0001 TX2: 025.900CQ.0001
147	WNC	PIFA	IPEX	TX1: -2.21 TX2: -3.72	0.21 -2.66	TX1: 025.9006P.0001 TX2: 025.9006Q.0001
148	High-Tek	PIFA	IPEX	TX1: -0.84 TX2: -2.89	0.87 -0.78	TX1: 025.9006P.0011 TX2: 025.9006Q.0011
149	JEM	PIFA	IPEX	TX1: 2.46 TX2: 1.88	2.20 2.90	TX1: IAH-150012 TX2: IAH-150012
150	LUXSHARE-ICT	PIFA	IPEX	TX1: -0.04 TX2: -3.82	-0.12 -2.83	TX1: L01RF072-DT-R/ L01RF031-DT-R TX2: L01RF063-DT-R
151	ACON	PIFA	IPEX	TX1: 1.92 TX2: 1.88	2.84 1.69	TX1: AAP6Y-100000 TX2: AAP6Y-100001
152	TONGDA	PIFA	IPEX	TX1: 1.61 TX2: 1.40	2.47 0.79	TX1: T-543-9021081-1 TX2: T-543-9021081-2
153	ACON	PIFA	IPEX	TX1: 1.94 TX2: 1.92	0.32 0.55	TX1: AAP6Y-100004 TX2: AAP6Y-100005
154	TONGDA	PIFA	IPEX	TX1: 2.43 TX2: 1.46	1.88 0.56	TX1: T-543-9021080-1 TX2: T-543-9021080-2

155	HONGLIN	PIFA	IPEX	TX1: -2.44 TX2: -1.29	-0.31 -0.02	TX1: 260-26072 TX2: 260-26073
156	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.4 TX2: -0.4	1.4 -1.8	TX1: L0ERF003-DT-R (025.900BR.0001) TX2: L0ERF005-DT-R (025.900BQ.0001)
157	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.78 TX2: -0.08	1.37 1.65	TX1: DC33001EH00 TX2: DC33001EH10
158	Speed Wireless	PIFA	IPEX	TX1: -0.89 TX2: 0.61	2.03 2.13	TX1: DC33001EJ00 TX2: DC33001EJ10
159	Speed Wireless	PIFA	IPEX	TX1: 1.75 TX2: -1.03	0.21 0.86	TX1: DC33001DU00 TX2: DC33001DU10
160	Yageo	PIFA	IPEX	TX1: 1.69 TX2: -1.03	0.32 0.76	TX1: DC33001DX00 TX2: DC33001DX10
161	Speed Wireless	PIFA	IPEX	TX1: 2.08 TX2: 0	2.97 -0.88	TX1: DC33001DV00 TX2: DC33001DV10
162	Yageo	PIFA	IPEX	TX1: 1.86 TX2: 0.21	0.21 -0.33	TX1: DC33001DW00 TX2: DC33001DW10
163	HongLin	PIFA	IPEX	TX1: 0.95 TX2: 0.78	1.55 -0.21	TX1: DC33001DB00 TX2: DC33001DB10
164	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.87 TX2: 1.82	1.56 -0.93	TX1: DC33001D900 TX2: DC33001D910
165	WANSIH	PIFA	IPEX	TX1: 0.10 TX2: -3.33	2.46 2.34	TX1: UC7WFI0009A TX2: UC7WFI0010A
166	ARISTOTLE	Dipole	IPEX	TX1: 2.56	1.81	TX1: RFA-25-C2M2-M10-1
167	High-Tek	PIFA	IPEX	TX1: 0.64 TX2: -2.33	1.80 1.41	TX1: 0ACCN014009N (DC33001MI00) TX2: 0ACCN014010N (DC33001MI10)
168	TONGDA	PIFA	IPEX	TX1: 0.74 TX2: -0.07	-0.47 0.93	TX1: T-543-9021043-1 (DC33001MD00) TX2: T-543-9021043-2 (DC33001MD10)
169	ACON	PIFA	IPEX	TX1: -2.10 TX2: -2.30	0.70 -0.20	TX1: ADP6Y-100003 TX2: ADP6Y-100004
170	ACON	PIFA	IPEX	TX1: 2.38 TX2: 1.56	0.42 -2.84	TX1: APM6Y-700021 TX2: APM6Y-700021
171	High-Tek	PIFA	IPEX	TX1: -0.20 TX2: 0.53	-0.61 0.35	TX1: 025.900EC.0011 TX2: 025.900ED.0011
172	WNC	PIFA	IPEX	TX1: 1.84 TX2: 1.95	1.41 0.83	TX1: 025.900EC.0001 TX2: 025.900ED.0001

173	QC0M	Dipole	IPEX	TX1: 2.4	2.8	TX1: T000CCD-80
174	QC0M	Dipole	IPEX	TX1: 2.3	2.6	TX1: T000CCD-250
175	PSA	Dipole	IPEX	TX1: 2.46	3.78	TX1: RFDPA870918EMLB302
176	PSA	Dipole	IPEX	TX1: 2.44	3.78	TX1: RFDPA870940EMLB303
177	ACON	PIFA	IPEX	TX1: -1.36 TX2: -1.36	-1.84 -1.84	TX1: APM6Y-700023 TX2: ADM6Y-100006
178	INPAQ	PIFA	IPEX	TX1: -1.68 TX2: -1.68	-3.21 -3.21	TX1: WA-M-LB-02-087 TX2: WA-M-LB-01-059
179	HongLin	PIFA	IPEX	TX1: -2.44 TX2: -1.29	-0.31 -0.02	TX1: 14008-01320000 TX2: 14008-01320100
180	ACON	PIFA	IPEX	TX1: -1.01 TX2: 1.94	1.17 1.03	TX1: ANP6P-100001 TX2: ANP6P-100002
181	INPAQ	PIFA	IPEX	TX1: -1.68	-3.21	TX1: WA-M-LB-01-059
182	WNC	PIFA	IPEX	TX1: -1.21 TX2: -2.35	1.20 -0.43	TX1: 025.900G0.0001 TX2: 025.900G1.0001
183	High-Tek	PIFA	IPEX	TX1: -1.67 TX2: -2.94	1.68 -0.10	TX1: 025.900G0.0011 TX2: 025.900G1.0011
184	High-Tek	PIFA	IPEX	TX1: -0.60 TX2: 0.66	-0.07 0.70	TX1: 025.900FI.0011 TX2: 025.900FJ.0011
185	WNC	PIFA	IPEX	TX1: -0.74 TX2: 0.13	-0.30 -0.38	TX1: 025.900FI.0001 TX2: 025.900FJ.0001
186	PSA	Dipole	IPEX	TX1: 2.42	3.87	TX1: RFDPA870900SMLB801+RFCBA100618 SF6B302
187	PSA	Dipole	IPEX	TX1: 2.06	3.48	TX1: RFDPA870900SMLB801+RFCBA100640 SF6B302
188	INPAQ	PIFA	IPEX	TX1: 0.64 TX2: 1.10	2.03 1.84	TX1: WA-P-LB-02-310 TX2: WA-P-LB-02-311
189	High-Tek	PIFA	IPEX	TX1: 1.68 TX2: 0.76	1.46 2.24	TX1: DC33001V100 TX2: DC33001V110
190	High-Tek	PIFA	IPEX	TX1: -0.26 TX2: 0.08	0.38 1.77	TX1: DC33001V100 TX2: DC33001V110
191	High-Tek	PIFA	IPEX	TX1: 1.34 TX2: 1.16	1.39 0.51	TX1: 025.900I2.0011 TX2: 025.900I3.0011

192	High-Tek	PIFA	IPEX	TX1: 2.57 TX2: 0.53	-0.11 0.59	TX1: 025.900I4.0011 TX2: 025.900I5.0011
193	ACON	PIFA	IPEX	TX1: 1.30 TX2: 1.44	1.97 1.43	TX1: AAP6Y-100026 TX2: AAP6Y-100027
194	ACON	PIFA	IPEX	TX1: 1.07 TX2: 1.82	0.62 0.62	TX1: AAP6Y-100026 TX2: AAP6Y-100027
195	Foxconn	PIFA	IPEX	TX1: -3.55 TX2: -1.69	2.45 3.34	TX1: DQ61QNL3P01 (WDAN-1QNL3P31-DH) TX2: DQ61QNL3P00 (WDAN-1QNL3P32-DH)
196	Luxshare-ICT	PIFA	IPEX	TX1: -1.77 TX2: -0.64	3.24 3.53	TX1: L01RF074-DT-R TX2: L01RF075-DT-R
197	WNC	PIFA	IPEX	TX1: 1.92 TX2: 1.57	1.15 1.34	TX1: 025.900I2.0001 TX2: 025.900I3.0001
198	WNC	PIFA	IPEX	TX1: 1.87 TX2: 1.15	0.49 -0.34	TX1: 025.900I4.0001 TX2: 025.900I5.0001
199	WGT	PIFA	IPEX	TX1: 0.73 TX2: 0.72	3.21 2.77	TX1: HHA14WIPB01+A (43R-A14001-0300) TX2: HHA14WIPB02+A (43R-A14001-0310)
200	WGT	PIFA	IPEX	TX1: 1.54 TX2: -0.15	2.18 1.25	TX1: HHA15WIPB02+C (43R-A15001-0300) TX2: HHA15WIPB01+C (43R-A15001-0310)
201	WGT	PIFA	IPEX	TX1: 1.17 TX2: 0.85	1.49 1.35	TX1: HHA15WIPB03+B (43R-A15001-0320) TX2: HHA15WIPB04+B (43R-A15001-0330)
202	WGT	PIFA	IPEX	TX1: -1.49 TX2: 1.5 TX3: 0.71	1.81 1.48 1.42	TX1: HHB11WIPB01+B TX2: HHB11WIPB02+B TX3: HHB11WIPB03+B
203	WGT	PIFA	IPEX	0.85	1.74	HHB14WIPB03+A
204	WGT	PIFA	IPEX	TX1: 1.56 TX2: 2.23	2.95 2.95	TX1: HHD18WIPB01+C (43R-DA1801-0300) TX2: HHD18WIPB02+C (43R-DA1801-0310)

205	MAGIC	PIFA	IPEX	1.17	-0.19	AWPD23F-074A4031
206	MAGIC	PIFA	IPEX	0.61	-0.32	AWPD23F-074B4031
207	MAGIC	PIFA	IPEX	-4.82	-1.69	AWPD24F-074B4031
208	MAGIC	PIFA	IPEX	0.04	-2.89	AWPD25F-074B4031
209	WGT	PIFA	IPEX	TX1: 0.65 TX2: 1.62	1.32 1.13	TX1: HHDH9WIPB01+B (43R-DH9BW1-0300) TX2: HHDH9WIPB02+B (43R-DH9BW1-0310)
210	WGT	PIFA	IPEX	-0.07	1.92	HHDS4WIPB01+A (43R-DS4701-0300)
211	WGT	PIFA	IPEX	TX1: 3.02 TX2: 0.5	2.29 1.11	TX1: HHE10WIPB01+C (43R-E10001-0301) TX2: HHDB1WIPB01+E (43R-DB1401-0300)
212	WGT	PIFA	IPEX	TX1: 2.61 TX2: 2.10	1.65 1.06	TX1: HHT13WIPB01+A (43R-E10BT1-0300) TX2: HHT13WIPB02+A (43R-E10BT1-0310)
213	MAGIC	PIFA	IPEX	1.82	0.42	AWPD22F-074I4031
214	MAGIC	PIFA	IPEX	3.13	0.41	AWPD22F-074J4031
215	WGT	PIFA	IPEX	TX1: 1.38 TX2: 0.93	1.04 1.75	TX1: HHW08WIPB01+B (43R-H14BW1-0300) TX2: HHW08WIPB02+B (43R-H14BW1-0310)
216	MAGIC	PIFA	IPEX	-1.74	-2.99	AWPD18F-074A4031
217	MAGIC	PIFA	IPEX	-2.61	-3.92	AWPD25F-074C4031
218	MAGIC	PIFA	IPEX	3.13	0.41	AWPD22F-074J4031
219	MAGIC	PIFA	IPEX	0.7	-2.1	AWPD18F-074A4031
220	WGT	PIFA	IPEX	TX1: 2.65 TX2: 1.78	1.94 0.52	TX1: HHNH5WIPB01+A (43R-NH5001-0300) TX2: HHNH5WIPB02+A (43R-NH5001-0310)
221	WGT	PIFA	IPEX	TX1: 2.60 TX2: 1.58	1.81 1.51	TX1: HHNI3WIPB01+A (43R-NI3BT1-0300) TX2: HHNI3WIPB02+A (43R-NI3BT1-0310)

222	WGT	PIFA	IPEX	TX1: 1.62 TX2: 0.69	1.93 2.64	TX1: HHU01WIPB01+A (43R-NUCBU1-0300) TX2: HHU01WIPB02+A (43R-NUCBU1-0310)
223	WGT	PIFA	IPEX	TX1: 0.26 TX2: 2.28	1.13 2.92	TX1: HHT03WIPB01+A TX2: HHT03WIPB02+A
224	WGT	PIFA	IPEX	TX1: 2.49 TX2: 2.44	4.56 2.17	TX1: HHW03WIPB01+B (43R-SFFBW1-0300) TX2: HHW03WIPB02+B (43R-SFFBW1-0310)
225	Smart Approach	PIFA	IPEX	TX1: -4.58 TX2: -0.7	0.33 1.21	TX1: 43R-SFFBT1-2100 TX2: 43R-SFFBT1-2110
226	Smart Approach	PIFA	IPEX	TX1: -4.58 TX2: -0.7	0.33 1.21	TX1: 43R-SFFBW1-2100 TX2: 43R-SFFBW1-2110
227	MAGIC	PIFA	IPEX	TX1: 1.06 TX2: 1.29	2.45 0.62	TX1: AWPD18F-074F4031 TX2: AWPD18F-074G4031
228	WGT	PIFA	IPEX	TX1: 2.67 TX2: 0.6	2.32 2.03	TX1: HHL06WIPB01+A (43R-WA0ML1-0300) TX2: HHL06WIPB02+A (43R-WA0ML1-0310)
229	WGT	PIFA	IPEX	TX1: 2.39 TX2: 2.78	1.73 2.72	TX1: HHWA0WIPB01+D (43R-WA0TM1-0300) TX2: HHWA0WIPB02+D (43R-WA0TM1-0310)
230	WGT	PIFA	IPEX	2.35	2.56	HHXS3WIPB01+C (43R-XS3501-0300)
231	WGT	PIFA	IPEX	3.11	2.57	HHN08WIPB01+D
232	Walsin	Dipole	IPEX	TX1: 2.32 TX2: 2.14	3.58 4.44	TX1: RFDPA870900SBLB808 TX2: RFCBA100618SA6B304
233	Walsin	Dipole	IPEX	2.20	3.12	TX1: RFDPA870900SMLB801 TX2: RFCBA100612SF6B303
234	Walsin	Dipole	IPEX	3.00	3.76	RFDPA870911EMLB301
235	Walsin	Dipole	IPEX	2.87	3.91	RFDPA870914EMLB301
236	Walsin	Dipole	IPEX	3.00	3.34	RFDPA870914EMLB302
237	Walsin	Dipole	IPEX	3.00	3.37	RFDPA870940EMLB304

238	WGT	PIFA	IPEX	TX1: 1.00 TX2: 0.32	2.36 1.82	TX1: HHE14WIPB03+A (43R-E14D31-0301) TX2: HHE14WIPB02+B (43R-E14D31-0311)
239	Walsin	PIFA	IPEX	0.61	4.42	RFMTA331211EMLB301
240	Walsin	PIFA	IPEX	1.62	3.25	RFMTA331229EMLB301
241	ARISTOTLE	PIFA	IPEX	2.47	3.62	RFA-25-AP252-70-500
242	ACON	PIFA	IPEX	TX1: -0.30 TX2: -2.51	-0.72 -1.40	TX1: ANP6Y-100113 TX2: ANP6Y-100114
243	ACON	PIFA	IPEX	TX1: 1.16 TX2: 1.66	1.70 1.65	TX1: AAP6Y-100022 TX2: AAP6Y-100023
244	High-Tek	PIFA	IPEX	TX1: -1.91 TX2: 2.19	2.61 1.64	TX1: 0ACCN015035N TX2: 0ACCN015036N
245	auden	PIFA	IPEX	TX1: 3.11 TX2: 2.3	4.27 4.26	TX1: BAUKO1730B-M TX2: BAUKO1730B-A
246	WNC	PIFA	IPEX	TX1: 0.50 TX2: 0.22	-0.99 -0.99	TX1: DQ6U15G7100 TX2: DQ6U15G7100
247	WNC	PIFA	IPEX	TX1: 1.85 TX2: 1.20	2.13 1.04	TX1: DQ6U15G6500 TX2: DQ6U15G6600
248	WNC	PIFA	IPEX	TX1: 2.81 TX2: 2.06	-0.28 1.36	TX1: DQ6U15G7700 TX2: DQ6U15G7800
249	WNC	PIFA	IPEX	TX1: 1.95 TX2: 0.76	-0.39 -0.09	TX1: DQ6U15G7900 TX2: DQ6U15G8000
250	ACON	PIFA	IPEX	TX1: 0.38 TX2: -0.26	-1.51 0.12	TX1: ANP6Y-100071 TX2: ANP6Y-100072
251	High-Tek	PIFA	IPEX	TX1: -1.55 TX2: -0.68	0.43 -0.51	TX1: 0ACCN015029N TX2: 0ACCN015030N
252	Tongda	PIFA	IPEX	TX1: -0.08 TX2: 0.05	-0.60 -0.04	TX1: T-543-9021113-1 TX2: T-543-9021113-2
253	ACON	PIFA	IPEX	TX1: -0.39 TX2: -0.79	-0.89 -1.26	TX1: ANP6Y-100073 TX2: ANP6Y-100074
254	High-Tek	PIFA	IPEX	TX1: -1.03 TX2: -0.51	0.80 0.25	TX1: 0ACCN015031N TX2: 0ACCN015032N
255	Tongda	PIFA	IPEX	TX1: -0.02 TX2: 0.09	-0.51 -0.35	TX1: T-543-9021114-1 TX2: T-543-9021114-2

256	Speed	PIFA	IPEX	TX1: -0.61 TX2: -0.34	0.83 -0.39	TX1: F.0G.UH-6008-003-00 TX2: F.0G.UH-6008-004-00
257	Tongda	PIFA	IPEX	TX1: 0.33 TX2: -0.07	0.46 -0.30	TX1: T-543-9021106-3 TX2: T-543-9021106-4
258	Speed	PIFA	IPEX	TX1: -0.61 TX2: -0.34	0.83 -0.39	TX1: F.0G.UH-6008-003-00 TX2: F.0G.UH-6008-004-00
259	INPAQ	PIFA	IPEX	2.57 2.41	2.67 2.73	TX1: WA-F-LB-02-089 TX2: WA-F-LB-03-039
260	Tongda	PIFA	IPEX	TX1: 0.06 TX2: -0.31	-0.08 -0.14	TX1: T-543-9021105-3 TX2: T-543-9021105-4
261	Tongda	PIFA	IPEX	TX1: 0.19 TX2: -0.09	0.23 -0.56	TX1: T-543-9021104-1 TX2: T-543-9021104-2
262	Tongda	PIFA	IPEX	TX1: 0.20 TX2: 0.08	-0.04 -0.41	T-543-9021103-A
263	Gortec	Dipole	IPEX	TX1: 2.38	5.00	TX1: AN2450-5706RS
264	Gortec	Dipole	IPEX	TX1: 2.38	5.00	TX1: AN2450-5706RS
265	ACON	PIFA	IPEX	TX1: 0.94 TX2: -3.13	-1.23 -1.62	TX1: APP6Y-700127 TX2: APP6Y-700132
266	YAGEO	PIFA	IPEX	TX1: -1.04 TX2: -0.29	-1.16 -1.51	TX1: ANTA0ZP09041WLAN3 TX2: ANTA0ZP09041WLAN4
267	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.35 TX2: 1.31	1.67 1.92	TX1: DC33001F400 TX2: DC33001F410
268	SPEED	PIFA	IPEX	TX1: 0.03 TX2: 2.92	1.19 2.93	TX1: DC33001F500 TX2: DC33001F510
269	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.57 TX2: 0.74	-0.03 0.46	TX1: DC33001F700 TX2: DC33001F710
270	SPEED	PIFA	IPEX	TX1: 2.06 TX2: 2.41	1.05 2.86	TX1: DC33001F600 TX2: DC33001F610
271	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.71 TX2: 1.44	-0.33 -0.45	TX1: DC33001FB00 TX2: DC33001FB10
272	SPEED	PIFA	IPEX	TX1: 2.14 TX2: 0.96	2.75 0.92	TX1: DC33001FA00 TX2: DC33001FA10
273	HongLin	PIFA	IPEX	TX1: 0.53 TX2: 1.21	0.86 0.34	TX1: DC33001F100 TX2: DC33001F110
274	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.52 TX2: -1.06	0.57 1.12	TX1: DC33001EX00 TX2: DC33001EX10

275	SPEED	PIFA	IPEX	TX1: -1.63 TX2: -1.60	0.30 -0.63	TX1: DC33001EW00 TX2: DC33001EW10
276	HongLin	PIFA	IPEX	TX1: 0.62 TX2: 0.73	0.56 0.69	TX1: DC33001F200 TX2: DC33001F210
277	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.56 TX2: 0.73	0.86 -0.51	TX1: DC33001EY00 TX2: DC33001EY10
278	SPEED	PIFA	IPEX	TX1: 0.44 TX2: 2.94	0.92 1.05	TX1: DC33001EZ00 TX2: DC33001EZ10
279	HongLin	PIFA	IPEX	TX1: 0.87 TX2: 0.64	0.58 0.38	TX1: DC33001F000 TX2: DC33001F010
280	SPEED	PIFA	IPEX	TX1: 1.46 TX2: 0.26	1.95 2.82	TX1: DC33001F300 TX2: DC33001F310
281	Sakuma	PIFA	IPEX	TX1: 1.2	1.80	JUM2452PO VX1
282	FOXCONN	PIFA	IPEX	TX1: 1.27 TX2: 0.66	1.42 2.23	350502200-600-G 350502100-600-G
283	South Star	PIFA	IPEX	TX1: 2.06 TX2: 1.02	1.12 1.12	DC330018D00 DC330018D10
284	HONGBO	PIFA	IPEX	TX1: 1.21 TX2: -0.74	2.54 1.90	290-40253 290-40254
285	WGT	PIFA	IPEX	0.70	2.86	HHDS6WIPB01+A
286	WGT	PIFA	IPEX	-0.46	2.70	HH02UWIPB01+B
287	WGT	PIFA	IPEX	TX1: -2.02 TX2: -2.29	-2.16 -1.46	HHW01WIPB01+D HHW01WIPB02+A
288	WGT	PIFA	IPEX	3.29	3.41	HH02AWIPB01+A
289	WGT	PIFA	IPEX	TX1: 1.71 TX2: 0.97	1.61 2.16	HHW01WIPB01+B HHW01WIPB02+B
290	WGT	PIFA	IPEX	TX1: 2.31 TX2: 2.07	1.41 1.53	HHW08WIPB01+B HHS14WIPB02+B
291	WGT	PIFA	IPEX	TX1: 1.62 TX2: 0.69	1.93 2.64	HHU01WIPB01+E_01 HHU01WIPB02+D_02
292	WGT	PIFA	IPEX	TX1: 0.52 TX2: 0.48	2.47 2.87	HHX50WIPB01+B HHX50WIPB02+B
293	WGT	PIFA	IPEX	TX1: 0.91 TX2: 2.81	3.08 2.02	HHX90WIPB01+A HHX90WIPB02+A
294	WGT	PIFA	IPEX	-1.75	-1.30	HHE03WIPB01+D
295	WGT	PIFA	IPEX	0.93	1.66	HHE23WIPB01+D

296	WGT	PIFA	IPEX	TX1: 1.95 TX2: 1.2	2.05 1.01	HHCT3WIPB01+A HHCT3WIPB02+A
297	WGT	PIFA	IPEX	0.35	-3.85	HH5V5WIPB01+A
298	WGT	Dipole	IPEX	TX1: 2.25 TX2: 2.2	4.45 4.30	HHXPCAPDI01+A HHXPCAPDI01+A
299	WGT	Dipole	IPEX	TX1: 2.03 TX2: 2.21	4.64 3.92	HHXPCAPDI02+A HHXPCAPDI02+A
300	InnoWave	PIFA	IPEX	2.41	2.55	610-INNEP0005-A
301	InnoWave	PIFA	IPEX	TX1: 2.55 TX2: 2.89	2.73 -0.13	610-INNEP0001-A 610-INNEP0002-A
302	InnoWave	PIFA	IPEX	TX1: 2.17 TX2: 2.80	2.58 2.82	610-INNEP0003-A 610-INNEP0004-A
303	YAGEO	PIFA	IPEX	0.28	-0.93	ANTA0AA11131WLAN1
304	Anjie	PIFA	IPEX	2.98	4.56	AJDP2J-B0004
305	Anjie	PIFA	IPEX	2.77	2.93	AJDP2J-C0002
306	LYNwave	PIFA	IPEX	2.37	3.59	ALA160-222022-000002
307	ACON	PIFA	IPEX	Main:-1.18 Aux: -1.26i	-0.02 -1.68	ANP6P-100005 ANP6P-100006
308	LUXSHARE	PIFA	IPEX	-0.7	-0.7	LA05RF895-1H
309	LUXSHARE	PIFA	IPEX	Main: 1.30 Aux: 0.19	0.78 0.59	DC33001GA00 DC33001GA10
310	Speed	PIFA	IPEX	Main: 2.87 Aux.: 0.72	1.55 1.42	DC33001GB00 DC33001GB10
311	VENTURE	PIFA	IPEX	TX1: 2.45 TX2: 2.17	4.76 3.02	M01-50908019-R M01-50908020-R
312	Amphenol	PIFA	IPEX	TX1: 2.80 TX2: 1.53	1.60 2.30	DC33001GP00 DC33001GP10
313	SPEED	PIFA	IPEX	TX1: 0.65 TX2: -0.14	0.86 -1.57	DC33001GV00 DC33001GV10
314	Amphenol	PIFA	IPEX	TX1: -1.00 TX2: -1.63	-0.68 -3.24	DC33001GX00 DC33001GX10
315	LUXSHARE-ICT	PIFA	IPEX	TX1: 1.66 TX2: -0.03	1.11 2.58	DC33001GM00 DC33001GM10
316	SPEED	PIFA	IPEX	TX1: 2.56 TX2: 1.69	0.02 1.10	DC33001GK00 DC33001GK10
317	Amphenol	PIFA	IPEX	TX1: 2.89 TX2: 2.04	0.51 2.98	DC33001GQ00 DC33001GQ10

318	LUXSHARE-ICT	PIFA	IPEX	TX1:1.98 TX2: 0.03	1.01 1.14	DC33001GN00 DC33001GN10
319	SPEED	PIFA	IPEX	TX1:2.32 TX2: 2.22	-0.09 0.73	DC33001GL00 DC33001GL10
320	Amphenol	PIFA	IPEX	TX1:-0.28 TX2: -1.13	1.50 1.91	DC33001GD00 DC33001GD00
321	LUXSHARE-ICT	PIFA	IPEX	TX1:-0.05 TX2: -1.11	-0.31 1.73	DC33001GC00 DC33001GC00
322	Luxshare-ICT	PIFA	IPEX	TX1:-0.04 TX2: -2.23	-0.12 -0.28	L01RF031-DT-R/ L01RF062-DT-R L01RF086-DT-R
323	Luxshare-ICT	PIFA	IPEX	TX1: -0.04 TX2: -2.00	-0.12 -0.33	L01RF031-DT-R/ L01RF062-DT-R L01RF095-DT-R
324	Luxshare-ICT	PIFA	IPEX	TX1: 0.45 TX2: -2.28	0.62 -0.23	L01RF066-DT-R L01RF065-DT-R
325	Luxshare-ICT	PIFA	IPEX	TX1: 0.32 TX2: -1.74	0.85 -2.31	L01RF066-DT-R L01RF087-DT-R
326	Luxshare-ICT	PIFA	IPEX	TX1: -0.10 TX2: -1.10	2.4 1.10	L01RF031-DT-R/ L01RF062-DT-R L01RF089-DT-R
327	Luxshare-ICT	PIFA	IPEX	TX1: 1.59 TX2: -0.04	-2.30 4.39	L01RF091-DT-R/ L01RF092-DT-R L01RF093-DT-R
328	Taoglas Ltd.	Dipole	IPEX	2.96	1.37	MA231.LBC.002
329	Taoglas Ltd.	PIFA	IPEX	-0.02	-1.29	WSA.2458.A.301151
330	Taoglas Ltd.	PIFA	IPEX	2.96	1.37	MA231.LBC.002
331	Luxshare-ICT	PIFA	IPEX	0.45 -2.28	0.62 -0.23	L01RF 066-DT-R L01RF 065-DT-R
332	Luxshare	PIFA	IPEX	-5.33 -4.07	-4.87 -1.44	L01RF 067-DT-R L01RF 068-DT-R
333	Amphenol	PIFA	IPEX	2.89 2.04	0.51 2.98	DC33001GQ00 DC33001GQ10
334	Luxshare-ICT	PIFA	IPEX	1.98 0.03	1.01 1.14	DC33001GN00 DC33001GN10
335	Speed	PIFA	IPEX	2.32 2.22	-0.09 0.73	DC33001GL00 DC33001GL10
336	Amphenol	PIFA	IPEX	2.23 2.07	-0.31 2.47	DC33001GT00 DC33001GT10
337	Luxshare-ICT	PIFA	IPEX	2.02 0.46	0.53 -0.68	DC33001GS00 DC33001GS10
338	Speed	PIFA	IPEX	1.71 1.59	0.88 2.45	DC33001GR00 DC33001GR10

339	Amphenol	PIFA	IPEX	-1.00 -1.63	-0.68 -3.24	DC33001GX00 DC33001GX10
340	Speed	PIFA	IPEX	0.65 -0.14	0.86 -1.57	DC33001GV00 DC33001GV10
341	Amphenol	PIFA	IPEX	-2.45 -1.32	-1.57 -0.79	AM149000C10 AM149000C10
342	Luxshare-ICT	PIFA	IPEX	-3.65 0.70	-0.75 -0.94	AM149000C00 AM149000C00
343	Wanshih	Dipole	I-PEX	2.3	2.6	SM1WFI0123A
344	INVAX	Dipole	I-PEX	2.9	3.28	AN2450-5511BRS-SMALFR8-3230A-00X 00R
345	Aristotle	Dipole	I-PEX	2.56	1.81	RFA-25-C2M2-U-M70

————THE END————