
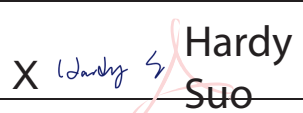


Prüfbericht-Nr.: <i>Test report no.:</i>	DE22FZ6X 001	Auftrags-Nr.: <i>Order no.:</i>	168378550 P00257266	Seite 1 von 13 <i>Page 1 of 13</i>	
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2022-06-22		
Auftraggeber: <i>Client:</i>	KERLINK SA 1, Rue Jacqueline Auriol 35235 Thorigne-Fouillard FRANCE				
Prüfgegenstand: <i>Test item:</i>	Wirnet™ iZeptoCell				
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	PDTIOT-IZEC900 (Trademark: Kerlink)				
Auftrags-Inhalt: <i>Order content:</i>	Test Report				
Prüfgrundlage: <i>Test specification:</i>	47 CFR Part 22 Subpart H 47 CFR Part 24 Subpart E 47 CFR Part 27 47 CFR Part 2	RSS-130 Issue 2 RSS-132 Issue 3 RSS-133 Issue 6 RSS-139 Issue 3 RSS-Gen Issue 5			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2022-06-27	Please refer to Photo Document			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003283029-001~020				
Prüfzeitraum: <i>Testing period:</i>	2022-07-08				
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Pass				
geprüft von: <i>tested by:</i>	 Lin Lin	genehmigt von: <i>authorized by:</i>	 Hardy Suo		
Datum: <i>Date:</i>	2022-08-11	Ausstellungsdatum: <i>Issue date:</i>	2022-08-11		
Stellung / Position:	Sachverständige(r)/Expert	Stellung / Position:	Sachverständige(r)/Expert		
Sonstiges / Other:	FCC ID: 2AFYS-KLKZEC900 IC: 20637-KLKZEC900 HVIN: PDTIOT-IZEC900 The certified module has been integrated into the EUT. The EUT contains transmitter module ME310G1-WW (FCC ID:RI7ME310G1WW and IC:5131A-ME310G1WW), hence only radiated spurious emission testing were performed. This report is composite investigation of the final product for compliance with above rules.				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>				
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet	5 = mangelhaft
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested	5 = poor
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

v05

Prüfbericht - Nr.: DE22FZ6X 001
Test Report No.:

Seite 2 von 13
Page 2 of 13

TEST SUMMARY

5.1.1 FIELD STRENGTH OF SPURIOUS RADIATION

RESULT: Pass

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1. GENERAL REMARKS

1.1 COMPLEMENTARY MATERIALS

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Field Strength of Spurious Radiation

Appendix B: Photographs of the Test Set-Up.

1.2 TEST STANDARD(S)

Applied Rules:	47 CFR Part 22 Subpart H	RSS-130 Issue 2
	47 CFR Part 24 Subpart E	RSS-132 Issue 3
	47 CFR Part 27	RSS-133 Issue 6
	47 CFR Part 2	RSS-139 Issue 3
		RSS-Gen Issue 5
Test Method:	KDB 971168 D01	
	KDB 996369 D04	
	ANSI C63.26-2015	

1.3 List of Document Change

No.	Report No.	Description
1	DE22FZ6X 001	First released.

2. TEST SITES

2.1 TEST FACILITIES

Error! Reference source not found.

(FCC Registration No.: 694916 & IC Registration Number: 25069)

Address: No. 362, Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China

2.2 TEST DATE

Date of test: 2022-07-08

2.3 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Table 1: List of Test and Measurement Equipment

<input checked="" type="checkbox"/> Unwanted Emission Testing (TS8996)					
Equip. No.	Description	Manufacturer	Model	Serial No.	Calibrated until (DD.MM.YYYY)
G1825844	Signal Generator	R&S	SMB100A	180840	02.08.2023
G1825845	Wideband Radio Communication Tester	R&S	CMW500	165339	02.08.2023
G1825846	Signal Analyzer	R&S	FSV 40	101440	01.08.2023
G1825847	System Controller Interface	R&S	SCI-100	S10010036	N/A
G1825849	Filterbank	R&S	GSM	100811	01.08.2023
G1825850	OSP	R&S	OSP 120	102041	N/A
G1825851	OSP	R&S	OSP 150	101385	02.12.2022
G1825852	Pre-amplifier	R&S	SCU08F1	08320030	01.08.2023
G1825853	Amplifier	R&S	SCU-18F	180079	01.08.2023
G1825854	Amplifier	R&S	SCU40A	100450	02.08.2023
G1825855	Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	192	06.08.2024
G1825856	Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218719	06.08.2024
G1825857	Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18312	06.08.2024
G1825858	Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19066	08.09.2022

G1825859	Biconical Broadband Antenna (30 MHz - 1 GHz)	Schwarzbeck	VUBA 9117	357	02.08.2024
G1825860	Double Ridged Broadband Horn Antenna (1 – 18 GHz)	Schwarzbeck	BBHA 9120 D	01760	30.07.2024
G1825861	Broadband Horn Antenna (15 – 40 GHz)	Schwarzbeck	BBHA 9170	00862	02.08.2024
G1825862	Test software	R&S	EMC32 (V10.50.40)	N/A	N/A
G1825863	Control PC	Dell	OptiPlex 7050	36NW9P2	N/A
G1826432	3m Fully Anechoic Chamber	Albatross	FAC-3m	APC17151 -FAC	22.06.2024

2.4 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.5 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The **Error! Reference source not found.** facility located at No. 362, Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3. GENERAL PRODUCT INFORMATION

3.1 GENERAL DESCRIPTION

The EUT is Wirnet™ iZeptoCell gateway is part of the global Long-Range Radio fixed network to provide M2M connectivity link between low power end-point and Internet Access. The Wirnet™ iZeptoCell is based on LoRa® technology. It is compatible and interoperable with existing LoRaWAN LPWAN.

The certified module has been integrated into the EUT. The EUT contains transmitter module ME310G1-WW (FCC ID: R17ME310G1WW and IC: 5131A-ME310G1WW).

For details refer to the User Manual.

3.2 RATING AND SYSTEM DETAILS

Table 2: Rating of EUT

General Information of EUT	Description
Kind of Equipment	Wirnet™ iZeptoCell
Type Designation	PDTIOT-IZEC900
Trademark	Kerlink
FCC ID	2AFYS-KLKZEC900
IC	20637-KLKZEC900
HVIN	PDTIOT-IZEC900
Hardware Version	V2C
Operating Voltage	USB operated (DC 4.5V~5.5V)

Table 3: Technical Specification of EUT

Technical Specification of Lora DTS	
Characteristic	Description
Frequency Range	923.3 MHz - 927.5 MHz
Type of Modulation	Lora
Data Rate	SF7 – SF12 / DR8 – DR13
Channel Number	8 channels
Channel Separation	600 KHz
Occupied Bandwidth	500 KHz
Technical Specification of Lora Hybrid	
Characteristic	Description
Frequency Range	903.9 MHz - 905.3 MHz
Type of Modulation	Lora
Data Rate	SF9 / DR1
Channel Number	8 channels
Channel Separation	200 KHz
Occupied Bandwidth	125 KHz

Technical Specification of Lora Hybrid	
Characteristic	Description
Operating Frequency	904.6 MHz
Type of Modulation	Lora
Data Rate	SF11 / DR9
Channel Number	1 channel
Occupied Bandwidth	500 KHz
Technical Specification of LTE IoT Module	
Characteristic	Description
Certified Module	ME310G1-WW
FCC ID:	RI7ME310G1WW
IC:	5131A-ME310G1WW
Operated Modes	GPRS/EGPRS, eMTC and NB-IoT
Operational Frequency Band(s)	GPRS/EGPRS: GSM 850, PCS 1900 eMTC: Band 2/4/5/12/13/25/26/66/85 NB-IoT: Band 2/4/5/12/13/25/26/66/71/85
Rated RF Output Power	GPRS 850: Class 4 GPRS 1900: Class 1 EGPRS 850/1900: E2 eMTC and NB-IoT: Class 3 (except NB-IoT Band 71) NB-IoT Band 71: Class 5
Antenna Type	Internal Antenna
Antenna Gain	3.0 dBi for 824-960 MHz 3.0 dBi for 1710-2170 MHz

3.3 INDEPENDENT OPERATION MODES

The basic operation modes are:

- A. On, communication link established, Transmitting
 - 1) eMTC operating
 - i. Low channel
 - ii. Middle channel
 - iii. High channel
 - 2) NB-IOT operating
 - i. Low channel
 - ii. Middle channel
 - iii. High channel
- B. On, Lora with eMTC and NB-IOT co-location mode
- C. Idle
- D. Off

3.4 NOISE GENERATING AND NOISE SUPPRESSING PARTS

Refer to the Circuit Diagram.

3.5 SUBMITTED DOCUMENTS

- | | |
|---|--|
| <input checked="" type="checkbox"/> User Manual | <input checked="" type="checkbox"/> Rating Label |
| <input checked="" type="checkbox"/> Circuit Diagram | <input checked="" type="checkbox"/> PCB Layout |
| <input checked="" type="checkbox"/> Block Diagram | <input checked="" type="checkbox"/> Photo Document |
| <input checked="" type="checkbox"/> Schematics | <input checked="" type="checkbox"/> Parts List |
| <input type="checkbox"/> Model Difference Letter | |

4. TEST SET-UP AND OPERATION MODES

4.1 PRINCIPLE OF CONFIGURATION SELECTION

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 TEST OPERATION AND TEST SOFTWARE

Test operation refers to test setup in chapter 5. All testing were performed according to the procedure in KDB 971168 D01, KDB 996369 D04 and ANSI C63.26.

According to clause 3.1, all tests were performed on model PDTIOT-IZEC900 in this report.

Table 4: List of Frequencies under Test

Note: The certified module was integrated. Since all testing were performed at the maximum RF output power condition, hence only following operation bands listed below are considered for integration measurement.

Operation bands	Modulation	Mode	Configuration	Frequencies under Test	
				Channel	Frequencies (MHz)
Band 2	QPSK	1.4 MHz	eMTC/NB-IoT	18900	1880
Band 4	QPSK	1.4 MHz	eMTC/NB-IoT	20175	1732.5
Band 5	QPSK	1.4 MHz	eMTC/NB-IoT	20525	836.5
Band 12	QPSK	1.4 MHz	eMTC/NB-IoT	23095	707.5
Band 13	QPSK	5 MHz	eMTC	23230	782
Band 66	QPSK	5 MHz	NB-IoT	132322	1745

4.3 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT

Table 5: Auxiliary Equipment and Accessories used during test

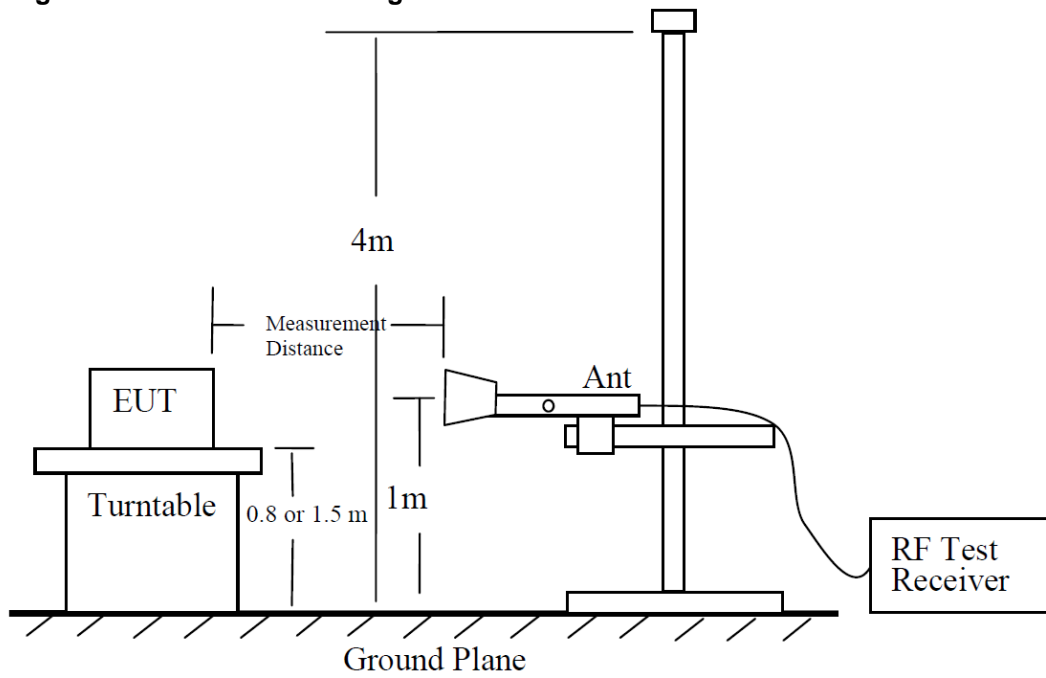
Description	Manufacturer	Model	S/N
Laptop PC	Dell	E5430	9V28XY1
Wirnet iFemtoCell-evolution 915	Kerlink	PDTIOT-IFE04	005DGa010003
AC/DC power supply	CUI	SMI10-5-V-I38	/
3m USB-A extender cable	Assmann WSW	A-USB30AM-30AF-300	/
3m USB-A to USB-C cable	ACAL BFI	ACCA-21186	/
3m S/FTP Ethernet cable	RS PRO	411-497	/

4.4 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE

The test sample, which has been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



5. TEST RESULTS

5.1 ESSENTIAL REQUIREMENTS OF STANDARD

5.1.1 FIELD STRENGTH OF SPURIOUS RADIATION

RESULT: **Pass**

Test standard	:	47 CFR Part 22 Subpart H 47 CFR Part 24 Subpart E 47 CFR Part 27 47 CFR Part 2	RSS-130 Issue 2 RSS-132 Issue 3 RSS-133 Issue 6 RSS-139 Issue 3 RSS-Gen Issue 5	
Limits	:	Operating band	FCC Limit	ISED Limit
		Band 2	< - 13 dBm /1MHz	< - 13 dBm /1MHz
		Band 4	< - 13 dBm /1MHz	< - 13 dBm /1MHz
			< - 13 dBm /100kHz	< - 13 dBm / 100 kHz
		Band 5	@ < 1GHz < - 13 dBm /1MHz	
			@ > 1GHz	
		Band 12	< - 13 dBm /100kHz	< - 13 dBm /100kHz
Test procedure	:	Clause 5.5 of ANSI C63.26-2015		
Kind of test site	:	3m Semi Anechoic Room		

Test Setup

Date of testing	:	2022-07-08
Input voltage	:	DC 5V from USB port
Test environment	:	<input checked="" type="checkbox"/> Normal test conditions <input type="checkbox"/> Extreme test conditions
Operation mode	:	A.1 & A.2 & B
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101.0 kPa

The limit calculation:

$$\text{Limit} = P_{\text{Meas}} \text{ (dBm)} - [43 + 10 \log(P_{\text{Meas}})] = -13 \text{ dBm}$$

Refer to attached Appendix A for details of test results.

6. SYSTEM MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

Table 6: System Measurement Uncertainty

Items	Extended Uncertainty
All emissions, radiated	± 4.17 dB
Remark: 95% Confidence Levels, K=2.	

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===== END OF REPORT =====

Appendix A: Test Results of Field Strength of Spurious Radiation

APPENDIX A: TEST RESULTS OF FIELD STRENGTH OF SPURIOUS RADIATION	1
APPENDIX A.1: FIELD STRENGTH OF SPURIOUS RADIATION, EMTC OPERATION	2
<i>Below 1GHz</i>	2
<i>Above 1GHz</i>	4
APPENDIX A.2: FIELD STRENGTH OF SPURIOUS RADIATION, NB-IOT OPERATION	24
<i>Below 1GHz</i>	24
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APPENDIX A.3: FIELD STRENGTH OF SPURIOUS RADIATION, CO-LOCATION	46
<i>Below 1GHz</i>	46
<i>Above 1GHz</i>	48

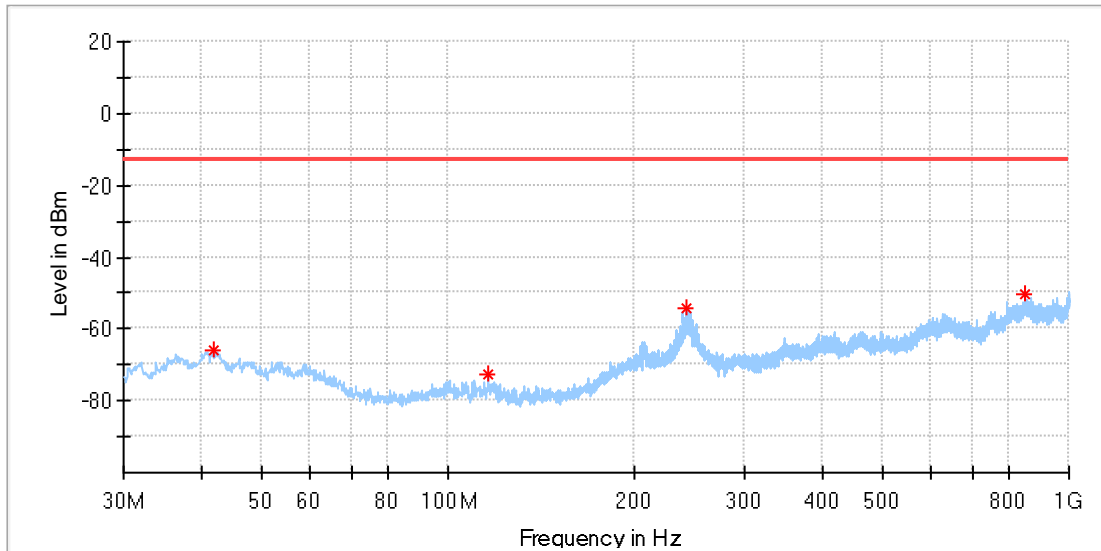
Appendix A.1: Field Strength of Spurious Radiation, eMTC Operation

Note: This testing was carried out on different modulations, but only the worst case was presented in this report.

Below 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

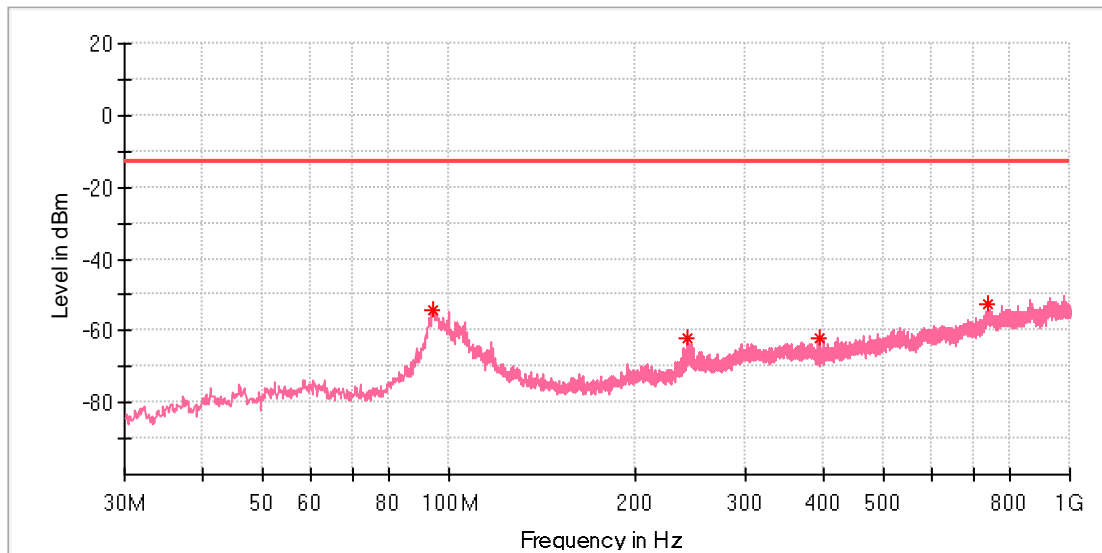


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
41.882500	-65.75	-13.00	52.75	100.0	H	143.0	-112.2
115.723750	-72.44	-13.00	59.44	100.0	H	208.0	-122.2
242.793750	-53.99	-13.00	40.99	100.0	H	228.0	-110.0
851.226250	-50.45	-13.00	37.45	100.0	H	128.0	-100.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
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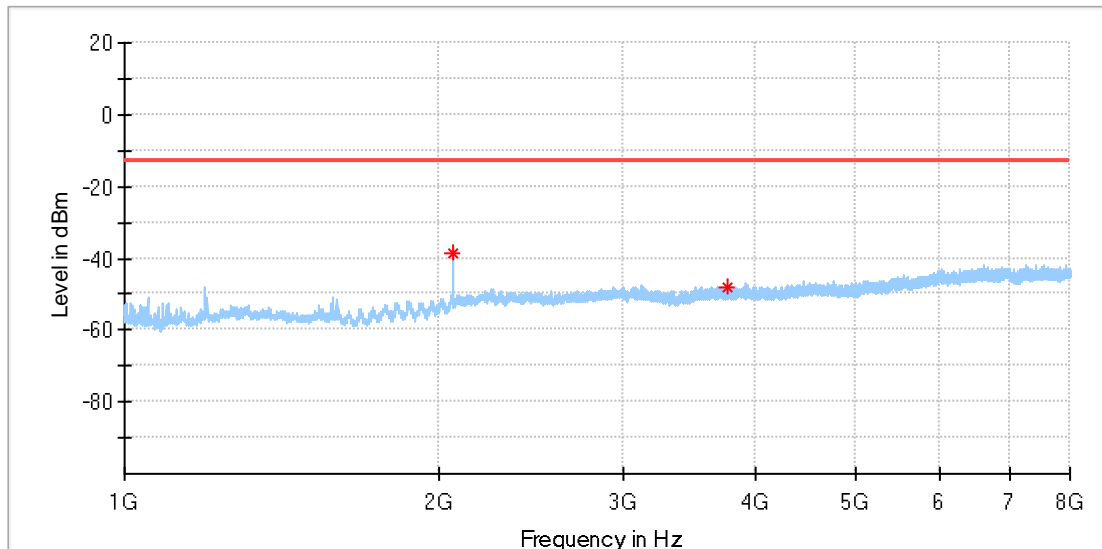
Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
94.262500	-54.33	-13.00	41.33	100.0	V	101.0	-99.6
242.551250	-62.25	-13.00	49.25	100.0	V	301.0	-115.6
396.053750	-62.03	-13.00	49.03	100.0	V	348.0	-112.2
739.312500	-52.71	-13.00	39.71	100.0	V	13.0	-102.0

Above 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

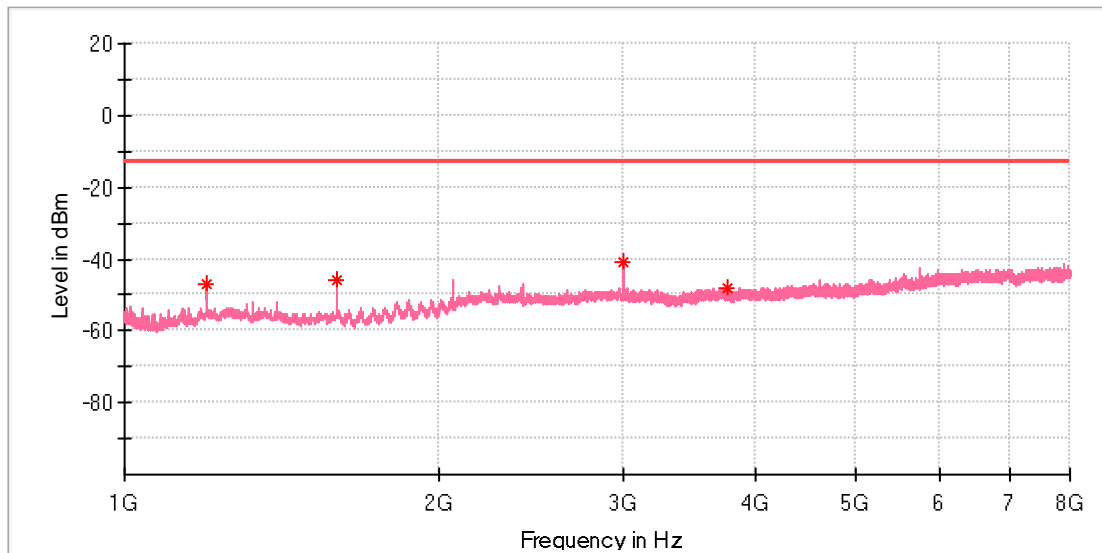


Critical_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2058.500000	-38.77	-13.00	25.77	100.0	H	98.0	-88.4
3761.500000	-48.01	-13.00	35.01	100.0	H	0.0	-86.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

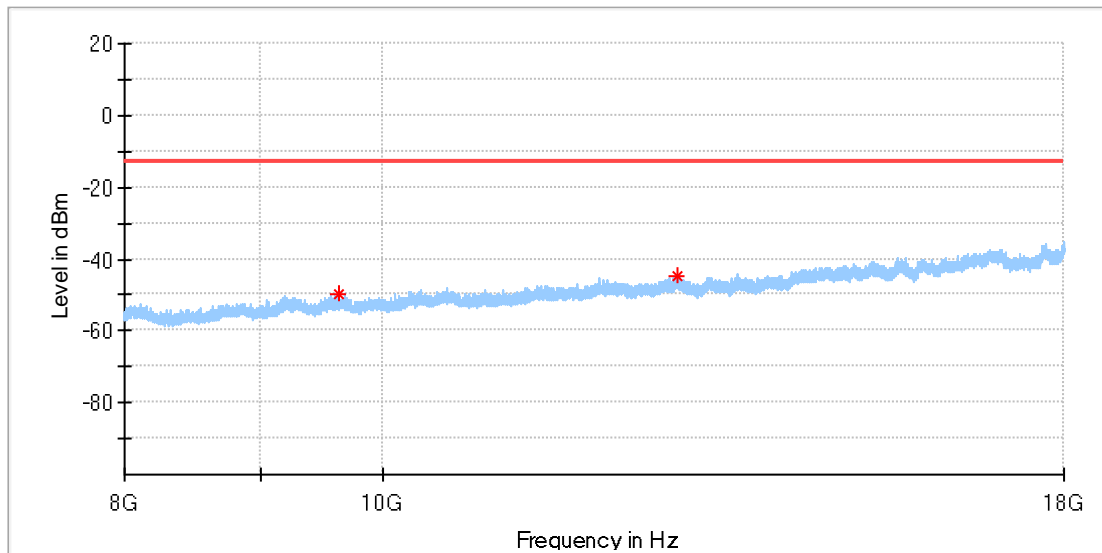


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1197.000000	-46.85	-13.00	33.85	100.0	V	108.0	-92.5
1598.000000	-45.97	-13.00	32.97	100.0	V	252.0	-92.9
2998.500000	-40.69	-13.00	27.69	100.0	V	259.0	-86.7
3761.000000	-48.18	-13.00	35.18	100.0	V	116.0	-87.0

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
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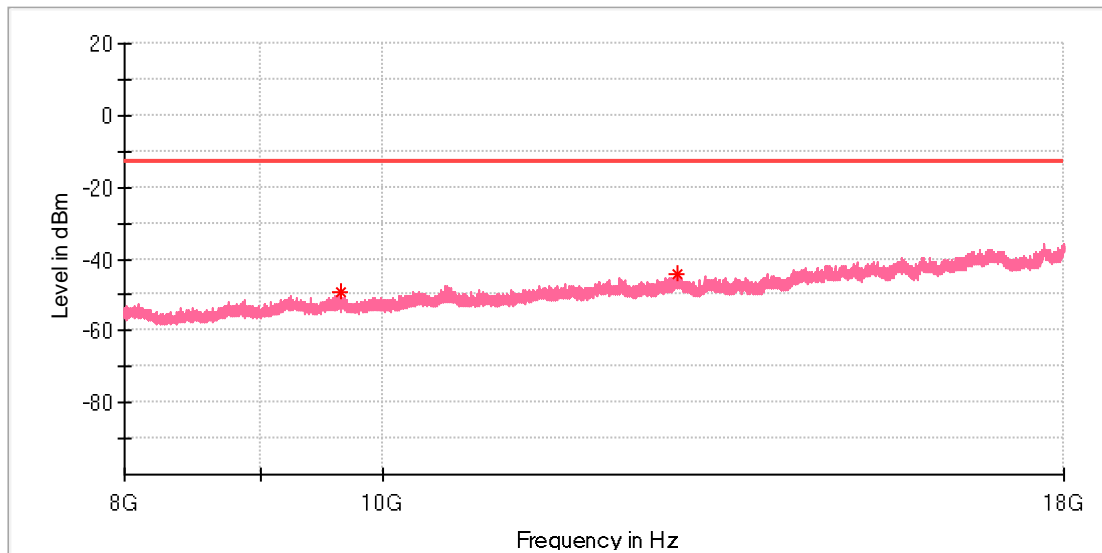


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9622.500000	-49.92	-13.00	36.92	100.0	H	275.0	-83.8
12902.000000	-44.73	-13.00	31.73	100.0	H	275.0	-78.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
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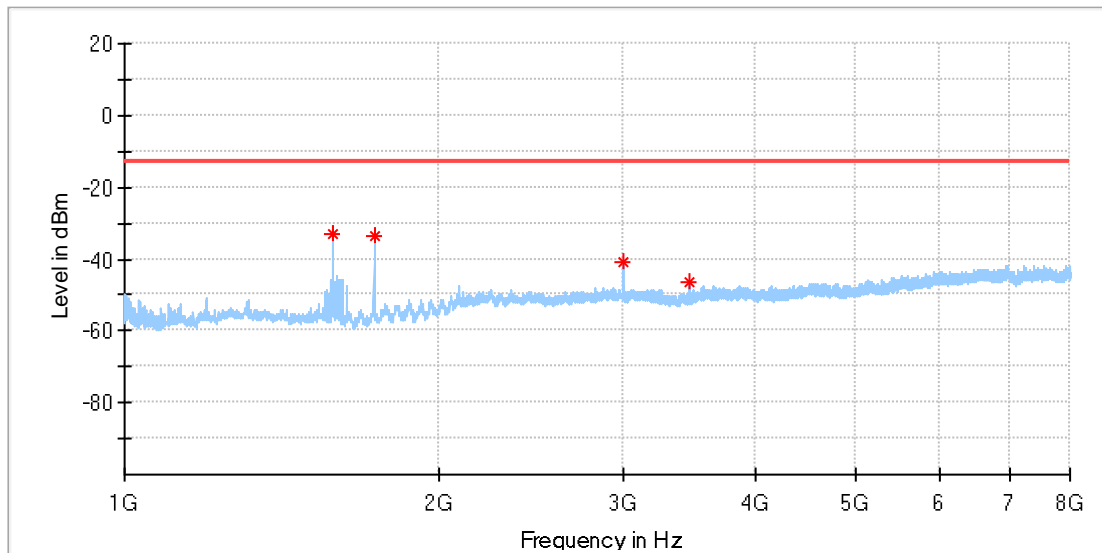


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9645.000000	-49.47	-13.00	36.47	100.0	V	14.0	-83.6
12883.500000	-43.97	-13.00	30.97	100.0	V	222.0	-78.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

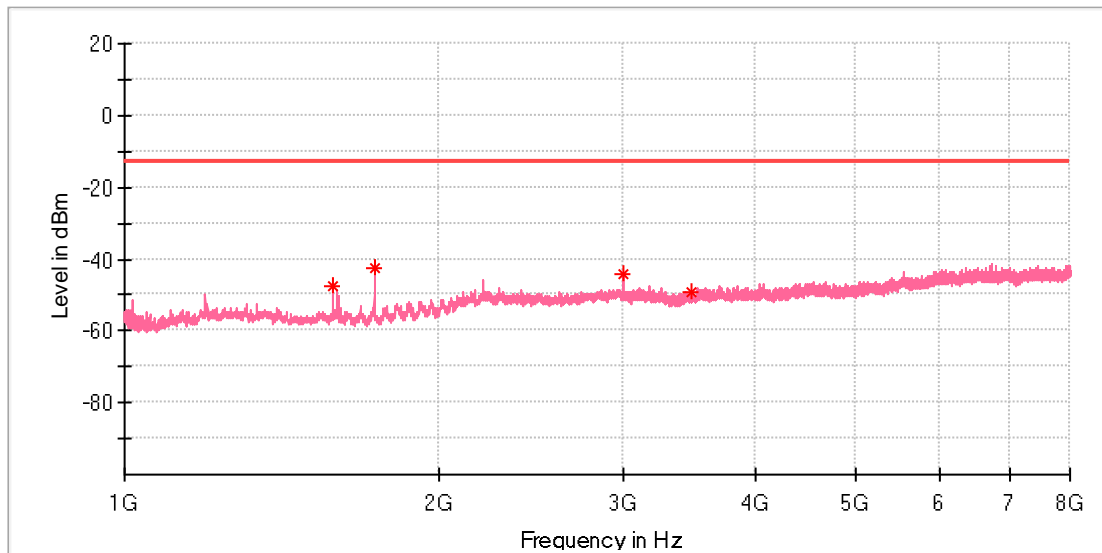


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1581.000000	-32.81	-13.00	19.81	100.0	H	129.0	-93.0
1731.500000	-33.63	-13.00	20.63	100.0	H	295.0	-91.4
2994.000000	-41.07	-13.00	28.07	100.0	H	274.0	-86.7
3464.000000	-46.20	-13.00	33.20	100.0	H	122.0	-88.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

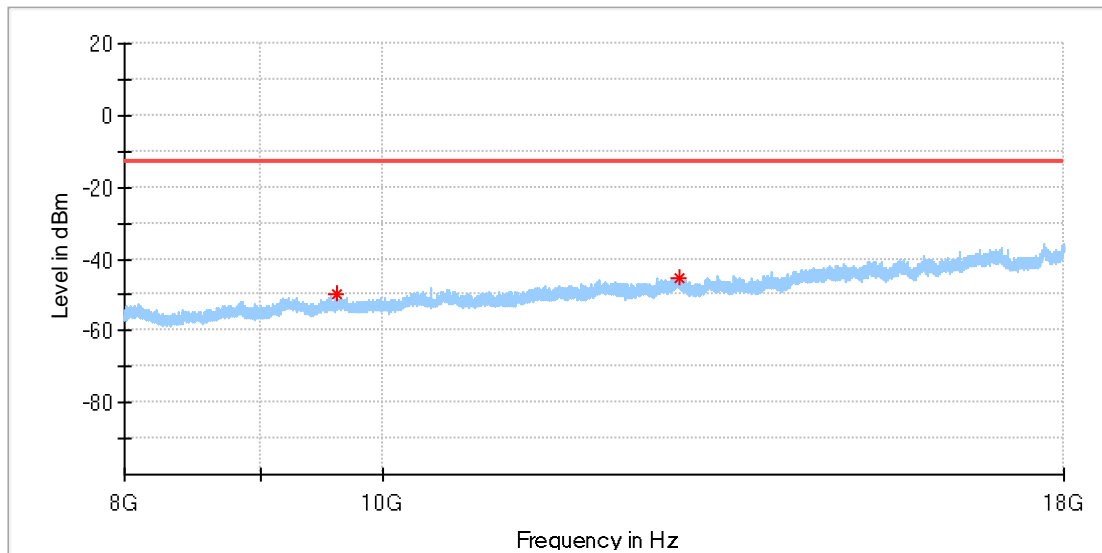


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1581.500000	-47.37	-13.00	34.37	100.0	V	0.0	-93.0
1732.000000	-42.30	-13.00	29.30	100.0	V	310.0	-91.6
2999.000000	-44.00	-13.00	31.00	100.0	V	207.0	-86.7
3484.000000	-49.11	-13.00	36.11	100.0	V	151.0	-87.7

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

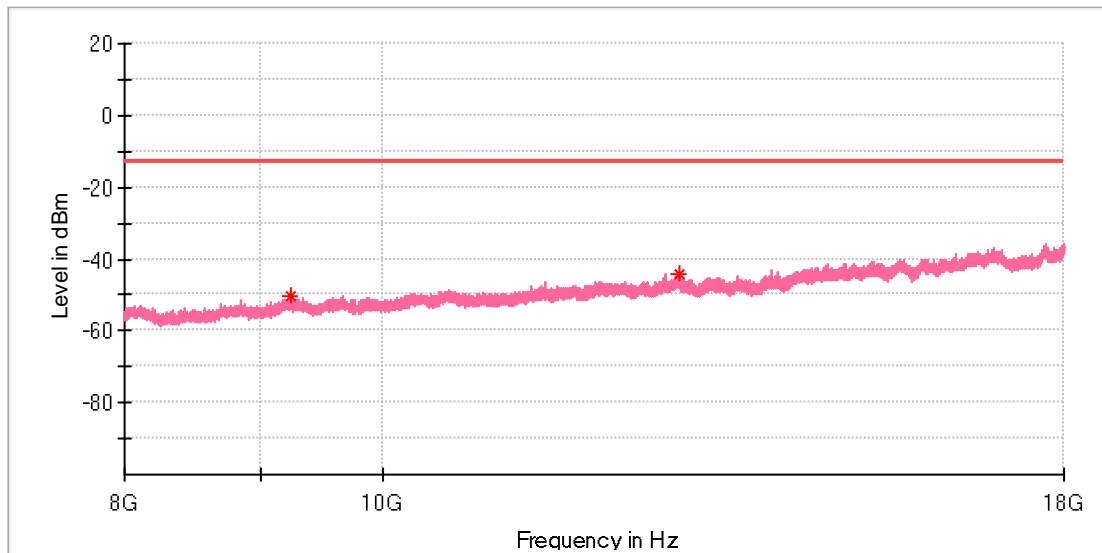


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9614.500000	-49.57	-13.00	36.57	100.0	H	164.0	-83.9
12912.500000	-45.25	-13.00	32.25	100.0	H	134.0	-78.5

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

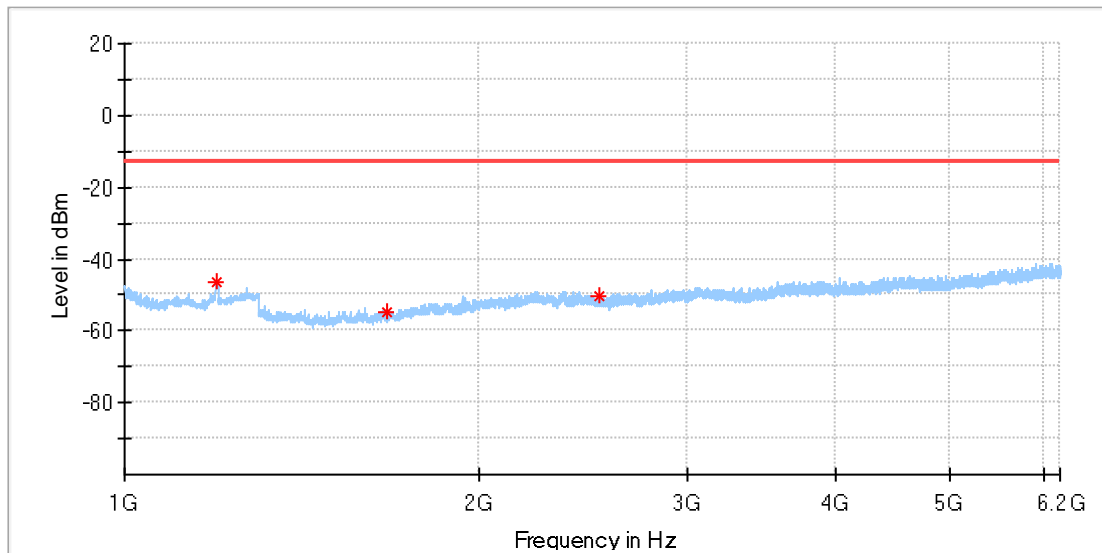


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9230.000000	-50.33	-13.00	37.33	100.0	V	193.0	-84.1
12906.500000	-44.10	-13.00	31.10	100.0	V	12.0	-78.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

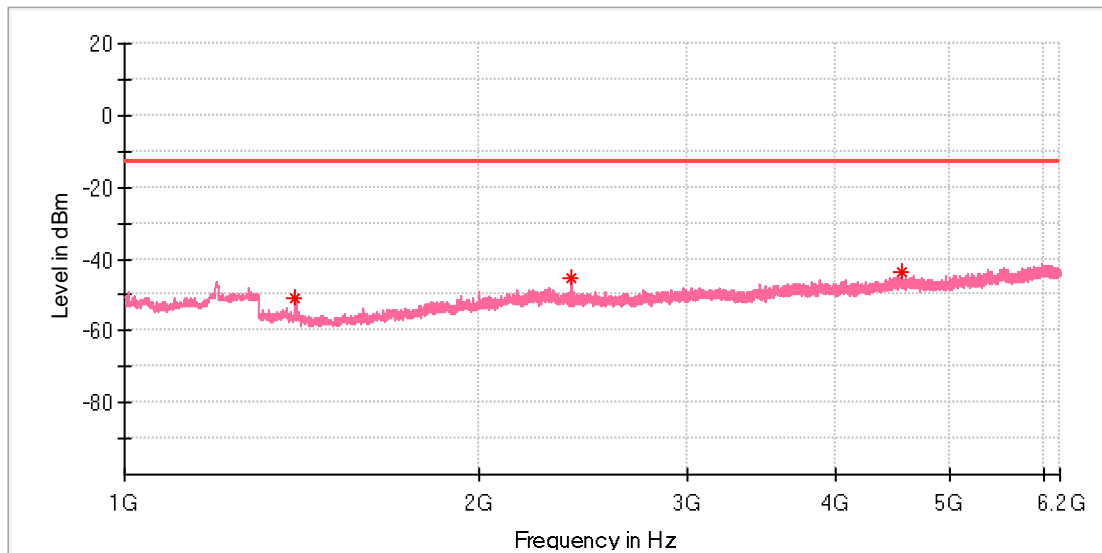


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1197.500000	-46.43	-13.00	33.43	100.0	H	192.0	-93.1
1666.500000	-55.03	-13.00	42.03	100.0	H	298.0	-92.6
2520.500000	-50.34	-13.00	37.34	100.0	H	357.0	-88.4

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

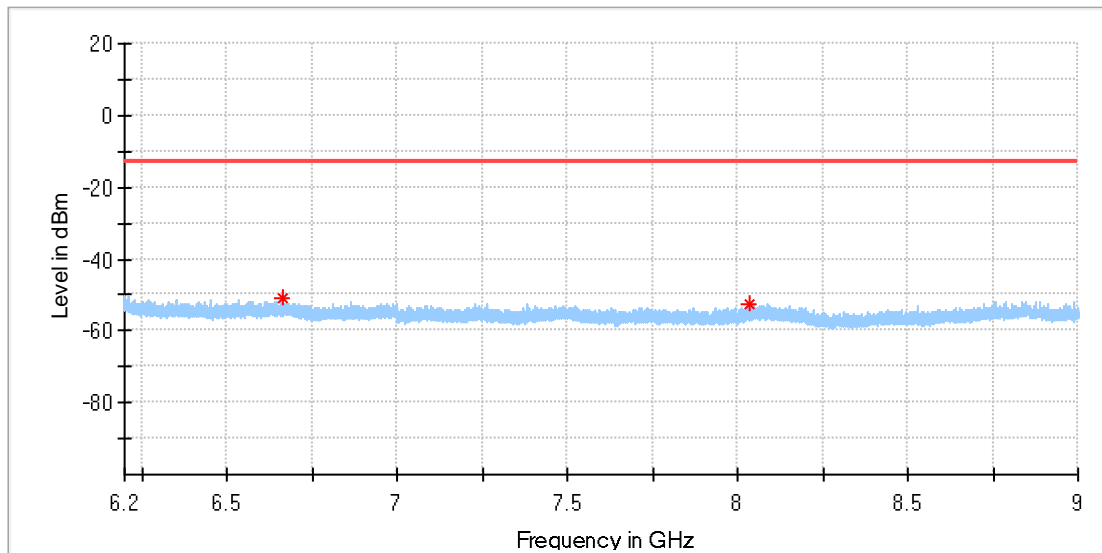


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1393.000000	-50.64	-13.00	37.64	100.0	V	99.0	-93.1
2392.000000	-45.51	-13.00	32.51	100.0	V	305.0	-88.1
4545.500000	-43.73	-13.00	30.73	100.0	V	236.0	-83.4

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

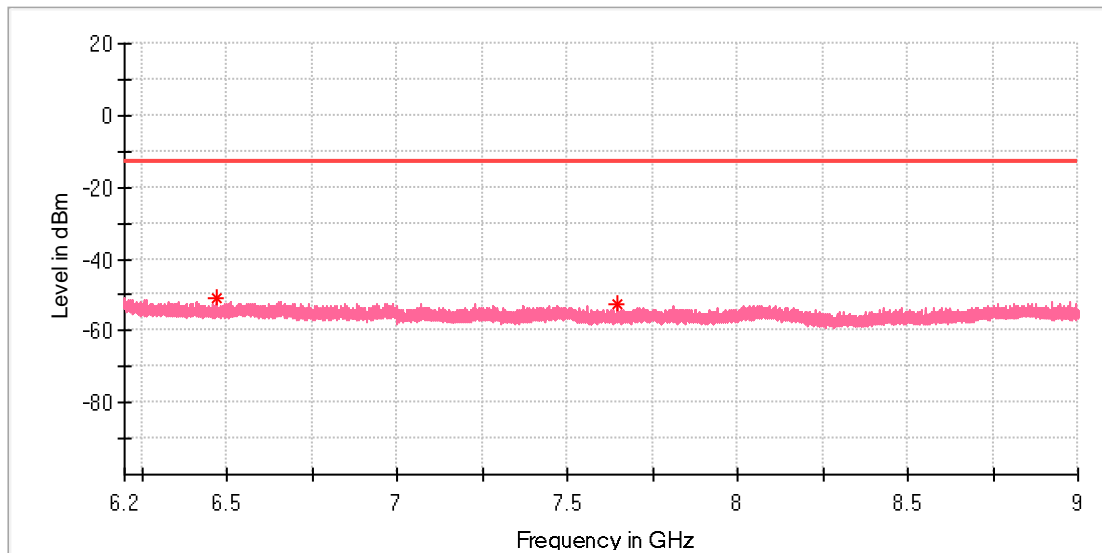


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6665.733333	-51.05	-13.00	38.05	100.0	H	99.0	-87.6
8037.033333	-52.47	-13.00	39.47	100.0	H	29.0	-87.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

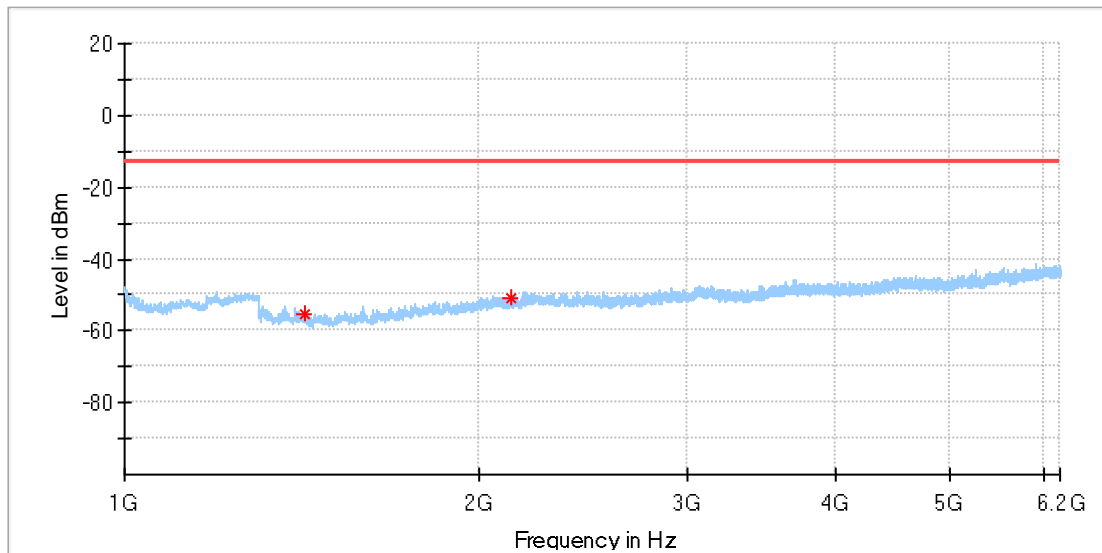


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6468.100000	-51.00	-13.00	38.00	100.0	V	157.0	-87.8
7648.066667	-52.33	-13.00	39.33	100.0	V	0.0	-87.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

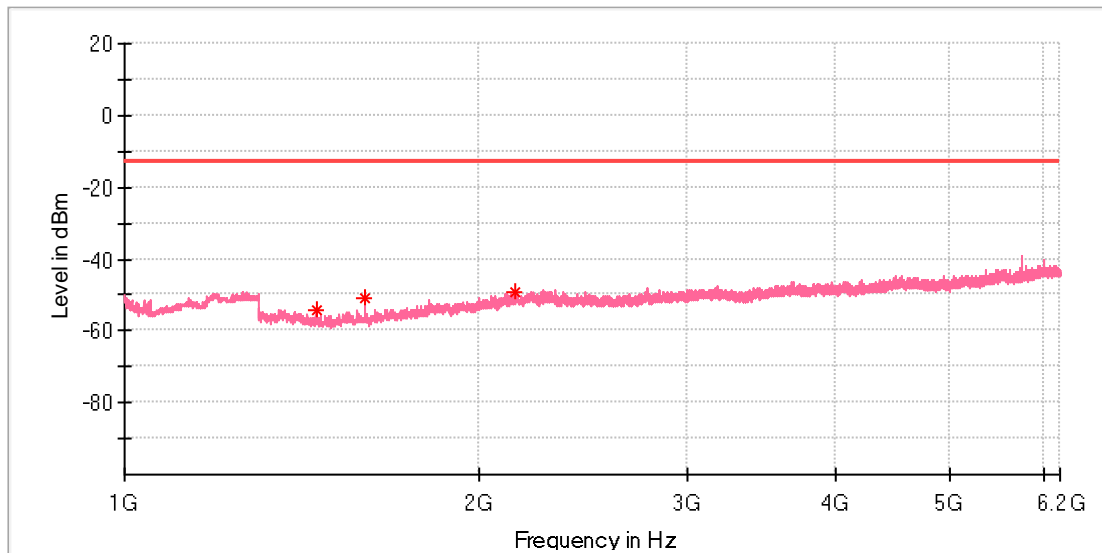


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1421.500000	-55.56	-13.00	42.56	100.0	H	357.0	-92.8
2128.000000	-50.64	-13.00	37.64	100.0	H	59.0	-88.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

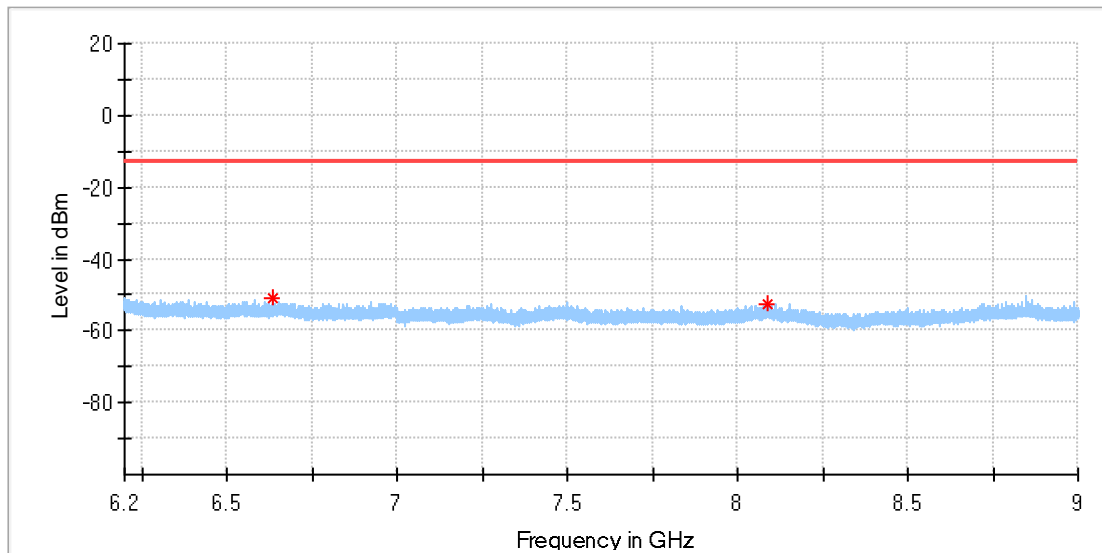


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1452.500000	-54.24	-13.00	41.24	100.0	V	150.0	-93.8
1599.500000	-50.65	-13.00	37.65	100.0	V	245.0	-92.9
2142.500000	-48.96	-13.00	35.96	100.0	V	107.0	-87.9

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

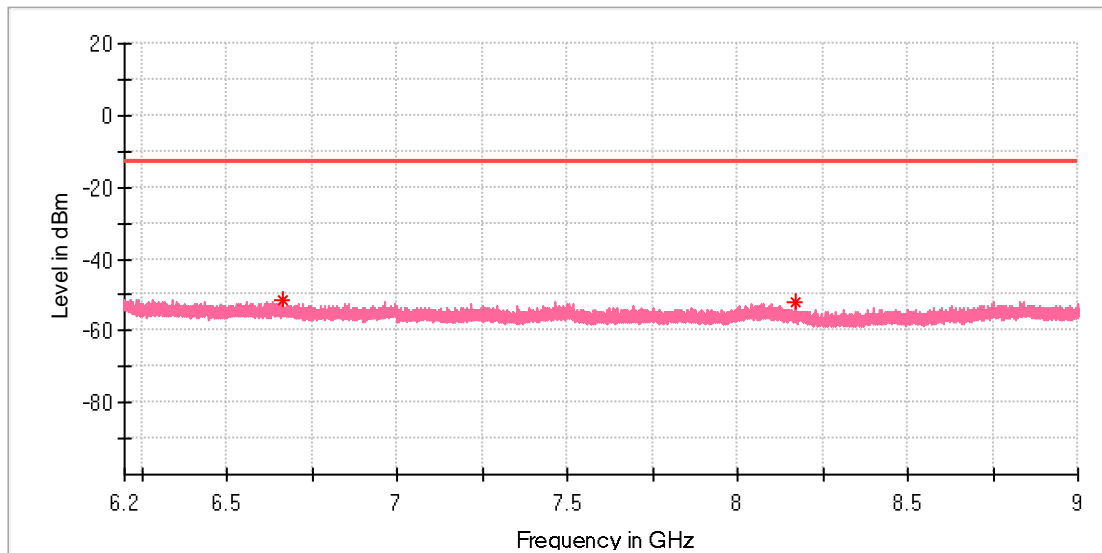


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6635.983333	-50.95	-13.00	37.95	100.0	H	134.0	-87.6
8087.783333	-52.31	-13.00	39.31	100.0	H	259.0	-86.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_1.4M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

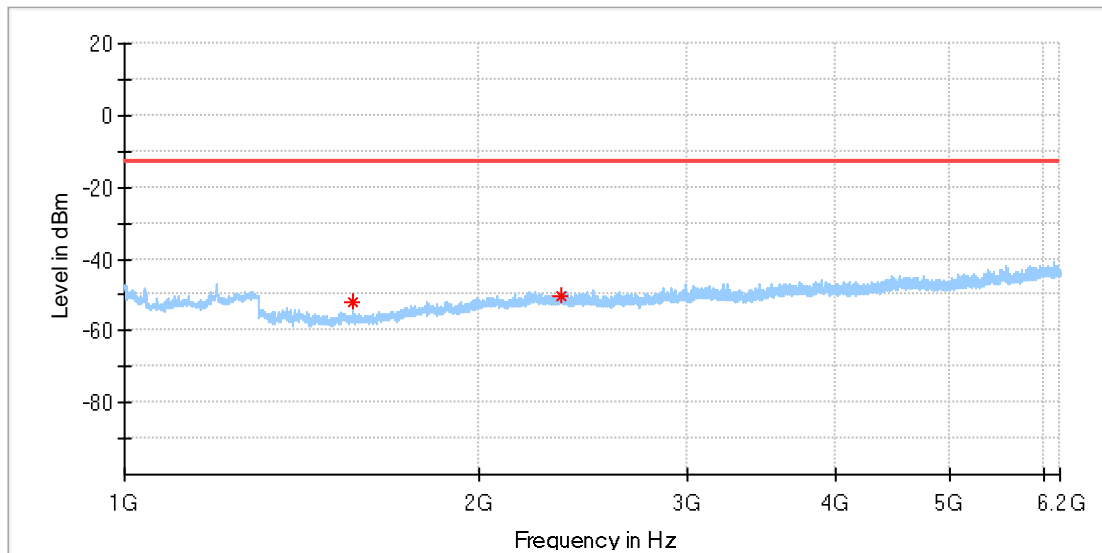


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6662.700000	-51.55	-13.00	38.55	100.0	V	183.0	-87.9
8169.333333	-51.85	-13.00	38.85	100.0	V	44.0	-87.2

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 13_5M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

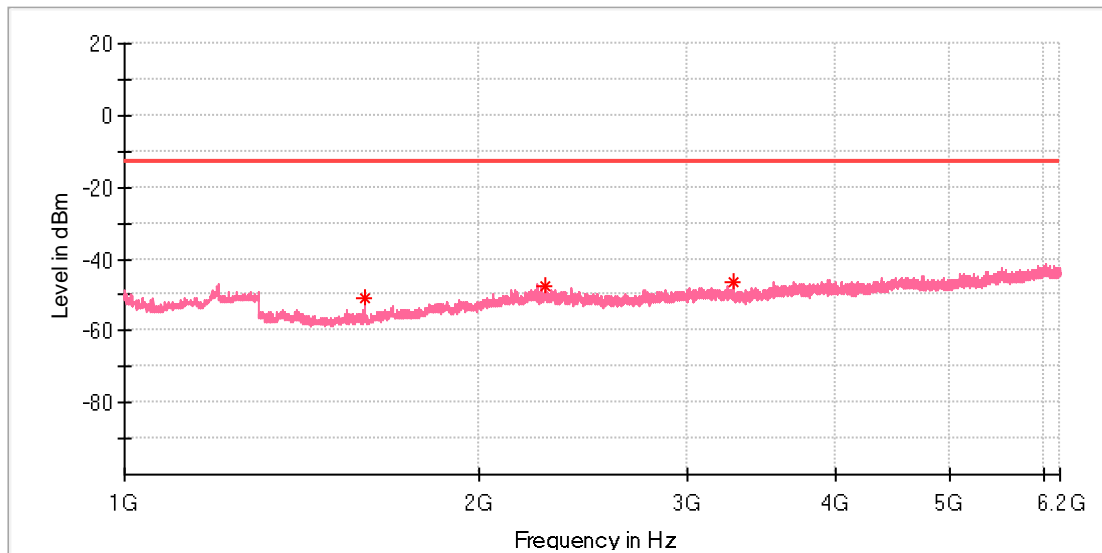


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1560.000000	-51.95	-13.00	38.95	100.0	H	109.0	-93.0
2345.000000	-50.22	-13.00	37.22	100.0	H	300.0	-87.5

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 13_5M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

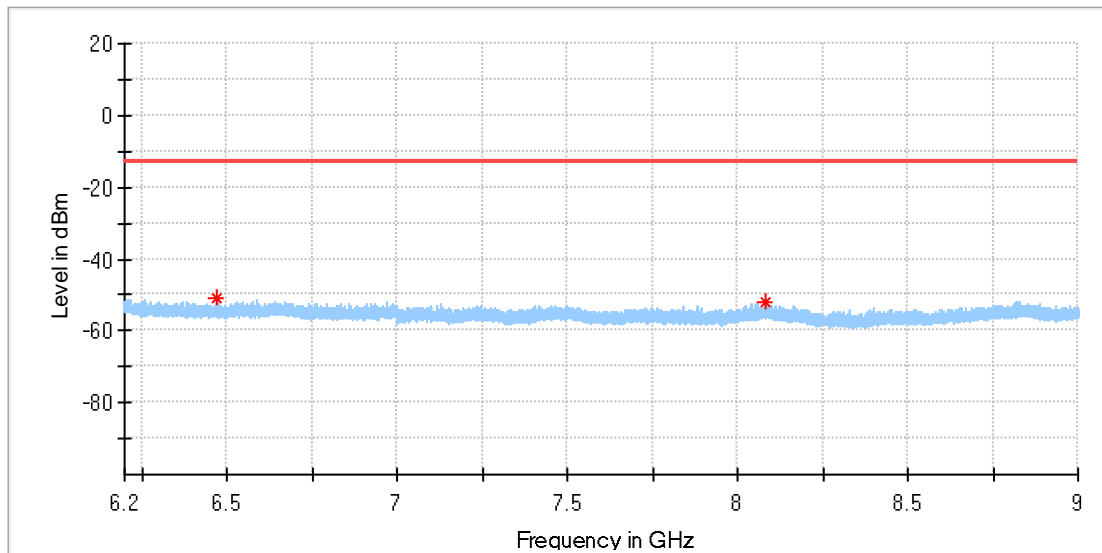


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1599.500000	-51.08	-13.00	38.08	100.0	V	273.0	-92.9
2275.500000	-47.74	-13.00	34.74	100.0	V	232.0	-87.5
3275.000000	-46.59	-13.00	33.59	100.0	V	155.0	-87.0

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 13_5M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

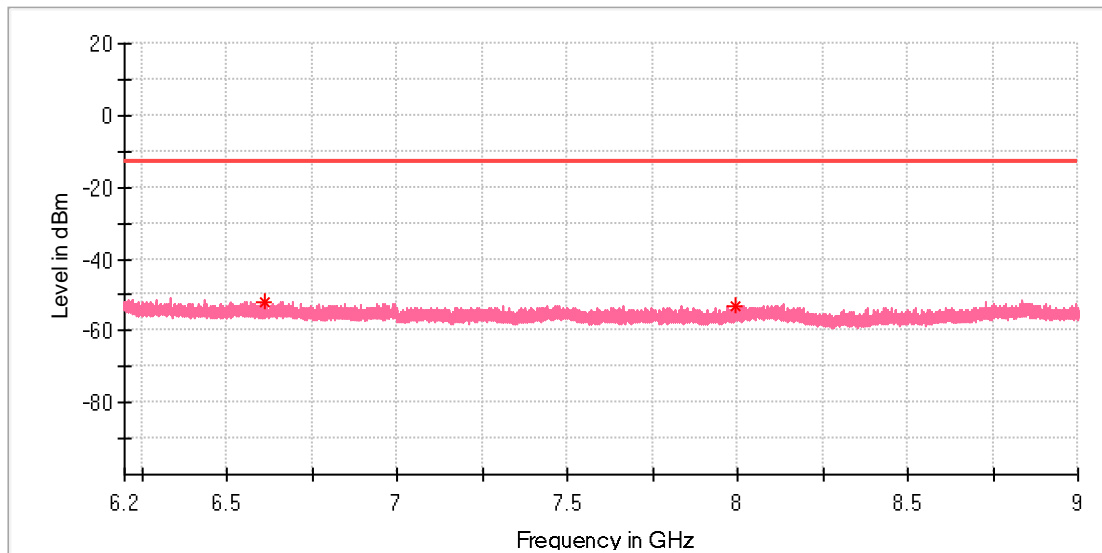


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6469.033333	-50.87	-13.00	37.87	100.0	H	261.0	-87.8
8082.300000	-52.01	-13.00	39.01	100.0	H	0.0	-86.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 13_5M_QPSK_1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

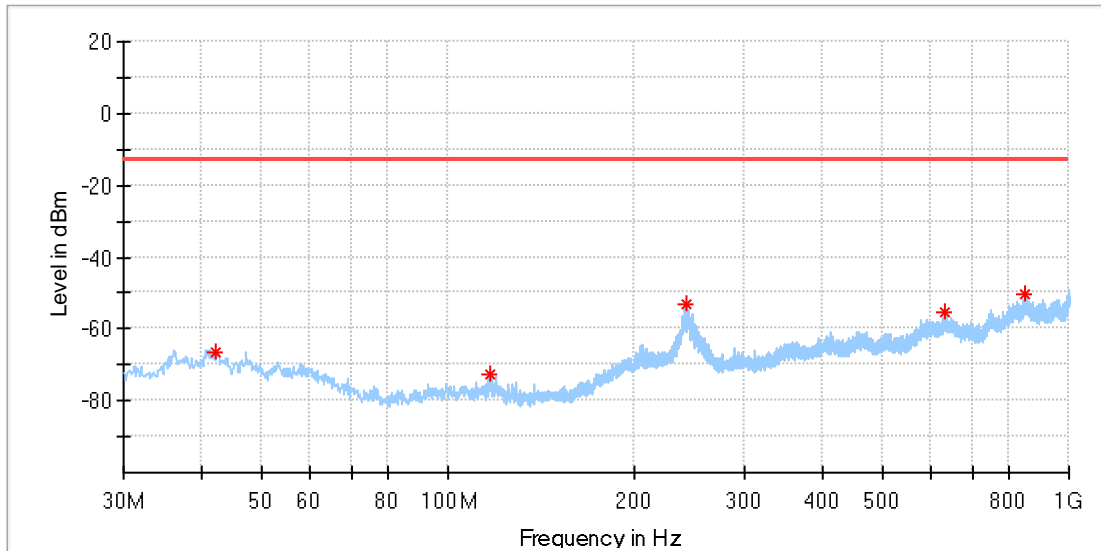
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6611.133333	-51.95	-13.00	38.95	100.0	V	210.0	-88.1
7992.583333	-53.02	-13.00	40.02	100.0	V	258.0	-87.5

Appendix A.2: Field Strength of Spurious Radiation, NB-IOT Operation

Note: This testing was carried out on different modulations, but only the worst case was presented in this report.
 Below 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

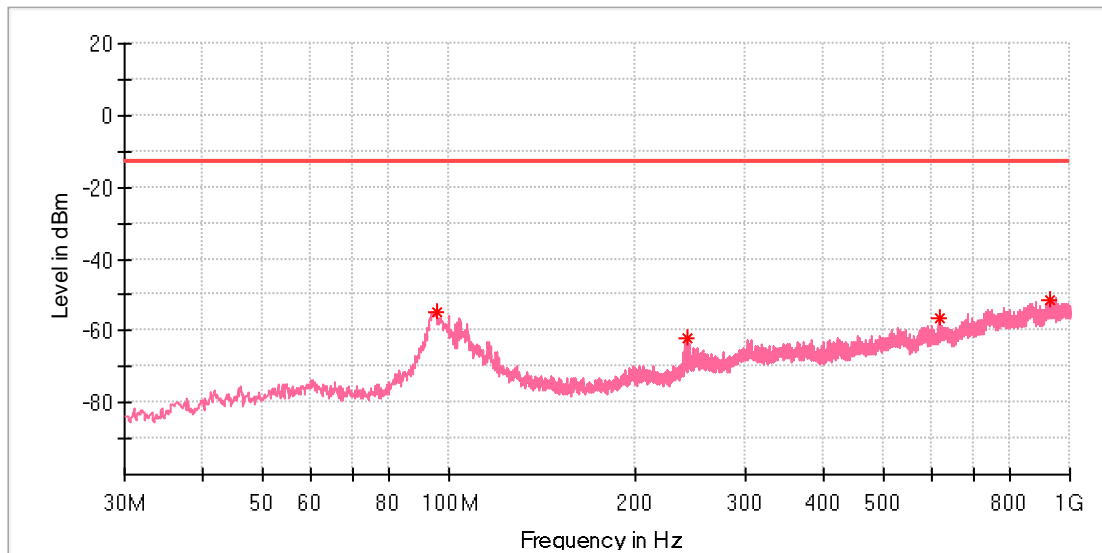


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.246250	-66.24	-13.00	53.24	100.0	H	335.0	-112.4
116.572500	-72.77	-13.00	59.77	100.0	H	123.0	-121.8
242.430000	-53.18	-13.00	40.18	100.0	H	157.0	-110.0
631.036250	-55.56	-13.00	42.56	100.0	H	224.0	-105.0
850.256250	-50.43	-13.00	37.43	100.0	H	349.0	-100.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



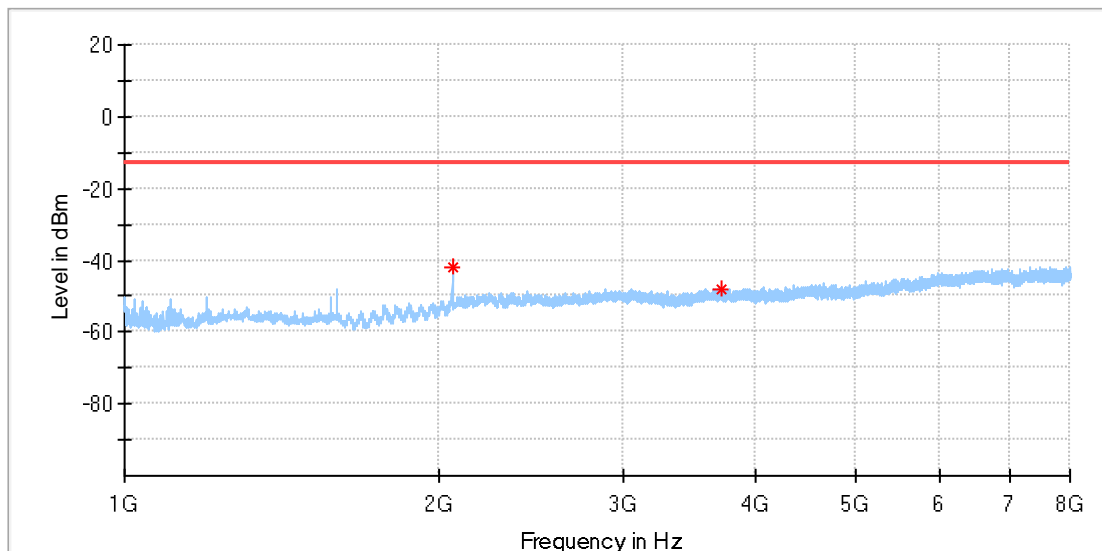
Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
95.475000	-54.56	-13.00	41.56	100.0	V	334.0	-100.2
241.823750	-61.95	-13.00	48.95	100.0	V	284.0	-115.8
614.788750	-56.66	-13.00	43.66	100.0	V	269.0	-107.0
926.643750	-51.31	-13.00	38.31	100.0	V	349.0	-100.5

Above 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

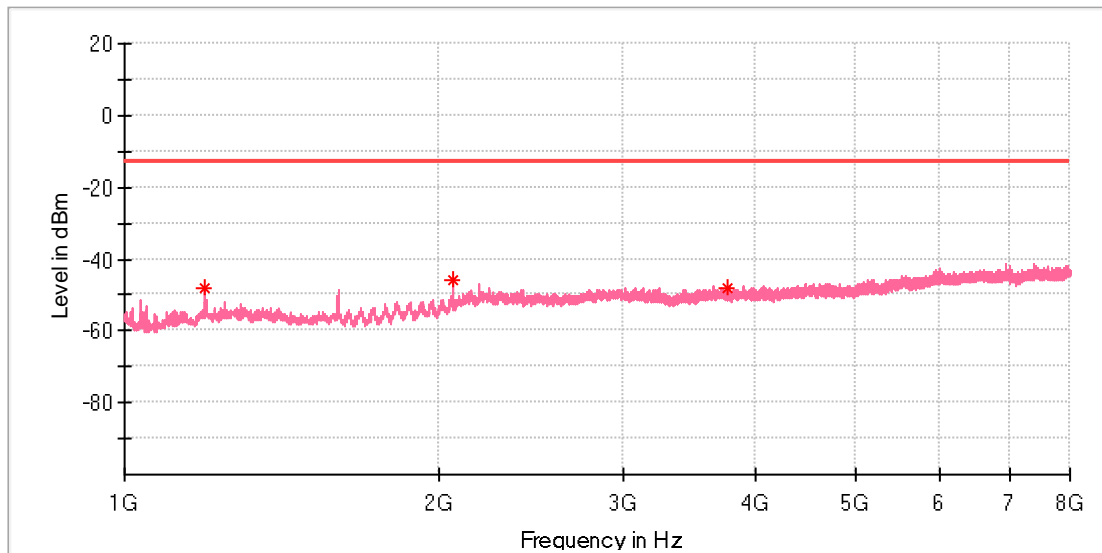


Critical_Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2056.500000	-41.77	-13.00	28.77	100.0	H	106.0	-88.4
3723.000000	-47.82	-13.00	34.82	100.0	H	246.0	-86.8

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

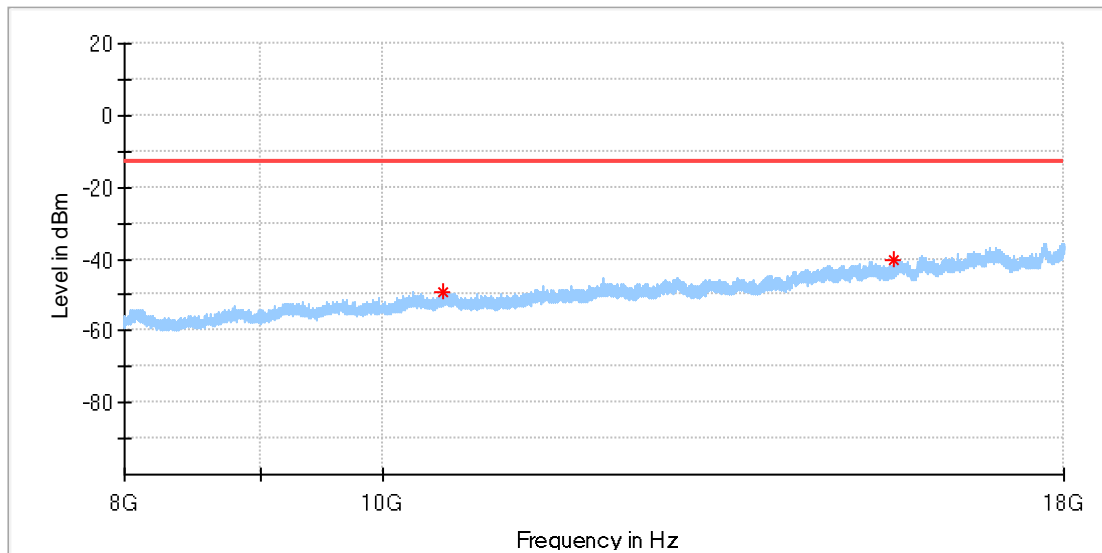


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1194.500000	-47.83	-13.00	34.83	100.0	V	114.0	-92.5
2056.500000	-45.78	-13.00	32.78	100.0	V	265.0	-89.0
3762.500000	-47.85	-13.00	34.85	100.0	V	66.0	-87.0

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

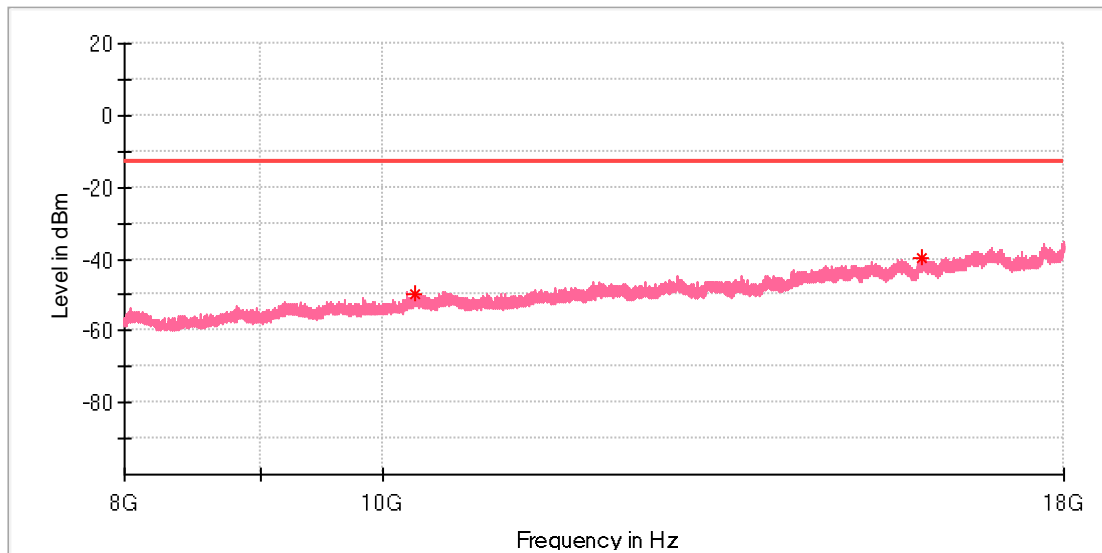


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
10536.000000	-49.32	-13.00	36.32	100.0	H	57.0	-82.5
15550.000000	-40.19	-13.00	27.19	100.0	H	232.0	-78.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 2_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 24
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

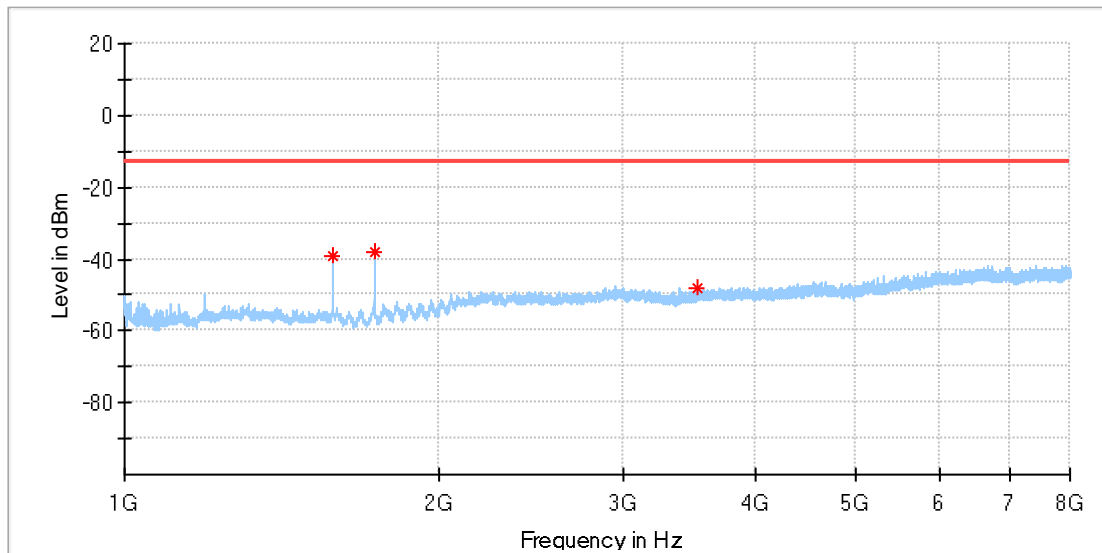


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
10285.000000	-49.91	-13.00	36.91	100.0	V	208.0	-83.4
15927.000000	-39.58	-13.00	26.58	100.0	V	0.0	-76.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

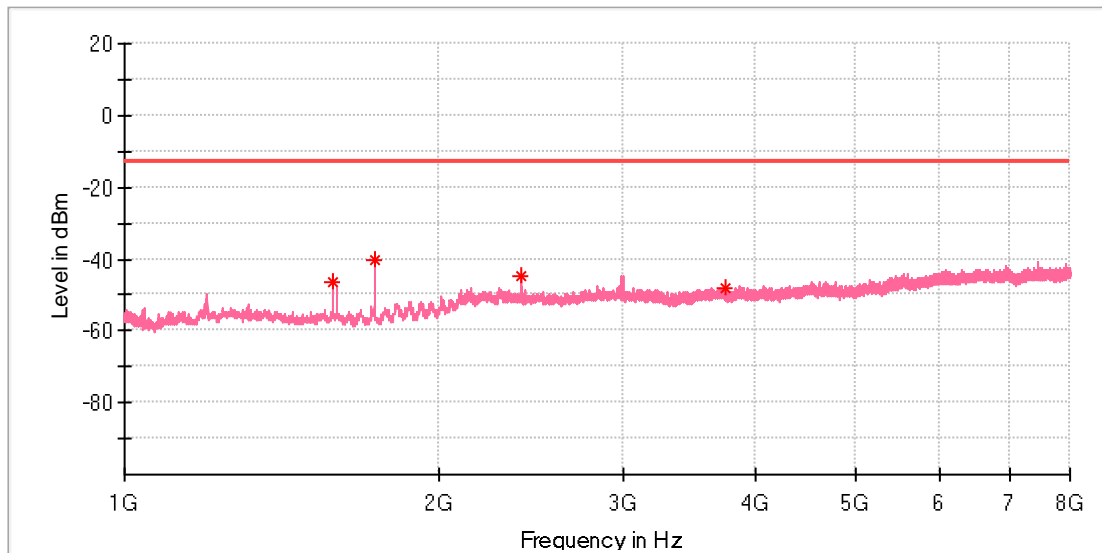


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1581.500000	-38.97	-13.00	25.97	100.0	H	29.0	-92.9
1732.500000	-38.12	-13.00	25.12	100.0	H	271.0	-91.4
3525.500000	-48.24	-13.00	35.24	100.0	H	11.0	-87.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

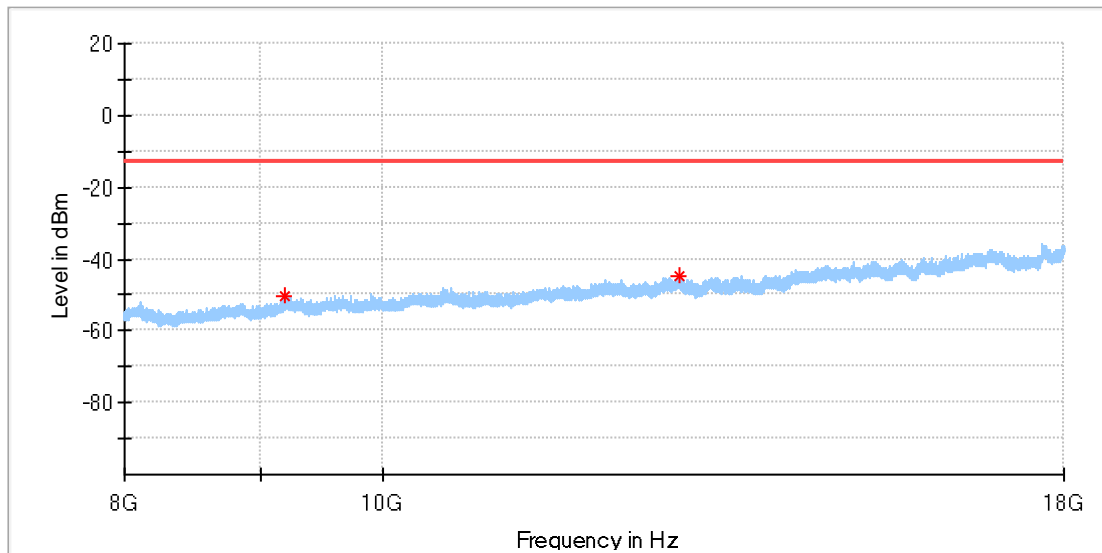


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1581.500000	-46.58	-13.00	33.58	100.0	V	302.0	-93.0
1732.500000	-40.18	-13.00	27.18	100.0	V	295.0	-91.6
2394.000000	-44.80	-13.00	31.80	100.0	V	302.0	-88.1
3754.000000	-48.07	-13.00	35.07	100.0	V	28.0	-86.9

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

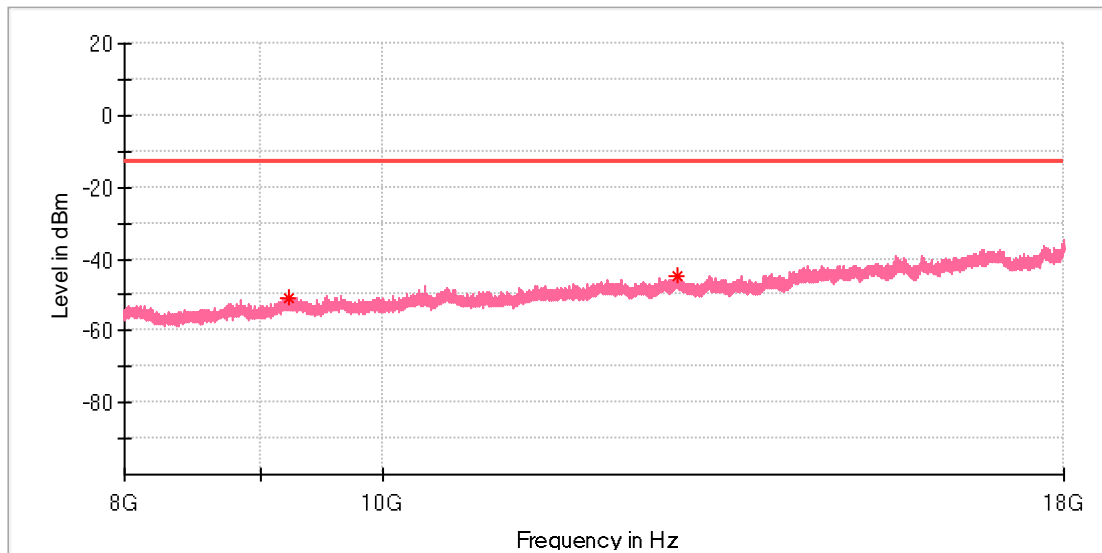


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9189.500000	-50.52	-13.00	37.52	100.0	H	0.0	-84.4
12922.500000	-44.97	-13.00	31.97	100.0	H	16.0	-78.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 4_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

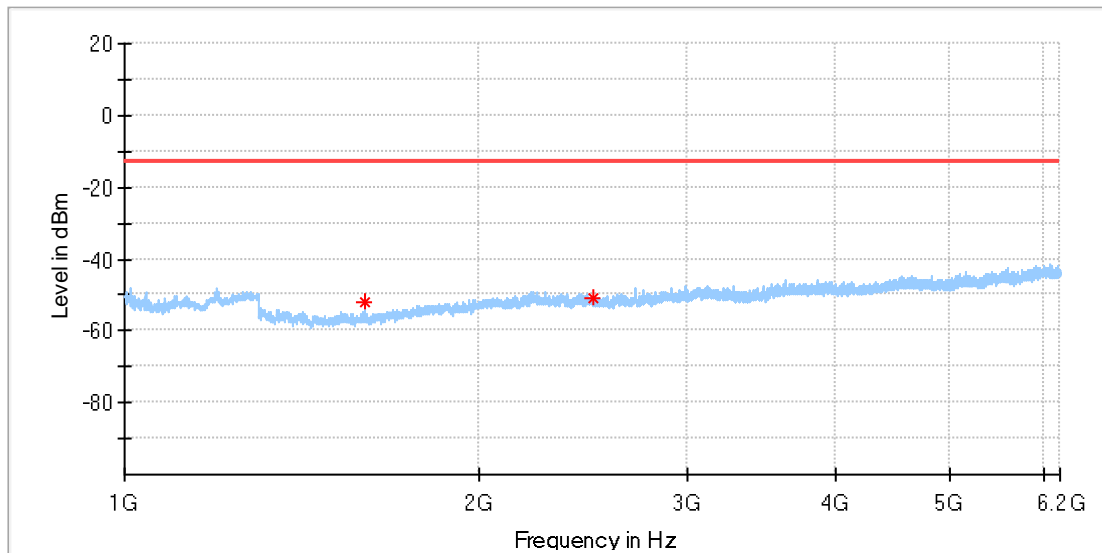


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9221.500000	-50.81	-13.00	37.81	100.0	V	353.0	-84.1
12894.500000	-44.76	-13.00	31.76	100.0	V	26.0	-78.4

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

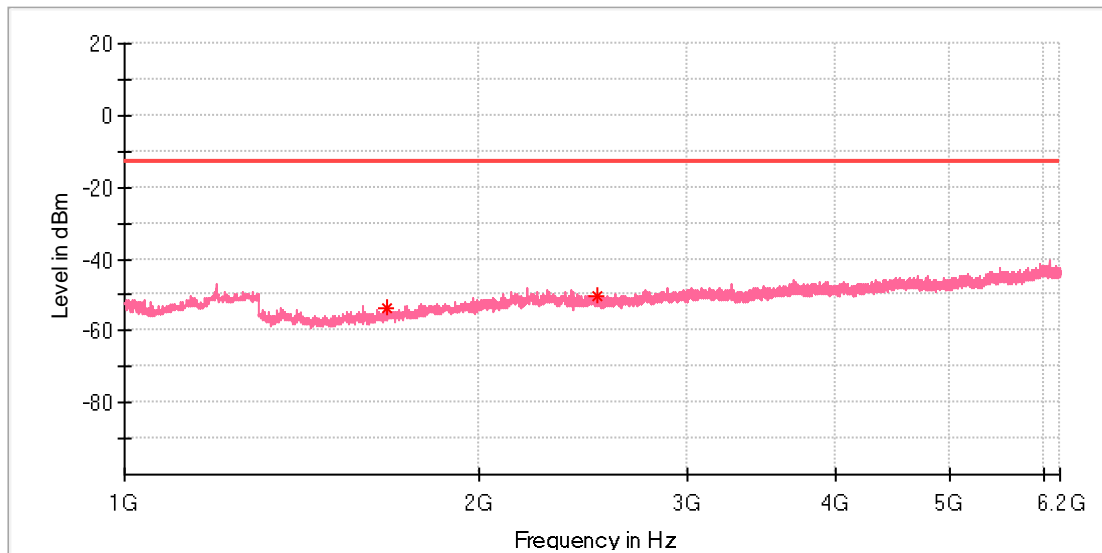


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1598.000000	-51.95	-13.00	38.95	100.0	H	322.0	-92.7
2498.500000	-50.63	-13.00	37.63	100.0	H	47.0	-88.2

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

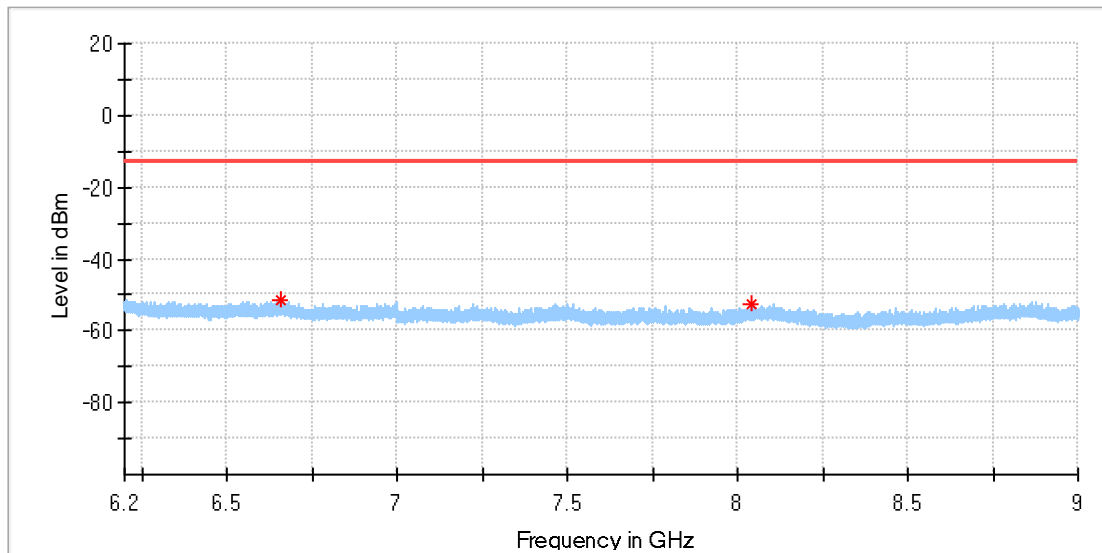


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1668.500000	-53.80	-13.00	40.80	100.0	V	316.0	-92.2
2516.000000	-50.47	-13.00	37.47	100.0	V	348.0	-88.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

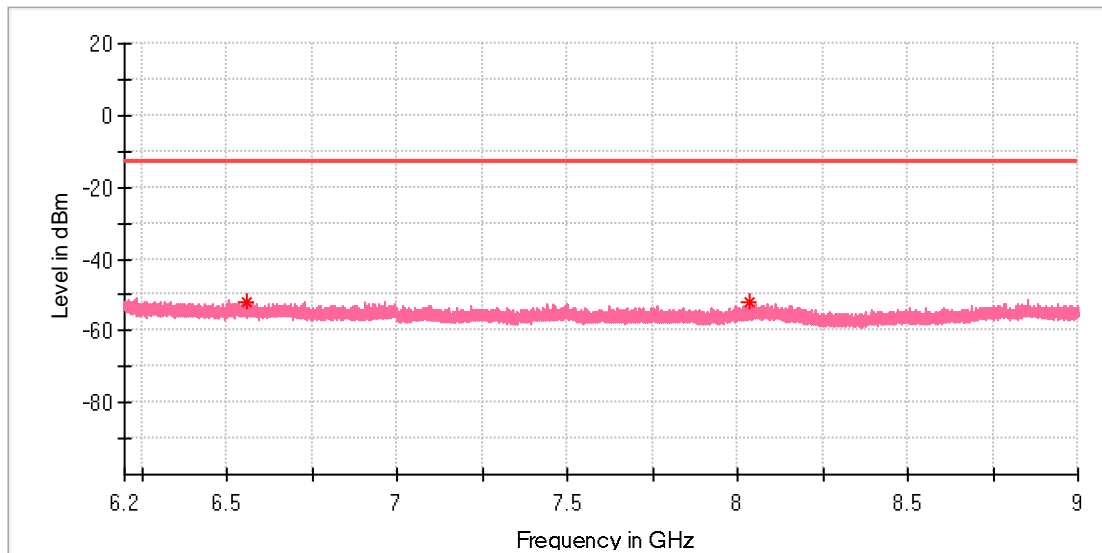


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6659.200000	-51.50	-13.00	38.50	100.0	H	18.0	-87.6
8038.316667	-52.45	-13.00	39.45	100.0	H	116.0	-87.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 5_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

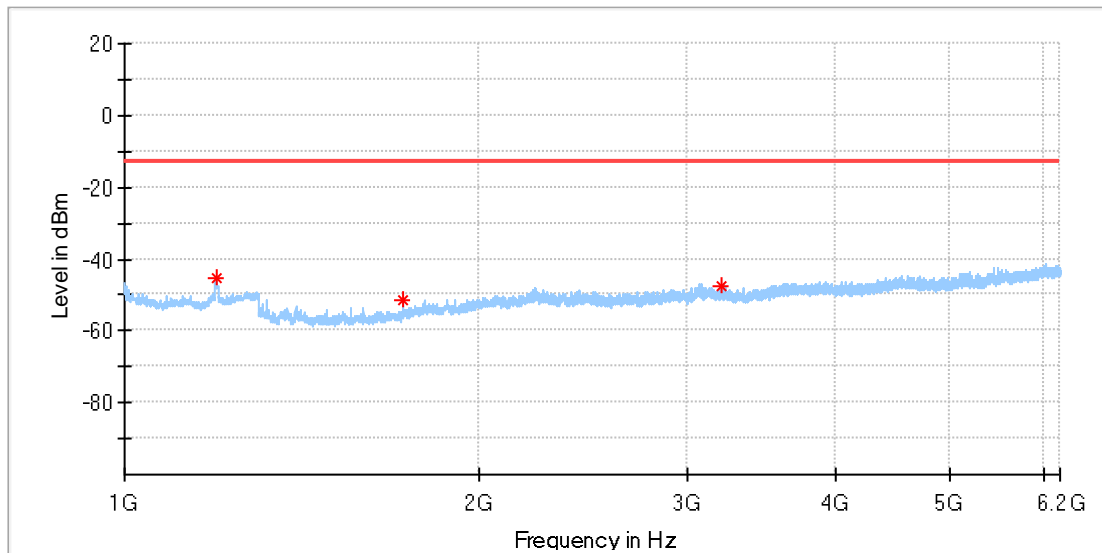


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6558.166667	-52.20	-13.00	39.20	100.0	V	220.0	-87.3
8033.533333	-51.84	-13.00	38.84	100.0	V	127.0	-87.0

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

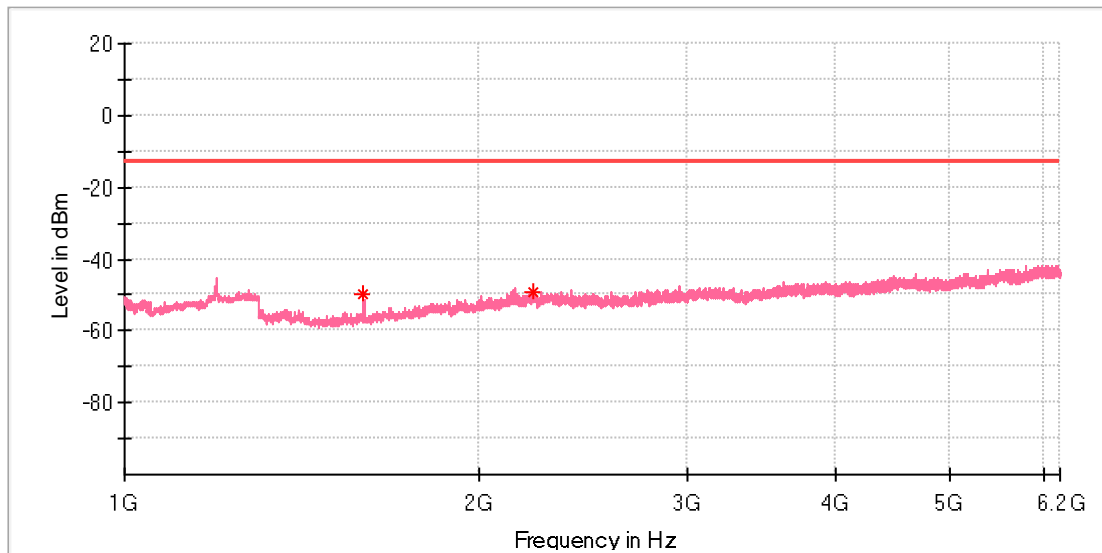


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1195.000000	-45.57	-13.00	32.57	100.0	H	267.0	-93.1
1724.000000	-51.68	-13.00	38.68	100.0	H	0.0	-91.6
3204.000000	-47.41	-13.00	34.41	100.0	H	6.0	-86.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

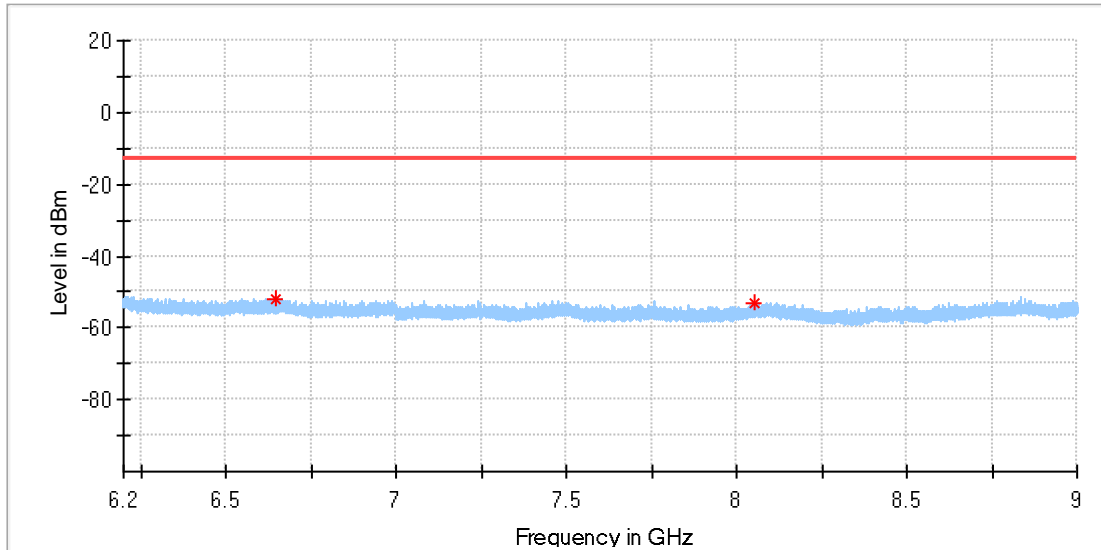


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1594.000000	-49.68	-13.00	36.68	100.0	V	155.0	-92.9
2219.500000	-49.08	-13.00	36.08	100.0	V	155.0	-87.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

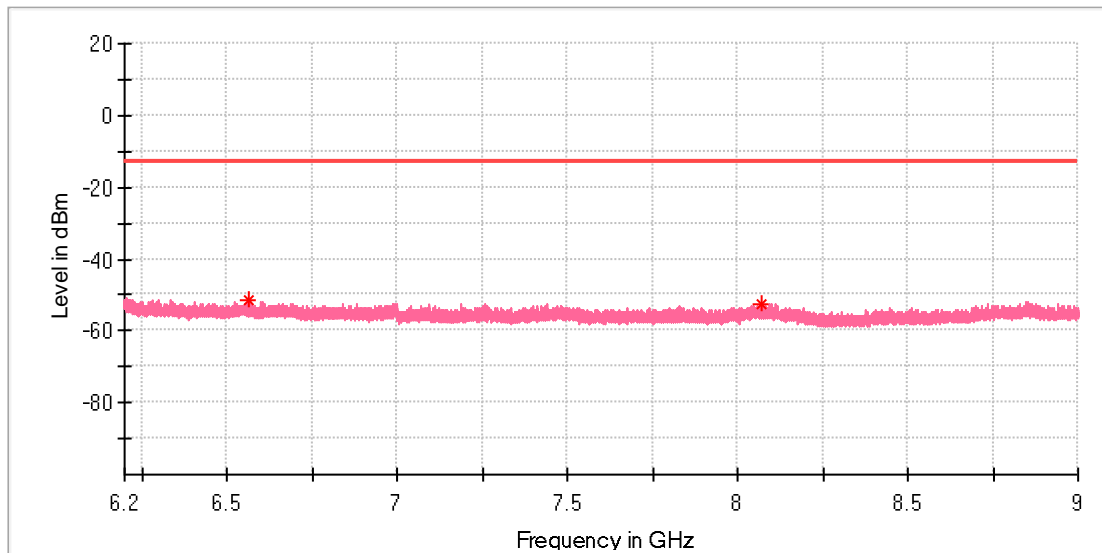


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6649.400000	-51.90	-13.00	38.90	100.0	H	131.0	-87.5
8052.200000	-53.38	-13.00	40.38	100.0	H	334.0	-86.9

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 12_15kHz_QPSK 1@0_Mid channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

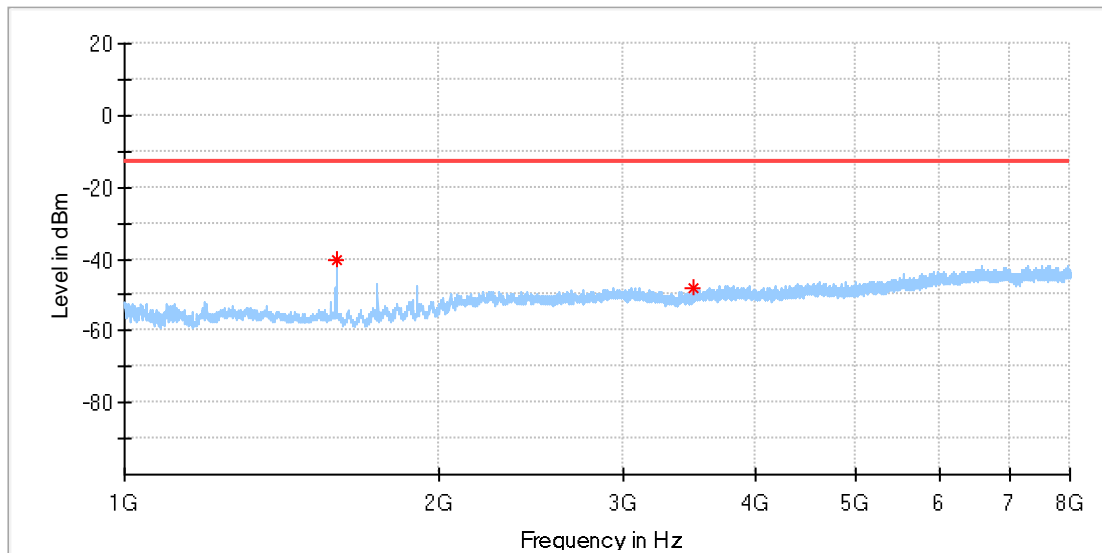


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6562.600000	-51.59	-13.00	38.59	100.0	V	51.0	-87.4
8068.766667	-52.78	-13.00	39.79	100.0	V	206.0	-86.7

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 66_15kHz_QPSK_1@0_Mid Channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

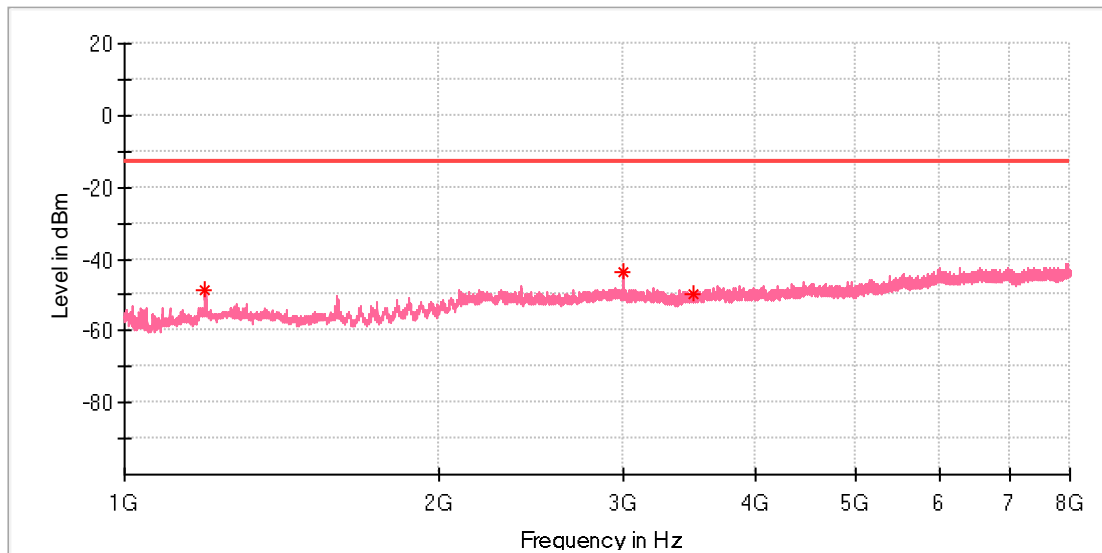


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1593.000000	-40.36	-13.00	27.36	100.0	H	120.0	-92.7
3490.000000	-48.15	-13.00	35.15	100.0	H	36.0	-87.7

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 66_15kHz_QPSK_1@0_Mid Channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

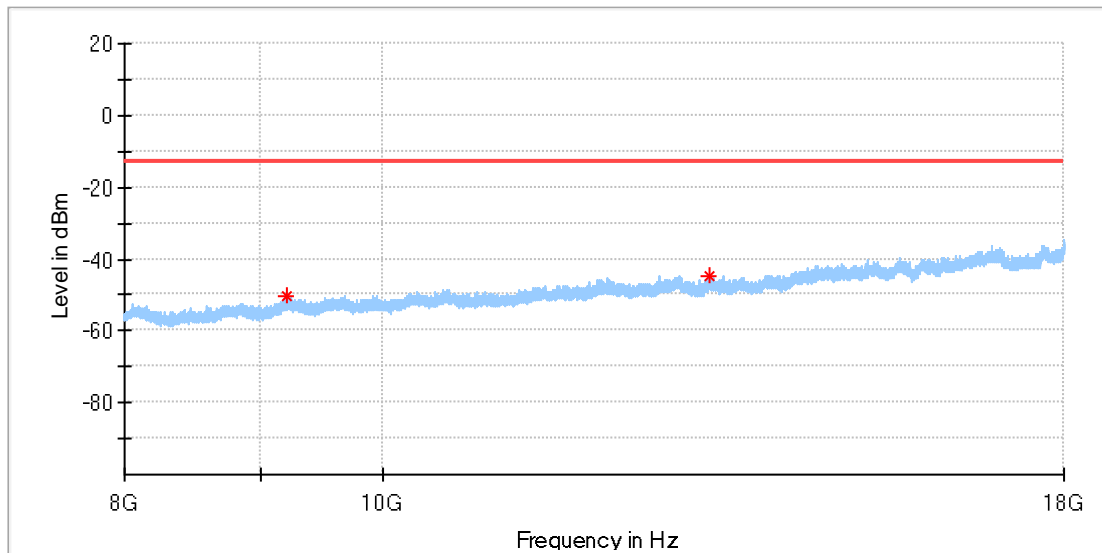


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1195.000000	-48.65	-13.00	35.65	100.0	V	98.0	-92.5
2999.500000	-43.52	-13.00	30.52	100.0	V	295.0	-86.7
3498.000000	-49.64	-13.00	36.64	100.0	V	129.0	-87.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 66_15kHz_QPSK_1@0_Mid Channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

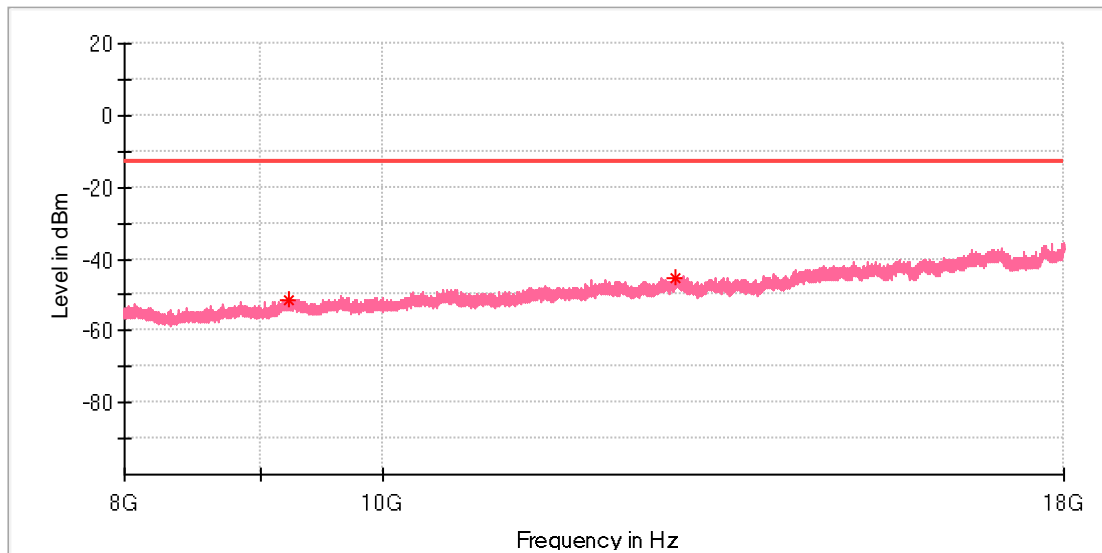


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9199.500000	-50.51	-13.00	37.51	100.0	H	313.0	-84.2
13245.000000	-44.56	-13.00	31.56	100.0	H	0.0	-79.4

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Band 66_15kHz_QPSK_1@0_Mid Channel
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 27
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

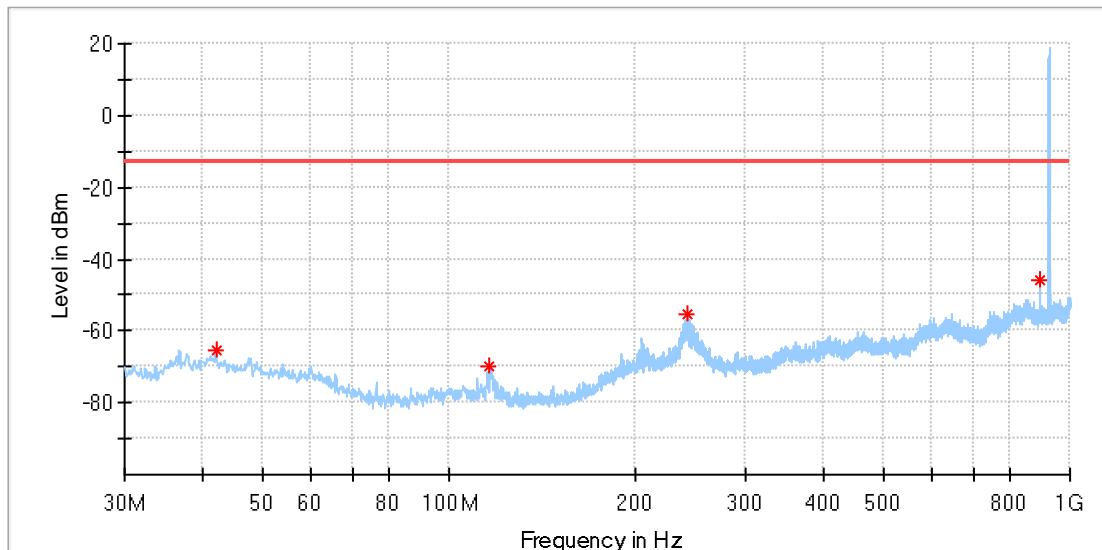
Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
9221.500000	-51.51	-13.00	38.51	100.0	V	339.0	-84.1
12864.500000	-45.13	-13.00	32.13	100.0	V	267.0	-79.0

Appendix A.3: Field Strength of Spurious Radiation, Co-location

Note: This testing was carried out on different modulations, but only the worst case was presented in this report.
 Below 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

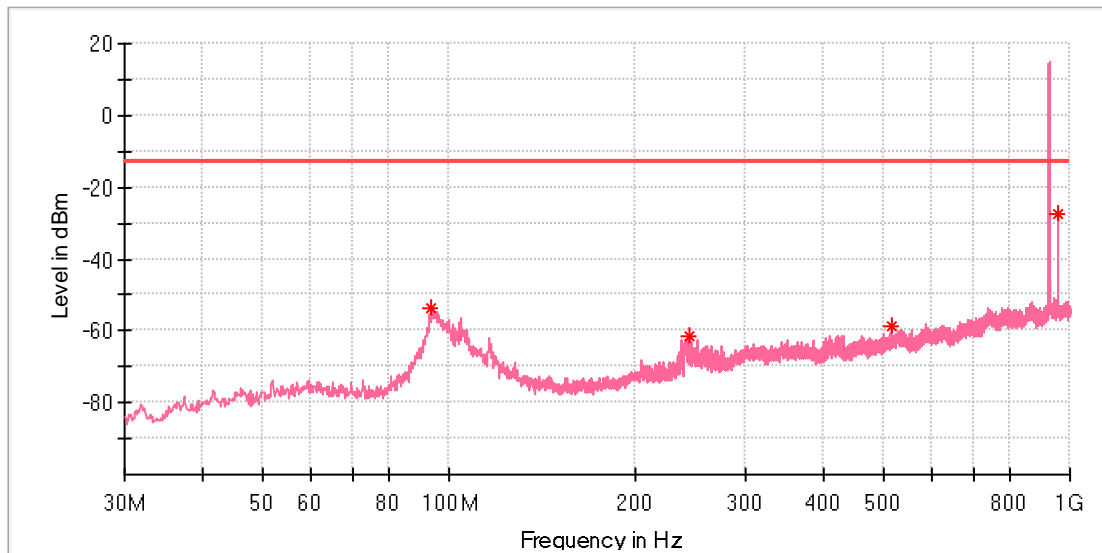


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.125000	-65.45	-13.00	52.45	100.0	H	164.0	-112.3
115.845000	-69.77	-13.00	56.77	100.0	H	271.0	-122.1
242.066250	-55.63	-13.00	42.63	100.0	H	353.0	-110.0
895.967500	-45.78	-13.00	32.78	100.0	H	150.0	-102.1

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



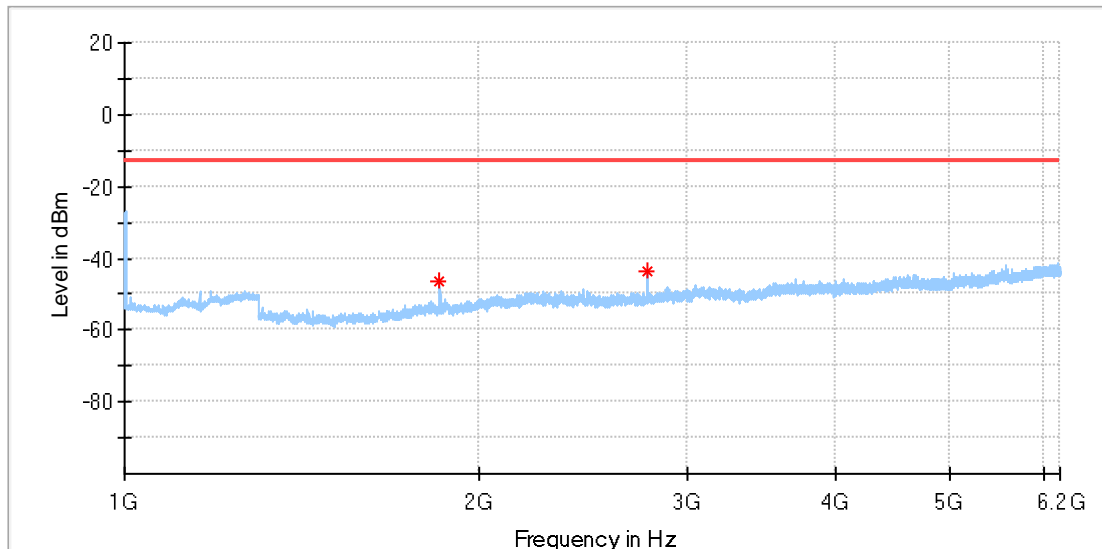
Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
93.656250	-53.65	-13.00	40.65	100.0	V	152.0	-100.6
243.521250	-61.64	-13.00	48.64	100.0	V	262.0	-115.6
517.425000	-58.69	-13.00	45.69	100.0	V	3.0	-108.0
954.531250	-27.70	-13.00	14.70	100.0	V	326.0	-101.2

Above 1GHz

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

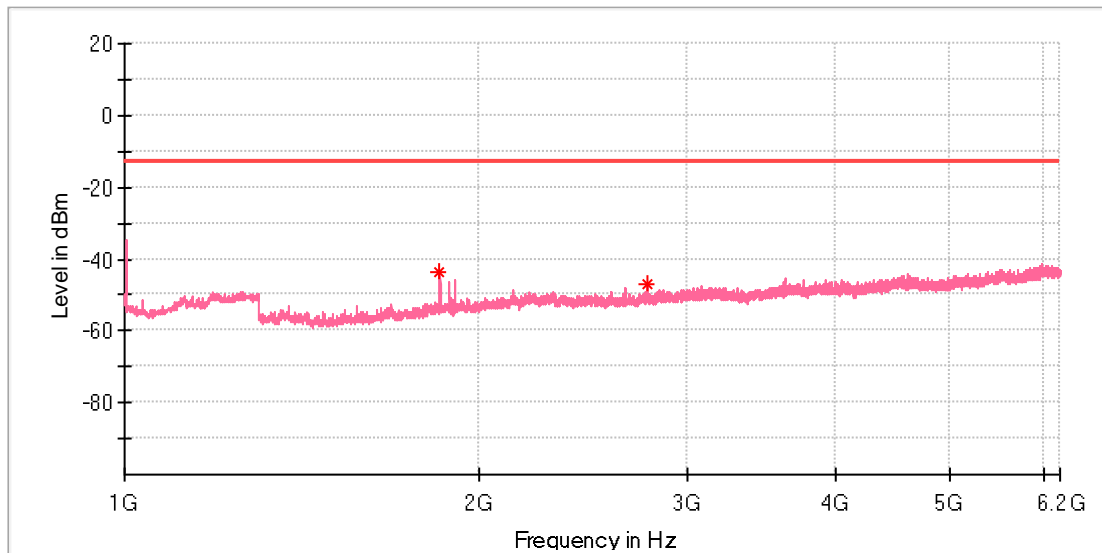


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1849.500000	-46.35	-13.00	33.35	100.0	H	197.0	-90.5
2775.500000	-43.69	-13.00	30.69	100.0	H	124.0	-87.6

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

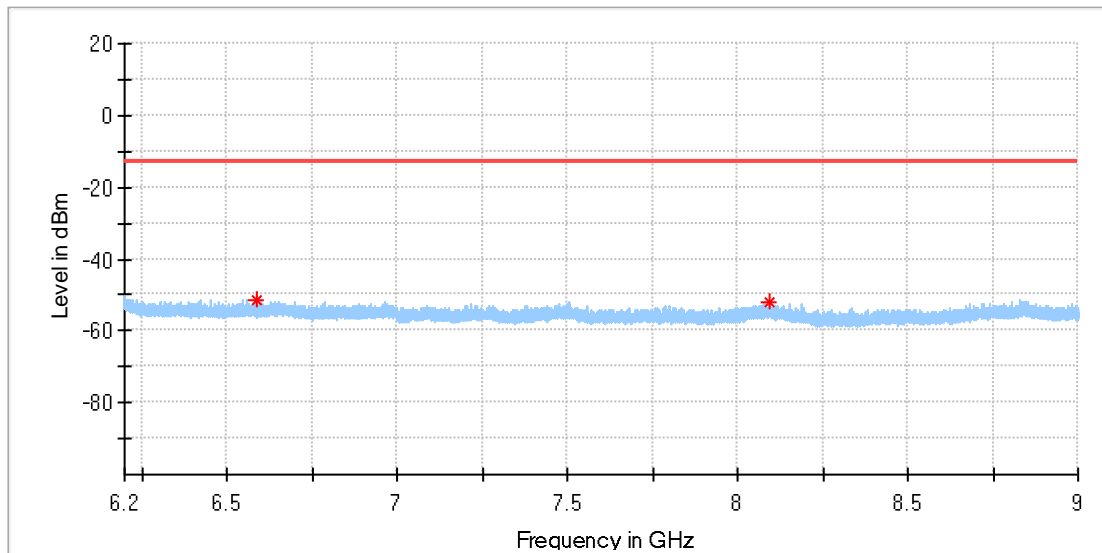


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1849.500000	-43.79	-13.00	30.79	100.0	V	17.0	-90.2
2774.500000	-47.06	-13.00	34.06	100.0	V	25.0	-87.3

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

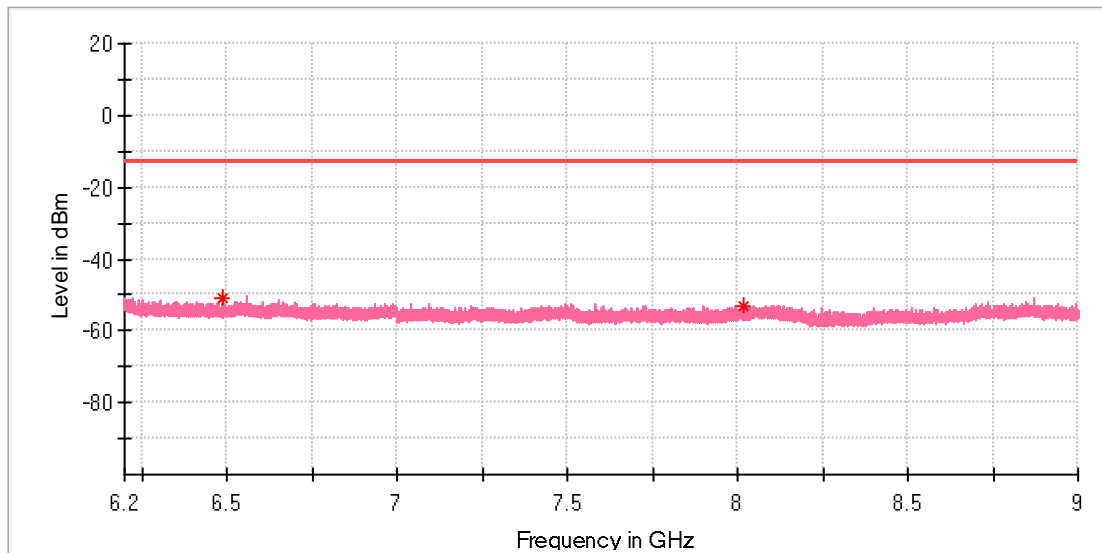


Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6586.516667	-51.34	-13.00	38.34	100.0	H	256.0	-87.6
8096.066667	-51.97	-13.00	38.97	100.0	H	159.0	-86.7

EUT Information

EUT Name:	Wirnet™ iZeptoCell
Model:	PDTIOT-IZEC900
Test Mode:	Lora DTS 500K_SF7_925MHz+eMTC Band 5
Order No/Sample No:	168378550/A003283029-002
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC Part 22
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
6490.616667	-50.95	-13.00	37.95	100.0	V	212.0	-87.8
8015.216667	-52.88	-13.00	39.88	100.0	V	138.0	-87.3

===== END OF APPENDIX =====