FCC TEST REPORT

Product	:	pegasus receiver
Trade mark	:	Pegasus
Model/Type reference	:	1001
Serial Number	:	N/A
Ratings	:	DC 5V/1.2A
FCC ID	:	2ASDDPEGASUS1001T
Report Number	:	EED32L000282
Date of Issue	:	Apr. 11, 2019
Regulations	:	See below

Test Standards	Results
☒ 47 CFR FCC Part 15 Subpart B	PASS

Prepared for:

A. M. Surgical Inc.

222 Middle Country Road, Suite 202, Smithtown, NY 11787 USA

Prepared by:

Centre Testing International Group Co., Ltd.
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Compiled by: Flora zhang Reviewed by: David Ye

Approved by: David Wang Date of Issue: Apr. 11, 2019

David Wang Check No.: 3336836061

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(Note: N/A means not applicable)

1. GENERAL INFORMATION

Applicant: A. M. Surgical Inc.
222 Middle Country Road, Suite 202, Smithtown, NY 11787 USA

Manufacturer: A. M. Surgical Inc.
222 Middle Country Road, Suite 202, Smithtown, NY 11787 USA

Factory: Medigus Ltd
Omer Industrial Park, Suite 7A, PO Box 3030 Israel 8496500

Product: pegasus receiver

Trade mark: Pegasus

Model/Type reference: 1001

Serial Number: N/A

Report Number: EED32L000282

State of Sample(s): Normal

Sample Received Date: Feb. 20, 2019

Sample tested Date: Feb. 20, 2019 to Feb. 28, 2019

The tested sample(s) and the sample information are provided by the client.

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Standard	Test Item	Test Method	Test
FCC 15.107	Conducted Emission	ANSI C63.4:2014	Yes
FCC 15.109	Radiated Emission	ANSI C63.4:2014	Yes

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Value (dB)
Conducted Emission	3.1
RE(30MHz-1GHz)	4.9
RE(1GHz-6GHz)	4.7

4. PRODUCT INFORMATION AND TEST SETUP

4.1. PRODUCT INFORMATION

Ratings: DC 5V/1.2A

Adapter information: Model No.: SW-01050120-S04US
Input: AC 100-240V, 50/60Hz 0.3A
Output: DC 5V/1.2A

4.2. TEST SETUP CONFIGURATION

See test photographs attached in Appendix 1 for the actual connections between Product and support equipment.

4.3. SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	Data Cable	Power Cord
1.	Pegasus wireless camera	Medical Device	1000	---	---	---
2.	TV	SUNSPO	SP-140A	---	---	---

Notes:
1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

5. FACILITIES AND ACCREDITATIONS

5.1. TEST FACILITY

All test facilities used to collect the test data are located at Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4, CISPR 16-1-1 and other equivalent standards.

FCC registration number:CN1164

5.2. TEST EQUIPMENT LIST

Instrumentation: The following list contains equipments used at CTI for testing.
The calibrations of the measuring instruments, including any accessories that may effect such calibration, are checked frequently to assure their accuracy. Adjustments are made and correction factors applied in accordance with instructions contained in the manual for the measuring instrument.

Equipment used during the tests:

Shielding Room No. 1 - Conducted Emission Test					
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. Date**	**Cal. Due Date**
Receiver	R&S	ESCI	100435	05/25/2018	05/24/2019
LISN	R&S	ENV216	100098	05/11/2018	05/10/2019

3M Semi-anechoic Chamber (2)- Radiated disturbance Test					
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. Date**	**Cal. Due Date**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	06-04-2016	06-03-2019
Receiver	R&S	ESCI	100009	05/25/2018	05/24/2019
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	401	12-21-2018	12-20-2019
Multi device Controller	maturo	NCD/070/10711112	---	---	---
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	04-25-2018	04-23-2021
Microwave Preamplifier	Tonscend	EMC051845SE	980380	01/16/2019	01/15/2020
Receiver	R&S	ESCI7	100938-003	11/20/2018	11/22/2019

5.3. LABORATORY ACCREDITATIONS AND LISTINGS

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

6. CONDUCTED EMISSION TEST

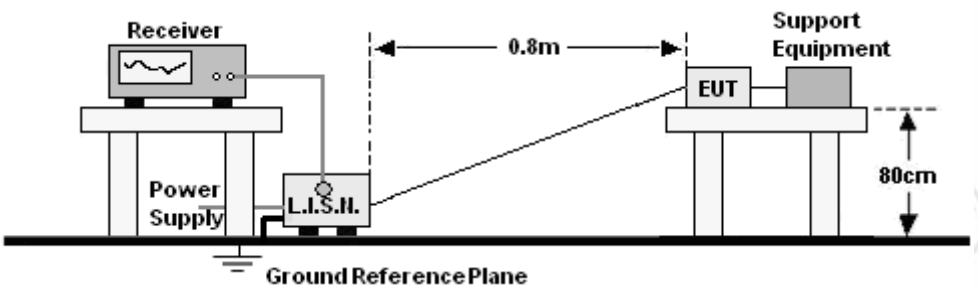
6.1. LIMITS

Limits for Class B digital devices

Frequency range (MHz)	Limits dB(μV)	
	Quasi-peak	Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.

6.2. BLOCK DIAGRAM OF TEST SETUP



6.3. PROCEDURE OF CONDUCTED EMISSION TEST

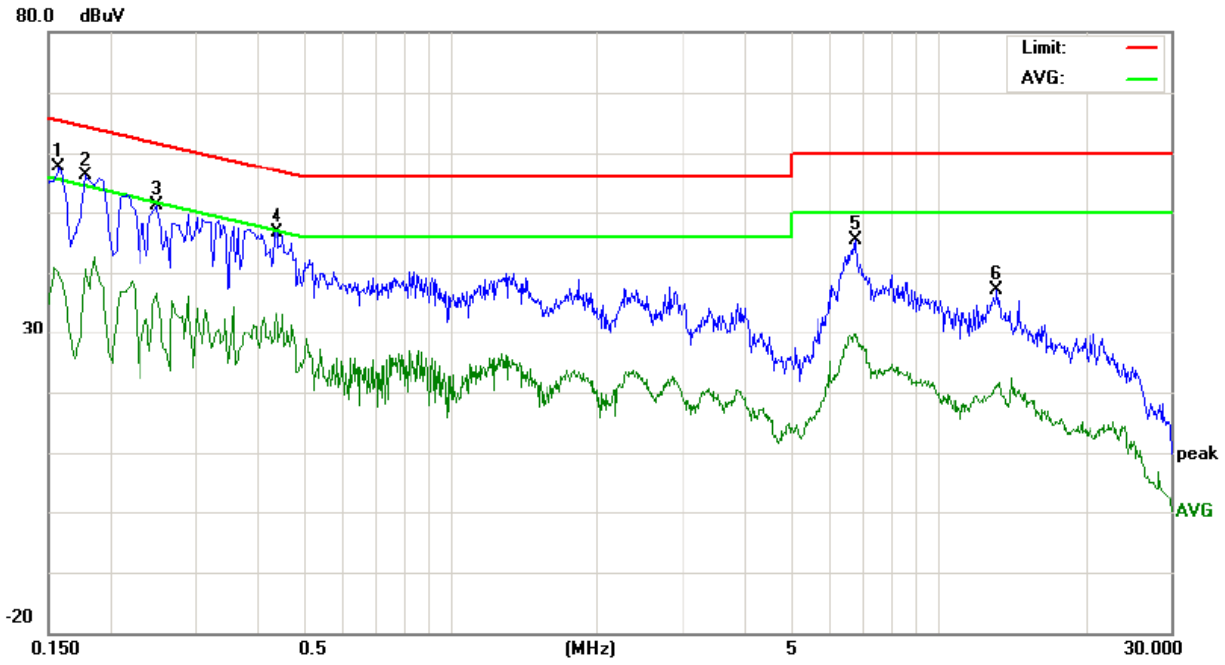
a. The Product was placed on a nonconductive table above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).

b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.

c. For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

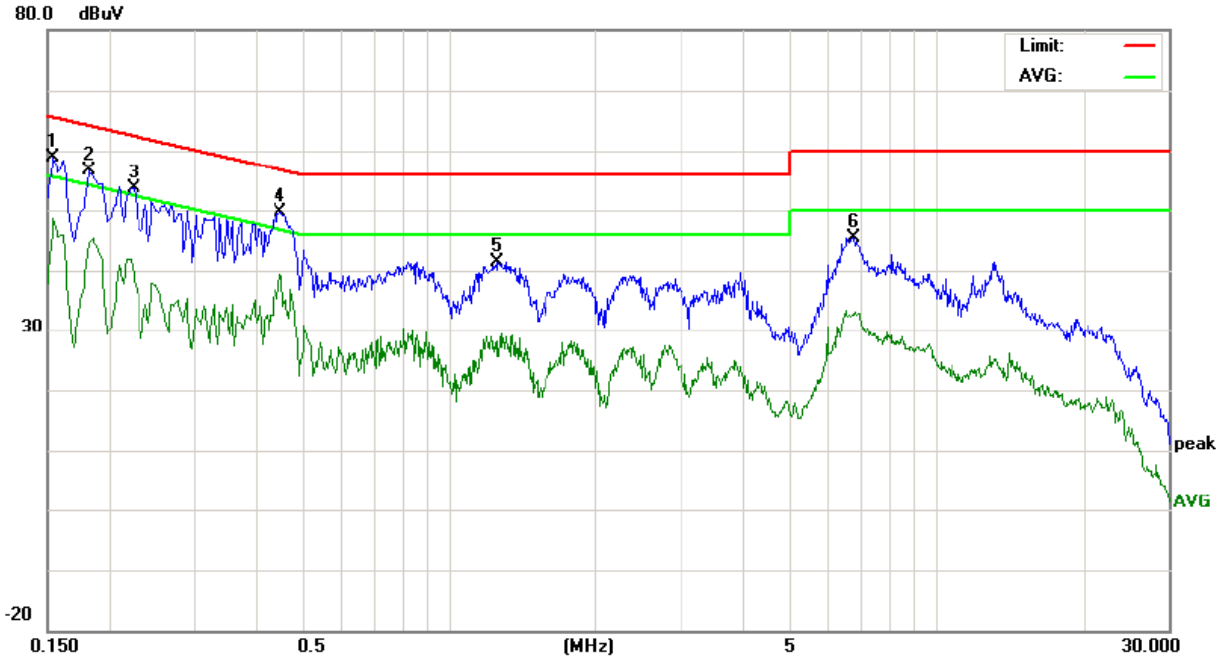
6.4. GRAPHS AND DATA

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	22℃
Mode	:	Monitoring+RX	**Humidity**	:	53%
Phase	:	L			



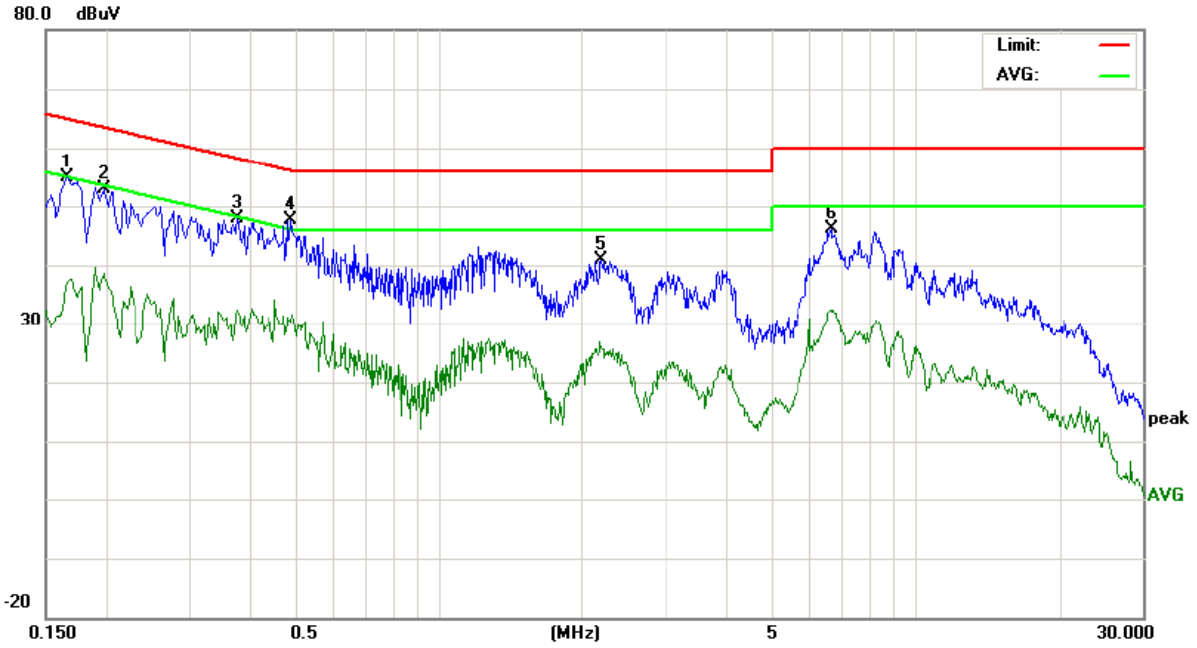
No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1580	47.74		30.09	9.91	57.65		40.00	65.56	55.56	-7.91	-15.56	P	
2	0.1787	45.07		24.92	9.91	54.98		34.83	64.54	54.54	-9.56	-19.71	P	
3	0.2500	41.18		26.77	9.96	51.14		36.73	61.75	51.75	-10.61	-15.02	P	
4	0.4420	36.77		23.53	9.89	46.66		33.42	57.02	47.02	-10.36	-13.60	P	
5	6.7700	35.61		19.90	9.74	45.35		29.64	60.00	50.00	-14.65	-20.36	P	
6	13.2260	27.21		10.99	9.93	37.14		20.92	60.00	50.00	-22.86	-29.08	P	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	22℃
Mode	:	Monitoring+RX	**Humidity**	:	53%
Phase	:	N			



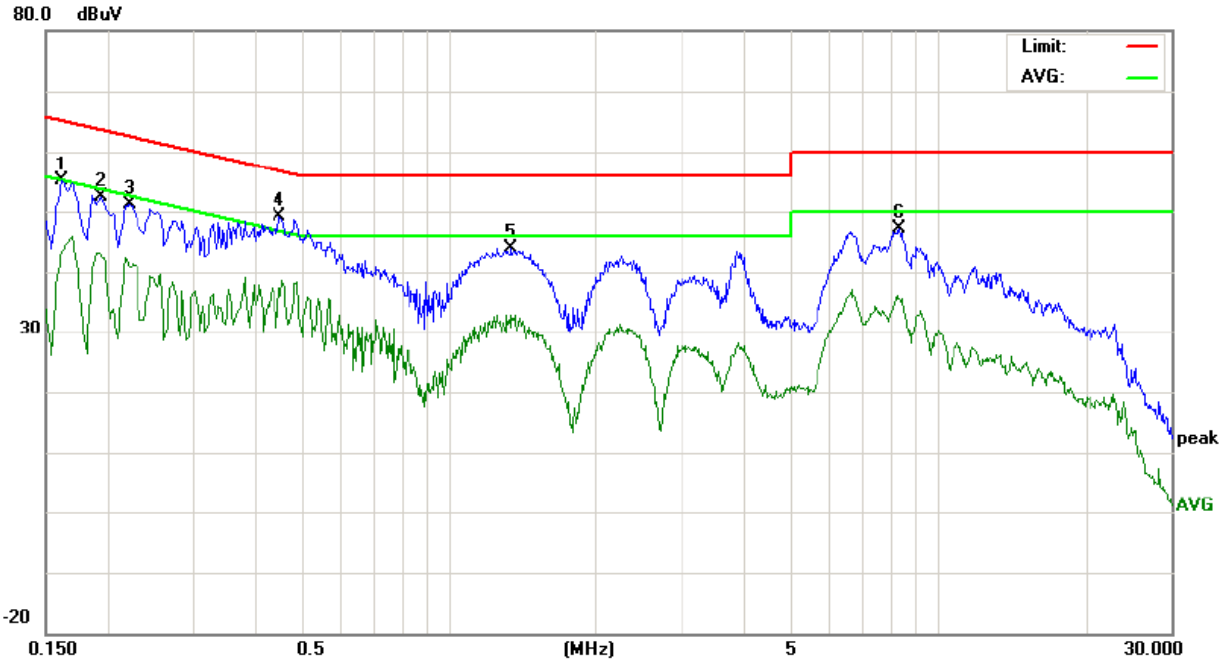
No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1539	48.99		38.61	9.91	58.90		48.52	65.78	55.78	-6.88	-7.26	P	
2	0.1819	46.60		34.50	9.91	56.51		44.41	64.39	54.39	-7.88	-9.98	P	
3	0.2260	43.68		28.62	9.93	53.61		38.55	62.59	52.59	-8.98	-14.04	P	
4	0.4500	39.79		29.39	9.89	49.68		39.28	56.87	46.87	-7.19	-7.59	P	
5	1.2579	31.67		18.45	9.79	41.46		28.24	56.00	46.00	-14.54	-17.76	P	
6	6.7940	35.74		22.96	9.74	45.48		32.70	60.00	50.00	-14.52	-17.30	P	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	22℃
Mode	:	Monitoring+RX	**Humidity**	:	53%
Phase	:	L			



No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1660	39.87		22.39	9.91	49.78		32.30	65.15	55.15	-15.37	-22.85	P	
2	0.1980	42.89		28.82	9.91	52.80		38.73	63.69	53.69	-10.89	-14.96	P	
3	0.3780	38.05		22.36	9.91	47.96		32.27	58.32	48.32	-10.36	-16.05	P	
4	0.4900	39.89		22.41	9.89	49.78		32.30	56.17	46.17	-6.39	-13.87	P	
5	2.1940	31.17		16.15	9.72	40.89		25.87	56.00	46.00	-15.11	-20.13	P	
6	6.6900	36.36		22.42	9.74	46.10		32.16	60.00	50.00	-13.90	-17.84	P	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	22℃
Mode	:	Monitoring+RX	**Humidity**	:	53%
Phase	:	N			



No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)			
	MHz	Peak	QP	AVG	dB	peak	QP	AVG	QP	AVG	QP	AVG	P/F	Comment
1	0.1620	45.23		33.36	9.91	55.14		43.27	65.36	55.36	-10.22	-12.09	P	
2	0.1945	38.52		23.93	9.91	48.43		33.84	63.84	53.84	-15.41	-20.00	P	
3	0.2220	41.27		30.92	9.93	51.20		40.85	62.74	52.74	-11.54	-11.89	P	
4	0.4500	39.14		27.38	9.89	49.03		37.27	56.87	46.87	-7.84	-9.60	P	
5	1.3380	34.19		23.17	9.78	43.97		32.95	56.00	46.00	-12.03	-13.05	P	
6	8.3539	37.25		25.78	9.79	47.04		35.57	60.00	50.00	-12.96	-14.43	P	

Remark:

1. Margin(dB)=Measurement(dBuV)-Limit(dBuV)
2. Measurement(dBuV)=Reading_Level(dBuV)+Correct Factor(dB)
3. Correct Factor(dB)=Cable Factor(dB)+Lisn Factor(dB)

7. RADIATED EMISSION TEST

7.1. LIMITS

For unintentional device , according to §15.109 (b) The field strength of radiated emissions from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the following values.
According to FCC 15.31 section(1), at frequencies at or above 30 MHz measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).
According to FCC 15.31 section(2), frequencies below 30 MHz, performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).
According to 15.35 Measurement detector functions and bandwidths section (b). Unless otherwise specified, e.g., see §§15.250, 15.252, 15.253(d), 15.255, 15.256, and 15.509 through 15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

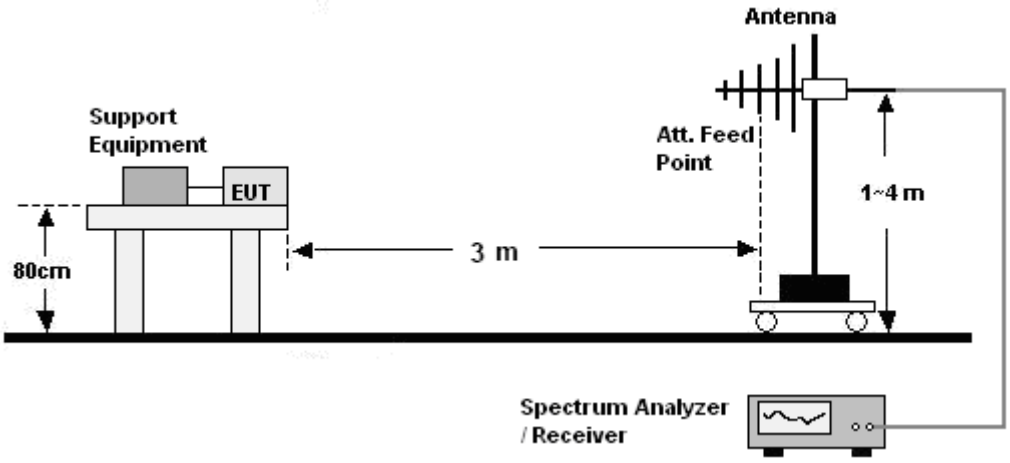
Limits for Class B digital devices

Frequency (MHz)	limits at 3m dB(μV/m)
30-88	40.0
88-216	43.5
216-960	46.0
Above 960	54.0

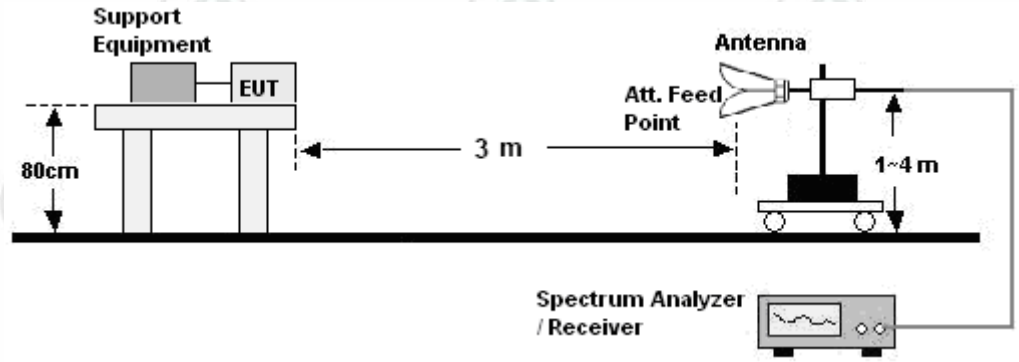
NOTE: 1. The lower limit shall apply at the transition frequency.
2. The limits shown above are based on measuring equipment employing a CISPR quasi-peak detector function for frequencies below or equal to 1000MHz.
3. The limits shown above are based on measuring equipment employing an average detector function for frequencies above 1000MHz.

7.2. BLOCK DIAGRAM OF TEST SETUP

30MHz ~ 1GHz:



Above 1GHz:



7.3. PROCEDURE OF RADIATED EMISSION TEST

30MHz ~ 1GHz:

a. The Product was placed on the non-conductive turntable 0.8 m above the ground at a chamber.

b. Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 120 kHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied between 1~4 m in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.

c. For each frequency whose maximum record was higher or close to limit, measure its QP value: vary the antenna's height and rotate the turntable from 0 to 360 degrees to find the height and degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to QP Detector and specified bandwidth with Maximum Hold Mode, and record the maximum value.

Above 1GHz:

a. The Product was placed on the non-conductive turntable 0.8 m above the ground at a chamber.

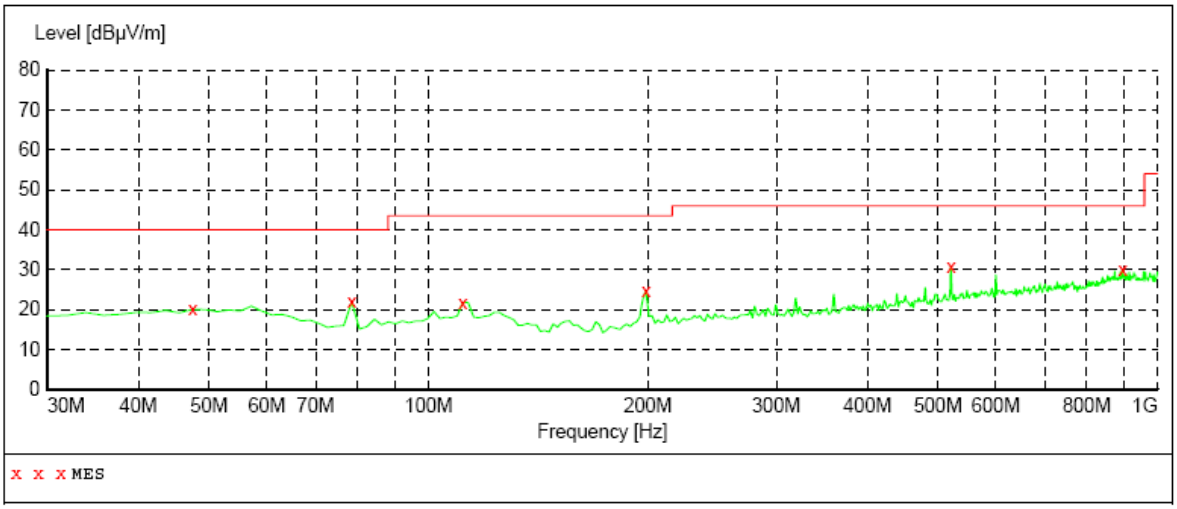
b. Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 1MHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.

c. For each frequency whose maximum record was higher or close to limit, measure its AV value: rotate the turntable from 0 to 360 degrees to find the degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to AV value and specified bandwidth with Maximum Hold Mode, and record the maximum value.

7.4. GRAPHS AND DATA

30MHz ~ 1GHz:

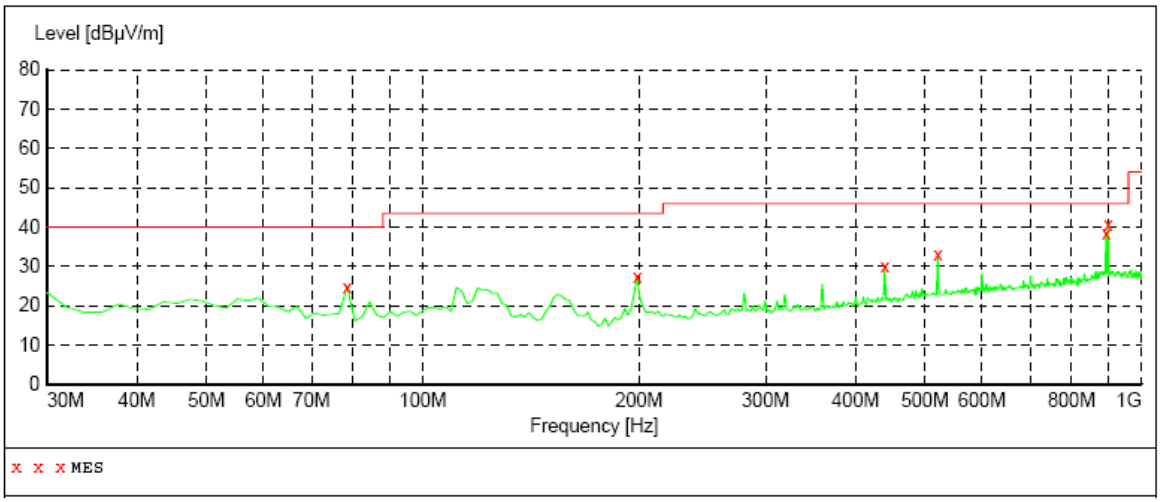
Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Horizontal			



MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	20.00	14.8	40.0	20.0	QP	200.0	360.00	HORIZONTAL
78.500000	22.00	9.5	40.0	18.0	QP	200.0	350.00	HORIZONTAL
111.480000	21.80	12.8	43.5	21.7	QP	100.0	325.00	HORIZONTAL
198.780000	24.70	12.3	43.5	18.8	QP	200.0	370.00	HORIZONTAL
520.820000	30.70	18.5	46.0	15.3	QP	200.0	149.00	HORIZONTAL
895.240000	30.00	23.8	46.0	16.0	QP	100.0	192.00	HORIZONTAL

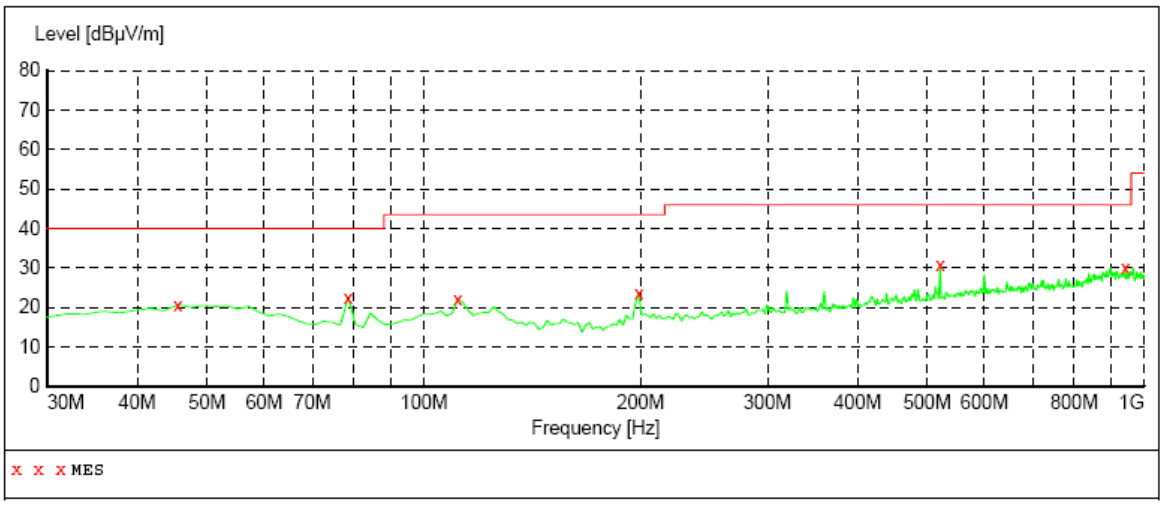
Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Vertical			



MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
78.500000	24.90	9.5	40.0	15.1	QP	100.0	219.00	VERTICAL
198.780000	27.30	12.3	43.5	16.2	QP	100.0	182.00	VERTICAL
439.340000	29.90	17.1	46.0	16.1	QP	100.0	231.00	VERTICAL
520.820000	33.00	18.5	46.0	13.0	QP	100.0	292.00	VERTICAL
893.300000	38.30	23.7	46.0	7.7	QP	200.0	350.00	VERTICAL
899.120000	40.50	23.9	46.0	5.5	QP	200.0	299.00	VERTICAL

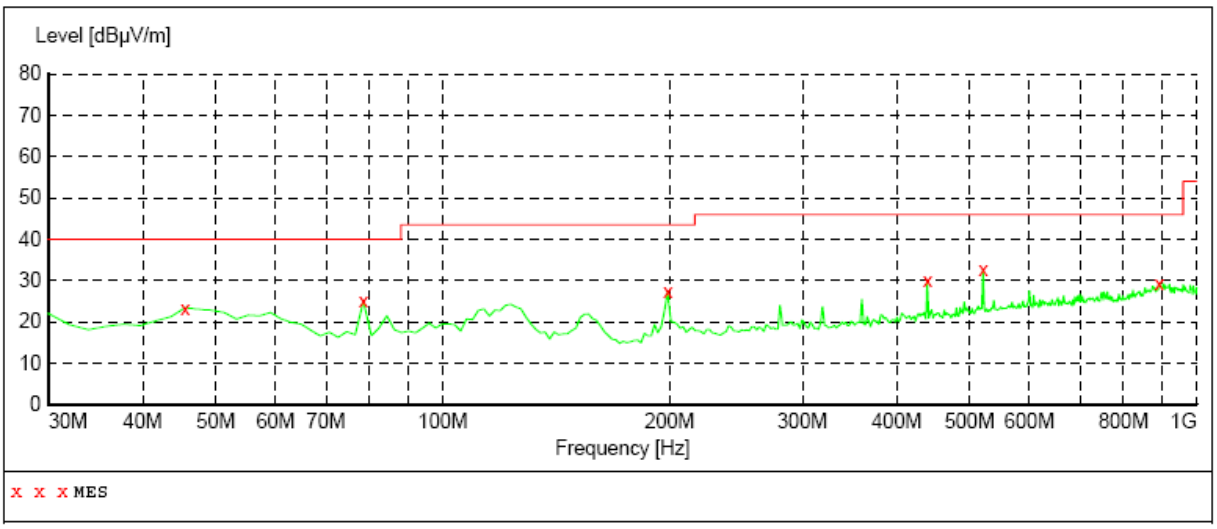
Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Horizontal			



MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	20.70	14.6	40.0	19.3	QP	200.0	360.00	HORIZONTAL
78.500000	22.40	9.5	40.0	17.6	QP	200.0	10.00	HORIZONTAL
111.480000	22.10	12.8	43.5	21.4	QP	200.0	298.00	HORIZONTAL
198.780000	23.60	12.3	43.5	19.9	QP	200.0	322.00	HORIZONTAL
520.820000	30.80	18.5	46.0	15.2	QP	200.0	132.00	HORIZONTAL
941.800000	30.10	23.5	46.0	15.9	QP	100.0	257.00	HORIZONTAL

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Vertical			



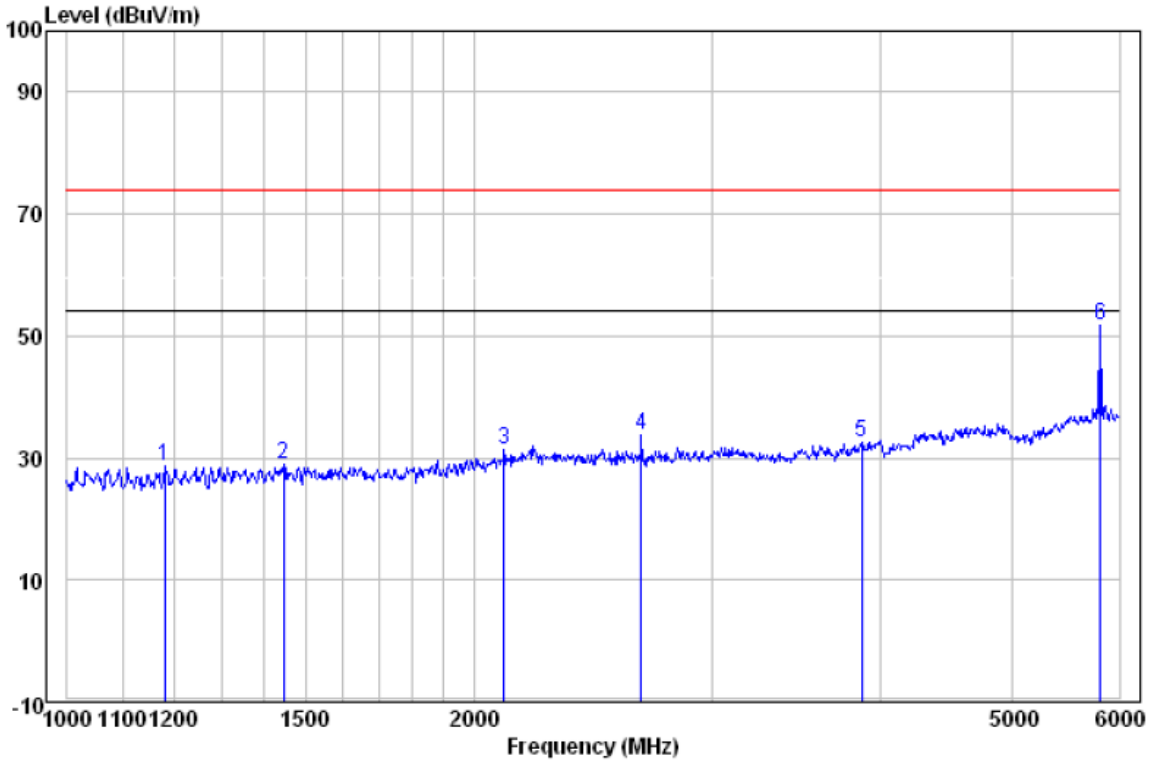
MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	23.40	14.6	40.0	16.6	QP	100.0	10.00	VERTICAL
78.500000	25.00	9.5	40.0	15.0	QP	100.0	340.00	VERTICAL
198.780000	27.30	12.3	43.5	16.2	QP	100.0	136.00	VERTICAL
439.340000	29.90	17.1	46.0	16.1	QP	100.0	302.00	VERTICAL
520.820000	32.70	18.5	46.0	13.3	QP	100.0	360.00	VERTICAL
891.360000	29.20	23.6	46.0	16.8	QP	100.0	10.00	VERTICAL

Note: 1. Margin(dB)=Limit(dBuV/m)-Level(dBuV/m).
2. Level(dBuV/m)=Reading_Level(dBuV)+Transd(dB).
3. Transd(dB)=Cable loss(dB)+Ant Factor(dB)

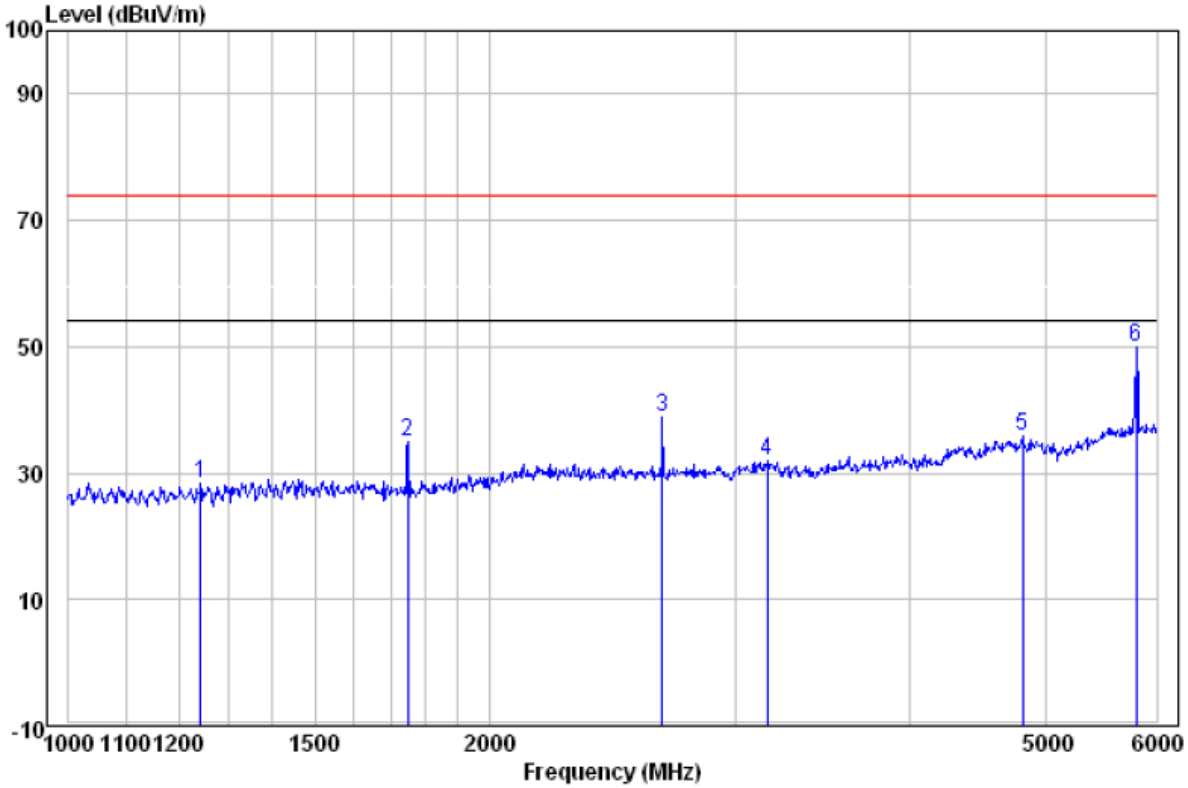
Above 1GHz:

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Horizontal			



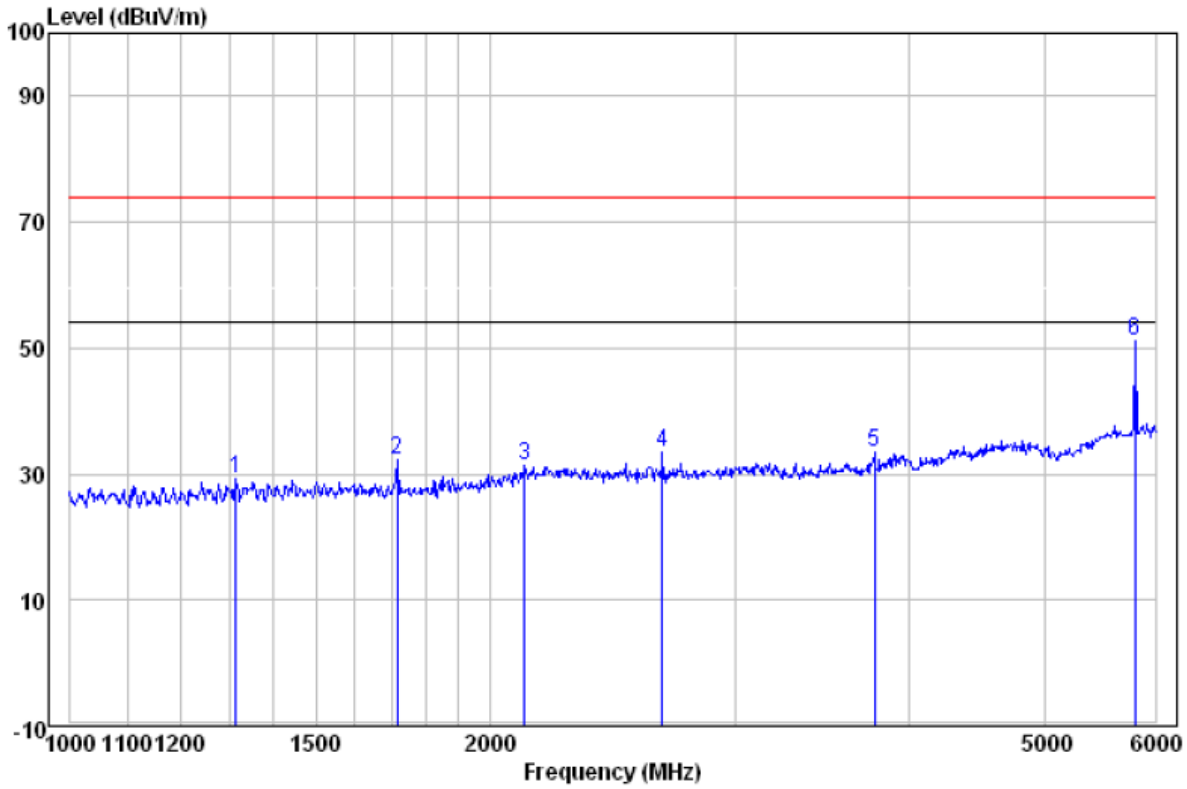
	Freq	Ant Factor	Cable Loss	Read Level	Preamp Factor	Limit Level	Over Line	Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dBuV	dB	dBuV/m	dBuV/m	dB		
1	1181.321	24.32	1.83	47.00	44.54	28.61	74.00	-45.39	Horizontal	
2	1446.436	25.03	2.22	45.85	44.21	28.89	74.00	-45.11	Horizontal	
3	2103.453	27.16	2.90	45.01	43.80	31.27	74.00	-42.73	Horizontal	
4	2659.932	27.83	3.21	47.09	44.26	33.87	74.00	-40.13	Horizontal	
5	3868.158	29.28	4.09	43.80	44.59	32.58	74.00	-41.42	Horizontal	
6	5809.577	32.42	7.25	56.86	44.64	51.89	74.00	-22.11	Horizontal	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 120V/60Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Vertical			



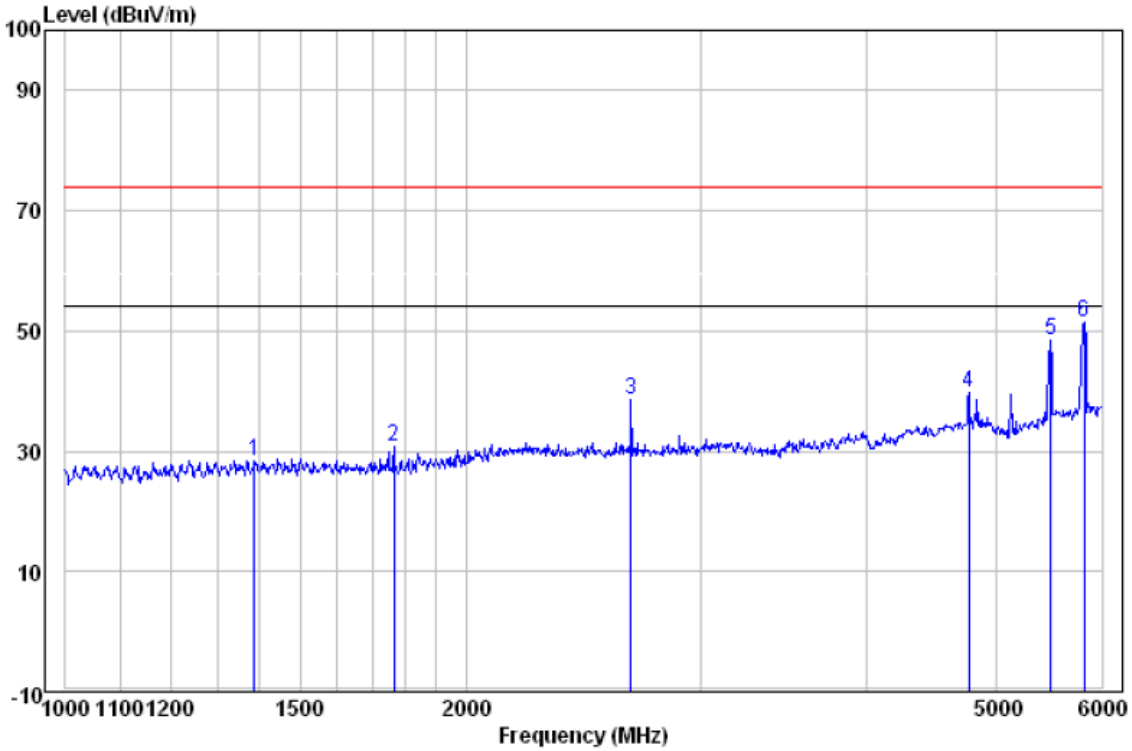
	Freq	Ant Factor	Cable Loss	Read Level	Preamp Factor	Limit Level	Over Line	Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dBuV	dB	dBuV/m	dBuV/m	dB		
1	1242.099	24.64	1.93	46.29	44.46	28.40	74.00	-45.60	Vertical	
2	1748.973	24.83	2.58	51.45	43.91	34.95	74.00	-39.05	Vertical	
3	2659.932	27.83	3.21	52.17	44.26	38.95	74.00	-35.05	Vertical	
4	3159.171	28.28	3.51	44.74	44.52	32.01	74.00	-41.99	Vertical	
5	4813.252	31.28	6.00	43.47	44.77	35.98	74.00	-38.02	Vertical	
6	5799.177	32.40	7.24	54.90	44.64	49.90	74.00	-24.10	Vertical	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Horizontal			



	Freq	Ant Factor	Cable Loss	Read Level	Preamp Factor	Limit Level	Over Line	Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dBuV	dB	dBuV/m	dBuV/m	dB		
1	1315.398	25.05	2.04	46.50	44.36	29.23	74.00	-44.77	Horizontal	
2	1714.840	24.73	2.54	49.00	43.94	32.33	74.00	-41.67	Horizontal	
3	2118.583	27.27	2.91	44.97	43.81	31.34	74.00	-42.66	Horizontal	
4	2659.932	27.83	3.21	46.62	44.26	33.40	74.00	-40.60	Horizontal	
5	3772.333	29.02	4.02	44.93	44.58	33.39	74.00	-40.61	Horizontal	
6	5799.177	32.40	7.24	56.24	44.64	51.24	74.00	-22.76	Horizontal	

Product	:	pegasus receiver	**Model/Type reference**	:	1001
Power	:	AC 240V/50Hz	**Temperature**	:	21℃
Mode	:	Monitoring+RX	**Humidity**	:	55%
Polarization	:	Vertical			



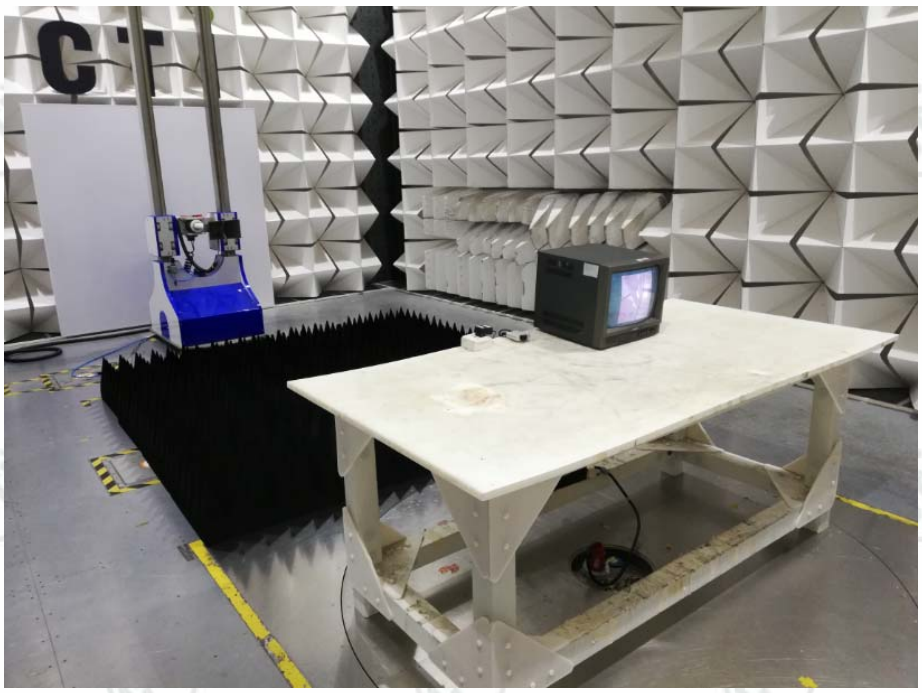
	Freq	Ant Factor	Cable Loss	Read Level	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dB/m	dB	dBuV	dB	dBuV/m	dBuV/m	dB		
1	1385.554	25.12	2.14	45.51	44.28	28.49	74.00	-45.51	Vertical	
2	1764.712	24.87	2.60	47.07	43.90	30.64	74.00	-43.36	Vertical	
3	2659.932	27.83	3.21	51.87	44.26	38.65	74.00	-35.35	Vertical	
4	4770.324	31.21	5.91	47.45	44.76	39.81	74.00	-34.19	Vertical	
5	5495.685	31.88	6.92	54.33	44.70	48.43	74.00	-25.57	Vertical	
6	5819.996	32.44	7.26	56.47	44.63	51.54	74.00	-22.46	Vertical	

Note: 1. Over Limit(dB)=Level(dBuV/m)-Limit(dBuV/m).
2. Level(dBuV/m)=Read Level(dBuV)+Cable loss(dB)+Ant Factor(dB)-AMP Factor(dB)
3. The highest frequency of the internal sources of the EUT is 5.8GHz. The disturbance above 6GHz was very low, more than 20dB the limit, so only the below 6GHz had been displayed.

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

CONDUCTED EMISSION TEST SETUP

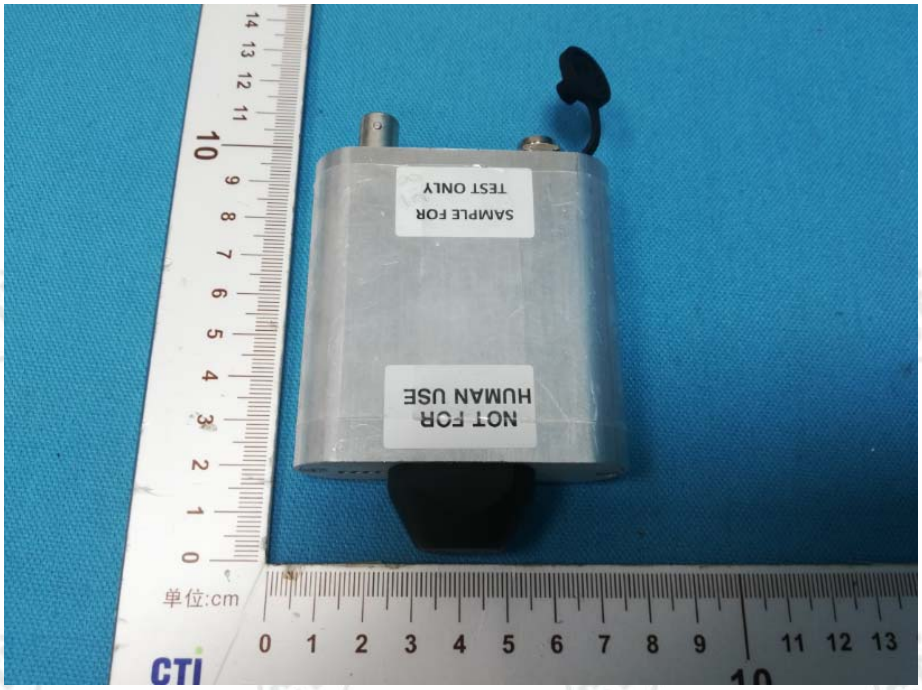
RADIATED EMISSION TEST SETUP-1



RADIATED EMISSION TEST SETUP-2

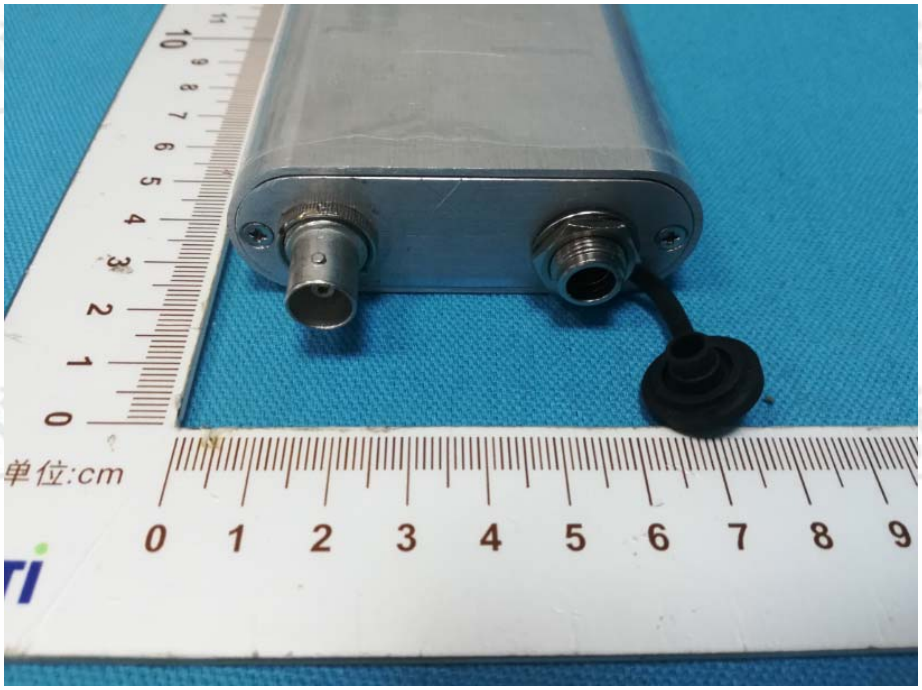
APPENDIX 2 PHOTOGRAPHS OF PRODUCT

View of Product-1

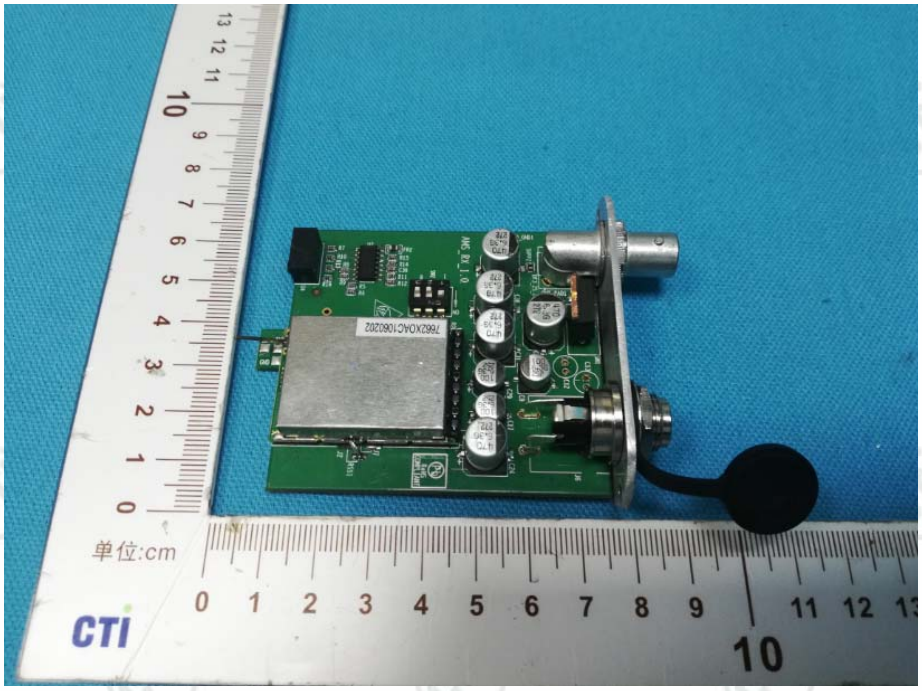


View of Product-2

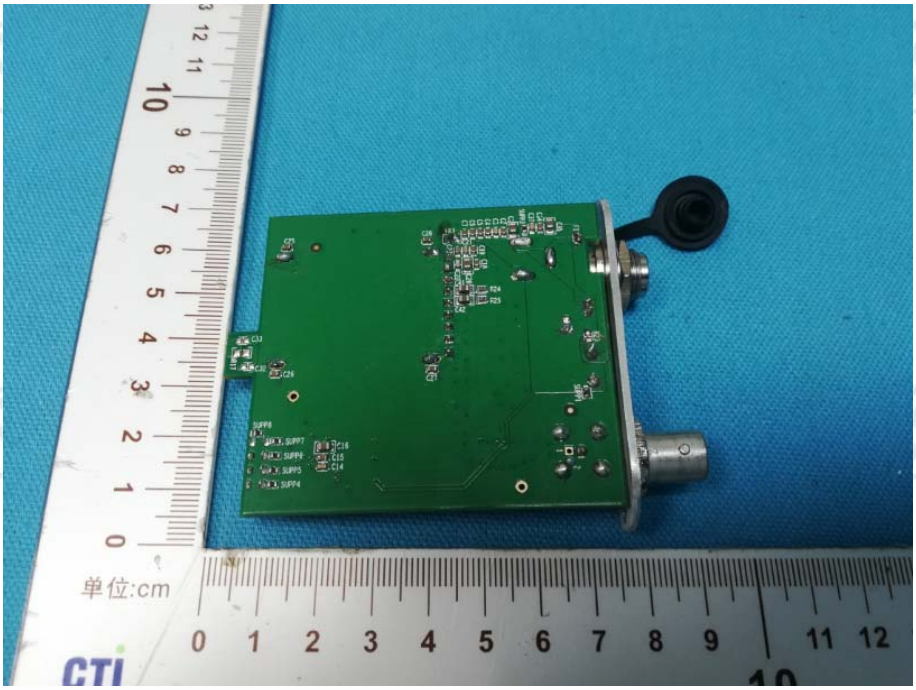
View of Product-3



View of Product-4



View of Product-5



View of Product-6

View of Product-7

*** End of Report ***