

13.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-23

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

5GWIFI TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

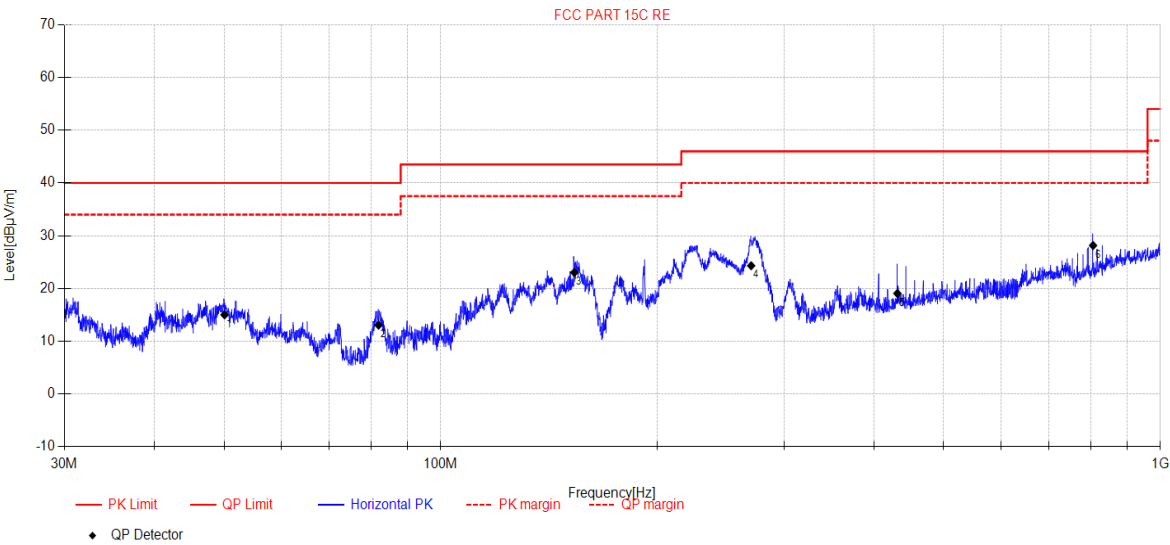
DDT 3# Chamber

File Path:

d:\ts\2024 report data\Q23122506-2E VG710\FCC BELOW 1G\20240123-000033_H

Memo:

Sample Number:S23122506-03 Power Setting:46



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	50.09	28.06	12.92	4.73	-30.70	15.01	40.00	24.99	QP	Horizontal
2	82.00	29.76	9.00	4.84	-30.54	13.06	40.00	26.94	QP	Horizontal
3	153.37	39.62	8.81	5.35	-30.74	23.04	43.50	20.46	QP	Horizontal
4	270.07	36.18	12.50	6.02	-30.39	24.31	46.00	21.69	QP	Horizontal
5	431.10	26.64	15.69	6.77	-30.04	19.06	46.00	26.94	QP	Horizontal
6	806.33	30.3	19.69	8.00	-29.84	28.15	46.00	17.85	QP	Horizontal

Note:

- Result Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-23

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

5GWIFI TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

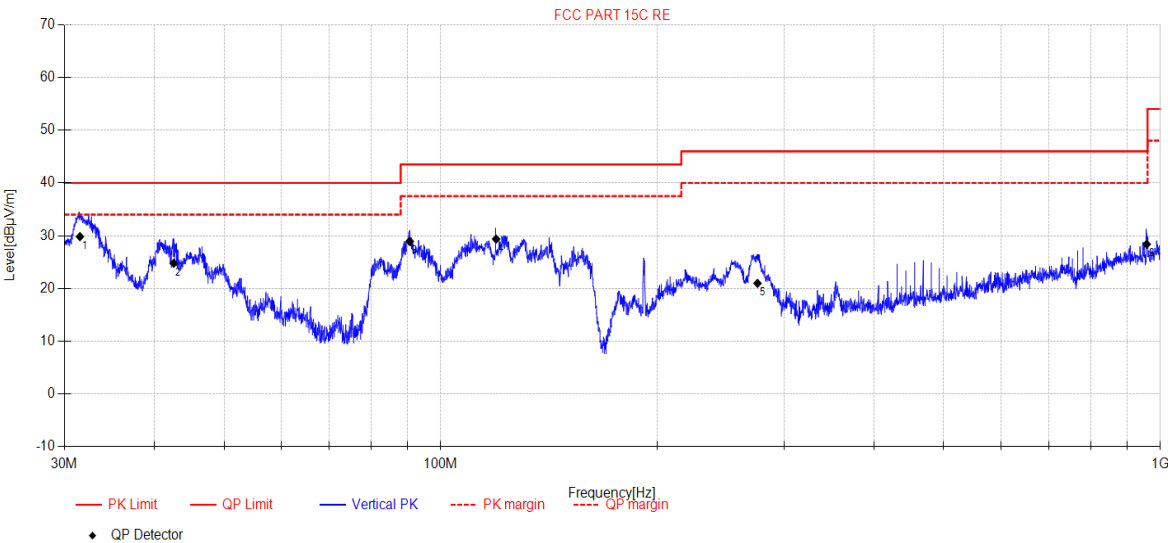
DDT 3# Chamber

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Memo:

Sample Number:S23122506-03 Power Setting:46



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	31.53	46.07	10.24	4.49	-30.98	29.82	40.00	10.18	QP	Vertical
2	42.57	38.03	12.93	4.63	-30.81	24.78	40.00	15.22	QP	Vertical
3	90.58	45.19	9.50	4.95	-30.71	28.93	43.50	14.57	QP	Vertical
4	119.40	45.16	9.88	5.17	-30.84	29.37	43.50	14.13	QP	Vertical
5	275.61	32.81	12.49	6.05	-30.37	20.98	46.00	25.02	QP	Vertical
6	957.46	26.43	21.90	8.54	-28.48	28.39	46.00	17.61	QP	Vertical

Note:

- Result Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

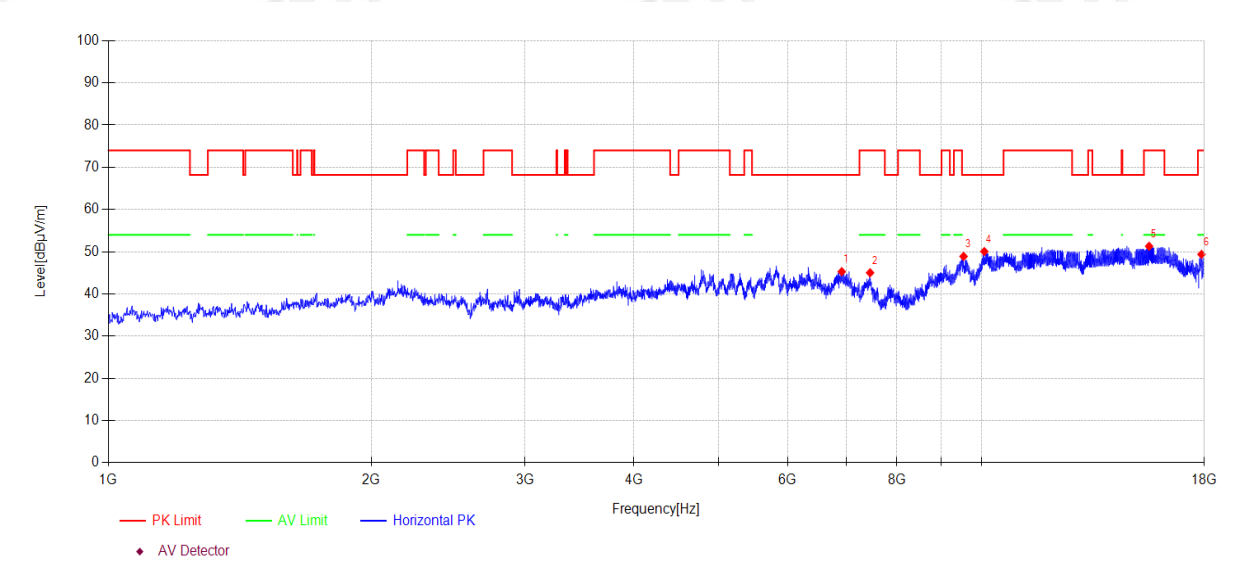
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	6917.70	40.79	36.14	8.99	-40.64	45.28	68.20	22.92	PK	Horizontal
2	7454.90	41.38	36.59	8.89	-41.84	45.02	74.00	28.98	PK	Horizontal
3	9539.10	39.79	38.62	9.24	-38.75	48.90	68.20	19.30	PK	Horizontal
4	10076.30	40.70	38.68	9.43	-38.75	50.06	68.20	18.14	PK	Horizontal
5	15562.20	37.85	38.68	13.86	-39.10	51.29	74.00	22.71	PK	Horizontal
6	17865.70	37.24	41.52	12.72	-42.10	49.38	74.00	24.62	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

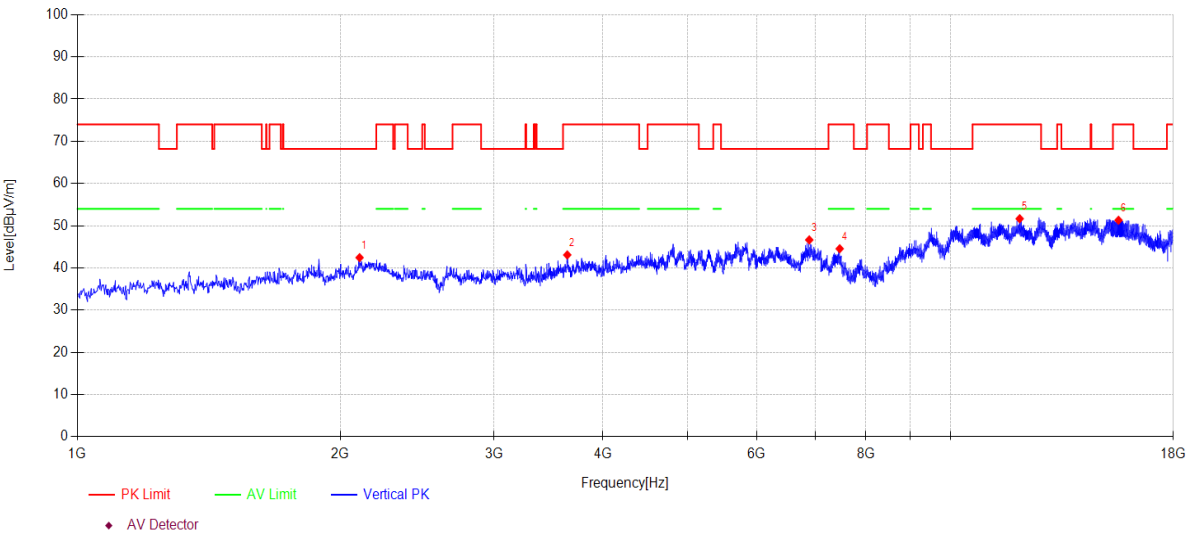
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2105.00	46.11	27.50	6.14	-37.31	42.44	68.20	25.76	PK	Vertical
2	3640.10	47.33	30.16	5.82	-40.23	43.08	74.00	30.92	PK	Vertical
3	6890.50	42.18	36.08	9.00	-40.62	46.64	68.20	21.56	PK	Vertical
4	7466.80	40.96	36.57	8.89	-41.87	44.55	74.00	29.45	PK	Vertical
5	12002.40	41.70	39.20	10.32	-39.56	51.66	74.00	22.34	PK	Vertical
6	15577.50	37.82	38.65	13.94	-39.11	51.30	74.00	22.70	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5200MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

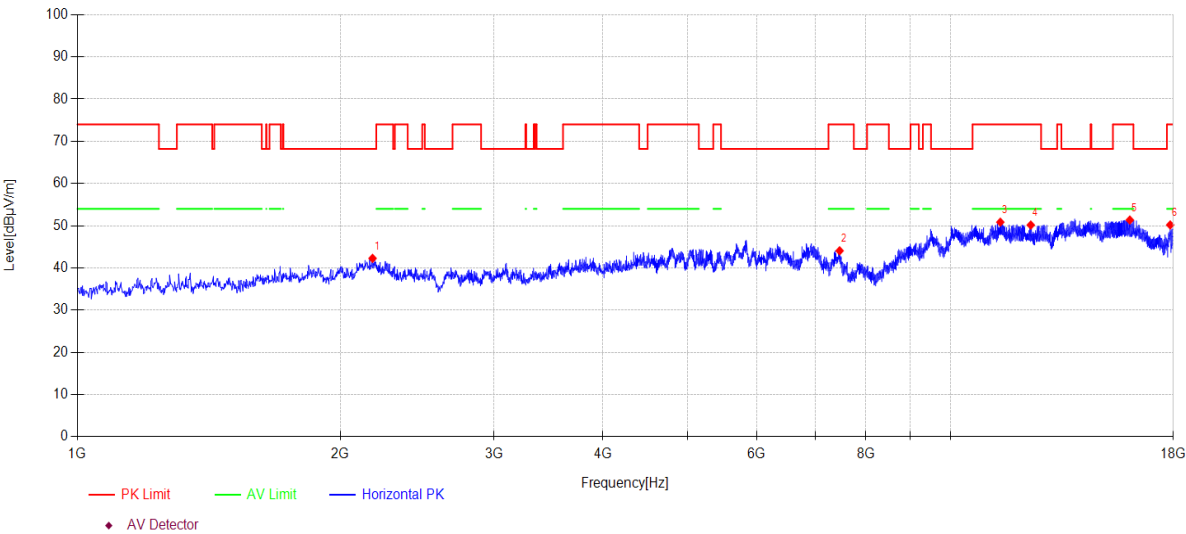
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2178.10	46.04	27.67	6.07	-37.51	42.27	68.20	25.93	PK	Horizontal
2	7465.10	40.46	36.57	8.89	-41.86	44.06	74.00	29.94	PK	Horizontal
3	11405.70	41.00	39.29	9.84	-39.28	50.85	74.00	23.15	PK	Horizontal
4	12359.40	40.23	39.30	10.34	-39.70	50.17	74.00	23.83	PK	Horizontal
5	16046.70	36.93	37.95	15.87	-39.40	51.35	74.00	22.65	PK	Horizontal
6	17852.10	38.18	41.37	12.71	-42.07	50.19	74.00	23.81	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5200MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

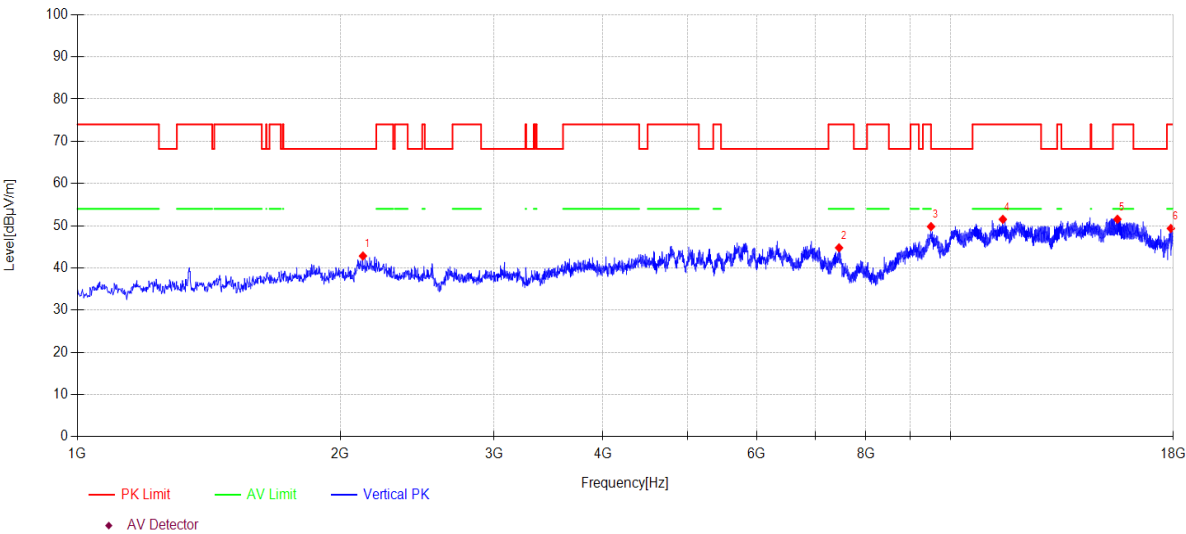
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	2123.70	46.57	27.50	6.12	-37.36	42.83	68.20	25.37	PK	Vertical
2	7454.90	41.13	36.59	8.89	-41.84	44.77	74.00	29.23	PK	Vertical
3	9500.00	40.62	38.70	9.23	-38.76	49.79	68.20	18.41	PK	Vertical
4	11482.20	41.70	39.22	9.91	-39.32	51.51	74.00	22.49	PK	Vertical
5	15533.30	38.16	38.73	13.72	-39.08	51.53	74.00	22.47	PK	Vertical
6	17882.70	37.04	41.71	12.74	-42.14	49.35	74.00	24.65	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5240MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

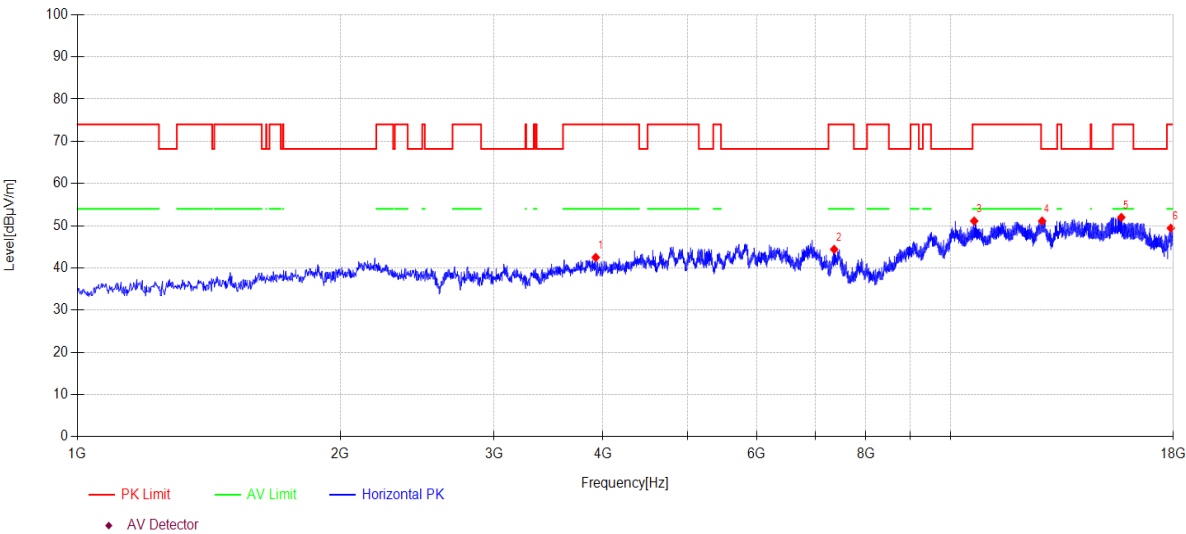
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3924.00	45.72	31.15	6.02	-40.40	42.49	74.00	31.51	PK	Horizontal
2	7358.00	40.33	36.78	8.90	-41.60	44.41	74.00	29.59	PK	Horizontal
3	10645.80	41.31	39.29	9.48	-38.96	51.12	74.00	22.88	PK	Horizontal
4	12735.10	40.94	39.67	10.36	-39.85	51.12	68.20	17.08	PK	Horizontal
5	15691.40	38.12	38.51	14.51	-39.17	51.97	74.00	22.03	PK	Horizontal
6	17879.30	37.16	41.67	12.73	-42.13	49.43	74.00	24.57	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5240MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

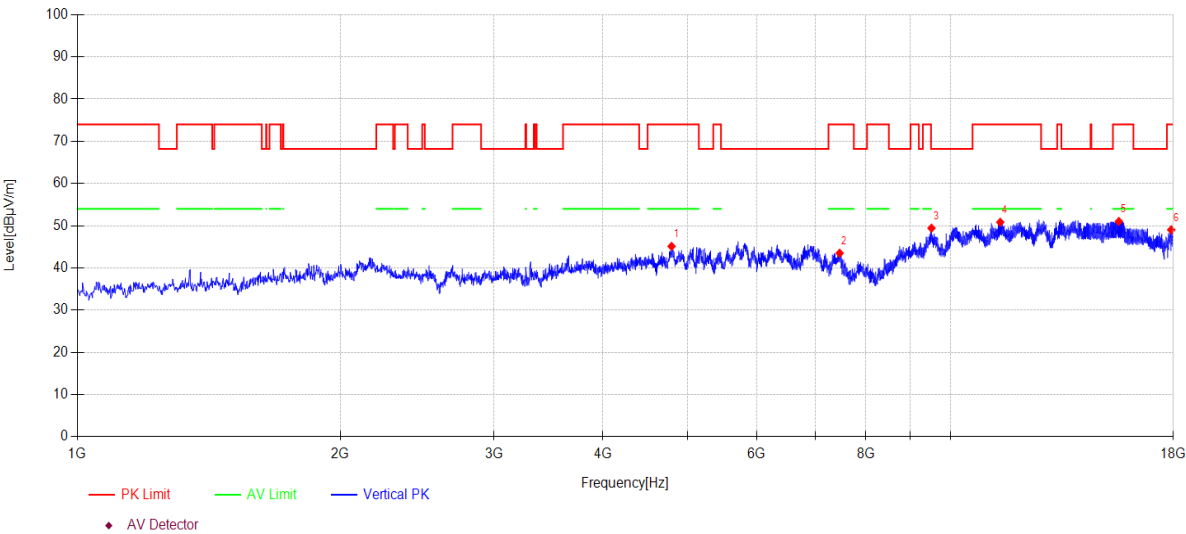
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4792.70	45.20	32.47	7.61	-40.16	45.12	74.00	28.88	PK	Vertical
2	7465.10	39.90	36.57	8.89	-41.86	43.50	74.00	30.50	PK	Vertical
3	9511.90	40.27	38.68	9.23	-38.75	49.43	68.20	18.77	PK	Vertical
4	11404.00	40.98	39.30	9.84	-39.28	50.84	74.00	23.16	PK	Vertical
5	15591.10	37.49	38.62	14.01	-39.11	51.01	74.00	22.99	PK	Vertical
6	17901.40	36.55	41.91	12.75	-42.18	49.03	74.00	24.97	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

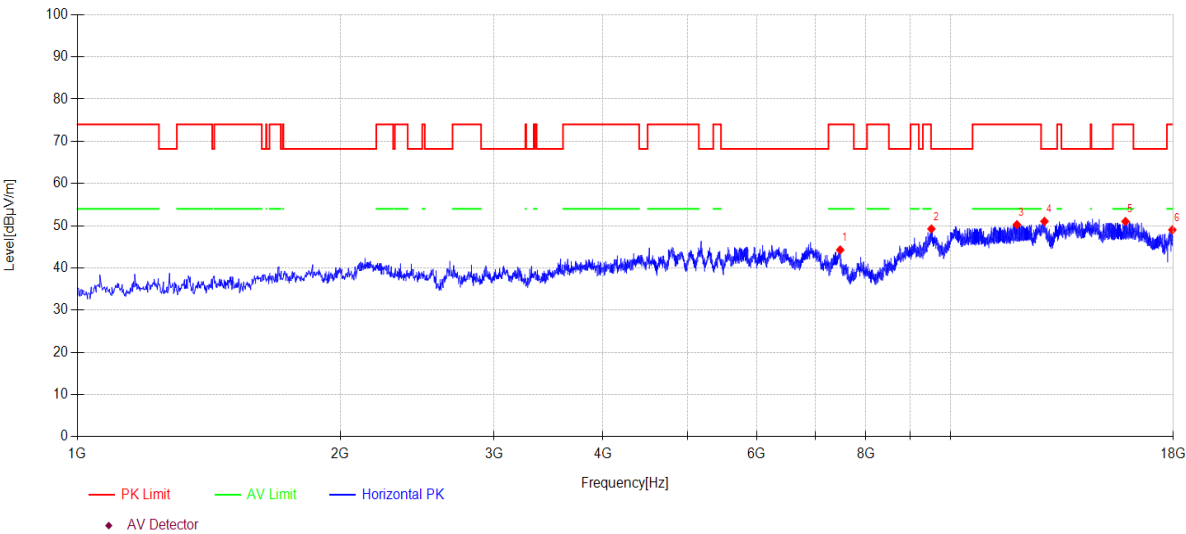
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	7477.00	40.73	36.55	8.88	-41.89	44.27	74.00	29.73	PK	Horizontal
2	9510.20	40.09	38.68	9.23	-38.75	49.25	68.20	18.95	PK	Horizontal
3	11915.70	40.57	38.95	10.25	-39.52	50.25	74.00	23.75	PK	Horizontal
4	12813.30	40.74	39.81	10.37	-39.88	51.04	68.20	17.16	PK	Horizontal
5	15864.80	36.73	38.17	15.39	-39.28	51.01	74.00	22.99	PK	Horizontal
6	17952.40	36.34	42.16	12.80	-42.29	49.01	74.00	24.99	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

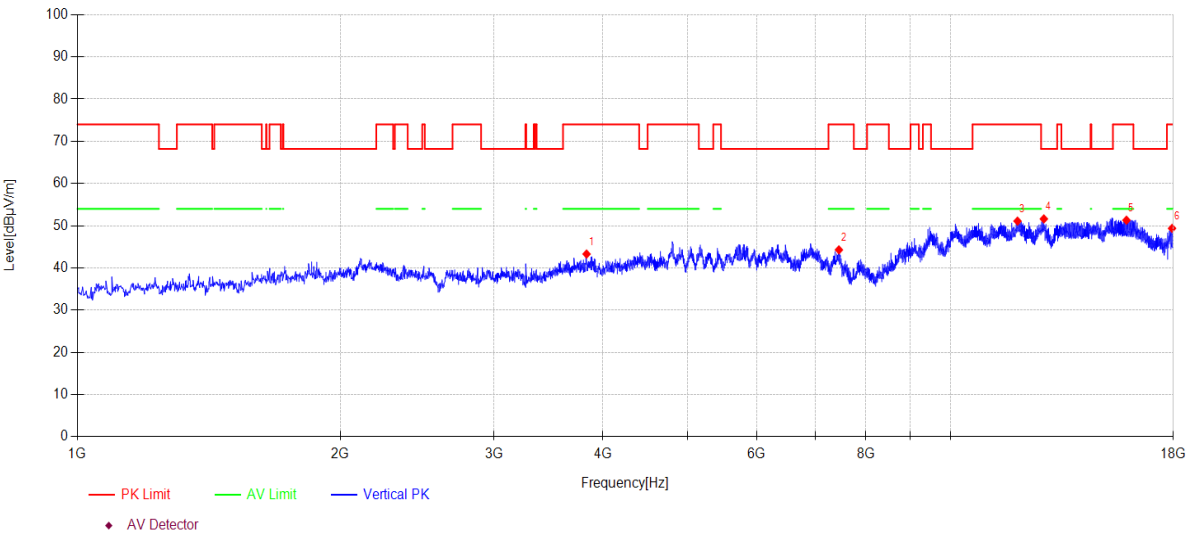
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3830.50	46.86	30.82	5.96	-40.35	43.29	74.00	30.71	PK	Vertical
2	7451.50	40.62	36.60	8.89	-41.83	44.28	74.00	29.72	PK	Vertical
3	11934.40	41.35	39.00	10.27	-39.53	51.09	74.00	22.91	PK	Vertical
4	12792.90	41.32	39.79	10.37	-39.87	51.61	68.20	16.59	PK	Vertical
5	15907.30	36.92	38.09	15.60	-39.30	51.31	74.00	22.69	PK	Vertical
6	17938.80	36.76	42.09	12.79	-42.26	49.38	74.00	24.62	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

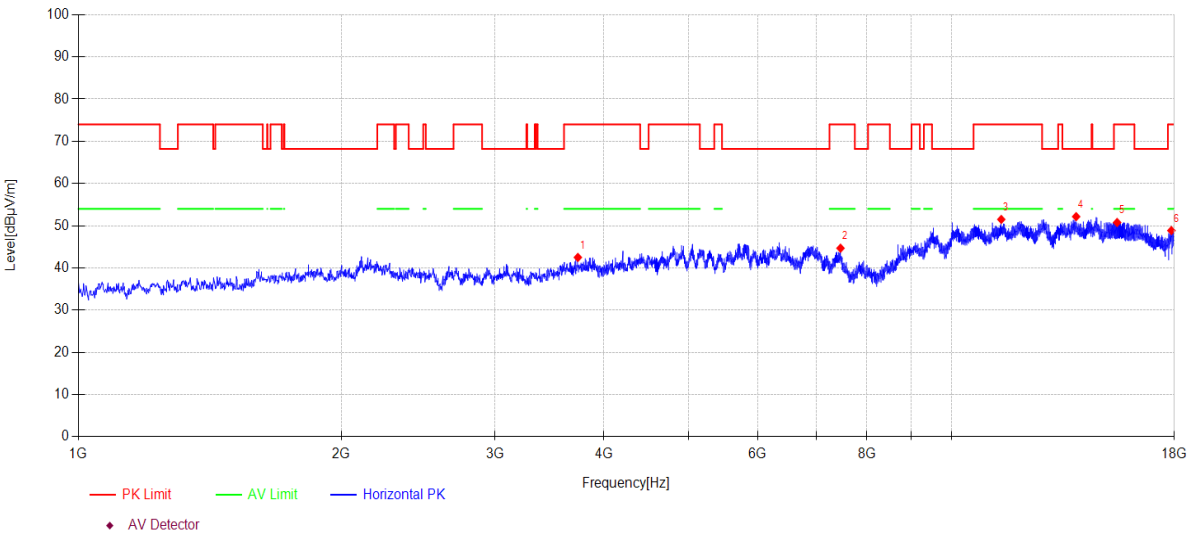
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3733.60	46.43	30.47	5.89	-40.29	42.50	74.00	31.50	PK	Horizontal
2	7463.40	41.08	36.57	8.89	-41.86	44.68	74.00	29.32	PK	Horizontal
3	11404.00	41.63	39.30	9.84	-39.28	51.49	74.00	22.51	PK	Horizontal
4	13892.80	40.72	40.39	10.72	-39.67	52.16	68.20	16.04	PK	Horizontal
5	15478.90	37.54	38.84	13.44	-39.05	50.77	74.00	23.23	PK	Horizontal
6	17858.90	36.79	41.45	12.71	-42.09	48.86	74.00	25.14	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

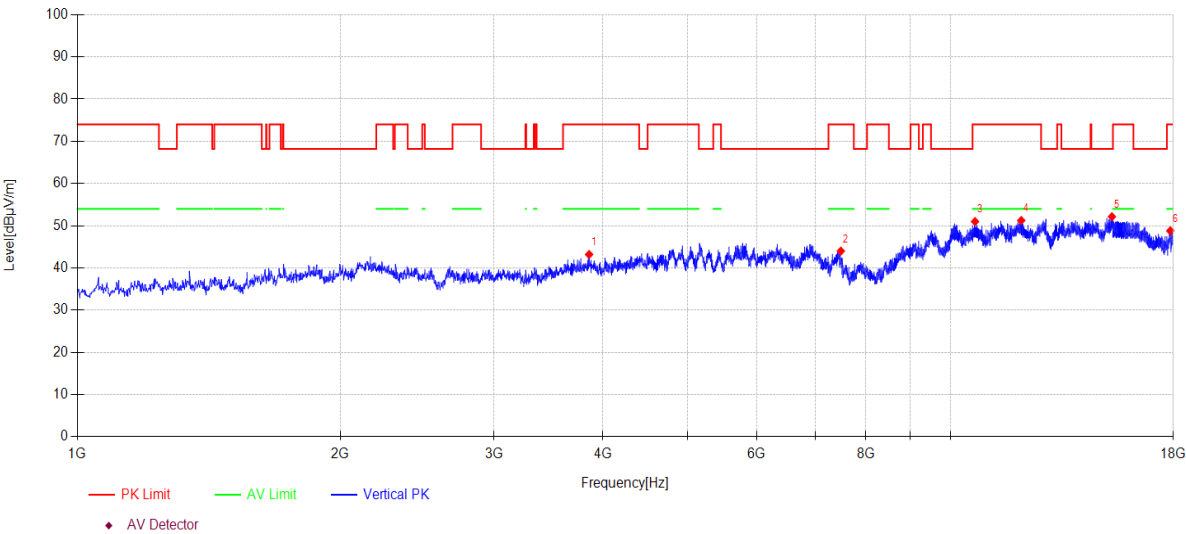
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	3856.00	46.64	30.94	5.97	-40.36	43.19	74.00	30.81	PK	Vertical
2	7488.90	40.51	36.52	8.88	-41.92	43.99	74.00	30.01	PK	Vertical
3	10669.60	41.14	39.34	9.49	-38.97	51.00	74.00	23.00	PK	Vertical
4	12051.70	41.25	39.25	10.32	-39.58	51.24	74.00	22.76	PK	Vertical
5	15308.90	38.77	39.73	12.59	-38.95	52.14	68.20	16.06	PK	Vertical
6	17855.50	36.76	41.41	12.71	-42.08	48.80	74.00	25.20	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

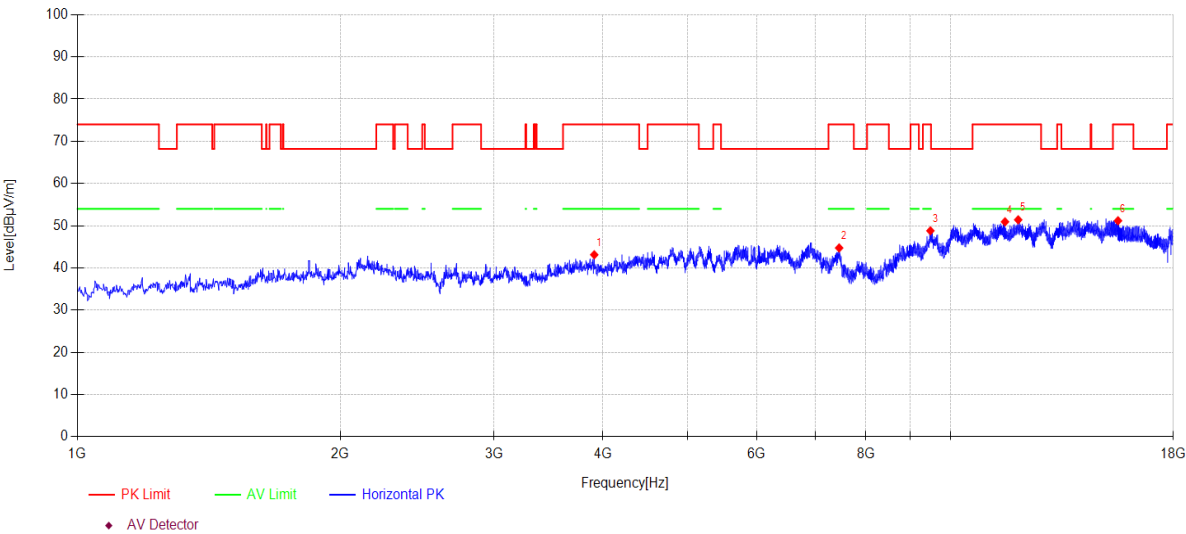
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\5

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3908.70	46.32	31.18	6.01	-40.39	43.12	74.00	30.88	PK	Horizontal
2	7456.60	41.10	36.59	8.89	-41.84	44.74	74.00	29.26	PK	Horizontal
3	9484.70	39.64	38.70	9.22	-38.76	48.80	74.00	25.20	PK	Horizontal
4	11546.80	41.21	39.11	9.96	-39.35	50.93	74.00	23.07	PK	Horizontal
5	11956.50	41.58	39.07	10.29	-39.54	51.40	74.00	22.60	PK	Horizontal
6	15555.40	37.75	38.69	13.83	-39.09	51.18	74.00	22.82	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

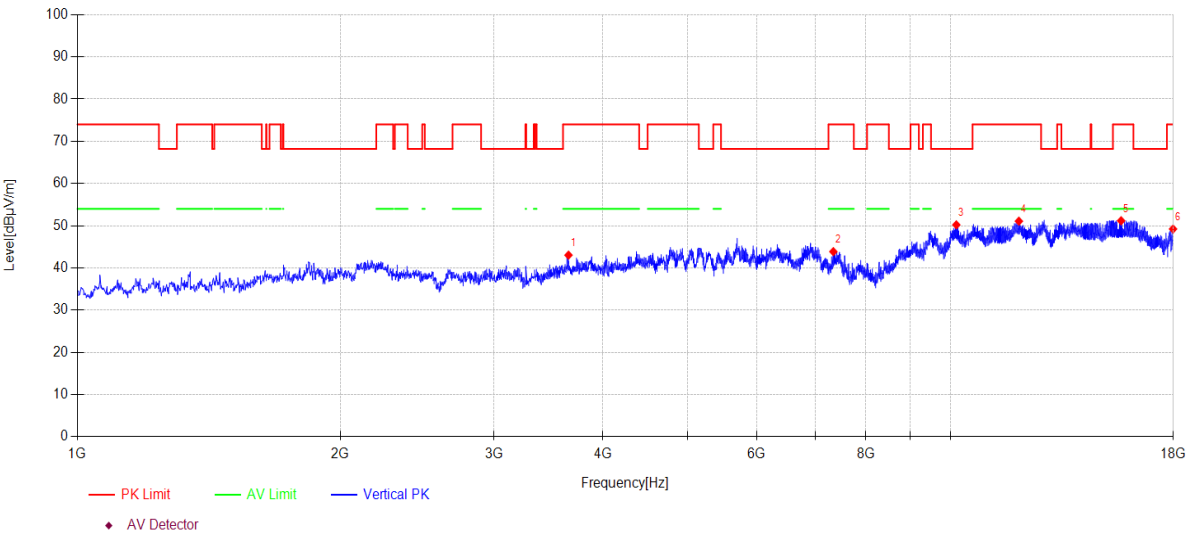
File Path:

d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\6

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	3652.00	47.23	30.21	5.83	-40.24	43.03	74.00	30.97	PK	Vertical
2	7342.70	39.70	36.81	8.91	-41.56	43.86	74.00	30.14	PK	Vertical
3	10156.20	40.79	38.76	9.44	-38.78	50.21	68.20	17.99	PK	Vertical
4	11978.60	41.19	39.14	10.30	-39.55	51.08	74.00	22.92	PK	Vertical
5	15682.90	37.36	38.52	14.47	-39.17	51.18	74.00	22.82	PK	Vertical
6	17986.40	36.42	42.33	12.84	-42.37	49.22	74.00	24.78	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

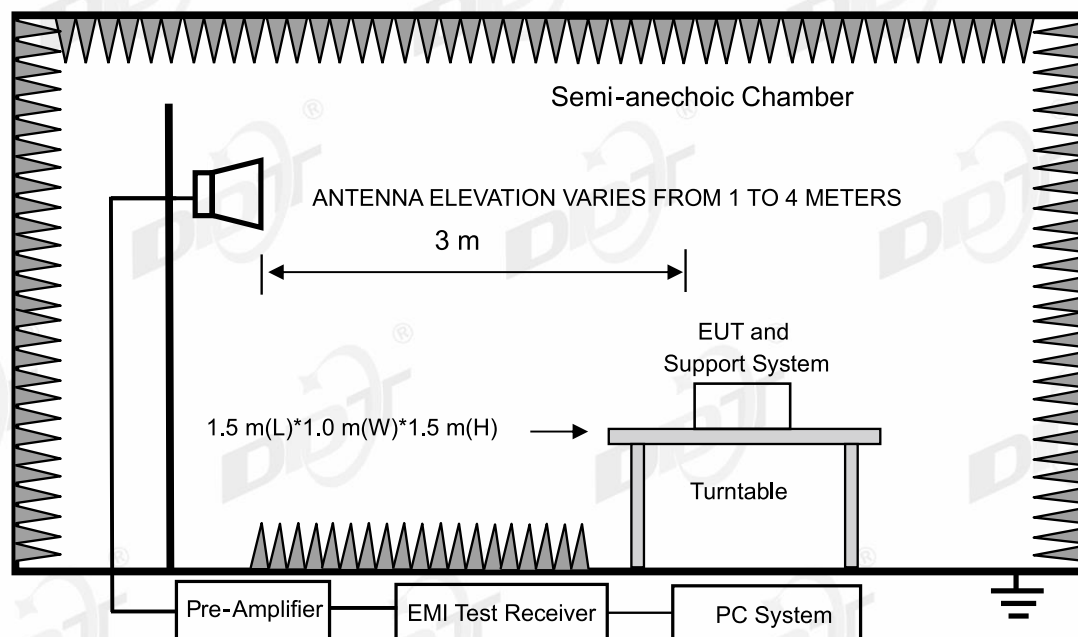
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

14. Band Edge Compliance

14.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
Micro-Tronics filters	REBES	BRM50702	DDT-ZC03242	/	NA
Pre-amplifier	COM-POWER	PAM-840A	DDT-ZC01693	2024/04/27	1 Year
High pass filter	Micro-Tronics	HPM50102	DDT-ZC00561	2024/05/14	1 Year
Pre-amplifier	COM-POWER	PAM-118A	DDT-ZC01293	2024/07/14	1 Year
RF cable	Yuhu Technology	ZT26S-SMAJ-SMAJ-1M	DDT-ZC02037	2024/04/23	1 Year
EMI TEST RECEIVER	R&S	ESU26	DDT-ZC01909	2024/04/23	1 Year
PSA Series Spectrum Analyzer	Agilent	E4447A	DDT-ZC00517	2024/04/23	1 Year
High Pass filter	XIANXINGBO	XBLBQ-GTA67	DDT-ZC02179	2024/05/14	1 Year
Micro-Tronics filters	REBES	BRM50716	DDT-ZC03240	/	NA
High pass filter	Micro-Tronics	HPM50108	DDT-ZC00560	2024/05/14	1 Year
RF cable	Yuhu Technology	JCTB810-NJ-NJ-9M	DDT-ZC02538	2024/04/23	1 Year
Active Loop Antenna	Schwarzbeck	FMZB1519	DDT-ZC00524	2024/09/10	1 Year
RF cable	Zhongke Junchuang	JCT26S-NJ-NJ-1.5M	DDT-ZC02762	2024/04/20	1 Year
RF Cable	N/A	W24.02 HL-562	DDT-ZC04022	2024/04/21	1 Year
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	DDT-ZC00506	2024/04/26	1 Year
RF Cable	N/A	W13.02 AP1-X2	DDT-ZC04023	2024/04/21	1 Year
Hochgewinn-Hornantenne	Schwarzbeck Mess-Elektronik	BBHA 9120 D	DDT-ZC02129	2024/09/17	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB 9163	DDT-ZC02050	2024/07/11	1 Year

14.2. Block diagram of test setup



14.3. Limits

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating solely in the 5.725-5.850 GHz band:
All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

14.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	other
DC Power Source	Varied	RU-150-150010B	/

14.5. Test procedure

Same with Emissions in Restricted Frequency Bands except change investigated frequency range from 5.15-5.25 GHz, 5250-5350 GHz, 5470-5725 GHz, 5.725-5.85 GHz.

Remark: All restriction band have been tested, and only the worst case is shown in report.

14.6. Test result

PASS. (See below detailed test result)

14.7. Test data

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

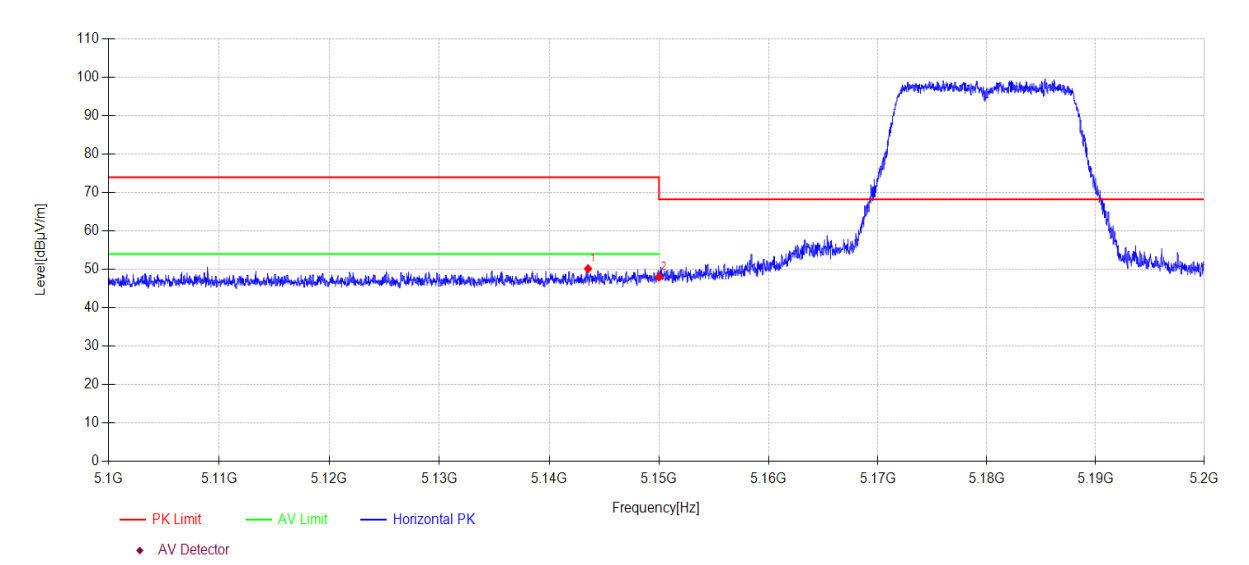
File Path:

d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5GWIFI7

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5143.53	11.20	33.40	5.58	0.00	50.18	74.00	23.82	PK	Horizontal
2	5150.00	9.02	33.40	5.59	0.00	48.01	68.20	20.19	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

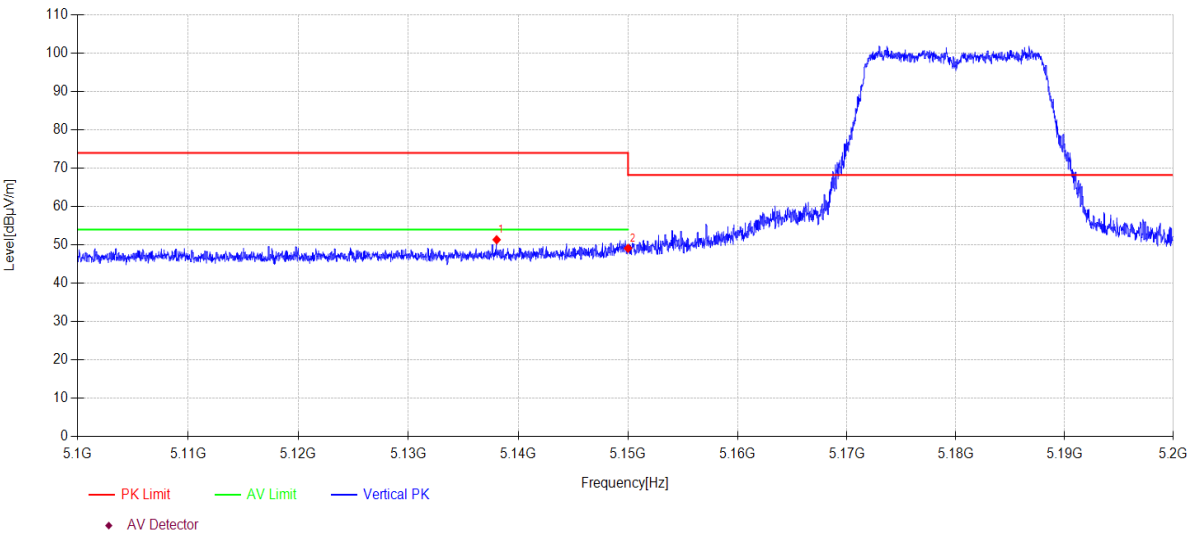
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5GWIFI8

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5138.03	12.37	33.40	5.58	0.00	51.35	74.00	22.65	PK	Vertical
2	5150.00	10.13	33.40	5.59	0.00	49.12	68.20	19.08	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

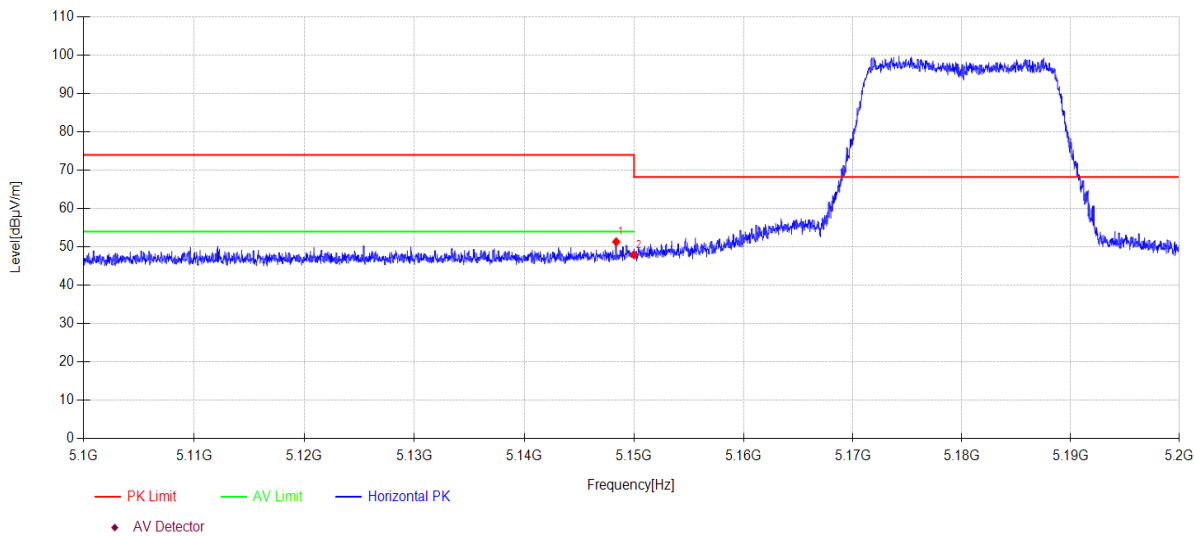
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5148.38	12.35	33.40	5.58	0.00	51.33	74.00	22.67	PK	Horizontal
2	5150.00	8.96	33.40	5.59	0.00	47.95	68.20	20.25	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

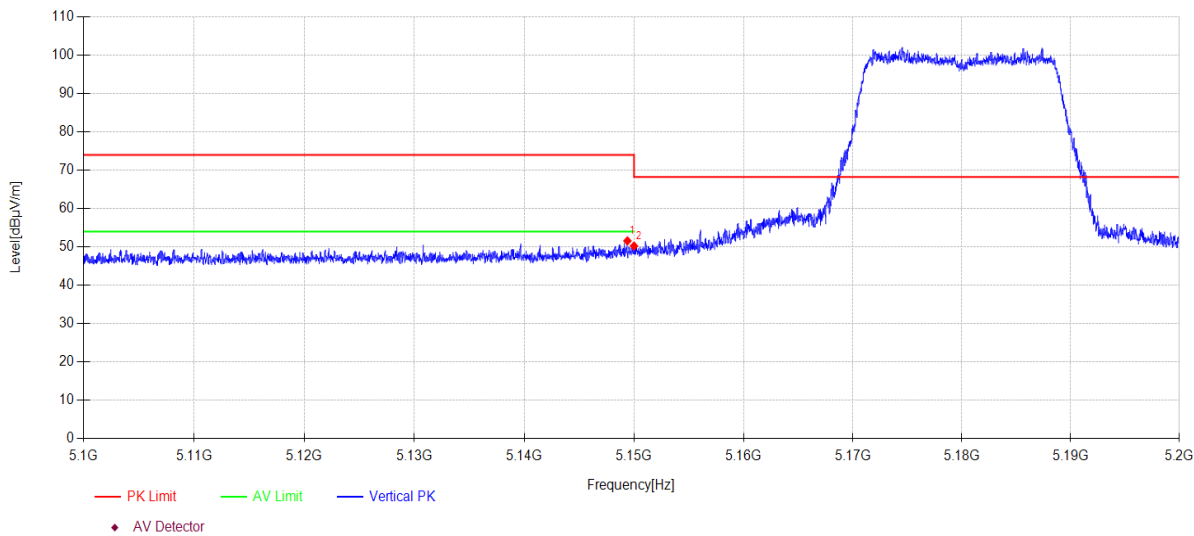
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5149.40	12.60	33.40	5.58	0.00	51.58	74.00	22.42	PK	Vertical
2	5150.00	11.24	33.40	5.59	0.00	50.23	68.20	17.97	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

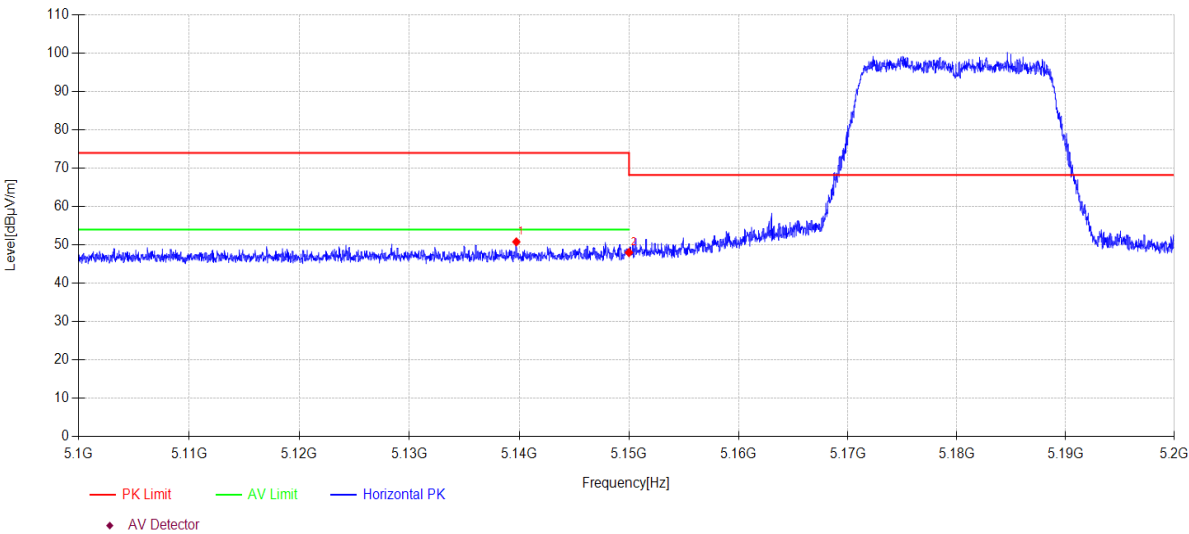
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5GWIFI11

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5139.73	11.82	33.40	5.58	0.00	50.80	74.00	23.20	PK	Horizontal
2	5150.00	9.02	33.40	5.59	0.00	48.01	68.20	20.19	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5180MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

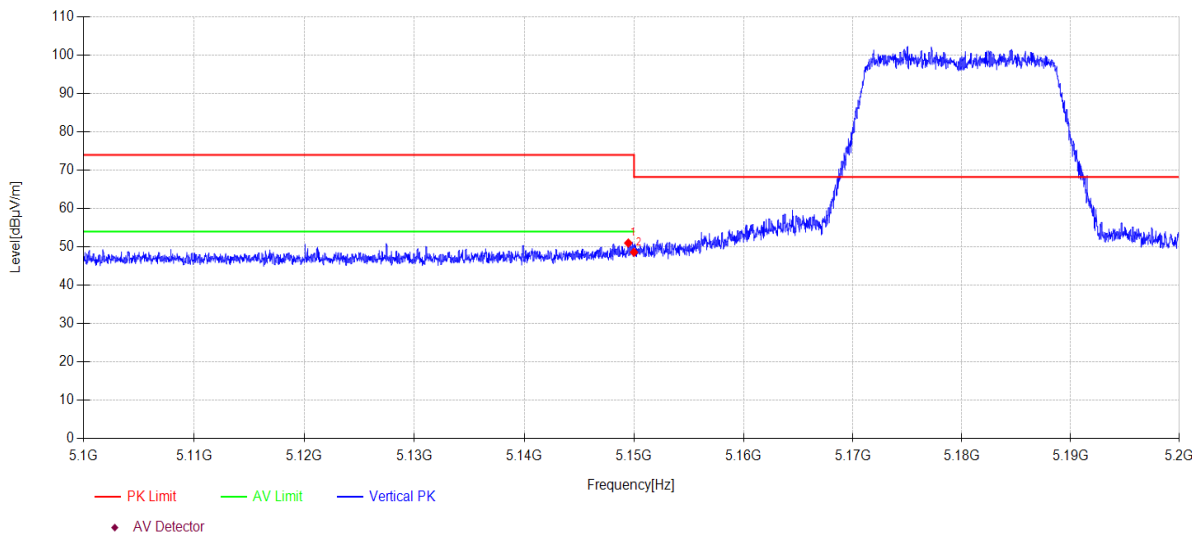
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5149.48	12.03	33.40	5.58	0.00	51.01	74.00	22.99	PK	Vertical
2	5150.00	9.62	33.40	5.59	0.00	48.61	68.20	19.59	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5190MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

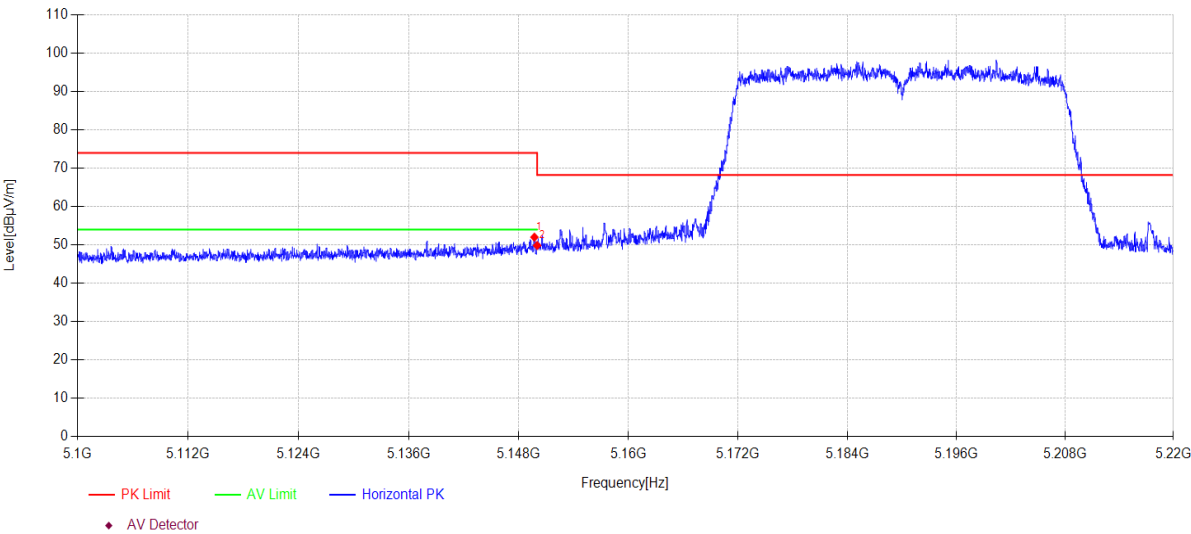
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5149.70	13.04	33.40	5.58	0.00	52.02	74.00	21.98	PK	Horizontal
2	5150.00	10.86	33.40	5.59	0.00	49.85	68.20	18.35	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5190MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

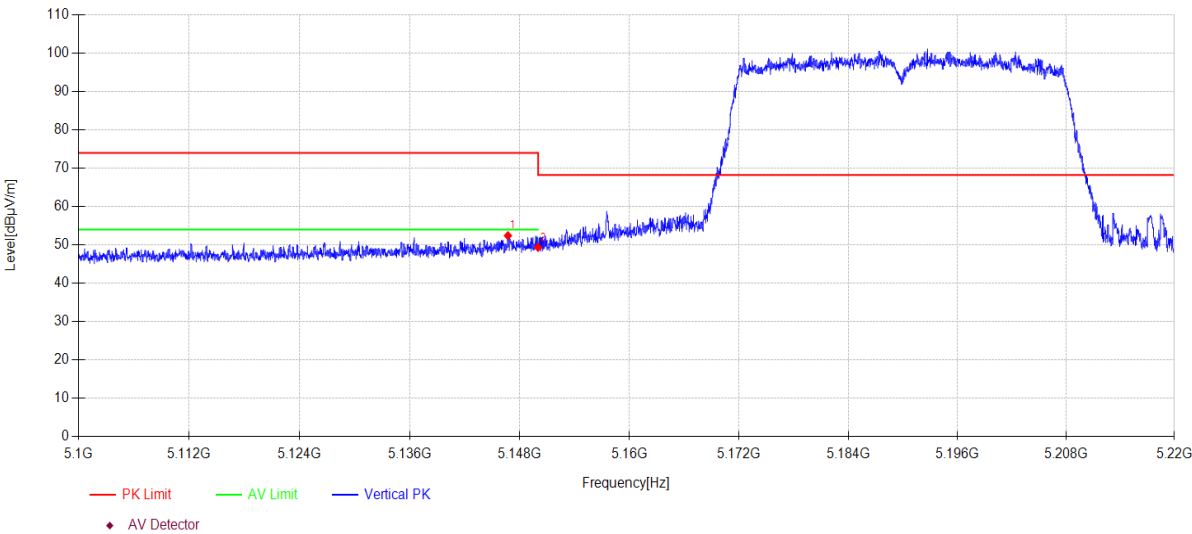
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5146.70	13.42	33.40	5.58	0.00	52.40	74.00	21.60	PK	Vertical
2	5150.00	10.36	33.40	5.59	0.00	49.35	68.20	18.85	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5190MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

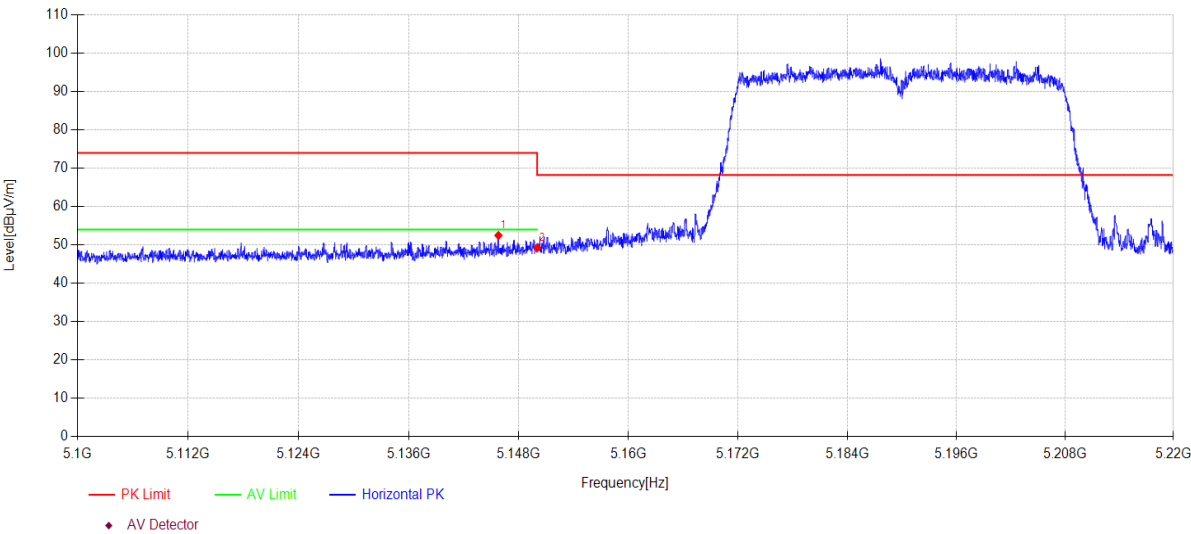
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5145.78	13.49	33.40	5.58	0.00	52.47	74.00	21.53	PK	Horizontal
2	5150.00	10.23	33.40	5.59	0.00	49.22	68.20	18.98	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5190MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

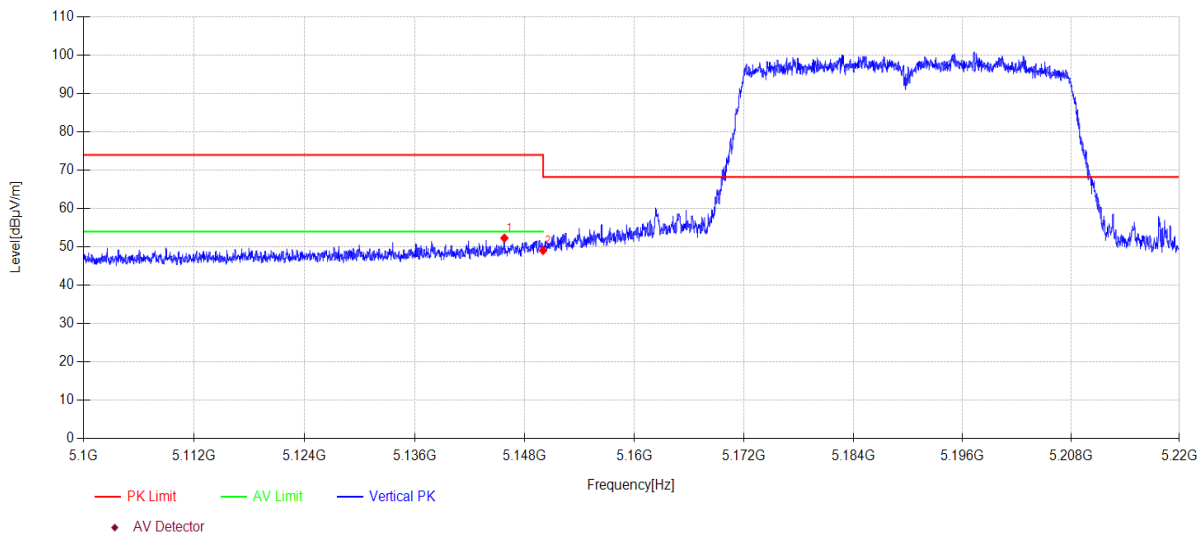
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5145.77	13.32	33.40	5.58	0.00	52.30	74.00	21.70	PK	Vertical
2	5150.00	10.08	33.40	5.59	0.00	49.07	68.20	19.13	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC80 5210MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

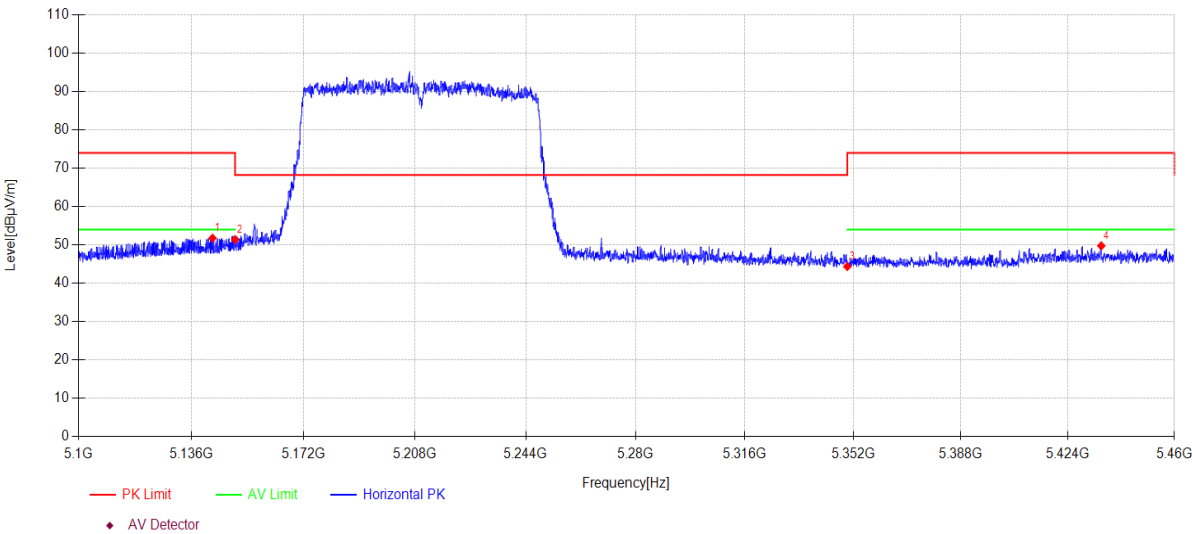
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5142.77	12.78	33.40	5.58	0.00	51.76	74.00	22.24	PK	Horizontal
2	5150.00	12.41	33.40	5.59	0.00	51.40	68.20	16.80	PK	Horizontal
3	5350.00	5.59	33.10	5.69	0.00	44.38	74.00	29.62	PK	Horizontal
4	5435.23	11.01	33.03	5.73	0.00	49.77	74.00	24.23	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC80 5210MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

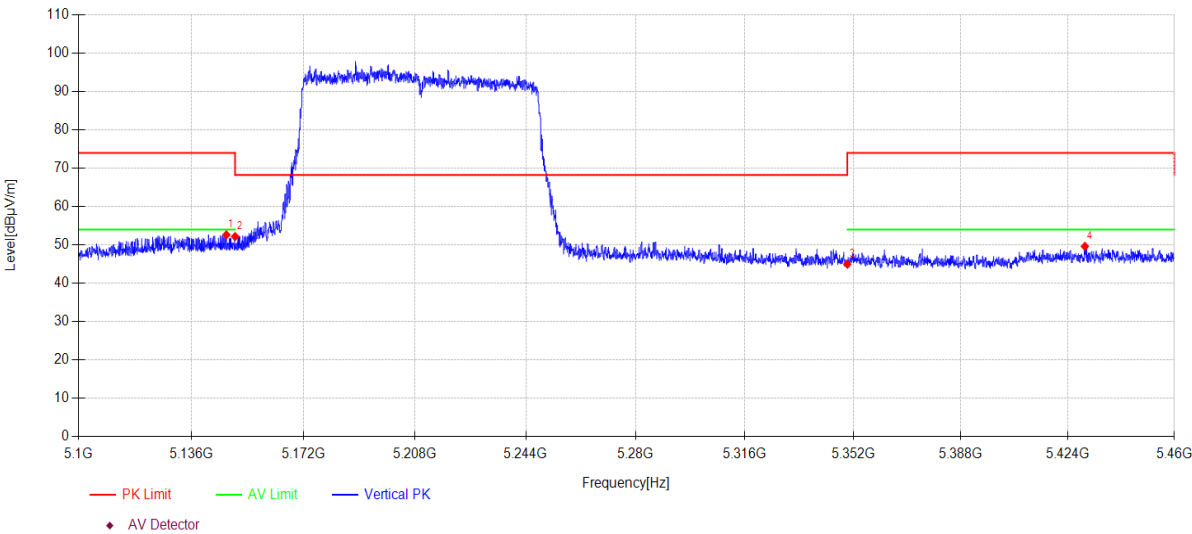
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5GWIFI18

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Detector	Polarity
1	5147.20	13.65	33.40	5.58	0.00	52.63	74.00	21.37	PK	Vertical
2	5150.00	13.18	33.40	5.59	0.00	52.17	68.20	16.03	PK	Vertical
3	5350.00	6.18	33.10	5.69	0.00	44.97	74.00	29.03	PK	Vertical
4	5429.69	10.87	33.04	5.72	0.00	49.63	74.00	24.37	PK	Vertical

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

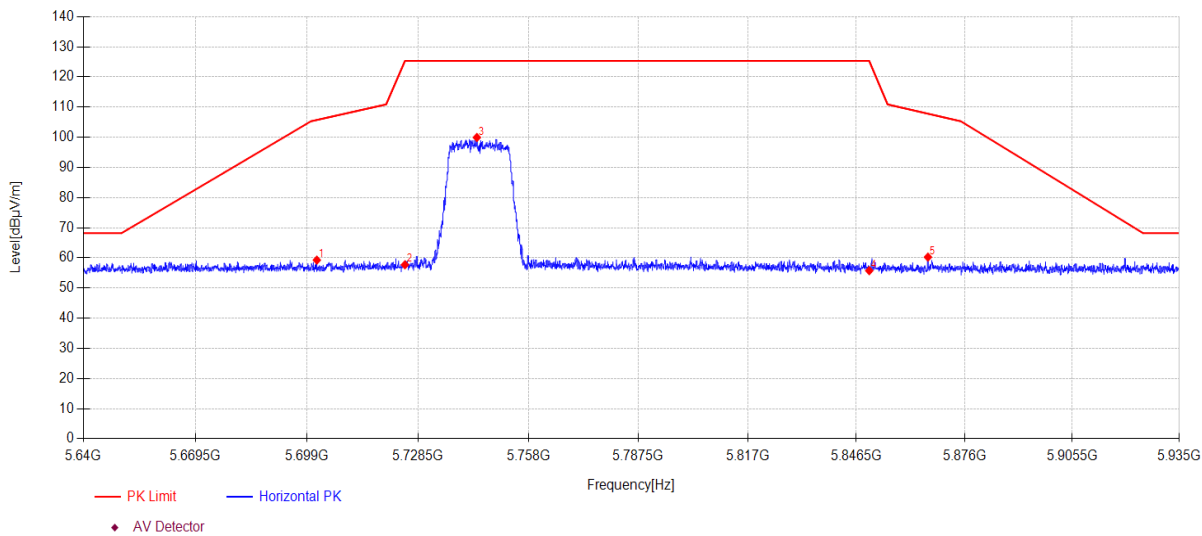
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\7

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5701.60	19.80	33.61	5.86	0.00	59.27	105.75	46.48	PK	Horizontal
2	5725.00	18.09	33.75	5.87	0.00	57.71	125.30	67.59	PK	Horizontal
3	5744.19	60.19	33.87	5.88	0.00	99.94	125.30	25.36	PK	Horizontal
4	5850.00	15.82	34.00	5.94	0.00	55.76	125.27	69.51	PK	Horizontal
5	5866.00	20.29	34.03	5.94	0.00	60.26	107.82	47.56	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

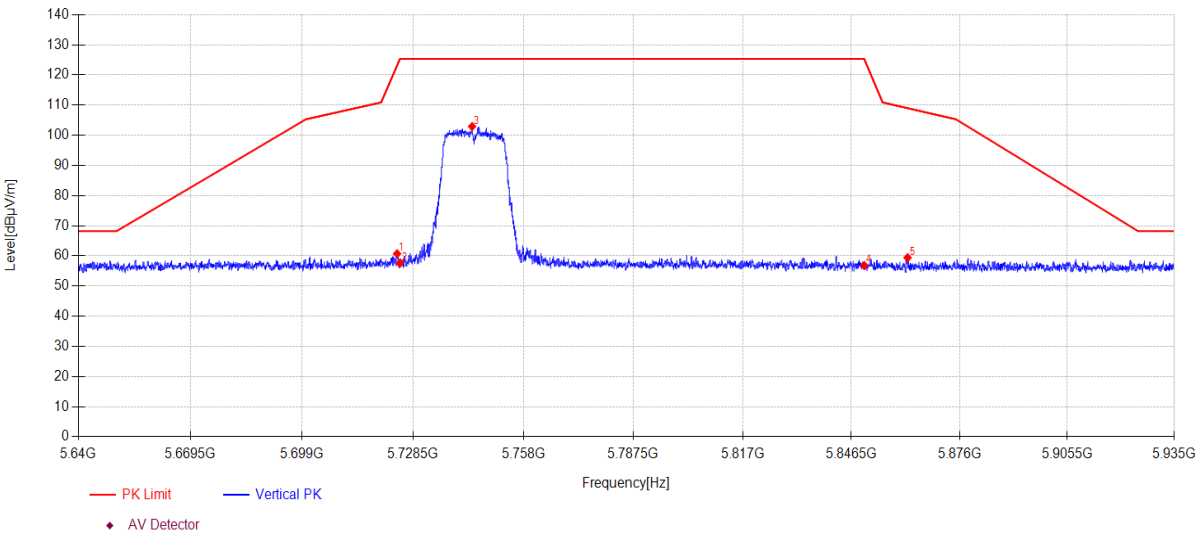
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5724.25	21.09	33.75	5.87	0.00	60.71	123.15	62.44	PK	Vertical
2	5725.00	17.90	33.75	5.87	0.00	57.52	125.30	67.78	PK	Vertical
3	5744.25	63.16	33.87	5.88	0.00	102.91	125.30	22.39	PK	Vertical
4	5850.00	16.89	34.00	5.94	0.00	56.83	125.27	68.44	PK	Vertical
5	5861.81	19.45	34.02	5.94	0.00	59.41	108.99	49.58	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

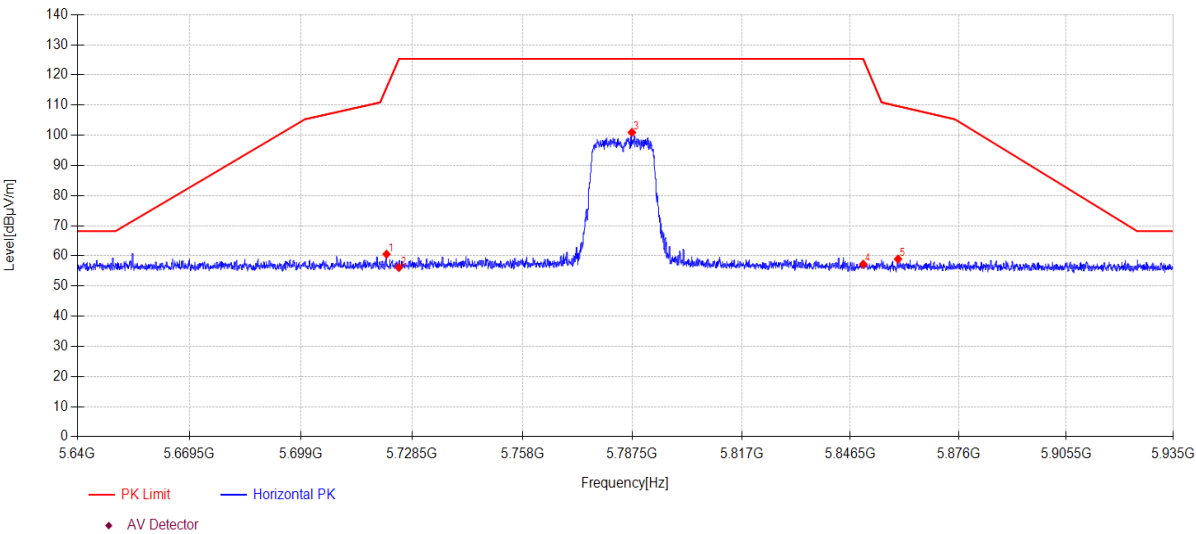
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5721.72	20.96	33.73	5.87	0.00	60.56	115.84	55.28	PK	Horizontal
2	5725.00	16.55	33.75	5.87	0.00	56.17	125.30	69.13	PK	Horizontal
3	5787.38	60.93	34.12	5.90	0.00	100.95	125.30	24.35	PK	Horizontal
4	5850.00	17.30	34.00	5.94	0.00	57.24	125.27	68.03	PK	Horizontal
5	5859.48	18.98	34.02	5.94	0.00	58.94	109.65	50.71	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

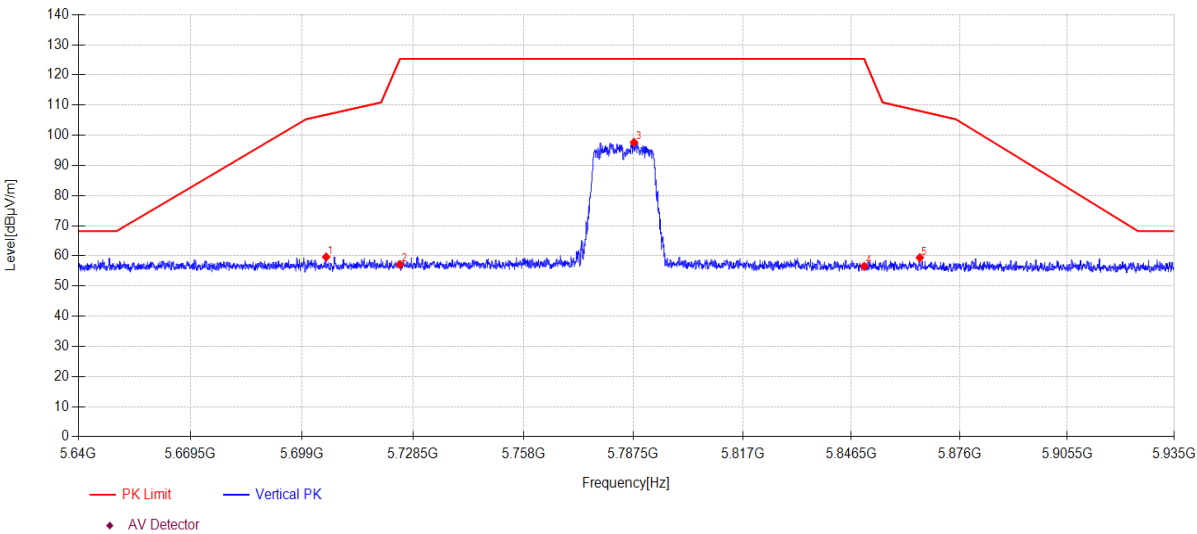
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5705.40	20.14	33.63	5.86	0.00	59.63	106.81	47.18	PK	Vertical
2	5725.00	17.54	33.75	5.87	0.00	57.16	125.30	68.14	PK	Vertical
3	5787.68	57.62	34.13	5.90	0.00	97.65	125.30	27.65	PK	Vertical
4	5850.00	16.58	34.00	5.94	0.00	56.52	125.27	68.75	PK	Vertical
5	5865.14	19.43	34.03	5.94	0.00	59.40	108.06	48.66	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

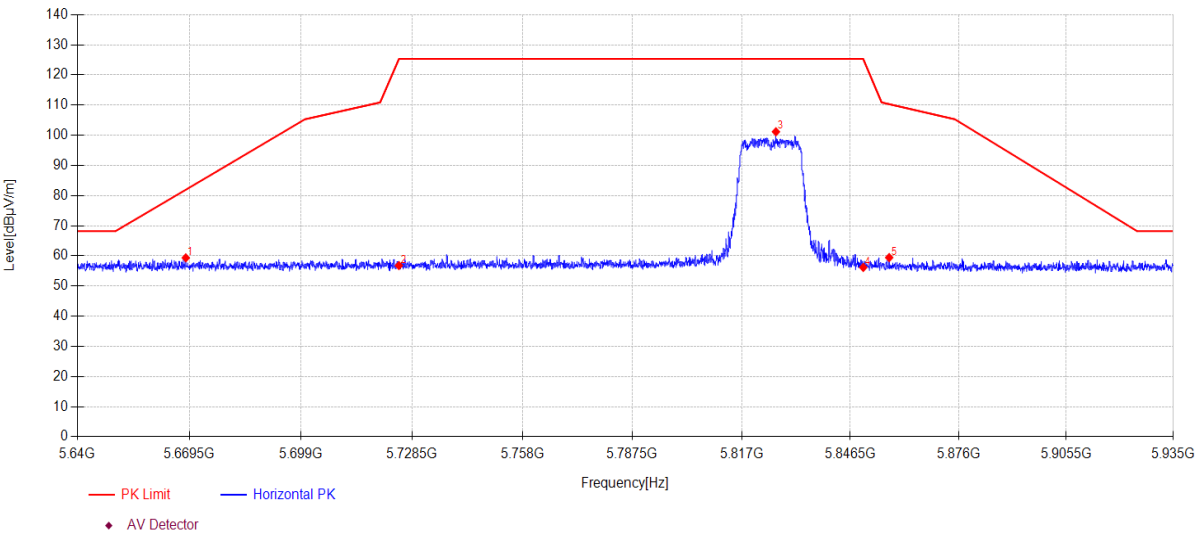
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5668.53	20.04	33.47	5.84	0.00	59.35	81.95	22.60	PK	Horizontal
2	5725.00	17.17	33.75	5.87	0.00	56.79	125.30	68.51	PK	Horizontal
3	5826.29	61.16	34.09	5.92	0.00	101.17	125.30	24.13	PK	Horizontal
4	5850.00	16.23	34.00	5.94	0.00	56.17	125.27	69.10	PK	Horizontal
5	5857.06	19.48	34.01	5.94	0.00	59.43	110.32	50.89	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11A 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

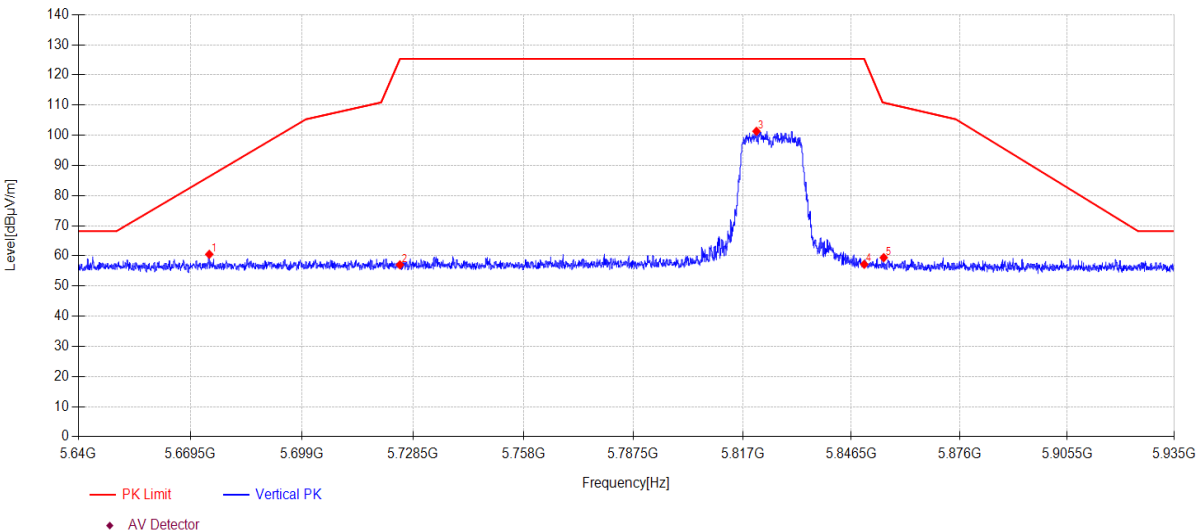
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5674.46	21.16	33.50	5.85	0.00	60.51	86.35	25.84	PK	Vertical
2	5725.00	17.42	33.75	5.87	0.00	57.04	125.30	68.26	PK	Vertical
3	5820.75	61.28	34.12	5.92	0.00	101.32	125.30	23.98	PK	Vertical
4	5850.00	17.26	34.00	5.94	0.00	57.20	125.27	68.07	PK	Vertical
5	5855.32	19.47	34.01	5.94	0.00	59.42	110.81	51.39	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

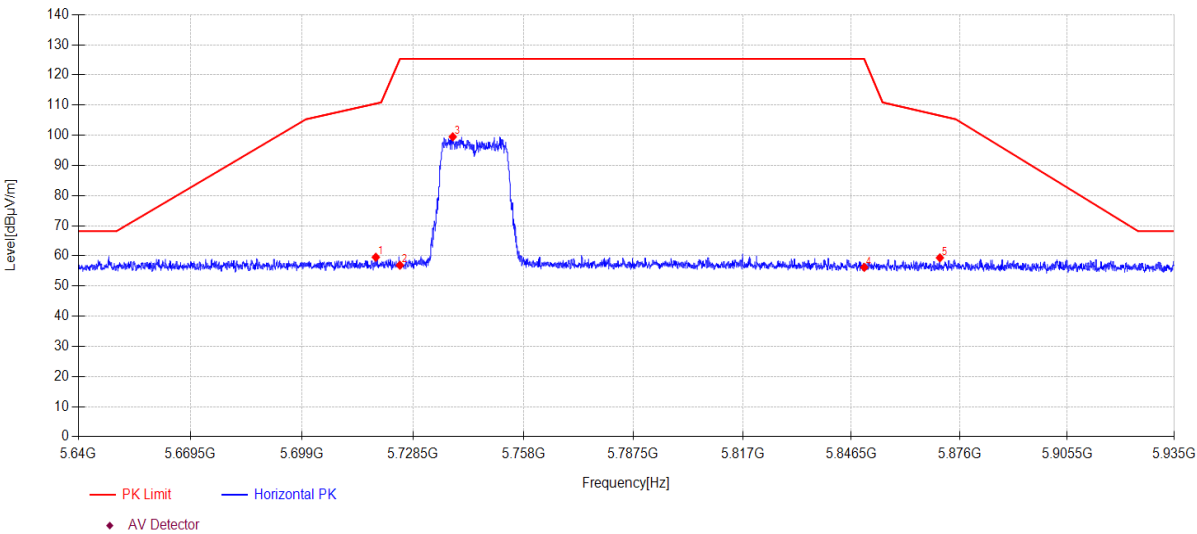
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5718.59	19.97	33.71	5.87	0.00	59.55	110.50	50.95	PK	Horizontal
2	5725.00	17.28	33.75	5.87	0.00	56.90	125.30	68.40	PK	Horizontal
3	5739.09	59.78	33.83	5.88	0.00	99.49	125.30	25.81	PK	Horizontal
4	5850.00	16.26	34.00	5.94	0.00	56.20	125.27	69.07	PK	Horizontal
5	5870.63	19.37	34.04	5.95	0.00	59.36	106.52	47.16	PK	Horizontal

Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

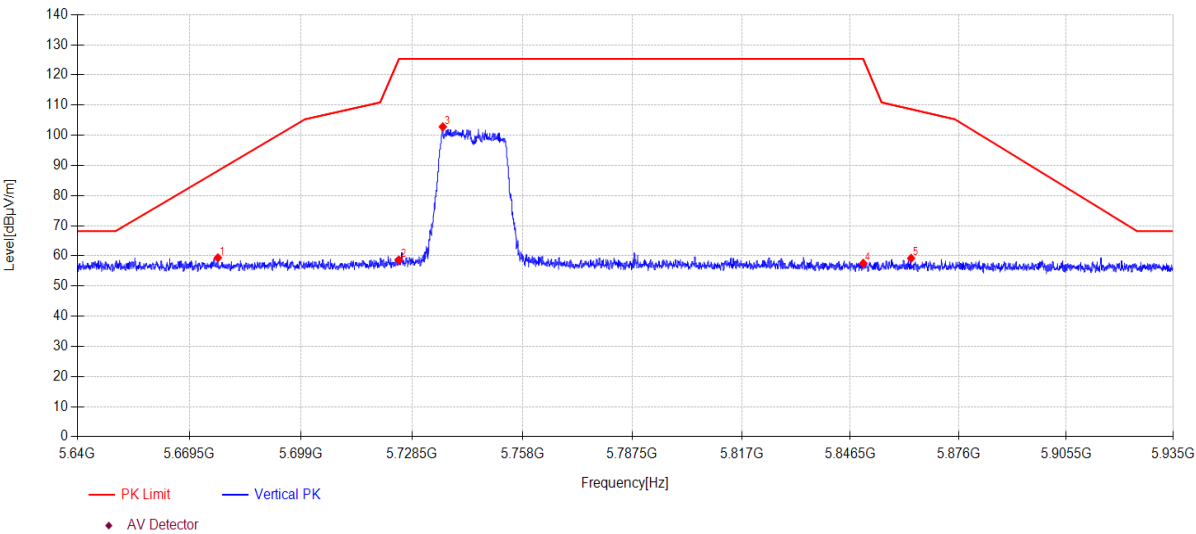
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5676.99	20.01	33.51	5.85	0.00	59.37	88.23	28.86	PK	Vertical
2	5725.00	19.02	33.75	5.87	0.00	58.64	125.30	66.66	PK	Vertical
3	5736.70	63.10	33.82	5.88	0.00	102.80	125.30	22.50	PK	Vertical
4	5850.00	17.60	34.00	5.94	0.00	57.54	125.27	67.73	PK	Vertical
5	5863.05	19.23	34.03	5.94	0.00	59.20	108.65	49.45	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-25

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

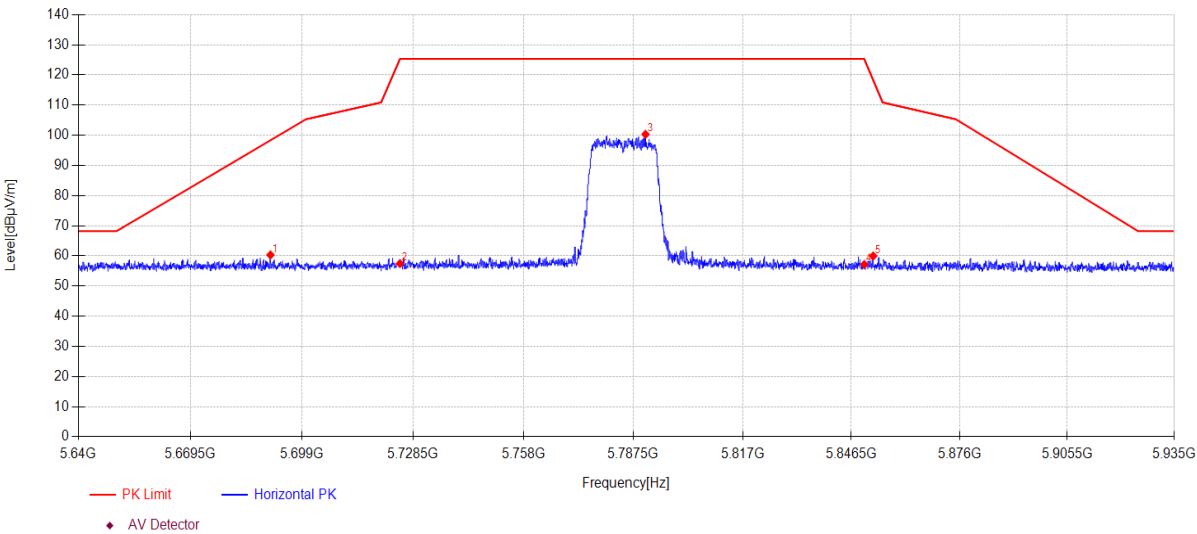
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5690.62	20.88	33.56	5.86	0.00	60.30	98.34	38.04	PK	Horizontal
2	5725.00	17.83	33.75	5.87	0.00	57.45	125.30	67.85	PK	Horizontal
3	5790.77	60.25	34.14	5.91	0.00	100.30	125.30	25.00	PK	Horizontal
4	5850.00	17.20	34.00	5.94	0.00	57.14	125.27	68.13	PK	Horizontal
5	5852.43	20.01	34.00	5.94	0.00	59.95	118.30	58.35	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

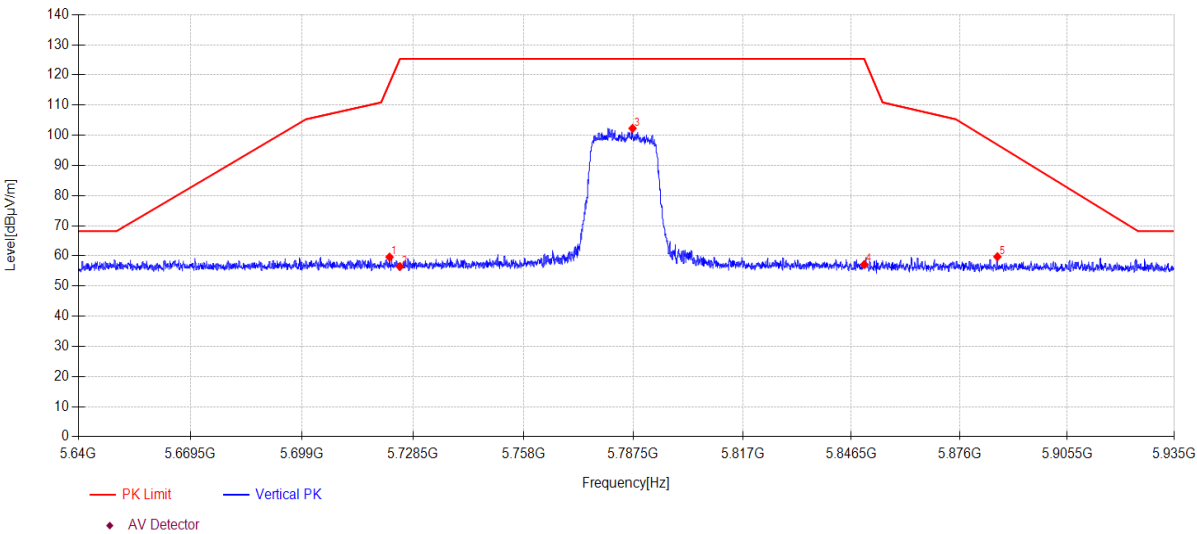
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5722.25	19.99	33.73	5.87	0.00	59.59	117.37	57.78	PK	Vertical
2	5725.00	16.86	33.75	5.87	0.00	56.48	125.30	68.82	PK	Vertical
3	5787.29	62.28	34.12	5.90	0.00	102.30	125.30	23.00	PK	Vertical
4	5850.00	17.18	34.00	5.94	0.00	57.12	125.27	68.15	PK	Vertical
5	5886.35	19.70	34.07	5.95	0.00	59.72	96.87	37.15	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

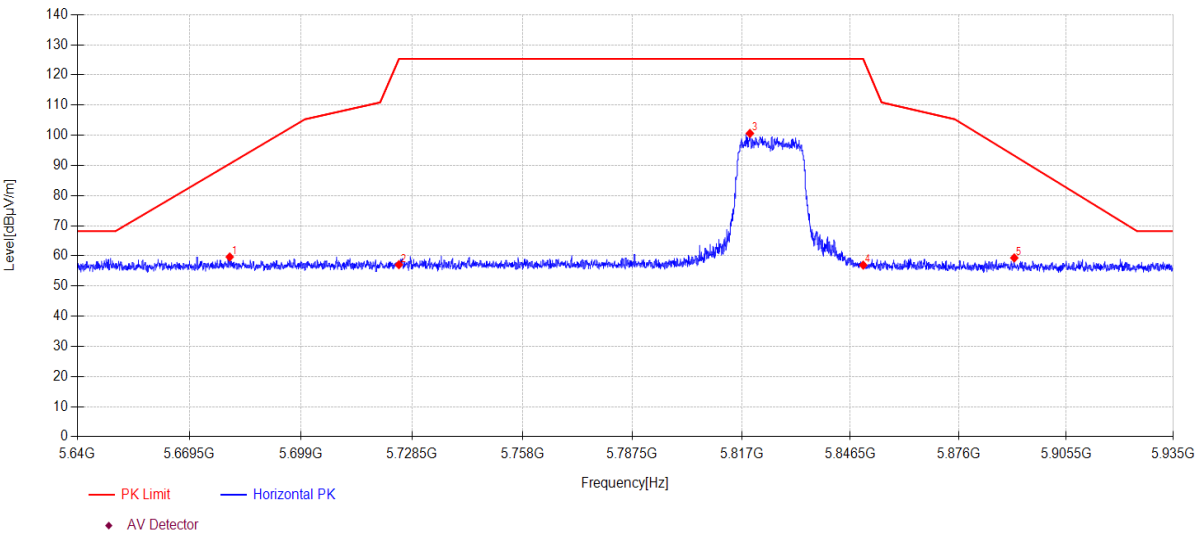
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5680.12	20.27	33.52	5.85	0.00	59.64	90.55	30.91	PK	Horizontal
2	5725.00	17.47	33.75	5.87	0.00	57.09	125.30	68.21	PK	Horizontal
3	5819.24	60.58	34.12	5.92	0.00	100.62	125.30	24.68	PK	Horizontal
4	5850.00	16.99	34.00	5.94	0.00	56.93	125.27	68.34	PK	Horizontal
5	5891.25	19.29	34.08	5.96	0.00	59.33	93.24	33.91	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N20 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

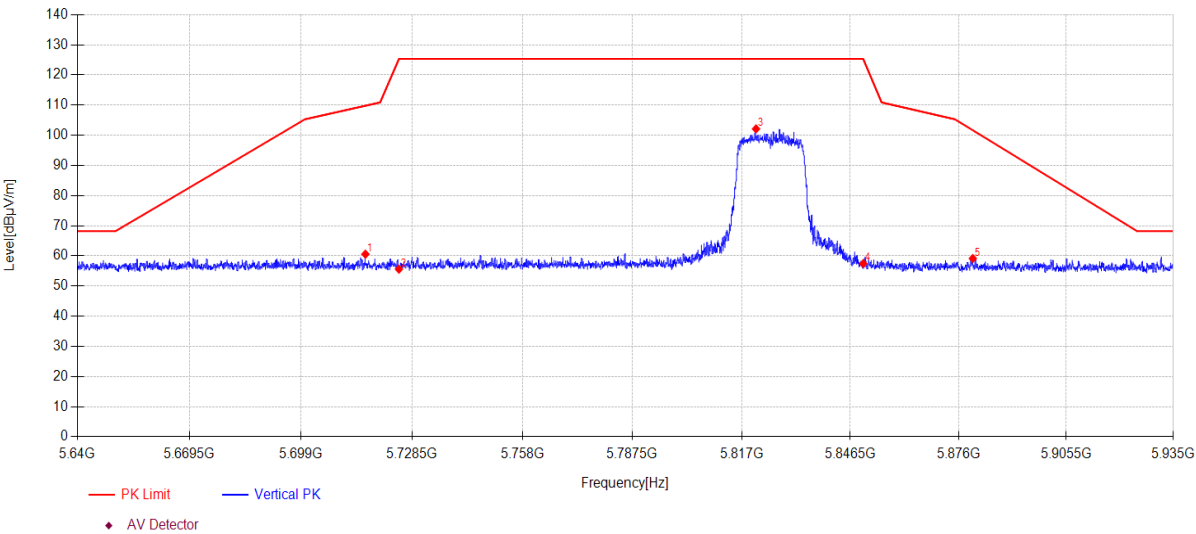
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5716.08	20.99	33.70	5.87	0.00	60.56	109.80	49.24	PK	Vertical
2	5725.00	15.96	33.75	5.87	0.00	55.58	125.30	69.72	PK	Vertical
3	5820.89	62.08	34.12	5.92	0.00	102.12	125.30	23.18	PK	Vertical
4	5850.00	17.49	34.00	5.94	0.00	57.43	125.27	67.84	PK	Vertical
5	5879.89	19.13	34.06	5.95	0.00	59.14	101.67	42.53	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

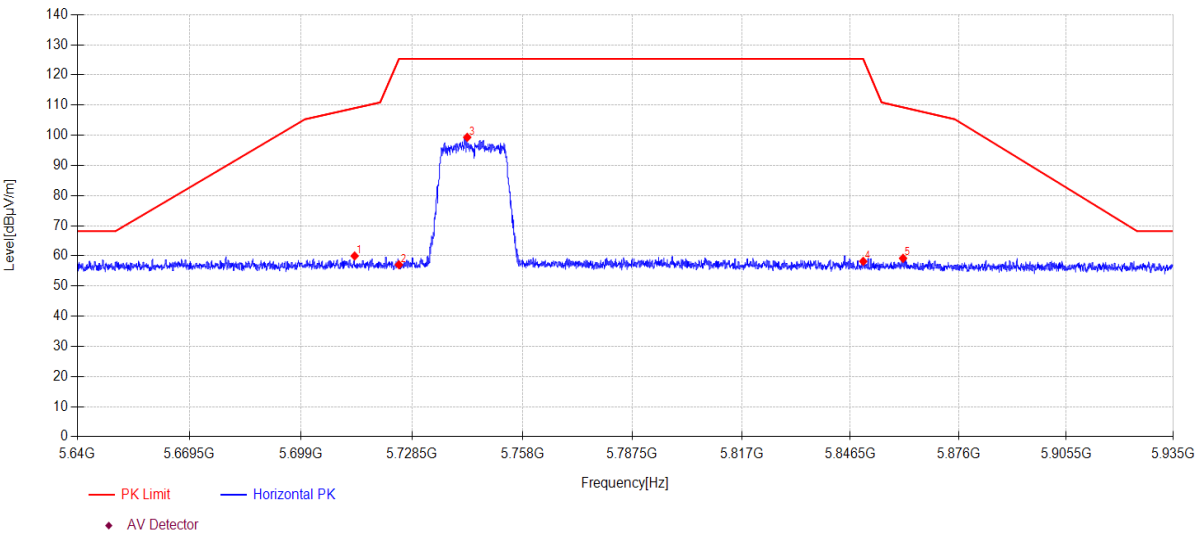
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5713.22	20.42	33.68	5.87	0.00	59.97	109.00	49.03	PK	Horizontal
2	5725.00	17.44	33.75	5.87	0.00	57.06	125.30	68.24	PK	Horizontal
3	5743.22	59.59	33.86	5.88	0.00	99.33	125.30	25.97	PK	Horizontal
4	5850.00	18.25	34.00	5.94	0.00	58.19	125.27	67.08	PK	Horizontal
5	5860.84	19.24	34.02	5.94	0.00	59.20	109.27	50.07	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5745MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

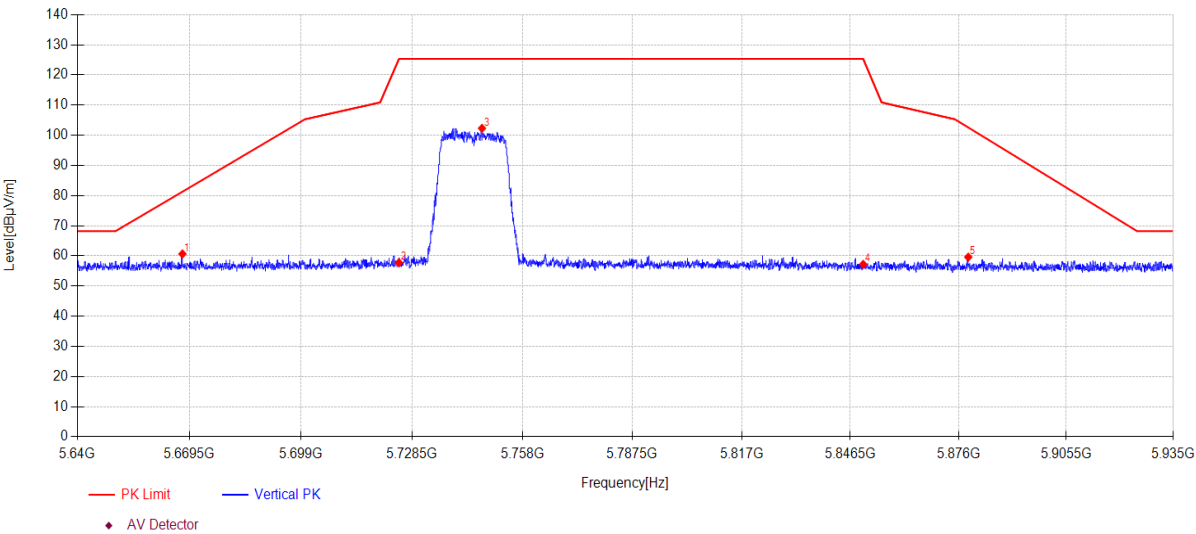
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d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\20

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5667.64	21.34	33.47	5.84	0.00	60.65	81.29	20.64	PK	Vertical
2	5725.00	18.08	33.75	5.87	0.00	57.70	125.30	67.60	PK	Vertical
3	5747.17	62.57	33.88	5.88	0.00	102.33	125.30	22.97	PK	Vertical
4	5850.00	17.25	34.00	5.94	0.00	57.19	125.27	68.08	PK	Vertical
5	5878.66	19.58	34.06	5.95	0.00	59.59	102.59	43.00	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

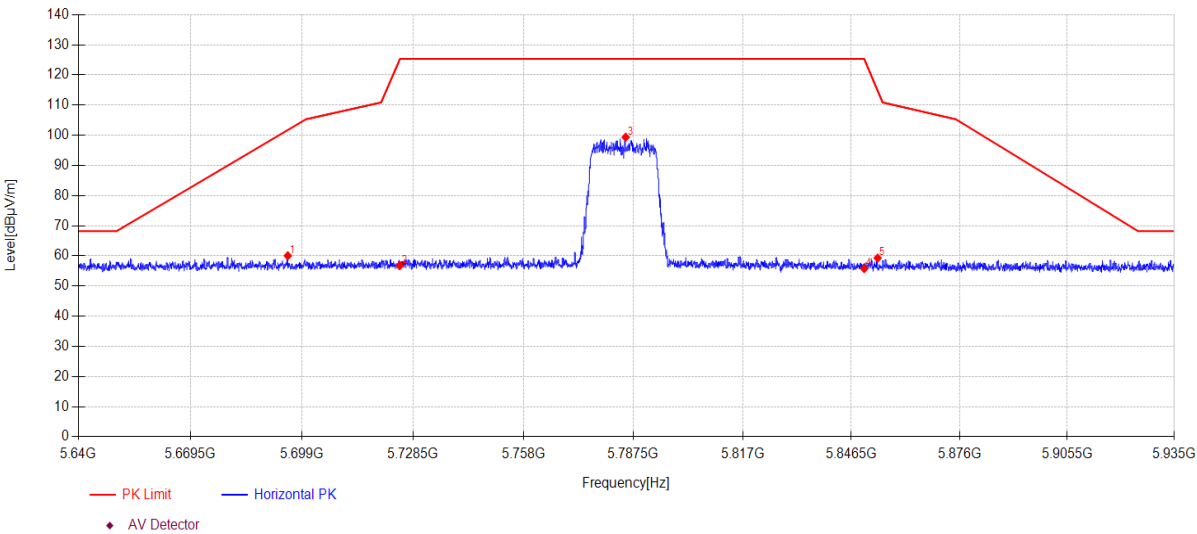
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5695.22	20.59	33.58	5.86	0.00	60.03	101.76	41.73	PK	Horizontal
2	5725.00	17.18	33.75	5.87	0.00	56.80	125.30	68.50	PK	Horizontal
3	5785.44	59.36	34.11	5.90	0.00	99.37	125.30	25.93	PK	Horizontal
4	5850.00	15.83	34.00	5.94	0.00	55.77	125.27	69.50	PK	Horizontal
5	5853.64	19.33	34.01	5.94	0.00	59.28	114.82	55.54	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5785MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

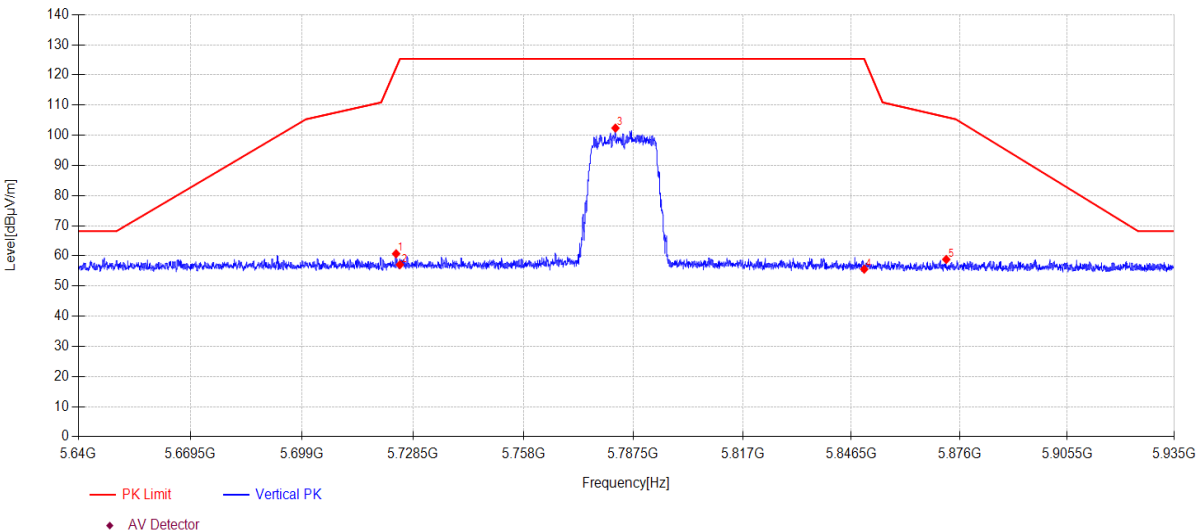
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5723.99	21.09	33.74	5.87	0.00	60.70	122.38	61.68	PK	Vertical
2	5725.00	17.46	33.75	5.87	0.00	57.08	125.30	68.22	PK	Vertical
3	5782.69	62.38	34.10	5.90	0.00	102.38	125.30	22.92	PK	Vertical
4	5850.00	15.65	34.00	5.94	0.00	55.59	125.27	69.68	PK	Vertical
5	5872.37	18.83	34.04	5.95	0.00	58.82	106.04	47.22	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

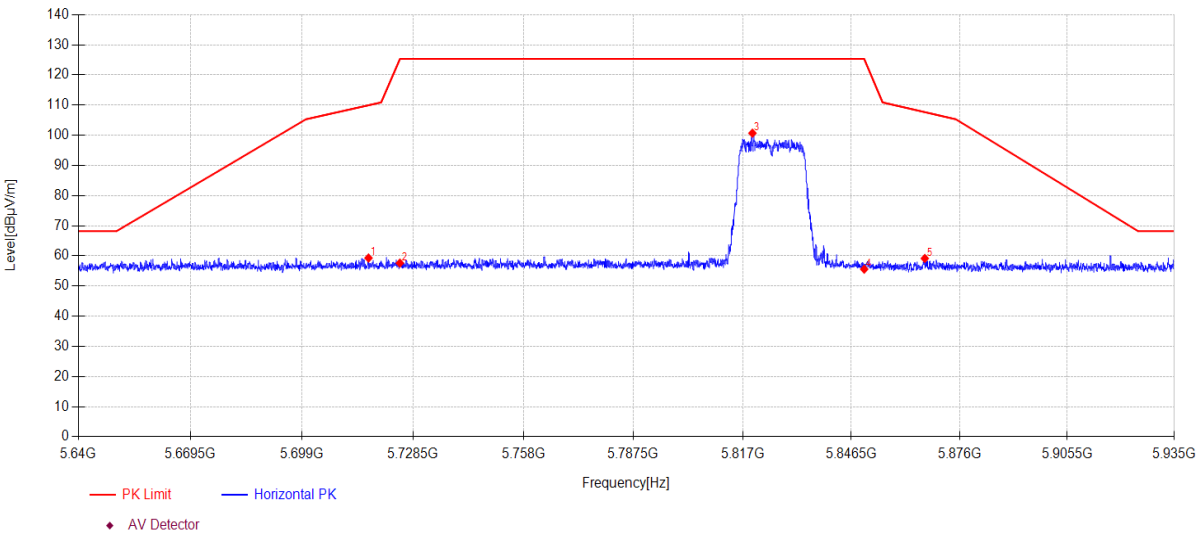
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5716.64	19.73	33.70	5.87	0.00	59.30	109.96	50.66	PK	Horizontal
2	5725.00	17.99	33.75	5.87	0.00	57.61	125.30	67.69	PK	Horizontal
3	5819.66	60.65	34.12	5.92	0.00	100.69	125.30	24.61	PK	Horizontal
4	5850.00	15.64	34.00	5.94	0.00	55.58	125.27	69.69	PK	Horizontal
5	5866.50	19.18	34.03	5.94	0.00	59.15	107.68	48.53	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC20 5825MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

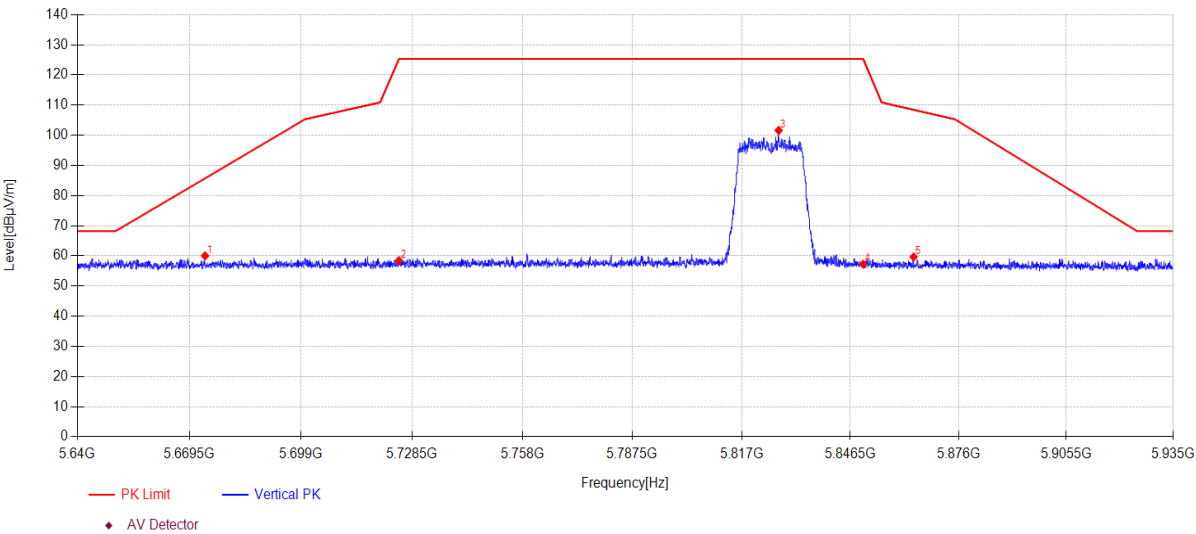
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5673.60	20.68	33.49	5.85	0.00	60.02	85.71	25.69	PK	Vertical
2	5725.00	18.81	33.75	5.87	0.00	58.43	125.30	66.87	PK	Vertical
3	5827.03	61.60	34.09	5.92	0.00	101.61	125.30	23.69	PK	Vertical
4	5850.00	17.30	34.00	5.94	0.00	57.24	125.27	68.03	PK	Vertical
5	5863.73	19.68	34.03	5.94	0.00	59.65	108.46	48.81	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5755MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

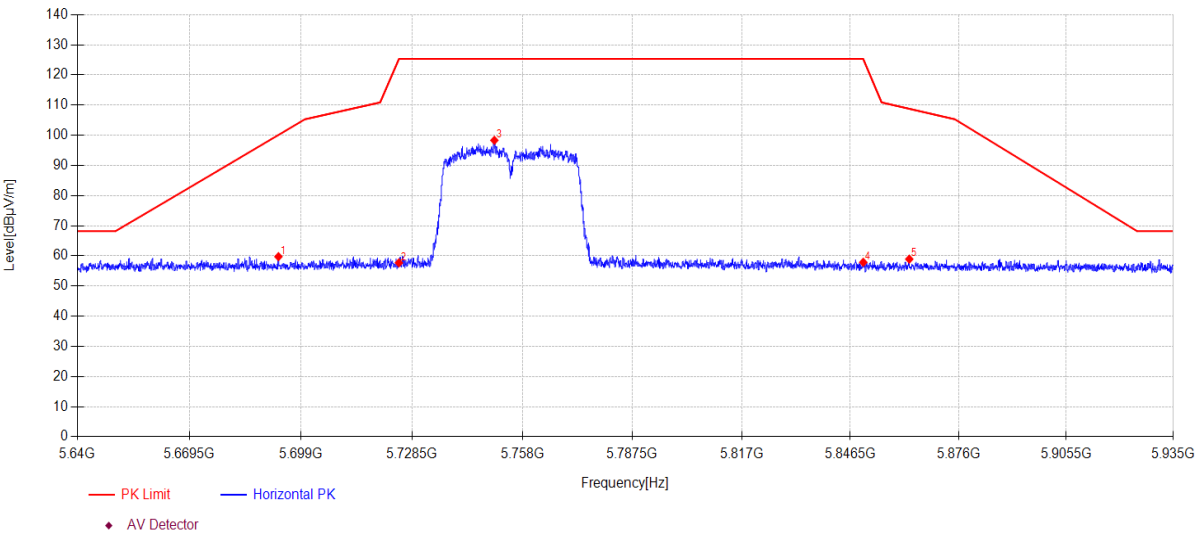
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5693.01	20.32	33.57	5.86	0.00	59.75	100.11	40.36	PK	Horizontal
2	5725.00	18.07	33.75	5.87	0.00	57.69	125.30	67.61	PK	Horizontal
3	5750.48	58.54	33.90	5.89	0.00	98.33	125.30	26.97	PK	Horizontal
4	5850.00	17.93	34.00	5.94	0.00	57.87	125.27	67.40	PK	Horizontal
5	5862.55	18.95	34.03	5.94	0.00	58.92	108.79	49.87	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5755MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

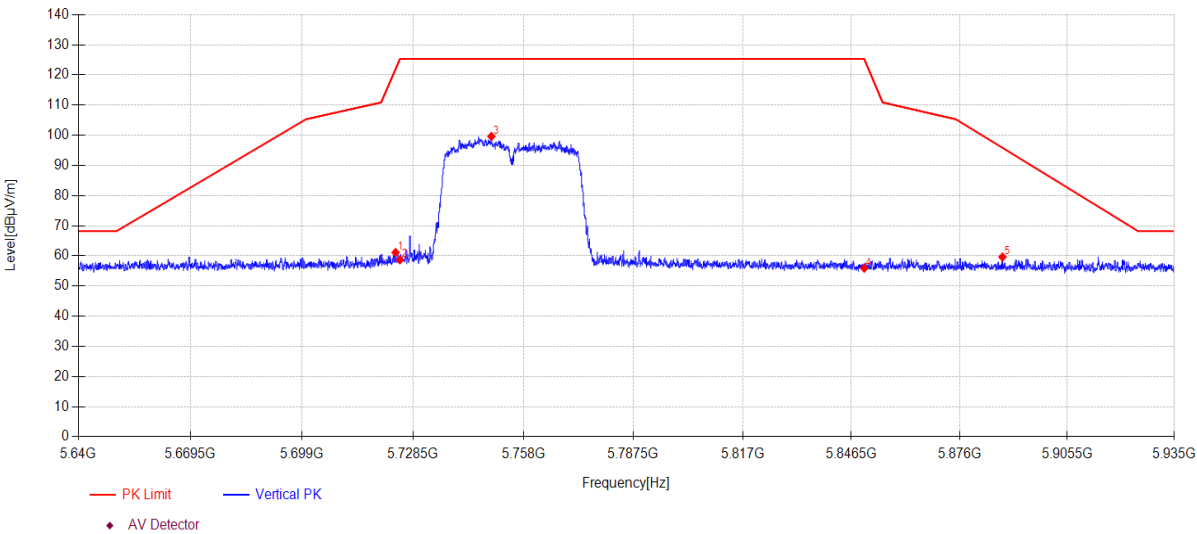
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5723.84	21.52	33.74	5.87	0.00	61.13	121.96	60.83	PK	Vertical
2	5725.00	19.05	33.75	5.87	0.00	58.67	125.30	66.63	PK	Vertical
3	5749.42	59.84	33.90	5.88	0.00	99.62	125.30	25.68	PK	Vertical
4	5850.00	15.96	34.00	5.94	0.00	55.90	125.27	69.37	PK	Vertical
5	5887.74	19.60	34.08	5.95	0.00	59.63	95.85	36.22	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5795MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

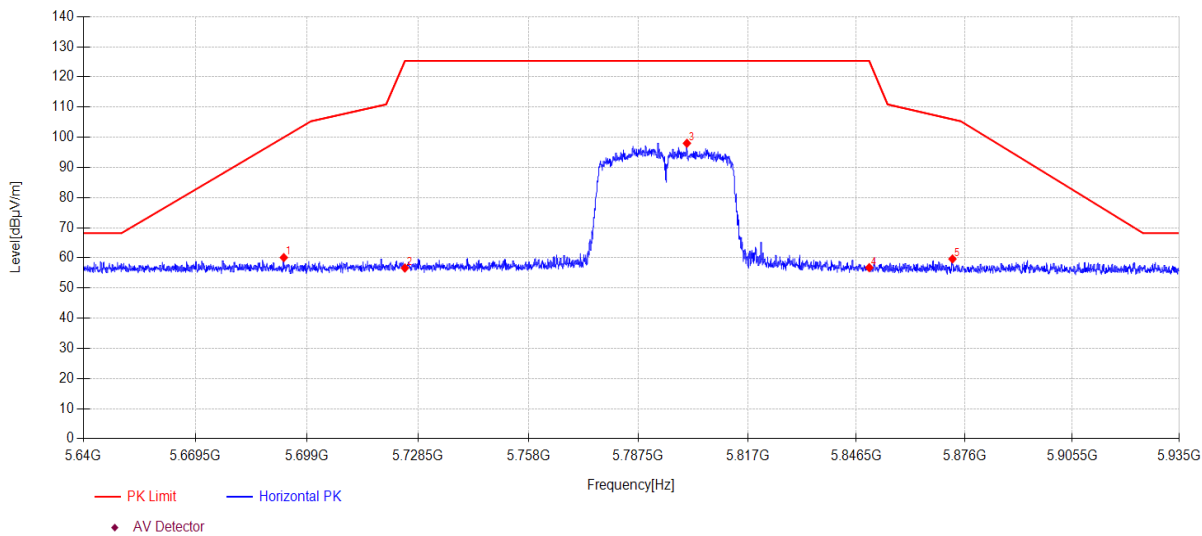
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5692.83	20.68	33.57	5.86	0.00	60.11	99.98	39.87	PK	Horizontal
2	5725.00	17.03	33.75	5.87	0.00	56.65	125.30	68.65	PK	Horizontal
3	5800.60	57.90	34.20	5.91	0.00	98.01	125.30	27.29	PK	Horizontal
4	5850.00	16.82	34.00	5.94	0.00	56.76	125.27	68.51	PK	Horizontal
5	5872.70	19.64	34.05	5.95	0.00	59.64	105.95	46.31	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11N40 5795MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

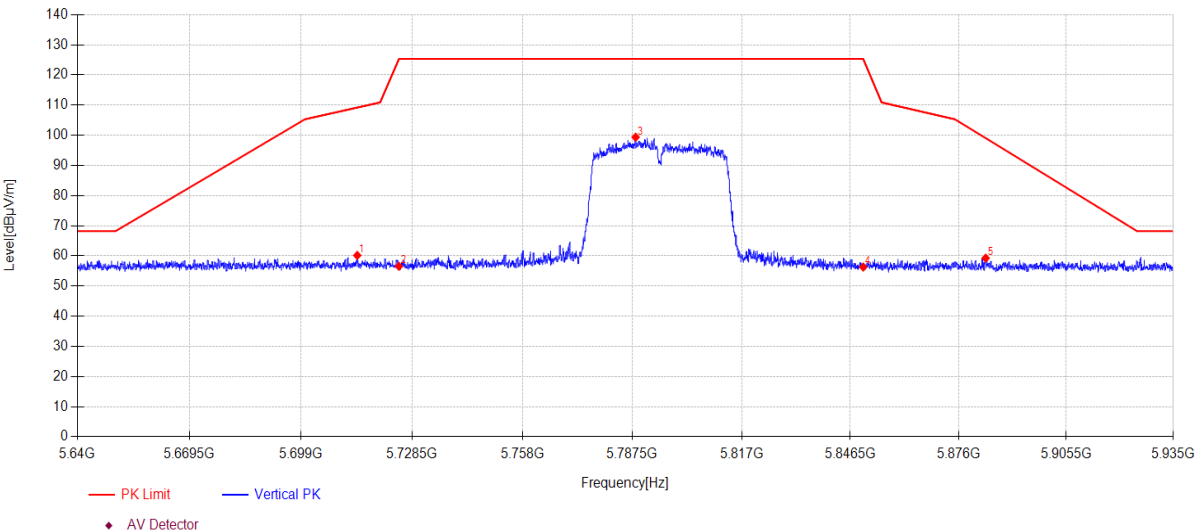
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5713.93	20.61	33.68	5.87	0.00	60.16	109.20	49.04	PK	Vertical
2	5725.00	16.93	33.75	5.87	0.00	56.55	125.30	68.75	PK	Vertical
3	5788.39	59.33	34.13	5.90	0.00	99.36	125.30	25.94	PK	Vertical
4	5850.00	16.35	34.00	5.94	0.00	56.29	125.27	68.98	PK	Vertical
5	5883.40	19.23	34.07	5.95	0.00	59.25	99.06	39.81	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5755MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

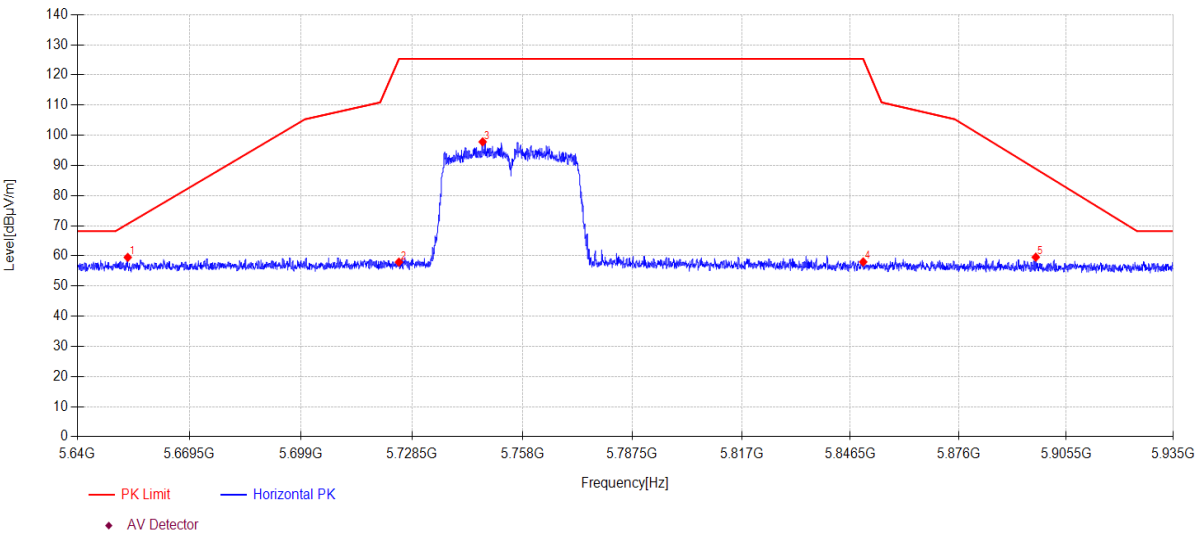
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5653.25	20.26	33.41	5.84	0.00	59.51	70.61	11.10	PK	Horizontal
2	5725.00	18.31	33.75	5.87	0.00	57.93	125.30	67.37	PK	Horizontal
3	5747.35	58.05	33.88	5.88	0.00	97.81	125.30	27.49	PK	Horizontal
4	5850.00	18.06	34.00	5.94	0.00	58.00	125.27	67.27	PK	Horizontal
5	5897.15	19.52	34.09	5.96	0.00	59.57	88.86	29.29	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5755MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

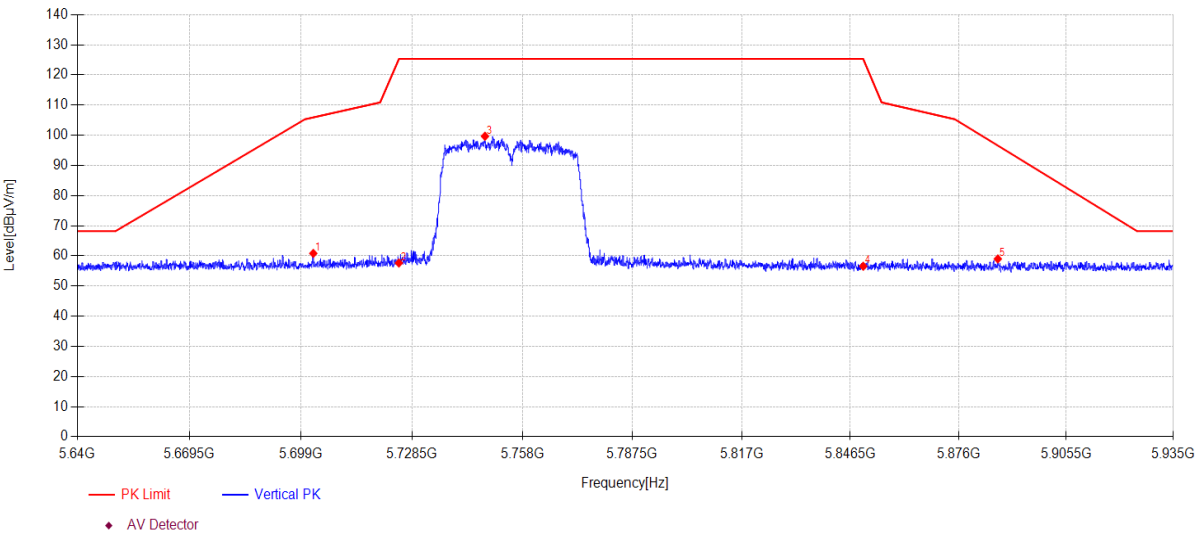
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5702.25	21.36	33.61	5.86	0.00	60.83	105.93	45.10	PK	Vertical
2	5725.00	18.02	33.75	5.87	0.00	57.64	125.30	67.66	PK	Vertical
3	5747.97	59.90	33.89	5.88	0.00	99.67	125.30	25.63	PK	Vertical
4	5850.00	16.62	34.00	5.94	0.00	56.56	125.27	68.71	PK	Vertical
5	5886.74	18.97	34.07	5.95	0.00	58.99	96.59	37.60	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5795MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

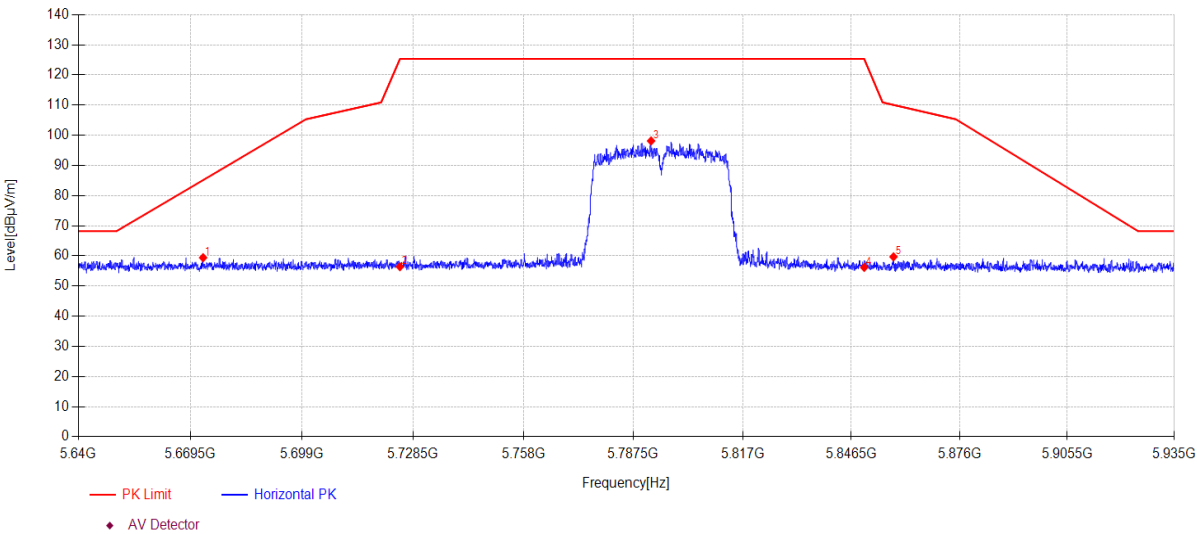
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5672.83	20.06	33.49	5.85	0.00	59.40	85.14	25.74	PK	Horizontal
2	5725.00	16.78	33.75	5.87	0.00	56.40	125.30	68.90	PK	Horizontal
3	5792.28	58.06	34.15	5.91	0.00	98.12	125.30	27.18	PK	Horizontal
4	5850.00	16.24	34.00	5.94	0.00	56.18	125.27	69.09	PK	Horizontal
5	5857.98	19.73	34.02	5.94	0.00	59.69	110.07	50.38	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC40 5795MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

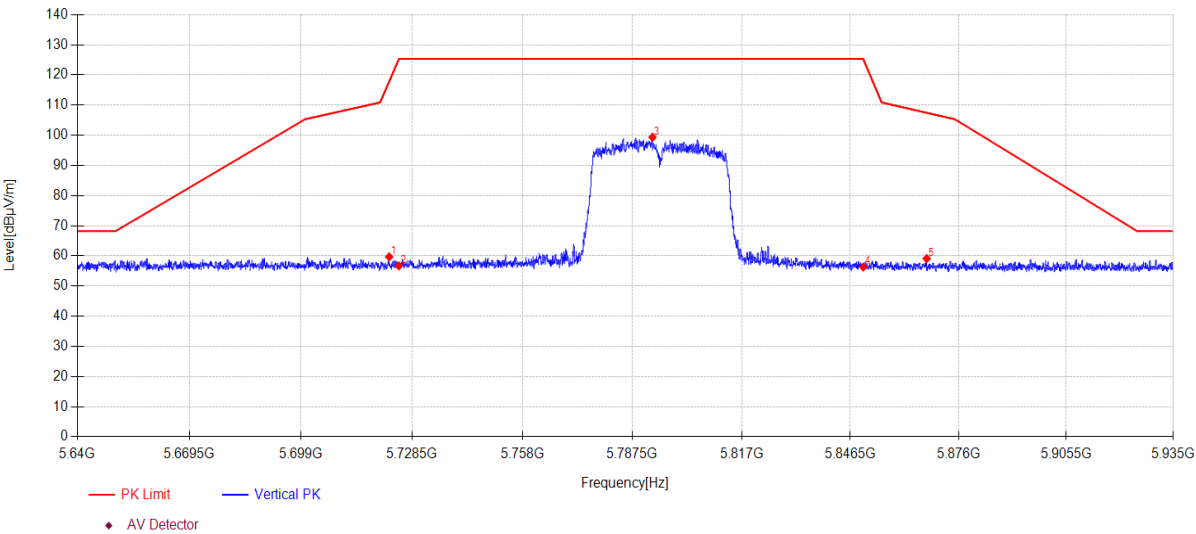
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Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5722.42	20.08	33.73	5.87	0.00	59.68	117.88	58.20	PK	Vertical
2	5725.00	17.06	33.75	5.87	0.00	56.68	125.30	68.62	PK	Vertical
3	5792.93	59.27	34.16	5.91	0.00	99.34	125.30	25.96	PK	Vertical
4	5850.00	16.36	34.00	5.94	0.00	56.30	125.27	68.97	PK	Vertical
5	5867.30	19.14	34.03	5.94	0.00	59.11	107.46	48.35	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC80 5775MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

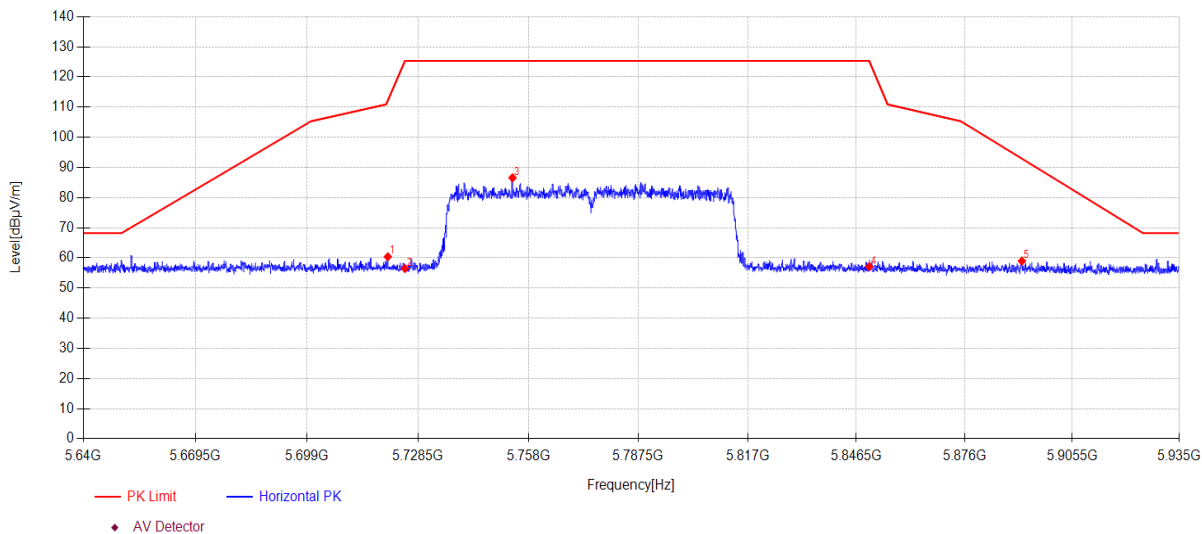
File Path:

d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\33

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5720.45	20.78	33.72	5.87	0.00	60.37	112.19	51.82	PK	Horizontal
2	5725.00	16.86	33.75	5.87	0.00	56.48	125.30	68.82	PK	Horizontal
3	5753.72	46.75	33.92	5.89	0.00	86.56	125.30	38.74	PK	Horizontal
4	5850.00	17.15	34.00	5.94	0.00	57.09	125.27	68.18	PK	Horizontal
5	5891.69	18.90	34.08	5.96	0.00	58.94	92.91	33.97	PK	Horizontal

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date:

2024-01-26

Tested By:

Bairong

EUT:

InVehicle Gateway

Model Number:

VG710

Test Mode:

11AC80 5775MHz TX

Power Supply:

AC 120V/60Hz

Condition:

Temp:24.9°C;Humi:66.0%

Test Site:

DDT 3# Chamber

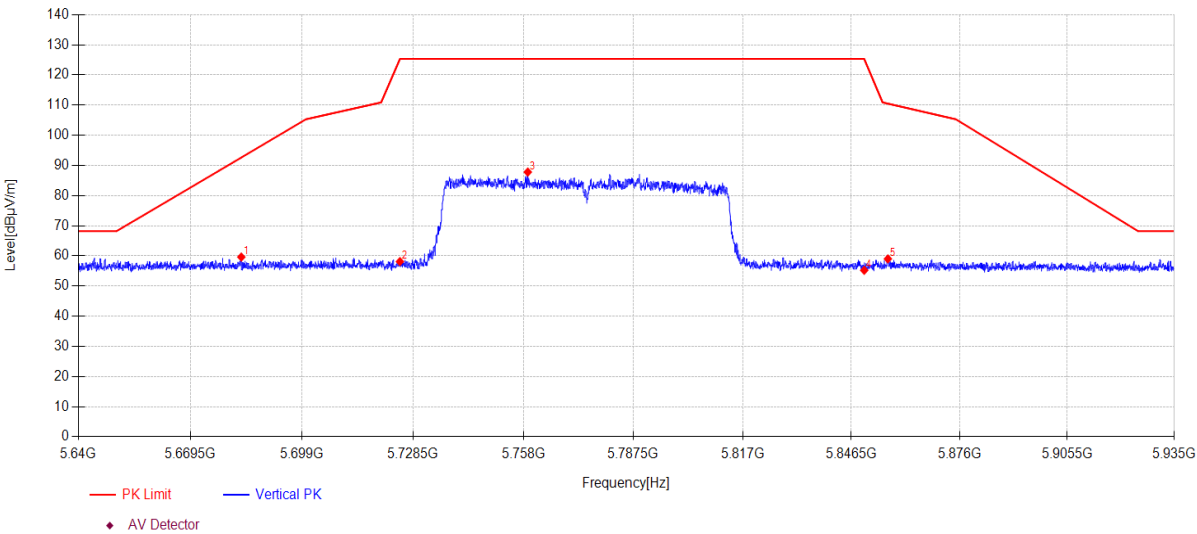
File Path:

d:\ts\2024 report data\Q23122506-2E VG710\FCC ABOVE 1G 5.8GWIFI\34

Memo:

Sample Number:S23122506-03 Power Setting:46

Test Graph



Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable loss [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	5682.92	20.23	33.53	5.85	0.00	59.61	92.63	33.02	PK	Vertical
2	5725.00	18.50	33.75	5.87	0.00	58.12	125.30	67.18	PK	Vertical
3	5759.15	47.96	33.95	5.89	0.00	87.80	125.30	37.50	PK	Vertical
4	5850.00	15.28	34.00	5.94	0.00	55.22	125.27	70.05	PK	Vertical
5	5856.44	19.05	34.01	5.94	0.00	59.00	110.50	51.50	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

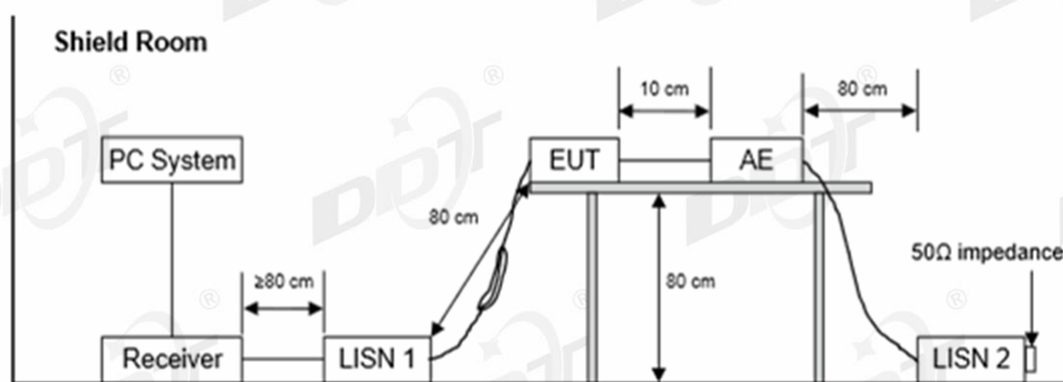
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

15. Power Line Conducted Emissions

15.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To	Cal. Interval
CE Cable 1	R&S	ESU8/RF2	DDT-ZC00566	2024/07/14	1 Year
Artificial mains	R&S	ESH2-Z5	DDT-ZC00538	2024/07/11	1 Year
EMI Test Receiver	R&S	ESCI	DDT-ZC00235	2024/07/10	1 Year
Two Line V-Network	R&S	ENV216	DDT-ZC00535	2024/07/10	1 Year
EMI Test Software	Audix/TW	e3	DDT-ZC01252	/	NA
Pulse Limiter	SCHWARZBECK	ESH3-Z2	DDT-ZC00539	2024/07/14	1 Year

15.2. Block diagram of test setup



15.3. Limits

Frequency	Quasi-Peak Level dB(mV)	Average Level dB(mV)
150 kHz~500 kHz	66 ~ 56*	56 ~ 46*
500 kHz~5 MHz	56	46
5 MHz~30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

15.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
/	/	/	/	/

15.5. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

15.6. Test result

Not applicable. The EUT is DC powered.

16. Antenna Requirements

16.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For intentional device, according to RSS-Gen issue 5 section 6.8.

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

16.2. Result

The antenna used for this product as Antenna information described in section 2.1 of the report, and there is no other antenna than that furnished by the responsible party shall be used with the device.

18. Photos of the EUT

Please refer to DDT-Q23122506-1E appendix I

-----End Report-----