EMC TEST REPORT

LBE20210581	Issue No.	0		
Name of organization	Samsung Elec	etronics Co., Ltd.		
Address	(Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea			
Date of receipt	August 23, 202	1		
Type of device	 ✓ All other Receivers subject to part15 ✓ Class B Personal Computers and peripherals ✓ Other Class B digital devices and peripherals ☐ FM Broadcast Receiver 			
Equipment authorization	□ Certification □ Supplier's Declaration of Conformity			
FCC ID	A3LSMG990E			
Kind of product	Mobile Phone			
Model No.	SM-G990E/DS			
Variant Model No.	Refer to clause 4.6			
Manufacturer	Samsung Electronics Vietnam Thai Nguyen Co., L Yen Binh Industrial Zone Pho Ten Dist., Thai Nguyen Province, Vietnam			
		PIA ELECTRONICS PVT LTD. Phase-II NOIDA U.P.INDIA		
Applied Standards		47 CFR Part 15, Subpart B, Class B / ANSI C63.4-2014		
Test Period		August 24, 2021 ~ August 31, 2021		
Issue date		September 2, 2021		
Applicant Address Date of receipt Type of device Equipment authorization FCC ID Kind of product Model No. Variant Model No. Manufacturer Applied Standards Test Period		Name of organization Address Date of receipt Type of device Equipment authorization FCC ID Kind of product Model No. Manufacturer Manufacturer Name of organization Samsung Elector (Maetan-dong) Suwon-si, Gyed August 23, 202 (Maetan-dong) Suwon-si, Gyed Cass B Person (Maetan-dong) Suwon-si, Gyed Cass B Person (Maetan-dong) Suwon-si, Gyed Cass B Person (Maetan-dong) Class B Person		

Test result : Complied

The equipment under test has found to be compliant with the applied standards. (Refer to the attached test result for more detail.)

Issued by : Seon-Tai Park

Reviewed by : Sun-Ho Kim

The test results in this report only apply to the tested sample. This report must not be reproduced, except in full, without written permission from Global CS center.

*Not KOLAS Report

Samsung Electronics Co., Ltd., Global CS Center (Maetan dong) 129, Samsung-ro, Yeongtong-Gu, Suwon-Si,Gyeonggi-Do 16677, Korea

Table of contents

1.	Report Information	
	1.1 Revision history	3
2.	Summary of test results	
	2.1 Emission	3
3.	General Information	
	3.1 Test facility	3
4.	Test Configuration	
	4.1 Test Peripherals	4
	4.2 EUT operating mode	5
	4.3 Details of Sampling	5
	4.4 Used cable description	6
	4.5 Test arrangement	7
	4.6 EUT Description	Ç
	4.7 EUT Frequencies	ć
	4.8 Test configuration and condition	1
	4.9 Measurement uncertainty	1
5.	Result of individual tests	
	5.1 Conducted Emission	1
	5.2 Radiated Emission	1

Mobile Phone: SM-G990E/DS

1. Report Information

1.1 Revision history

No.	Date of Issue	Revised detailed information
Issue 0	September 2, 2021	There are no revisions and this version is basic test report.

* Remark

Compliance with Part 15B requirements for the receiver part of the licensed transmitter (equipment code CXX) is covered by other test report.

2. Summary of test results

2.1 Emission

The EUT has been tested according to the following specifications:

Applied	Test type	Applied standard	Result
	Conducted Emission (Mains port)	47 CFR Part 15 Subpart B / ANSI C63.4-2014	Complied
	Radiated Emission	(Class B)	Complied

3. General Information

3.1 Test facility

The Global CS Center is located on Samsung Electronics Co., Ltd. at (Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea.

All testing are performed in Semi-anechoic chambers conforming to the site attenuation characteristics defined by ANSI C63.4, CISPR 32, CISPR 16-1-4 and Shielded rooms. And all antennas are properly calibrated using ANSI C63.5:2017.

The Global CS Center is an ISO/IEC 17025 accredited testing laboratory by the National Radio Research Agency with designation No. KR0004. for EMC testing.

Mobile Phone: SM-G990E/DS

4. Test Setup configuration

4.1 Test Peripherals

The cables used for these peripherals are either permanently attached by the peripheral manufacturer or coupled with an assigned cable as defined below.

The following is a listing of the EUT and peripherals utilized during the performance of EMC test:

Mark	Description	Model No.	Serial No.	Manufacturer / Trademark	FCC ID	
Α	Mobile Phone	SM-G990E/DS	-	SAMSUNG	A3LSMG990E	
В	Battery	EB-BG990ABY	-	SDI	-	
С	Headset	AMD-21HS	-	Youngbo	-	
D	Data Cable	EP-DN980	-	RFTECH	-	
_	Laptop	1 -4:41-5500	1WYRYM2 Dell	DoC		
E	Computer	Latitude5580	D3HRYM2	Dell	DoC	
_	Laptop AC Adapter	Laptop	LACENIMAGO	5DEA	Dell	DoC
F		LA65NM130	5B3C	Dell	DoC	
G	Mouse	AA-SM7PCPB	CN57BA5903634ADV 8JJCD4371	SAMSUNG	DoC	
		SNJ-B138	Z5F8353	SAMSUNG	DoC	
	Davidan	DID 00CA	RF0F1D8018454	D-Link	DoC	
H	Router	uter DIR-806A	RF0F1D8011504	D-Link	DoC	
I	Travel Adapter	EP-TA800	R37M8B51EH2SE3	SoluM	-	

Mobile Phone: SM-G990E/DS

4.2 EUT operating mode

To achieve compliance applied standard specification including CXX, JAB and JBP requirement, the following mode(s) were made during compliance testing:

4.2.1 Conducted Emission

No.	Operating mode
1	Camera (rear) + Charging (w/ TA) + Cellular receiver (LTE FDD26)
2	Camera (front) + Charging (w/ TA)
3	Video + Audio playback from internal memory data + Charging (w/ TA)
4	USB Data Communication with PC (from Internal memory data)

4.2.2 Radiated Emission

No.	Operating mode
1	Camera (rear) + Charging (w/ TA)
2	Camera (front)
3	Video + Audio playback from internal memory data(w/ Headset)
4	USB Data Communication with PC (from Internal memory data)

4.3 Details of Sampling

Customer selected, single unit.

Mobile Phone: SM-G990E/DS

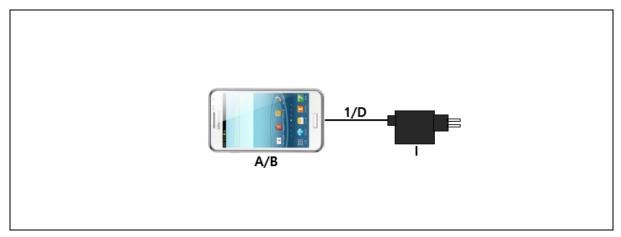
4.4 Used cable description

The EUT is configured, installed, arranged and operated in a manner consistent with typical applications. Interface cables/loads/devices are connected to at least one of each type of interface port of the EUT, and where practical, each cable shall be terminated in a device typical of actual usage. The type(s) of interconnecting cables to be used and the interface port (of the EUT) to which these were connected:

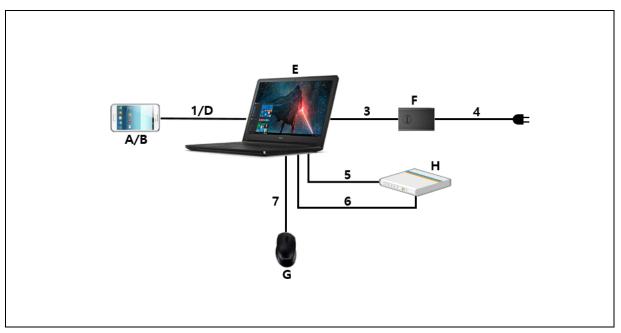
No.	Connected cable	Length [m]	Shielded [Y/N]	Note	
1	Data Cable	1.0	Y	From EUT to Laptop Computer or TA	
2	Headset	1.2	N	For EUT	
3	Power	1.8	N	From Laptop Computer to AC Adapter	
4	Power	1.5	N	For Laptop AC Adapter	
5	LAN	1.5	N	From Laptop Computer to Router	
6	USB	0.8	Y	From Laptop Computer to Router for DC Power	
7	USB	1.8	Y	From Laptop Computer to Mouse	

4.5 Test arrangement

4.5.1 Conducted Emission



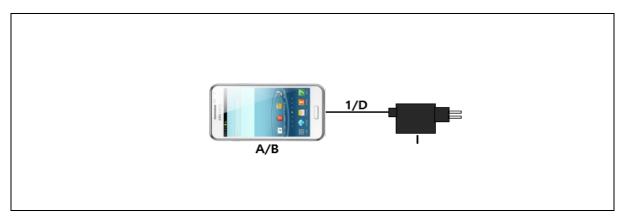
[Mode 1 - 3]



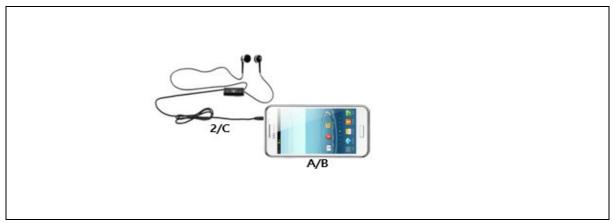
[Mode 4]

Mobile Phone: SM-G990E/DS

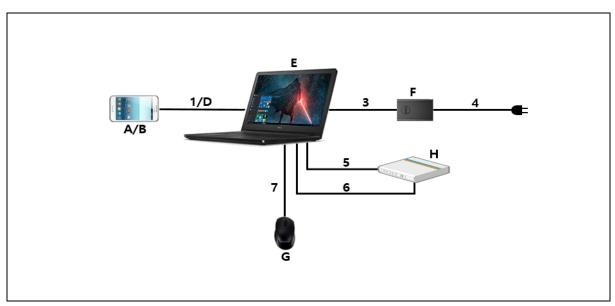
4.5.2 Radiated Emission



[Mode 1]



[Mode 2 - 3]



[Mode 4]

Mobile Phone: SM-G990E/DS

4.6 EUT Description

The EUT is a bar type Mobile Phone which can operate on GSM850/900/1800/1900, WCDMA FDD1/2/4/5/8, LTE FDD 1/2/3/4/5/7/8/12/17/20/26/28/32/66, LTE TDD 38/40/41, 5G NR n1/3/5/7/8/20/28/38/40/41/66/78 and incorporates a Bluetooth, Wi-Fi, Camera, Audio, Video, GNSS, NFC, Wireless charging and Wireless power sharing.

4.6.1 The variant models

- SM-G990E

4.7 EUT Frequencies

The highest frequencies (Generated and used)	Frequency [MHz]	
Wi-Fi	5 825	

Mobile Phone: SM-G990E/DS

4.8 Test configuration and condition

The system was configured for testing in a typical fashion that a customer would normally use. Cables were attached to each of the available I/O Ports. Where applicable, peripherals were attached to the I/O cables. All the external I/O ports are exercised, as well as internal and the external SD card (if available), by writing and reading arbitrary data or charging with TA.

The EUT was investigated in three orientations and the worst case orientation is reported.

RX mode(850MHz) testing was performed with the LTE FDD26 RX Test mode at center frequency. All licensed communication (850MHz) RX mode, GSM/WCDMA/LTE, test results are not significantly different.

The video and audio were repetitively played with the earphone connected.

The camera of the EUT was operated continuously.

Power source for the EUT operating was supplied by CVCF made by the Pacific Corp.

- Test Voltage: AC 120 V, 60 Hz

4.9 Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus: (According to CISPR 16-4-2 and UKAS M3003)

Test type	Measurement uncertainty (C.L. approximately 95 %, k = 2)	
Conducted Emission	AC Mains	2.82 dB
Radiated Emission (Below 1 GHz)	Horizontal	4.06 dB
	Vertical	4.74 dB
Radiated Emission (Above 1 GHz)	Horizontal	4.99 dB
	Vertical	4.99 dB

^{*} Remark

1) The values for uncertainty of conducted and radiated emissions are less than the Corresponding values of Ucispr given in CISPR 16-4-2. Therefore no adjustment of measurement results is necessary when comparing them with the relevant limits.

Mobile Phone: SM-G990E/DS

5. Results of individual test

5.1 Conducted Emission

The EUT is connected to a LISN via travel adapter. If the EUT is connected to the Laptop Computer USB port, the Laptop AC adapter is connected to a LISN.

Both conducted lines are measured in Quasi-Peak and CISPR-Average mode, including the worst-case data points for each tested configuration. The EUT measured in accordance with the methods described in standards.

Limits for conducted emission at the mains ports of Class B

Frequency range Limits [MHz]	Resolution Bandwidth	Limits [dB(μV)]		
	[kHz]	Quasi-peak	Average	
0.15 to 0.50	9	66 to 56	56 to 46	
0.50 to 5	9	56	46	
5 to 30	9	60	50	

NOTE 1 The lower limit shall apply at the transition frequency.

NOTE 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

5.1.1 Test instrumentation

EMC No.					Next Calibration	
	Test Instrument	Model name	Manufacturer S	Serial No.	Date	Interval (Month)
E5I-007	LTE Communicator	CMW500	R&S	132729	2022-03-30	12
E5I-016	EMI Test Receiver	ESU8	R&S	100482	2022-06-03	12
E5I-127	LISN	ENV216	R&S	102061	2022-08-02	12
-	Test software	EMC32	R&S	Ver 10.60.20	-	-

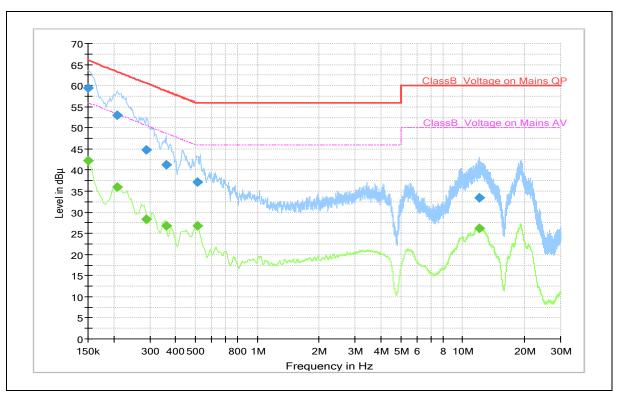
5.1.2 Temperature and humidity condition

Test date	2021-08-31	Test engineer	Seon-Tai Park		
Climate condition	Ambient temperature	(22.3 ± 0.5) ℃	Limit (15.0 to 35.0) ℃		
	Relative humidity	(51.7 ± 0.5) % R.H.	Limit (25.0 to 75.0) % R.H.		
	Atmospheric pressure	(101.2 ± 0.5) kPa	Limit (86.0 to 106.0) kPa		
Test place	Shield Room (SR8)				

Mobile Phone: SM-G990E/DS

5.1.3 Test results

☐ Operating Mode 1: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

Frequency (MHz)	QP (dBµV)	CAV (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150	59.4		66.0	6.6	N	9.8
0.150		42.2	56.0	13.8	N	9.8
0.209	53.0		63.3	10.3	L1	10.0
0.209		36.0	53.3	17.3	L1	10.0
0.290	44.9		60.5	15.6	N	9.9
0.290		28.4	50.5	22.1	N	9.9
0.359	41.2		58.7	17.5	L1	10.1
0.359		26.8	48.7	21.9	L1	10.1
0.510		26.8	46.0	19.2	L1	10.2
0.510	37.2		56.0	18.8	L1	10.2
12.019		26.3	50.0	23.7	L1	10.2
12.019	33.4		60.0	26.6	L1	10.2

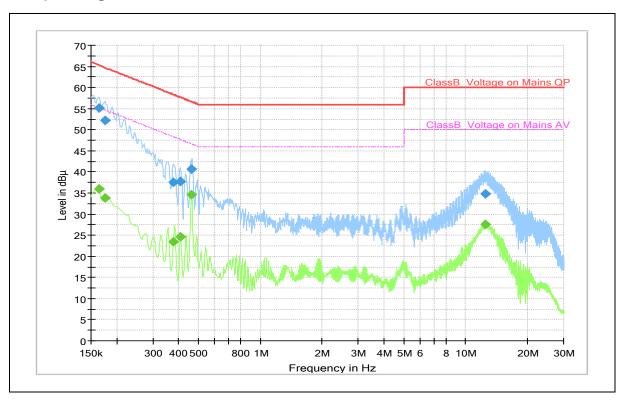
Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

This report must not be reproduced, except in full, without written permission from Global CS Center.

☐ Operating Mode 2: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

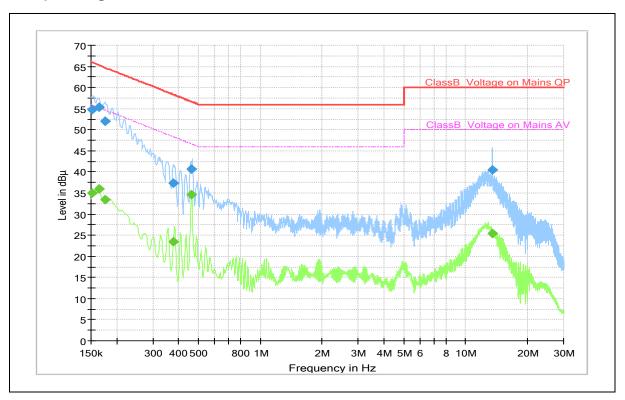
Frequency (MHz)	QP (dBµV)	CAV (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.164		35.9	55.3	19.4	L1	10.0
0.164	55.1		65.3	10.2	L1	10.0
0.175		33.8	54.7	20.9	L1	10.0
0.175	52.1		64.7	12.6	L1	10.0
0.377		23.5	48.3	24.8	L1	10.2
0.377	37.5		58.3	20.8	L1	10.2
0.407		24.6	47.7	23.1	L1	10.2
0.407	37.6		57.7	20.1	L1	10.2
0.463		34.6	46.6	12.0	L1	10.2
0.463	40.7		56.6	15.9	L1	10.2
12.545		27.6	50.0	22.4	N	10.3
12.545	34.7		60.0	25.3	N	10.3

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 3: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

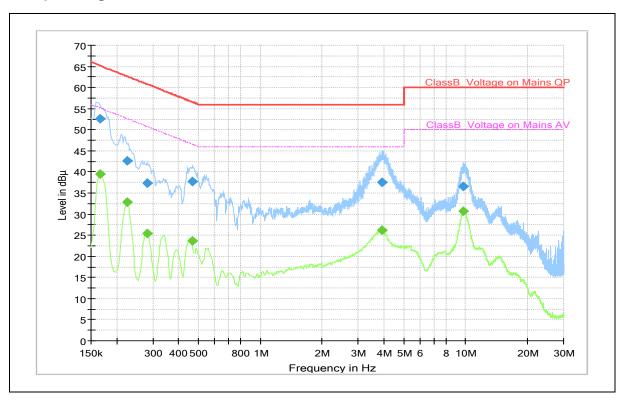
Frequency (MHz)	QP (dBµV)	CAV (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.152		35.0	55.9	20.9	L1	9.9
0.152	54.7		65.9	11.2	L1	9.9
0.164		36.1	55.3	19.2	L1	10.0
0.164	55.2		65.3	10.1	L1	10.0
0.175		33.4	54.7	21.3	N	9.9
0.175	51.9		64.7	12.8	N	9.9
0.377		23.5	48.3	24.9	N	10.1
0.377	37.4		58.3	20.9	N	10.1
0.463		34.6	46.6	12.0	L1	10.2
0.463	40.7		56.6	15.9	L1	10.2
13.560		25.5	50.0	24.5	L1	10.3
13.560	40.5		60.0	19.5	L1	10.3

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

☐ Operating Mode 4: AC Mains



Note 1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

QP / CAV final measurement results table:

Frequency (MHz)	QP (dBμV)	CAV (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.166		39.4	55.2	15.8	L1	9.8
0.166	52.7		65.2	12.5	L1	9.8
0.224		32.8	52.7	19.9	L1	9.8
0.224	42.7		62.7	20.0	L1	9.8
0.281		25.4	50.8	25.4	L1	9.8
0.281	37.4		60.8	23.4	L1	9.8
0.470		23.7	46.5	22.8	L1	10.1
0.470	37.7		56.5	18.8	L1	10.1
3.923		26.2	46.0	19.8	L1	9.8
3.923	37.5		56.0	18.5	L1	9.8
9.749		30.8	50.0	19.2	L1	9.9
9.749	36.6		60.0	23.4	L1	9.9

Note 2) Level (QP and/or CAV) = Meter Reading (QP and/or CAV) + Corr. (LISN Insertion Loss + Cable Loss)

Margin (QP and/or CAV) = Limit – Level (QP and/or CAV)

QP = Quasi-Peak, CAV = CISPR-Average, Corr. = Correction Factor

Mobile Phone: SM-G990E/DS

5.2 Radiated Emission

The following data lists the significant emission frequencies, measured levels, correction factors (for antenna and cables), orientation of table, polarization and height of antenna, the corrected reading, the limit, and the amount of margin.

Peak measurements were made over the changeable frequency range 30 MHz to 1 GHz at a measurement distance of 10 m for the following antenna and turntable arrangements:

Antenna Height [cm]	Antenna Polarisation	Resolution Bandwidth [kHz]	Video Bandwidth [kHz]	Turntable position [degrees]
100 ~ 400	Horizontal, Vertical	120	300	Continuous

Measurements within 6 dB of the limit were then maximized by adjusting turntable position. Final measurements were made using quasi-peak detector.

Peak/CISPR-Average measurements were made over the changeable frequency range 1 GHz to 40 GHz or 5th harmonics of the highest frequency generated or used in the device or on which the device operates or tunes at a measurement distance of 3 m for the following antenna and turntable arrangements. The measurements above 1 GHz were performed with the bore-sighting antenna aimed at the EUT.

Antenna Height [cm]	Antenna Polarisation	Resolution Bandwidth [MHz]	Video Bandwidth [MHz]	Turntable position
100 ~ 400	Horizontal, Vertical	1	3	Continuous

Measurements within 6 dB of the limit were then maximized by adjusting turntable position. Final measurements were made using peak and CISPR-average detectors.

Limits for radiated emission of Class B at a measuring distance of 3 m and 10 m

Frequency range Limits	Field Strength					
[MHz]	3 m [μV/m]	3 m [dB(μV/m)]	10 m [dB(μV/m)]			
30 to 88	100	40.0	29.5			
88 to 216	150	43.5	33.0			
216 to 960	200	46.0	35.5			
Above 960	500	54.0	43.5			

Note) Distance correction fomula from $D_1(3m)$ to $D_2(10m)$

: Limit at D_2 = Limit at D_1 + 20Log(D_1/D_2)

Results checked manually; and points close to the limit line were re-measured.

Mobile Phone: SM-G990E/DS

5.2.1 Test instrumentation

-110					Next Calibration		
EMC No.	Test Instrument	Model name	Manufacturer	Serial No.	Date	Interval (Month)	
E5I-021	EMI Test Receiver	ESU40	R&S	100376	2022-02-04	12	
E5I-018	EMI Test Receiver	ESU8	R&S	100484	2022-05-26	12	
E5I-020	EMI Test Receiver	ESU40	R&S	100375	2021-09-14	12	
E5I-072	BiLog Antenna	CBL6112D	TESEQ	36009	2022-05-15	24	
E5I-223	6 dB Fixed Attenuator	8491B-006	Agilent	58359	2022-05-15	24	
E5I-120	BiLog Antenna	CBL6112D	TESEQ	36997	2022-05-15	24	
E5I-189	6 dB Fixed Attenuator	8491A	Keysight	MY52462295	2022-05-15	24	
E5I-093	Preamplifier	310N	SONOMA	273122	2022-01-21	12	
E5I-094	Preamplifier	310N	SONOMA	282363	2022-01-21	12	
E5I-035	Horn Antenna	HF907	R&S	100506	2021-08-30	24	
E5I-040	Signal Conditioning Unit	SCU-18	R&S	10210	2022-04-06	12	
E5I-037	WideBand Horn Antenna	WBH 18-40K	R&S	11201	2023-02-15	24	
E5I-042	Signal Conditioning Unit	SCU-40A	R&S	10004	2021-09-09	12	
-	Test software	EP7RE	TOYO	Ver 8.0.20	-	-	
-	Test software	EMC32	R&S	Ver 9.25.00	-	-	

5.2.2 Temperature and humidity condition

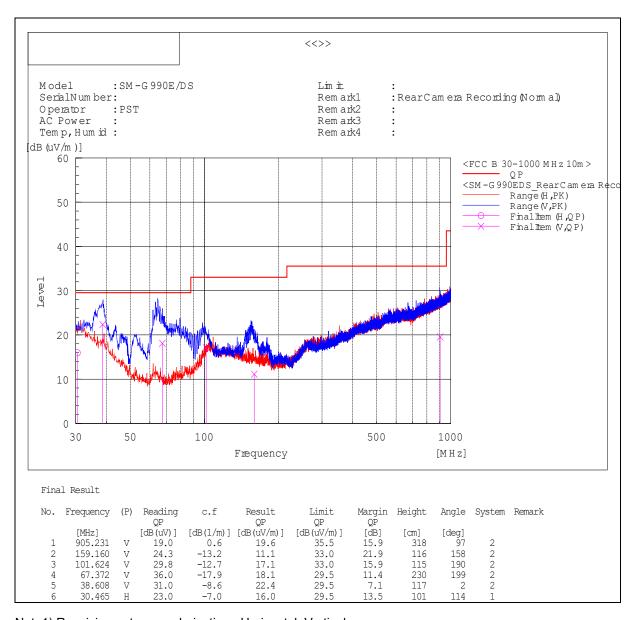
Test date	2021-08-24	Test engineer	Seon-Tai Park		
Climate condition	Ambient temperature	(23.0 ± 0.5) ℃	Limit (15.0 to 35.0) ℃		
	Relative humidity	(41.9 ± 0.5) % R.H.	Limit (25.0 to 75.0) % R.H.		
	Atmospheric pressure (101.7 ± 0.5) kPa Limit (86.0 to 106.0)				
Test place	Semi-Anechoic Chamber (SAC5)				

Mobile Phone: SM-G990E/DS

5.2.3 Test results

□ Operating Mode 1

- Frequencies below 1 GHz



Note1) Receiving antenna polarization : Horizontal, Vertical

Test Distance: 10 m, Antenna Height: 1 to 4 meters

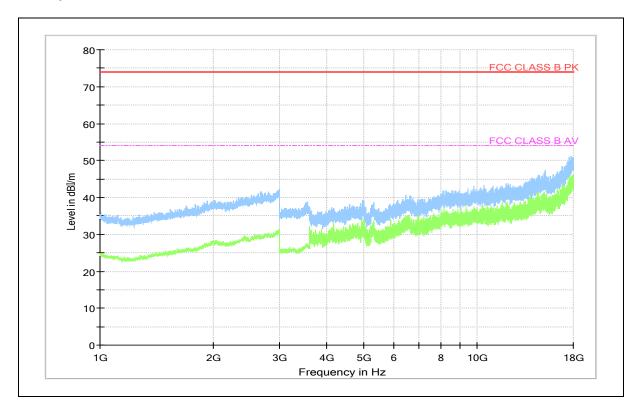
Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

Mobile Phone: SM-G990E/DS

- Frequencies above 1 GHz



Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions.

Note 2) Receiving antenna polarization: Horizontal, Vertical

Test Distance: 3 m, Antenna Height: 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

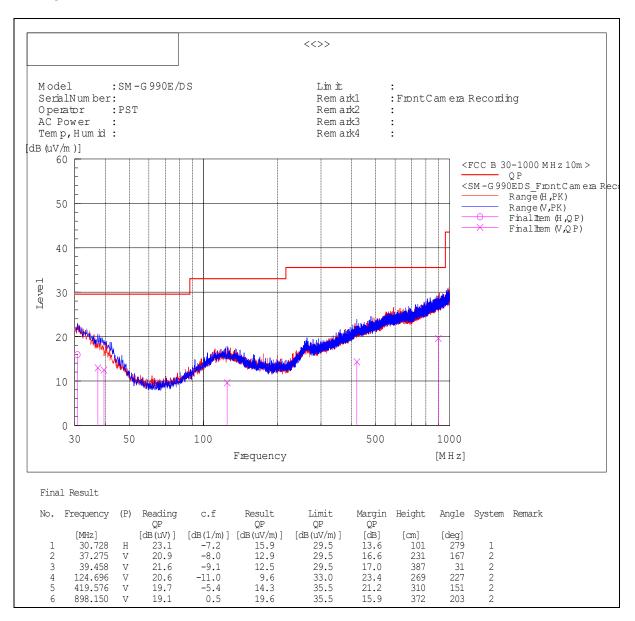
Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

This report must not be reproduced, except in full, without written permission from Global CS Center.

☐ Operating Mode 2

- Frequencies below 1 GHz



Note1) Receiving antenna polarization: Horizontal, Vertical

Test Distance: 10 m, Antenna Height: 1 to 4 meters

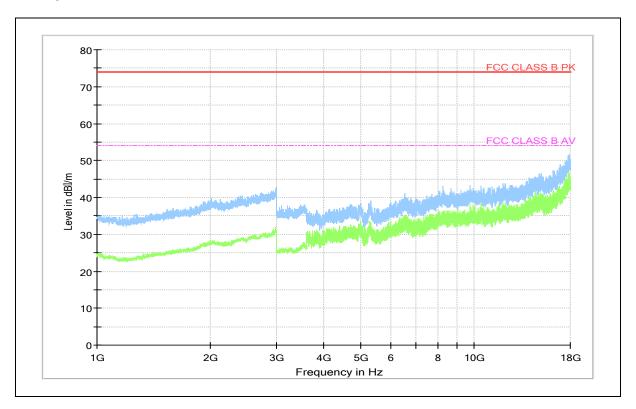
Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit - Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

Mobile Phone: SM-G990E/DS

- Frequencies above 1 GHz



Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions.

Note 2) Receiving antenna polarization: Horizontal, Vertical

Test Distance: 3 m, Antenna Height: 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

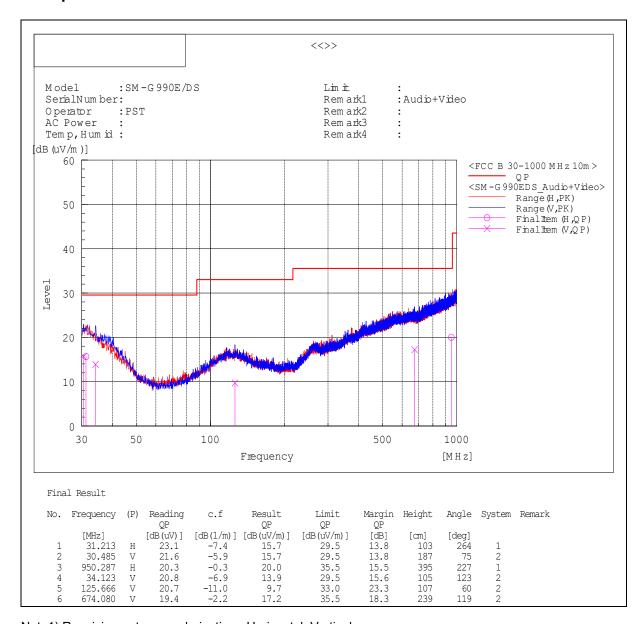
Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

This report must not be reproduced, except in full, without written permission from Global CS Center.

□ Operating Mode 3

- Frequencies below 1 GHz



Note1) Receiving antenna polarization : Horizontal, Vertical

Test Distance: 10 m, Antenna Height: 1 to 4 meters

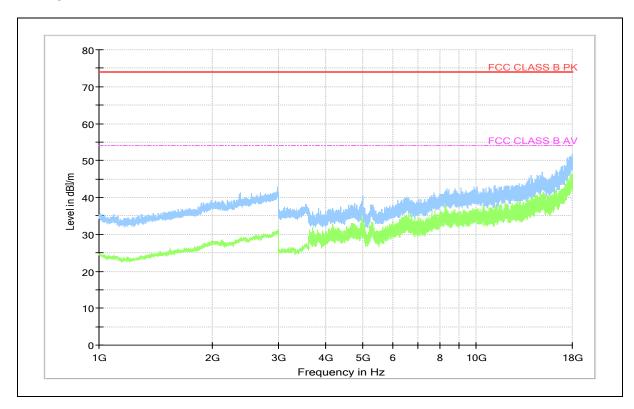
Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit – Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

Mobile Phone: SM-G990E/DS

- Frequencies above 1 GHz



Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions.

Note 2) Receiving antenna polarization: Horizontal, Vertical

Test Distance: 3 m, Antenna Height: 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

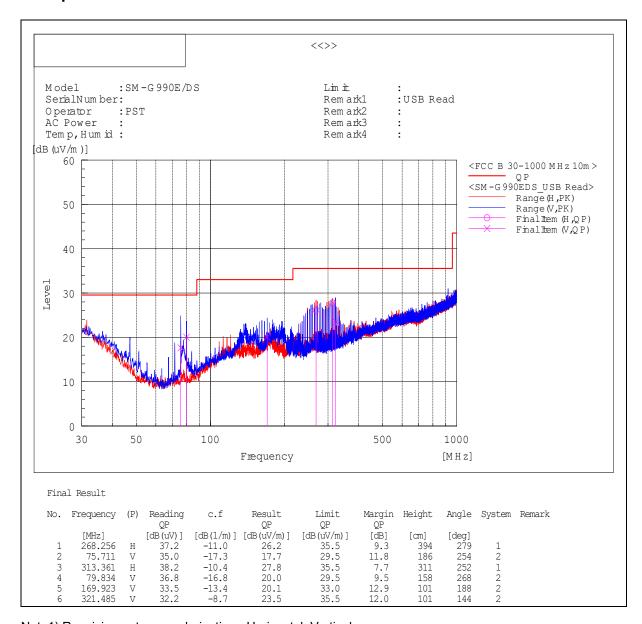
Margin (PK and/or CAV) = Limit – Level (PK and/or CAV)

PK = Peak, CAV = CISPR-Average, Corr. = Correction Factor

This report must not be reproduced, except in full, without written permission from Global CS Center.

□ Operating Mode 4

- Frequencies below 1 GHz



 $Note 1) \ Receiving \ antenna \ polarization: Horizontal, \ Vertical$

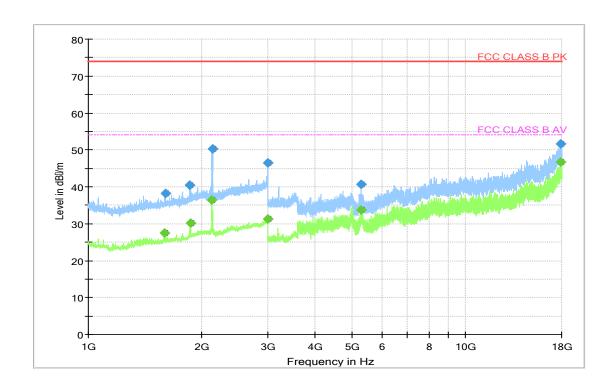
Test Distance: 10 m, Antenna Height: 1 to 4 meters

Result (QP) = Reading (QP) + c.f (Antenna Factor + Cable Loss - Amp. Gain)

Margin (QP) = Limit – Level (QP)

QP = Quasi-Peak, c.f = Correction Factor

- Frequencies above 1 GHz



Frequency (MHz)	PK (dBµV/m)	CAV (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1 596.500		27.38	54.00	26.62	101.0	V	171.0	9.2
1 598.000	38.26		74.00	35.74	101.5	V	126.0	9.2
1 860.500	40.37		74.00	33.63	103.0	V	343.0	10.5
1 864.000		30.24	54.00	23.76	105.0	V	13.0	10.6
2 127.500		36.46	54.00	17.54	100.0	V	343.0	11.6
2 132.500	50.20		74.00	23.80	101.0	V	145.0	11.6
2 990.500	46.47		74.00	27.53	103.0	Н	301.0	15.5
2 996.000		31.31	54.00	22.69	102.0	V	123.0	15.5
5 302.000	40.66		74.00	33.34	106.0	V	7.0	8.4
5 302.500		33.66	54.00	20.34	107.0	V	0.0	8.4
17 873.000	51.57		74.00	22.43	102.0	V	101.0	38.5
17 893.000		46.61	54.00	7.39	103.0	V	45.0	38.6

Note 1) We have also tested from 18 GHz to 30 GHz and found no emissions.

Note 2) Receiving antenna polarization : Horizontal, Vertical $\,$

Test Distance : 3 m, Antenna Height : 1 to 4 meters

Level (PK and/or CAV) = Reading (PK and/or CAV) + Corr. (Antenna Factor + Cable Loss - Amp. Gain)

Margin (PK and/or CAV) = Limit - Level (PK and/or CAV)

 ${\sf PK = Peak, CAV = CISPR-Average, Corr. = Correction \ Factor}$

This report must not be reproduced, except in full, without written permission from Global CS Center.