

Nemko Korea Co., Ltd.

165-51, Yurim-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 17042, Republic of Korea
TEL : + 82 31 330 1700 FAX : + 82 31 322 2332

FCC EVALUATION REPORT FOR CERTIFICATION

Applicant :

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu Suwon-si,
Gyeonggi-do, 16677, Korea, Republic of
Attn : Mr. Taehun Kim

Dates of Issue : February 26, 2026

Test Report No. : REP149830

Test Site : Nemko Korea Co., Ltd.

EMC site, Korea

FCC ID

A3LME80H30

Trade Mark

SAMSUNG

Contact Person

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu Suwon-si,
Gyeonggi-do, 16677, Korea, Republic of
Mr. Taehun Kim
Telephone No. : + 82 31 8062 6321

Applied Standard :

FCC Part 18 & Part 2

Classification :

Part 18 Consumer ISM equipment

EUT Type :

Microwave oven

The device bearing the Trade Mark and FCC ID specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in MP-5:1986.

I attest to the accuracy of data and all measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



February 26, 2026

Tested By : Seungmin Lee
Engineer



February 26, 2026

Reviewed By : Taegyun Kim
Technical Manager

TABLE OF CONTENTS

SCOPE	3
INTRODUCTION	4
ACCREDITATION AND LISTING	5
EUT INFORMATION	6
Maximum Permissible Exposure	7
DESCRIPTION OF TESTS	9
Radiation Hazard	9
TEST DATA	10
Radiation Hazard	10
Input Power Measurement	10
Output Power Measurement	10

SCOPE

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission under FCC part 18.

Responsible Party : Samsung Electronics Co., Ltd.

Contact Person : Mr. Taehun Kim

Tel No.: + 82 31 8062 6321

Manufacturer : Samsung Electronics Co., Ltd.

129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, 16677,
Korea, Republic of

● FCC ID: A3LME80H30

● Model: ME80H2160R

● Variant Model: ME80H2160***

Model Name	Technical Deviations From Reference Model
ME80H2160***	First * : 0-9 or A-Z (Exterior color) Second & Third ** : Blanked or A-Z (Buyer code)

● EUT Type: Microwave oven

● Trade Mark: **SAMSUNG**

● Serial Number: N/A

● Electric Rating: AC 120 V, 60 Hz, 1 700 W

● Tested Voltage: AC 120 V, 60 Hz

● I/O Port: AC IN

● Clock(s): 8 MHz

● Applied Standard: FCC Part 18 & Part 2

● Test Procedure(s): MP-5:1986

● Dates of Test: February 10, 2026 to February 23, 2026

● Place of Tests: Nemko Korea Co., Ltd. EMC Site

● Test Report No.: REP149830

INTRODUCTION

The measurement procedure described in MP5:1986 for Methods of Measurement of radiated, powerline conducted radio noise, frequency and power output was used in determining emissions emanating from **Samsung Electronics Co., Ltd.**

FCC ID : **A3LME80H30, Microwave oven.**

These measurement tests were conducted at **Nemko Korea Co., Ltd. EMC Laboratory.**

The site address is 165-51, Yurim-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 17042, Korea, Republic of.

The area of Nemko Korea Corporation Ltd. EMC Test Site is located in a mountain area at 80 kilometers (48 miles) southeast and Incheon International Airport (Incheon Airport), 30 kilometers (18 miles) south-southeast from central Seoul.

The Nemko Korea Co., Ltd. has been accredited as a Conformity Assessment Body (CAB).



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Fig. 1. The map above shows the Seoul in Korea vicinity area.
The map also shows Nemko Korea Corporation Ltd. EMC Lab and Incheon Airport.

ACCREDITATION AND LISTING

Accreditation type		Accreditation number
	CAB Accreditation for DOC	Designation No. KR0026
	KOLAS Accredited Lab. (Korea Laboratory Accreditation Scheme)	Registration No. KT155
 Industry Canada	CAB Accreditation for Wireless	Designation No. KR0026
	VCCI registration site(RE/CE/Telecom CE)	Member No. 2118
	EMC CBTL	TL124
	KC(RRA) Designation Lab.	Designation No. KR0026

EUT INFORMATION

EUT Information

Intended use	Household
Type of appliance	Over The Range
Model	ME80H2160R
Rated voltage & frequency	AC 120 V, 60 Hz Single Phase
Rated power output	1 000 W
Rated power consumption(MW)	1 700 W
Magnetron	OM75P by Samsung
Clock Frequency	8 MHz

Component List

Item	Model	Manufacturer	Serial Number
MAGNETRON	OM75P	Samsung	N/A
H.V TRANS	SHV-U1870C	DPC	N/A
H.V CAPACITOR	CH85-21091	Bicai	N/A
FAN MOTOR	DE31-00045B	Samsung	N/A
Control	OTR_Pf3	Samsung	N/A

Description of the Changes according to FCC part 2.1043

Report No.	Difference
-	-

Maximum Permissible Exposure

RF Exposure Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the Environmental of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (Minutes)
(A) Limits for occupational / Contral Exposure				
30 - 300	61.4	0.163	1	6
300 - 1500	...	...	F/300	6
1500 - 100000	...	...	5	6
(B) Limits for General Population / Uncontrolled Exposure				
30 - 300	27.5	0.073	0.2	30
300 - 1500	...	...	F/1500	30
1500 - 100000	...	...	1	30

F = Frequency (MHz)

Friis formula

$$\text{Friis transmission formula : } P_d = (P_{out} * G) / (4 * \pi * r^2)$$

$$r = \sqrt{((P_{out} * G) / 4 * \pi * P_d)}$$

Where

P_d = Power density in mW/cm²

P_{out} = Output power to antenna in mW

G = Gain of antenna in linear scale

π = 3.1416

r = Distance between observation point center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm^2 . If we know the Maximum Gain of the antenna and the total power input to the antenna, through the calculation, we will know the Maximum distance r where the MPE limit is reached and Power density at prediction frequency.

Maximum Permissible Exposure

Calculation Result of RF exposure (FCC)

Maximum tune-up tolerance (Worst Case)

Mode	Frequency [MHz]	Max Tune-up Power [dB m]	Ant Gain [dB i]	Power density at 20 cm [mW/cm ²]	Limit [mW/cm ²]
BLE 1 Mbps	2 402	7.5	0.50	0.001 26	1.00
BLE 2 Mbps	2 402	7.5	0.50	0.001 26	1.00
802.11b	2 462	18.5	0.50	0.015 80	1.00
802.11g	2 437	17	0.50	0.011 19	1.00
802.11n_HT20	2 437	17	0.50	0.011 19	1.00
802.11n_HT40	2 452	16	0.50	0.008 89	1.00

DESCRIPTION OF TESTS

Radiation Hazard

A 700 ml water load was placed in the center of the oven.

The power setting was set to maximum power.

While the oven was operating, the Microwave Survey Meter probe was moved slowly around the door seams to check for leakage.

TEST DATA

Radiation Hazard

Probe Location	Maximum Leakage [mW/Cm2]	Limit [mW/Cm2]
A	0.10	1.00
B	0.10	1.00
C	0.10	1.00
D	0.10	1.00
E	0.10	1.00
F	0.10	1.00
G	0.10	1.00
H	0.10	1.00

Input Power Measurement

Operation mode	P rated (W)	P (W)	dP (%)	Required dP (%)
Power Input	1 700	1 666	2.04	+ 15 %

Output Power Measurement

Quantity of Water [ml]	Mass of the container [g]	Ambient temperature [°C]	Initial temperature [°C]	Final temperature [°C]	Heating time [s]	Power output [W]
1 000	448.5	22.5	10.0	19.7	42	951

Formula :

$$P = \frac{4.187 \times m_w \times (T_1 - T_0) + 0.55 \times m_c \times (T_1 - T_A)}{t}$$

NOTE :

P is the microwave power output (W)

m_w is the mass of the water (g)

m_c is the mass of the container (g)

T_A is the ambient temperature (°C)

T₀ is the initial temperature of the water (°C)

T₁ is the final temperature of the water (°C)

t is the heating time (s), excluding the magnetron filament heating-up time.

- END -