RF Exposure Evaluation Declaration

FCC ID:	OU5-MAC2000
APPLICANT:	GE Medical Systems Information Technologies, Inc.

Application Type:	Certification
Product:	ECG analysis system
Model No.:	MAC 2000
Trademark:	GE
FCC Classification:	Digital Transmission System (DTS)
	Unlicensed National Information Infrastructure (UNII)

Reviewed By : (Kevin Guo)

Approved By : (Marlin Chen)

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1710WSU00504	Rev. 01	Initial report	12-08-2017	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name	ECG analysis system
Model No.	MAC 2000
Brand Name:	GE
Wi-Fi Specification:	802.11a/b/g/n
Antenna Type:	Internal Antenna
Antenna Gain	2400 ~ 2483.5MHz: 0.8dBi 5150 ~ 5850MHz: 3.3dBi

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact 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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where
Pd = power density in mW/cm^2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416
r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

Product	ECG analysis system
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11b/g/n	2412 ~ 2462	17.28	0.0106	1
802.11a/n	5180 ~ 5825	19.52	0.0178	1

CONCULISON:

The max Power Density at R (20 cm) = 0.0106mW/cm^2 < 1 mW/cm^2 for 2.4G WLAN.

The max Power Density at R (20 cm) = 0.0178mW/cm^2 < 1 mW/cm^2 for 5G WLAN.

Therefore, the Min Safety Distance is 20cm.

The End