RF Exposure Evaluation Declaration

FCC ID: 2ASIE-A5E40992378

APPLICANT: Siemens Numerical Control Ltd., Nanjing

Application Type: Certification

Product: SINAMICS G120 Smart Access

Model No.: 6SL3255-0AA00-5AA0

Brand Name: SIEMENS

FCC Classification: Digital Transmission System (DTS)

Test Procedure(s): KDB 447498 D01v06

Test Date: December 14, 2018 ~ December 22, 2018

Reviewed By: (Kevin Guo)

Approved By: (Robin Wu)

Revision History

Report No.	Version	Description	Issue Date	Note
1812WSU005-U2	Rev. 01	Initial report	02-27-2019	Valid

1. PRODUCT INFORMATION

1.1. Equipment Description

Product Name:	SINAMICS G120 Smart Access
Model No.:	6SL3255-0AA00-5AA0
Brand Name:	SIEMENS
RF Specification:	802.11b/g
Rated Voltage:	DC15V

1.2. Product Specification Subjective to this Report

Frequency Range:	802.11b/g: 2412 ~ 2462 MHz
Type of Modulation:	802.11b: DSSS 802.11g: OFDM
Data Rate:	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps
Antenna Type:	Internal Antenna
Antenna Gain:	1.9dBi
Max. Output Power(Av):	15.39dBm

Note: For other features of this EUT, test report will be issued separately.

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	SINAMICS G120 Smart Access
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum EIRP (dBm)	Tune-up (dBm)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)
802.11b/g	2412 ~ 2462	17.29	17.50	0.0112	1

CONCULISON:

The max Power Density at R (20 cm) = 0.0112mW/cm^2 < 1 mW/cm^2 for 2.4G WLAN.

Therefore, the Min Safety Distance is 20cm.

The End

Appendix A – Test Setup Photograph

Refer to “1812WSU005-UT” file.

Appendix B – EUT Photograph

Refer to “1812WSU005-UE” file.