Produkte Products



RF Exposure State	ement:	12028061 002	Page 1 of 1		
Client:	Sumitor 1-1-3 St	Sumitomo Electric Networks Inc. 1-1-3 Shimaya, Konohana-ku, Osaka 554-0024, Japan			
Test item:	Service	Service Gateway			
Identification:	MR5105	5			

## FCC Requirement

According to FCC 2.1091, mobile equipment must comply with the following applicable limit for maximum permissible exposure (MPE) specified in FCC 1.1310:

Equipment Use	Frequency Range	Power Density [mW/cm <sup>2</sup> ]	Average Time [min]
General Population / Uncontrolled Exposure	1.5 – 100GHz	1	30

## **Measurement Result**

The maximum measured transmitter power is given in the following table:

Radio Protocol	Conducted Output Power P <sub>out</sub> [mW]	Maximum Antenna Gain [dBi]	Power Density at 20cm [mW/cm <sup>2</sup> ]
IEEE 802.11b	234.4	5.88	0.181
IEEE 802.11g	398.1	5.88	0.307
IEEE 802.11n 20MHz	426.6	5.88	0.329
IEEE 802.11n 40MHz	177.8	5.88	0.137

Note:

The power density S in mW/cm<sup>2</sup> is calculated according to the Friis formula: S = ( $P_{out} \cdot G$ ) / ( $4\pi \cdot D^2$ ), where  $P_{out}$  = antenna conducted output power in mW,

G = antenna gain in linear scale (here: 5.88dBi = 3.87 linear),

D = distance between observation point and radiating structure in cm (here: 20cm).

## Conclusion

The device complies with the FCC RF exposure requirements since the maximum transmitter power density is below the FCC limit.

Refer to test report 12028061 001 for more details.