

Test Result of RF Exposure Evaluation

- . Product: High Power Wireless-N 600mW Gigabit Dual Band Repeater
- . Test Item: RF Exposure Evaluation Data
- . Test site: OATS2-SD

Antenna Gain

Frequency Range: 2412MHz~2462MHz, 5725MHz~5850MHz

802.11b/g/n:

ANT R, ANT L

Antenna Type: Dipole Antenna

Antenna Gain: 2 dBi

802.11a, an:

ANT R, ANT L

Antenna Type: Dipole Antenna

Antenna Gain: 4 dBi

EUT Operation condition

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

Output Power into Antenna & RF Exposure Evaluation Distance

Test Date: Jun. 07, 2012

Temperature: 25°C

Atmospheric pressure: 1020 hPa

Humidity: 65%

ANT R

Modulation Type	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density (S) (mW/Cm2)
802.11b (11Mbps)	01	2412	20.42	0.035
	06	2437	20.40	0.035
	11	2462	19.20	0.026
802.11g (54Mbps)	01	2412	24.50	0.089
	06	2437	25.76	0.119
	11	2462	25.41	0.110
802.11n HT20 (130Mbps)	01	2412	20.45	0.035
	06	2437	25.60	0.114
	11	2462	23.36	0.068
802.11n HT40 (270Mbps)	03	2422	18.05	0.020
	06	2437	25.60	0.114
	09	2452	22.33	0.054

ANT L

Modulation Type	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density (S) (mW/Cm2)
802.11b (11Mbps)	01	2412	20.12	0.032
	06	2437	20.49	0.035
	11	2462	19.35	0.027
802.11g (54Mbps)	01	2412	24.88	0.097
	06	2437	25.80	0.120
	11	2462	25.35	0.108
802.11n HT20 (130Mbps)	01	2412	22.84	0.061
	06	2437	25.59	0.114
	11	2462	25.25	0.106
802.11n HT40 (270Mbps)	03	2422	20.42	0.035
	06	2437	25.86	0.122
	09	2452	24.61	0.091

ANT R + ANT L

Modulation Type	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density (S) (mW/Cm2)
802.11b (11Mbps)	01	2412	---	---
	06	2437	---	---
	11	2462	---	---
802.11g (54Mbps)	01	2412	---	---
	06	2437	---	---
	11	2462	---	---
802.11n HT20 (130Mbps)	01	2412	24.82	0.096
	06	2437	24.78	0.095
	11	2462	24.62	0.091
802.11n HT40 (270Mbps)	03	2422	22.41	0.055
	06	2437	24.64	0.092
	09	2452	24.82	0.096

Test Date: Jun. 19, 2012
Atmospheric pressure: 1020 hPa

Temperature: 25°C
Humidity: 65%

802.11a, ANT R

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (54Mbps)	36	5180	7.57	0.003
	44	5220	7.95	0.003
	48	5240	8.06	0.003
5.725 ~ 5.825 GHz (54Mbps)	149	5745	23.43	0.110
	157	5785	23.87	0.122
	165	5825	23.32	0.107

802.11an HT20 ANT R

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (130Mbps)	36	5180	7.54	0.003
	44	5220	7.88	0.003
	48	5240	8.11	0.003
5.725 ~ 5.825 GHz (130Mbps)	149	5745	23.53	0.113
	157	5785	23.70	0.117
	165	5825	23.25	0.106

802.11an HT40 ANT R

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (270Mbps)	38	5190	9.09	0.004
	42	5210	8.85	0.004
	46	5230	8.81	0.004
5.725 ~ 5.825 GHz (270Mbps)	151	5755	23.29	0.107
	155	5775	23.65	0.116
	159	5795	23.32	0.107

802.11a, ANT L

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (54Mbps)	36	5180	7.56	0.003
	44	5220	7.57	0.003
	48	5240	7.64	0.003
5.725 ~ 5.825 GHz (54Mbps)	149	5745	23.58	0.114
	157	5785	23.89	0.122
	165	5825	23.74	0.118

802.11an HT20 ANT L

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (130Mbps)	36	5180	7.09	0.003
	44	5220	6.75	0.002
	48	5240	6.82	0.002
5.725 ~ 5.825 GHz (130Mbps)	149	5745	23.61	0.115
	157	5785	23.82	0.120
	165	5825	23.78	0.119

802.11an HT40 ANT L

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (270Mbps)	38	5190	8.15	0.003
	42	5210	7.99	0.003
	46	5230	7.97	0.003
5.725 ~ 5.825 GHz (270Mbps)	151	5755	23.36	0.108
	155	5775	23.71	0.117
	159	5795	23.50	0.112

802.11an HT20 ANT R+L

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (270Mbps)	36	5180	10.33	0.011
	44	5220	10.36	0.011
	48	5240	10.52	0.011
5.725 ~ 5.825 GHz (270Mbps)	149	5745	26.54	0.451
	157	5785	26.71	0.469
	165	5825	26.26	0.422

802.11an HT40 ANT R+L

Frequency Range	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Power Density(S) (mW/Cm2)
5.15 ~ 5.25 GHz (270Mbps)	38	5190	11.66	0.015
	42	5210	11.45	0.014
	46	5230	11.42	0.014
5.725 ~ 5.825 GHz (270Mbps)	151	5755	26.30	0.426
	155	5775	26.66	0.463
	159	5795	26.33	0.429

The MPE is calculated as $0.469 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{ mW} / \text{cm}^2$. So, RF exposure limit warning or SAR test are not required.