

## 1.1. Test Result of RF Exposure Evaluation

. Product: BCM3380Z D3.0 Wireless eMTA

Test Item: RF Exposure Evaluation Data

.Test Mode: Normal Operation

### 1.1.1. Antenna Gain

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	WHA YU	C107-510733-A	Metal PIFA	U.FL	4.1dB@2.4G 4.1dB@5G
2	WHA YU	C107-510734-A	Metal PIFA	U.FL	4.1dB@2.4G 4.4dB@5G

### 1.1.2. EUT Operation condition

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

### 1.1.3. Output Power into Antenna & RF Exposure Evaluation Distance

1.1.4. Modulation Type: 802.11b: CCK, DQPSK, DBPSK / 802.11a/g:OFDM  
802.11n: OFDM ( 2 TX & 2 RX )

#### **TX B MODE CH01, CH06, CH11**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
4.1	2.5704	21.47	140.2814	0.071771	1	Complies
<b>4.1</b>	<b>2.5704</b>	<b>22.82</b>	<b>191.4256</b>	<b>0.097938</b>	<b>1</b>	<b>Complies</b>
4.1	2.5704	20.67	116.6810	0.059697	1	Complies

#### **TX G MODE CH01, CH06, CH11**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
4.1	2.5704	18.34	68.2339	0.034910	1	Complies
<b>4.1</b>	<b>2.5704</b>	<b>18.76</b>	<b>75.1623</b>	<b>0.038455</b>	<b>1</b>	<b>Complies</b>
4.1	2.5704	17.50	56.2341	0.028771	1	<b>Complies</b>

#### **TX N-20M MODE CH01, CH06, CH11 (WITH COMBINER)**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
7.1	5.1286	21.04	127.0574	0.129703	1	Complies
7.1	5.1286	21.07	127.9381	0.130602	1	Complies

7.1	5.1286	21.18	131.2200	0.133952	1	Complies
-----	--------	-------	----------	----------	---	----------

**TX N-40M MODE CH03, CH06, CH09 (WITH COMBINER)**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
7.1	5.1286	20.21	104.9542	0.107140	1	Complies
<b>7.1</b>	<b>5.1286</b>	<b>20.29</b>	<b>106.9055</b>	<b>0.109132</b>	<b>1</b>	<b>Complies</b>
7.1	5.1286	20.03	100.6932	0.102790	1	Complies

**TX 11a MODE CH149, CH157, CH165**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
4.4	2.7542	16.73	47.0977	0.025820	1	Complies
4.4	2.7542	16.12	40.9261	0.022436	1	Complies
<b>4.4</b>	<b>2.7542</b>	<b>16.89</b>	<b>48.8652</b>	<b>0.026789</b>	<b>1</b>	<b>Complies</b>

**TX N-20M MODE CH149, CH157, CH165 (WITH COMBINER)**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
7.26	5.3211	19.27	84.5279	0.089526	1	Complies
<b>7.26</b>	<b>5.3211</b>	<b>19.39</b>	<b>86.8960</b>	<b>0.092034</b>	<b>1</b>	<b>Complies</b>
7.26	5.3211	20.04	100.9253	0.106893	1	Complies

**TX N-40M MODE CH151, CH159 (WITH COMBINER)**

Test Date: Oct 20, 2010 Temperature:24°C Humidity: 60%

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
7.26	5.3211	18.28	67.2977	0.071277	1	Complies
<b>7.26</b>	<b>5.3211</b>	<b>18.40</b>	<b>69.1831</b>	<b>0.073274</b>	<b>1</b>	<b>Complies</b>

The worst data is calculated as **0.133952** mW/cm<sup>2</sup> < limit 1 mW/cm<sup>2</sup>. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.