



FCC RF EXPOSURE REPORT

FCC ID: QMPM505NR3

Project No. : 1405C031
Equipment : ADSL2+, Ethernet WAN, Broadband Gateway
Model : M505N
Applicant : DQ Technology, Inc.
Address : 5111 Johnson Drive, Pleasanton,
CA94588 , USA

According: : FCC Guidelines for Human Exposure IEEE
C95.1

BTL Inc.

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Airgain	N2420-Series	Internal	N/A	2
2	Airgain	N2420-Series	Internal	N/A	2

Note:

(1 The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R).

Operating Mode TX Mode	1TX	2TX
	802.11b	V (ANT 1 or ANT 2)
802.11g	V (ANT 1 or ANT 2)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)



TEST RESULTS

EUT :	ADSL2+,Ethernet WAN, Broadband Gateway	Model Name :	M505N
Temperature :	25 °C	Relative Humidity :	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX B MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	20.27	106.4143	0.03356992	1	Complies
2	1.5849	20.62	115.3453	0.03638735	1	Complies
2	1.5849	20.42	110.1539	0.03474964	1	Complies

EUT :	ADSL2+,Ethernet WAN, Broadband Gateway	Model Name :	M505N
Temperature :	25 °C	Relative Humidity :	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX G MODE /CH01, CH06, CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	19.9	97.7237	0.03082836	1	Complies
2	1.5849	20.38	109.1440	0.03443106	1	Complies
2	1.5849	20.7	117.4898	0.03706384	1	Complies



EUT :	ADSL2+,Ethernet WAN, Broadband Gateway	Model Name :	M505N
Temperature :	25 °C	Relative Humidity :	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M Mode_Total		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	23.71	234.9633	0.07412255	1	Complies
2	1.5849	23.76	237.6840	0.07498085	1	Complies
2	1.5849	23.93	247.1724	0.07797410	1	Complies

EUT :	ADSL2+,Ethernet WAN, Broadband Gateway	Model Name :	M505N
Temperature :	25 °C	Relative Humidity :	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M Mode_Total		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	23.64	231.2065	0.07293742	1	Complies
2	1.5849	23.65	231.7395	0.07310555	1	Complies
2	1.5849	23.91	246.0368	0.07761584	1	Complies

Note: the calculated distance is 20 cm.