

8) Transmitters and modules for use in mobile exposure conditions that allow simultaneous transmission

a) Transmitters and modules certified for mobile or portable exposure conditions and categorically excluded by § 2.1091(c) can be incorporated in mobile host devices without further testing or certification when:

i) The closest separation among all simultaneous transmitting antennas is ≥ 20 cm: or

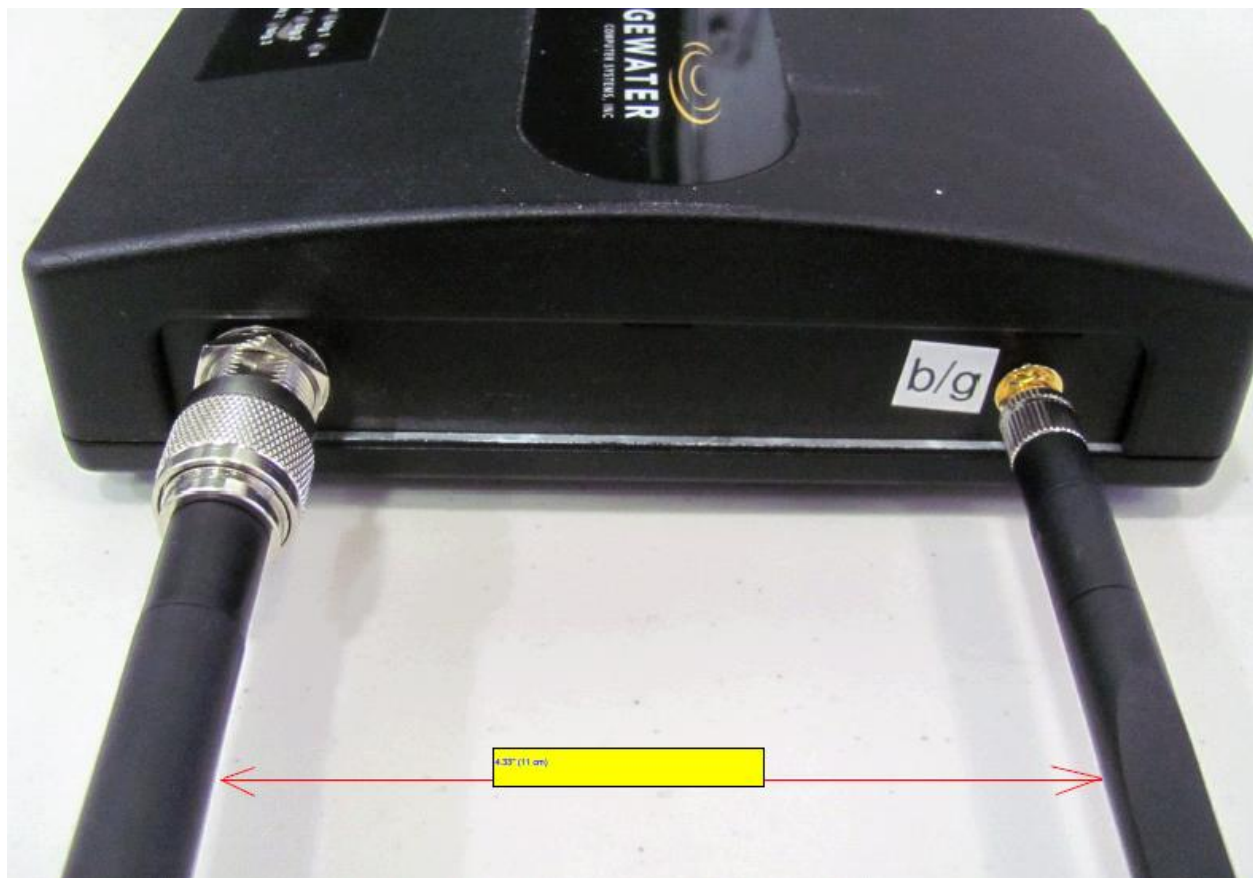
ii) The antenna separation distance and MPE compliance boundary requirements that enable all simultaneous transmitting antennas incorporated within the host to comply with MPE limits are specified in the application filing of at least one of the certified transmitters incorporated in the host device. In addition, when transmitters certified for portable use are incorporated in a mobile host device the antenna(s) must be ≥ 5 cm from all other simultaneous transmitting

b) All antennas in the final product must be at least 20 cm from users and nearby persons.

The closest separation among all simultaneous transmitting antennas is 11 cm and the antennas in the final product are at least 20 cm from user and nearby persons.

Compliance boundary requirements for co-location with FCC ID: M4Y-XA623AHV04

Antenna separation: 11 cm



Combined MPE < 1

S = power density

P = power input to the antenna

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

R = distance to the center of radiation of the antenna

	<u>802.11b/g</u>		<u>802.11a</u>	
output power	<u>19.67</u>	(dBm)	<u>27.39</u>	(dBm)
output power	<u>93</u>	(mW)	<u>548</u>	(mW)
antenna gain	<u>16</u>	(dBi)	<u>2</u>	(dBi)
antenna gain	<u>39.81</u>	(numeric)	<u>1.58</u>	(numeric)
distance	<u>20</u>	(cm)	<u>20</u>	(cm)
duty cycle	<u>100</u>	(%)	<u>100</u>	(%)
frequency	<u>2.4</u>	(GHz)	<u>5</u>	(GHz)
MPE limit	<u>1</u>	(mW/cm ²)	<u>1</u>	(mW/cm ²)
power density	<u>0.7341</u>	(mW/cm ²)	<u>0.17287</u>	(mW/cm ²)
margin	<u>1.3</u>	(dB)	<u>7.6</u>	(dB)
sum	<u>0.91</u>	<	<u>1</u>	

Compliance boundary assessment

Antenna No.		Total	1	2	3	4	5	6
Tx Status			On	On	Off	Off	Off	Off
Frequency	MHz		2400	5000	1900	2450	2450	5800
MPE Limit	mW/cm ²		1.00	1.00	0.00	0.00	0.00	0.00
Max % MPE	%	87.8	73.7	17.3	0.0	0.0	0.0	0.0
Power	(W)	0.641	0.093	0.548	0.000	0.000	0.000	0.000
Antenna Gain	dBi		16.00	2.00	3.00	1.50	0.50	1.00
EIRP	(W)	4.57	3.702	0.869	0.000	0.000	0.000	0.000
X	(cm)		-5.0	5.0	12.0	4.0	-8.0	8.0
Y	(cm)		0.0	0.0	0.0	0.0	0.0	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
θ ₁	degs	input	-120	-120	-120	-120	-120	-120
θ ₂			60	60	60	60	60	60
θ ₁		actual	-120	-120	-120	-120	-120	-120
θ ₂			60	60	60	60	60	60

% MPE Contour

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas

