

ARC Wireless LLC		Test Number:		110826			
Model: ARCFlex 802.11bgn Module							
MPE Calculator		MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.					
		dBi = dB gain compared to an isotropic radiator.					
		S = power density in mW/cm ²					
				Antenna Gain (dBi)	5		
		Output Power	dBd + 2.17 = dBi		dBi to dBd	2.2	
Tx Frequency (MHz)	2437	Maximum (Watts)	0.1390	Antenna Gain (dBd)	2.83		
Cable Loss (dB)	0.0	(dBm)	21.43	Antenna minus cable (dBi)	5.00		
Calculated ERP (mw)		266.686		EIRP = Po(dBm) + Gain (dB)			
Calculated EIRP (mw)		439.542		Radiated (EIRP) dBm		26.430	
				ERP = EIRP - 2.17 dB			
Occupational Limit		<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² $4 \pi r^2$ r (cm) EIRP (mW) </div>		Radiated (ERP) dBm		24.260	
5.00000	mW/cm ²						
50.00000	W/m ²						
General Public Limit							
1.00000	mW/cm ²						
10.00000	W/m ²						
FCC radio frequency radiation exposure limits per 1.1310							
		Frequency (MHz)	Occupational Limit	Public Limit			
		300-1,500	f/300	f/1500			
		1,500-10,000	5	1			
FCC radio frequency radiation exposure limits per 1.1310							
		Frequency (MHz)	Occupational Limit @ Tx Freq	Public Limit @ Tx Freq (mW/cm ²)			
		300-1,500 (mW/cm ²)	8.123333333	1.624666667			
		300-1,500 (W/m ²)	81.23333333	16.24666667			
		1,500-10,000 (mW/cm ²)	5	1			
		1,500-10,000 (W/m ²)	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance	
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet	
439.542	0.00350	0.03498	100.00	1.00	39.37	0.08	
439.542	0.00432	0.04318	90.00	0.90	35.43	0.08	
439.542	0.00547	0.05465	80.00	0.80	31.50	0.07	
439.542	0.00622	0.06218	75.00	0.75	29.53	0.06	
439.542	0.00714	0.07138	70.00	0.70	27.56	0.06	
439.542	0.01399	0.13991	50.00	0.50	19.69	0.04	
439.542	0.02186	0.21861	40.00	0.40	15.75	0.03	
439.542	0.03886	0.38864	30.00	0.30	11.81	0.03	
439.542	0.08744	0.87444	20.00	0.20	7.87	0.02	
439.542	0.09689	0.96891	19.00	0.19	7.48	0.02	
439.542	0.10796	1.07956	18.00	0.18	7.09	0.02	
439.542	0.15546	1.55456	15.00	0.15	5.91	0.01	
439.542	0.34978	3.49776	10.00	0.10	3.94	0.01	
439.542	0.43182	4.31822	9.00	0.09	3.54	0.01	
439.542	0.48412	4.84119	8.50	0.09	3.35	0.01	
439.542	0.50773	5.07731	8.30	0.08	3.27	0.01	
439.542	0.54653	5.46525	8.00	0.080	3.15	0.01	
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)	
		Frequency (MHz)					
		300-1,500	N/A	N/A	N/A	N/A	
		1,500-10,000	0.08	8.3 / 3.3	0.18	18 / 7.1	

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 Revision 1

ARC Wireless LLC
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 Test #: 110826
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 File: RFExp ARCFlex

SN: ENG1
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