Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

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

2AFTLSH1			Maximum peak output power at the antenna terminal:			14.30	(dBm)
			Maximum peak output power at the antenna terminal:			26.91534804	(mW)
			Antenna gain(typical):			-2	(dBi)
			Maximum antenna gain:			0.630957344	(numeric)
			Prediction distance:			20	(cm)
			Prediction frequency:			915	(MHz)
		MPE limit for uncontrolled exposure at prediction frequency:				0.6	(mW/cm^2)
			Power density at prediction frequency:			0.003379	(mW/cm^2)
			Maximum allowable antenna gain:			20.49421106	(dBi)

XFF35Z7PA20			Maximum peak output power at the antenna terminal:			19.20	(dBm)
			Maximum peak output power at the antenna terminal:			83.17637711	(mW)
			Antenna gain(typical):			0.5	(dBi)
			Maximum antenna gain:			1.122018454	(numeric)
			Prediction distance:			20	(cm)
			Prediction frequency:			2400	(MHz)
		MPE limit for uncontrolled exposure at prediction frequency:				1	(mW/cm^2)
			Power density at prediction frequency:			0.018567	(mW/cm^2)
			Maximum allowable antenna gain:			17.81269855	(dBi)

Z64-WL18SBMOD	∑ of (Power Density / Limit) of WLAN and BLE @ 20cm and Prediction Frequencies of 2412 and 2402MHz respectively	0.014

	(power density)	(MPE limit)	(pwr density / MPE limit)
	mW/cm^2	mW/cm^2	numeric
915 MHz radio 2AFTLSH1	0.003379	0.6000	0.005631
2.4GHz radio XFF35Z7PA20 (used worst case)	0.018567	1.0000	0.018567
2.4GHz radio Z64-WL18SBMOD	0.014000	1.0000	0.014000

SUM (Power Density / Limit):	0.038197
OVERALL LIMIT (numeric):	1.0
RESULT:	**Pass**