$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2} \qquad S_C = \frac{P_A G_N}{4\pi R_C^2} \qquad R_C = \sqrt{\frac{P_A G_N}{4\pi S_L}}$$

$$S_L = \frac{f}{1500} \ (mW/cm^2)$$

S_{20} = Power Density of the Device at 20cm

S_L = Power Density Limit

S_C = Power Density of the Device at the Compliance Distance R_C

R_{20} = 20cm

R_c = Minimum Distance to the Radiating Element to Meet Compliance
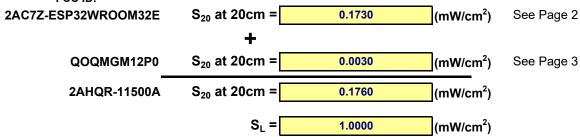
P_T = Power Input to Antenna

P_A = Adjust Power

G_N = Numeric Gain of the Antenna

f = Transmit Frequency

Transmit Duty Cycle = 100%

Use Group = General Popuation

FCC ID: **2AC7Z-ESP32WROOM32E**	S_{20} at 20cm =	0.1730	(mW/cm^2) See Page 2
	+		
QOQMGM12P0	S_{20} at 20cm =	0.0030	(mW/cm^2) See Page 3
2AHQR-11500A	S_{20} at 20cm =	0.1760	(mW/cm^2)
	S_L =	1.0000	(mW/cm^2)

Power Density of Host = Sum of all simultaneous Power Densities

Power Density Limit = Lowest Limit Based on Frequency

FCC ID:	2AHQR-11500A		RESULT:	PASS

Prediction of MPE Limit
47 CFR § 2.1091

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2} \qquad S_C = \frac{P_A G_N}{4\pi R_C^2} \qquad R_C = \sqrt{\frac{P_A G_N}{4\pi S_L}}$$

$$S_L = \frac{1}{\qquad} \; (mW/cm^2)$$

S_{20} = Power Density of the Device at 20cm
S_L = Power Density Limit
S_C = Power Density of the Device at the Compliance Distance R_C
R_{20} = 20cm
R_c = Minimum Distance to the Radiating Element to Meet Compliance
P_T = Power Input to Antenna
P_A = Adjust Power
G_N = Numeric Gain of the Antenna
f = Transmit Frequency

Transmit Duty Cycle = 100%

Use Group = General Popuation

Transmit Duty Cycle:	100.00	(%)
Tx Frequency (f):	2412.00	(MHz)
RF Power at Antenna Input Port (P_T):	398.00	(mW)
Antenna Gain:	3.40	(dBi)
Numeric Antenna Gain (G_N):	2.19	(numeric)
Cable or Other Loss:	0.00	(dB)
Duty Cycle/Loss Adjusted Power (P_A):	398.00	(mW)

S_L =	1.000	(mW/cm^2)
S_{20} at 20cm =	0.173	(mW/cm^2)
R_C =	8.3	(cm)
S_C =	1.00	(mW/cm^2)

FCC ID:	2AC7Z-ESP32WROOM32E		RESULT:	PASS

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2} \qquad S_C = \frac{P_A G_N}{4\pi R_C^2} \qquad R_C = \sqrt{\frac{P_A G_N}{4\pi S_L}}$$

$$S_L = \frac{1}{} \ (mW/cm^2)$$

S_{20} = Power Density of the Device at 20cm
S_L = Power Density Limit
S_C = Power Density of the Device at the Compliance Distance R_C
R_{20} = 20cm
R_c = Minimum Distance to the Radiating Element to Meet Compliance
P_T = Power Input to Antenna
P_A = Adjust Power
G_N = Numeric Gain of the Antenna
f = Transmit Frequency

Transmit Duty Cycle = 100%

Use Group = General Popuation

Transmit Duty Cycle:	100.00	(%)
Tx Frequency (f):	2402.00	(MHz)
RF Power at Antenna Input Port (P_T):	9.14	(mW)
Antenna Gain:	2.14	(dBi)
Numeric Antenna Gain (G_N):	1.64	(numeric)
Cable or Other Loss:	0.00	(dB)
Duty Cycle/Loss Adjusted Power (P_A):	9.14	(mW)

S_L =	1.000	(mW/cm^2)
S_{20} at 20cm =	0.003	(mW/cm^2)
R_C =	1.1	(cm)
S_C =	1.00	(mW/cm^2)

FCC ID:	QOQMGM12P0		RESULT:	PASS