MPE CALCULATION

FCC ID: SSH-SYNKTX

RF Exposure Requirements:	47 CFR §1.1307(b)
RF Radiation Exposure Limits:	47 CFR §1.1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	5745-5825MHz
Limits for General Population/Uncontrolled Exposure in the band of:	300 – 1500 GHz
Power Density Limit:	1 mW/ cm^2;

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

Mid Channel: 5785MHz

TX-Chain1: Power = 7.90 dBm, Antenna Gain = 1.9 dBi, Prediction distance 20cm, **S1 = 0.0019 mW/cm²**

TX-Chain2: Power = 5.95 dBm, Antenna Gain = 1.9 dBi, Prediction distance 20cm, **S2 = 0.0012 mW/cm²**

TX-Chain3: Power = 8.20 dBm, Antenna Gain = 1.9 dBi, Prediction distance 20cm, **S3 = 0.0020 mW/cm²**

TX-Chain4: Power = 7.06 dBm, Antenna Gain = 1.9 dBi, Prediction distance 20cm, **S4 = 0.0016 mW/cm²**

Total S = S1 + S2 +S3 + S4 = 0.0019 mW/cm² + 0.0012 mW/cm² + 0.0020 mW/cm² + 0.0016 mW/cm² =0.0067 mW/ cm²

Result

The Above Result had shown that Device complied with 1 mW/cm^2 Power density requirement for distance of 20cm.

Completed By : David Zhang

Date : Jan 7th, 2013