

FCC ID: 2ATZ3-SCMB100

IC: 25306-SCMB100

SCMB100 co-location with two other certified transmitters: SZ9TM-ZP05X (Zigbee module) and QIPELS31-V (LTE cellular modem supporting band 4 and 13, but never simultaneously)

MPE Calculation with Cellular Band 13 Active

MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)						
		Power Density (mW/cm2)	US Limit		Canada Limit	
17.68	Conducted Power (dBm)	0.027335697	1	0.027335697	0.540851086	
58.61382	Conducted Power (mW)					
3.7	Antenna Gain (dBi)					
2.344229	Antenna Numeric Gain					
20	Distance cm					
2440	Frequency MHz					
100	Duty Cycle (%)					
MPE Radio 2 - Zigbee (SZ9TM-ZP05X)						
		Power Density (mW/cm2)	US Limit		Canada Limit	
17.2	Conducted Power (dBm)	0.018566504	1	0.018566504	0.540851086	
52.48075	Conducted Power (mW)					
2.5	Antenna Gain (dBi)					
1.778279	Antenna Numeric Gain					
20	Distance cm					
2440	Frequency MHz					
100	Duty Cycle (%)					
MPE Radio 3 - Cellular (QIPELS31-V Band 13)						
		Power Density (mW/cm2)	US Limit		Canada Limit	
23.78	Conducted Power (dBm)	0.212192556	0.521333	0.212192556	0.248515221	
238.7811	Conducted Power (mW)					
6.5	Antenna Gain (dBi)					
4.466836	Antenna Numeric Gain					
20	Distance cm					
782	Frequency MHz					
100	Duty Cycle (%)					
MPE Radio 4 - Cellular (QIPELS31-V Band 4)						
		Power Density (mW/cm2)	US Limit		Canada Limit	
22.94	Conducted Power (dBm)	0	1	0	0.428001009	
196.7886	Conducted Power (mW)					
6.5	Antenna Gain (dBi)					
4.466836	Antenna Numeric Gain					
20	Distance cm					
1732.5	Frequency MHz					
0	Duty Cycle (%)					
Co Location						
		Total Ratio	US Limit		Total Ratio	Canada Limit
4	# of Radios	0.452921171	1	0.9387116	1	

FCC ID: 2ATZ3-SCMB100

IC: 25306-SCMB100

MPE Calculation with Cellular Band 4 Active

MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)									
		Power Density (mW/cm2)	US Limit						
17.68	Conducted Power (dBm)	0.027335697	1	0.027335697				Canada Limit	
58.61382	Conducted Power (mW)							0.540851086	
3.7	Antenna Gain (dBi)								
2.344229	Antenna Numeric Gain								
20	Distance cm								
2440	Frequency MHz								
100	Duty Cycle (%)								
MPE Radio 2 - Zigbee (SZ9TM-ZP05X)									
		Power Density (mW/cm2)	US Limit						
17.2	Conducted Power (dBm)	0.018566504	1	0.018566504				Canada Limit	
52.48075	Conducted Power (mW)							0.540851086	
2.5	Antenna Gain (dBi)								
1.778279	Antenna Numeric Gain								
20	Distance cm								
2440	Frequency MHz								
100	Duty Cycle (%)								
MPE Radio 3 - Cellular (QIPELS31-V Band 13)									
		Power Density (mW/cm2)	US Limit						
23.78	Conducted Power (dBm)	0	0.521333	0				Canada Limit	
238.7811	Conducted Power (mW)							0.248515221	
6.5	Antenna Gain (dBi)								
4.466836	Antenna Numeric Gain								
20	Distance cm								
782	Frequency MHz								
0	Duty Cycle (%)								
MPE Radio 4 - Cellular (QIPELS31-V Band 4)									
		Power Density (mW/cm2)	US Limit						
22.94	Conducted Power (dBm)	0.174875973	1	0.174875973				Canada Limit	
196.7886	Conducted Power (mW)							0.428001009	
6.5	Antenna Gain (dBi)								
4.466836	Antenna Numeric Gain								
20	Distance cm								
1732.5	Frequency MHz								
100	Duty Cycle (%)								
Co Location									
		US				Canada			
		Total Ratio	Limit			Total Ratio	Limit		
4	# of Radios	0.220778174	1			0.493458072	1		