

## MPE with ELS61-US - Band 2

## MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.68	Conducted Power (dBm)	0.020736246	1 0.020736246 0.534775942
58.61382	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 2 - Zigbee (SZ9TM-ZP05X)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.2	Conducted Power (dBm)	0.018566504	1 0.018566504 0.534775942
52.48075	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 3 - Cellular (QIPELS61-US Band 2)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.85	Conducted Power (dBm)	0.171289265	1 0.171289265 0.447631518
192.7525	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1850	Frequency MHz		
100	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 9400, 1880MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 4 - Cellular (QIPELS61-US Band 4)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.03	Conducted Power (dBm)	0	1 0 0.424194507
200.9093	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1710	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 1413, 1732.6MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500  
Note: Duty cycle set to 0 to reflect that Band 4 radio is off

## MPE Radio 5 - Cellular (QIPELS61-US Band 5)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.37	Conducted Power (dBm)	0	0.549333 0 0.257561031
217.2701	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
824	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 4182, 836.4MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits  
Note: Duty cycle set to 0 to reflect that Band 5 radio is off

## MPE Radio 6 - Cellular (QIPELS31-V Band 12)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.12	Conducted Power (dBm)	0	0.465333 0 0.22994623
162.9296	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
698	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at LTE channel 23017, 699.7MHz, QPSK, RB Size 1, RB Offset 0

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits  
Note: Duty cycle set to 0 to reflect that Band 12 radio is off

## Co Location

US	Canada
Total Ratio	Total Ratio
Limit	Limit
0.210592015	1 0.45615071 1

## MPE with ELS61-US - Band 4

## MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.68 Conducted Power (dBm)	0.020736246	1	0.020736246 0.534775942
58.61382 Conducted Power (mW)			
2.5 Antenna Gain (dBi)			
1.778279 Antenna Numeric Gain			
20 Distance cm			
2400 Frequency MHz			
100 Duty Cycle (%)			

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 2 - Zigbee (SZ9TM-ZP05X)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.2 Conducted Power (dBm)	0.018566504	1	0.018566504 0.534775942
52.48075 Conducted Power (mW)			
2.5 Antenna Gain (dBi)			
1.778279 Antenna Numeric Gain			
20 Distance cm			
2400 Frequency MHz			
100 Duty Cycle (%)			

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 3 - Cellular (QIPELS61-US Band 2)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.85 Conducted Power (dBm)	0	1	0 0.447631518
192.7525 Conducted Power (mW)			
6.5 Antenna Gain (dBi)			
4.466836 Antenna Numeric Gain			
20 Distance cm			
1850 Frequency MHz			
0 Duty Cycle (%)			

Note: Worst case power was at WCDMA channel 9400, 1880MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

Note: Duty cycle set to 0 to reflect that Band 2 radio is off

## MPE Radio 4 - Cellular (QIPELS61-US Band 4)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.03 Conducted Power (dBm)	0.178537786	1	0.178537786 0.424194507
200.9093 Conducted Power (mW)			
6.5 Antenna Gain (dBi)			
4.466836 Antenna Numeric Gain			
20 Distance cm			
1710 Frequency MHz			
100 Duty Cycle (%)			

Note: Worst case power was at WCDMA channel 1413, 1732.6MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

Note: Duty cycle set to 0 to reflect that Band 4 radio is off

## MPE Radio 5 - Cellular (QIPELS61-US Band 5)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.37 Conducted Power (dBm)	0	0.549333	0 0.257561031
217.2701 Conducted Power (mW)			
6.5 Antenna Gain (dBi)			
4.466836 Antenna Numeric Gain			
20 Distance cm			
824 Frequency MHz			
0 Duty Cycle (%)			

Note: Worst case power was at WCDMA channel 4182, 836.4MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

Note: Duty cycle set to 0 to reflect that Band 5 radio is off

## MPE Radio 6 - Cellular (QIPELS31-V Band 12)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.12 Conducted Power (dBm)	0	0.465333	0 0.22994623
162.9296 Conducted Power (mW)			
6.5 Antenna Gain (dBi)			
4.466836 Antenna Numeric Gain			
20 Distance cm			
698 Frequency MHz			
0 Duty Cycle (%)			

Note: Worst case power was at LTE channel 23017, 699.7MHz, QPSK, RB Size 1, RB Offset 0

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

Note: Duty cycle set to 0 to reflect that Band 12 radio is off

## Co Location

	US	Canada
Total Ratio	Limit	Total Ratio
0.217840537	1	0.49438047

1

## MPE with ELS61-US - Band 5

## MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.68	Conducted Power (dBm)	0.020736246	1 0.020736246 0.534775942
58.61382	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 2 - Zigbee (SZ9TM-ZP05X)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.2	Conducted Power (dBm)	0.018566504	1 0.018566504 0.534775942
52.48075	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 3 - Cellular (QIPELS61-US Band 2)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.85	Conducted Power (dBm)	0	1 0 0.447631518
192.7525	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1850	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 9400, 1880MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

Note: Duty cycle set to 0 to reflect that Band 2 radio is off

## MPE Radio 4 - Cellular (QIPELS61-US Band 4)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.03	Conducted Power (dBm)	0	1 0 0.424194507
200.9093	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1710	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 1413, 1732.6MHz, RMC 12.2Kbps

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

Note: Duty cycle set to 0 to reflect that Band 4 radio is off

## MPE Radio 5 - Cellular (QIPELS61-US Band 5)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.37	Conducted Power (dBm)	0.193076823	0.549333 0.193076823 0.257561031
217.2701	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
824	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

## MPE Radio 6 - Cellular (QIPELS31-V Band 12)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.12	Conducted Power (dBm)	0	0.465333 0 0.22994623
162.9296	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
698	Frequency MHz		
0	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

Note: Duty cycle set to 0 to reflect that Band 12 radio is off

## Co Location

	US	Canada
Total Ratio	Limit	Total Ratio
0.39077755	1	0.823129097

1

## MPE with ELS61-US - Band 12

## MPE Radio 1 - Bluetooth (2ATZ3-SCMB100)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.68	Conducted Power (dBm)	0.020736246	1 0.020736246 0.534775942
58.61382	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 2 - Zigbee (SZ9TM-ZP05X)

	Power Density (mW/cm2)	US Limit	Canada Limit
17.2	Conducted Power (dBm)	0.018566504	1 0.018566504 0.534775942
52.48075	Conducted Power (mW)		
2.5	Antenna Gain (dBi)		
1.778279	Antenna Numeric Gain		
20	Distance cm		
2400	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case Canada limit; US limit is 1.0 for any frequency above 1500

## MPE Radio 3 - Cellular (QIPELS61-US Band 2)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.85	Conducted Power (dBm)	0	1 0 0.447631518
192.7525	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1850	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 9400, 1880MHz, RMC 12.2Kbps

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## MPE Radio 4 - Cellular (QIPELS61-US Band 4)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.03	Conducted Power (dBm)	0	1 0 0.424194507
200.9093	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
1710	Frequency MHz		
0	Duty Cycle (%)		

Note: Worst case power was at WCDMA channel 1413, 1732.6MHz, RMC 12.2Kbps

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## MPE Radio 5 - Cellular (QIPELS61-US Band 5)

	Power Density (mW/cm2)	US Limit	Canada Limit
23.37	Conducted Power (dBm)	0	0 0.549333 0 0.257561031
217.2701	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
824	Frequency MHz		
0	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

Note: Duty cycle set to 0 to reflect that Band 5 radio is off

## MPE Radio 6 - Cellular (QIPELS31-V Band 12)

	Power Density (mW/cm2)	US Limit	Canada Limit
22.12	Conducted Power (dBm)	0.144787192	0.465333 0.144787192 0.22994623
162.9296	Conducted Power (mW)		
6.5	Antenna Gain (dBi)		
4.466836	Antenna Numeric Gain		
20	Distance cm		
698	Frequency MHz		
100	Duty Cycle (%)		

Note: Frequency was chosen at low edge of band to show worst-case US & Canada limits

## Co Location

	US	Canada
Total Ratio	Limit	Total Ratio
0.350450011	1	0.703150596

1

US MPE Limits 1			Canada MPE Limits 1		
0.3	1.34	100	10	20	0.2
1.34	30	0.00003125	20	48	0.018257
30	300	0.2	48	300	0.1291
300	1500	1.6	300	6000	0.534776
1500	10000	1	6000	15000	1

US MPE Limits 2			Canada MPE Limits 2		
0.3	1.34	100	10	20	0.2
1.34	30	0.00003125	20	48	0.018257
30	300	0.2	48	300	0.1291
300	1500	1.6	300	6000	0.534776
1500	10000	1	6000	15000	1

US MPE Limits 3			Canada MPE Limits 3		
0.3	1.34	100	10	20	0.2
1.34	30	5.25931E-05	20	48	0.020794
30	300	0.2	48	300	0.1291
300	1500	1.233333333	300	6000	0.447632
1500	10000	1	6000	15000	1

US MPE Limits 4			Canada MPE Limits 4		
0.3	1.34	100	10	20	0.2
1.34	30	6.15574E-05	20	48	0.021629
30	300	0.2	48	300	0.1291
300	1500	1.14	300	6000	0.424195
1500	10000	1	6000	15000	1

US MPE Limits 5			Canada MPE Limits 5		
0.3	1.34	100	10	20	0.2
1.34	30	0.000265105	20	48	0.031158
30	300	0.2	48	300	0.1291
300	1500	0.549333333	300	6000	0.257561
1500	10000	1	6000	15000	1

US MPE Limits 6			Canada MPE Limits 6		
0.3	1.34	100	10	20	0.2
1.34	30	0.000369455	20	48	0.033854
30	300	0.2	48	300	0.1291
300	1500	0.465333333	300	6000	0.229946
1500	10000	1	6000	15000	1