

**Model:MP252WDBN, FCC ID:EW780-7597-00,Job No:HK11060197**

## **RF Exposure**

The MP252WDBN base unit has totally 4 antennas, two DECT antennas and two WiFi antennas (The Bluetooth antenna is disabled as software is unavailable in this version. Please refer to the “declaration letter for the device’s feature” for details). The MP252WDBN handset unit has only one DECT antenna.

The KDB 447498: A Mobile Multi-transmitter MPE Estimation MPE spreadsheet is used for estimating MPE limits for these 5 antennas’ simultaneous transmission.

The information of operating frequency (MHz), power (W), antenna gain (dBi), location (X and Y coordinates showed on page 2) for each antenna are entered in the MPE spreadsheet .

The power densities of up to 5 antennas located within a 90 cm<sup>2</sup> region at 1 cm intervals are estimated first. Then the power densities computed for each antenna are summed.

The plot "% MPE Contour" displays the result in percentages of the frequency-dependent power density limits. As the measured power density at 20cm from the transmitter is lower than the MPE limit (the compliance boundary for simultaneous transmission), the compliance to the MPE limit can be ensured by indicating the minimum 20cm separation between the transmitter's radiating structures and body of the user or nearby persons.

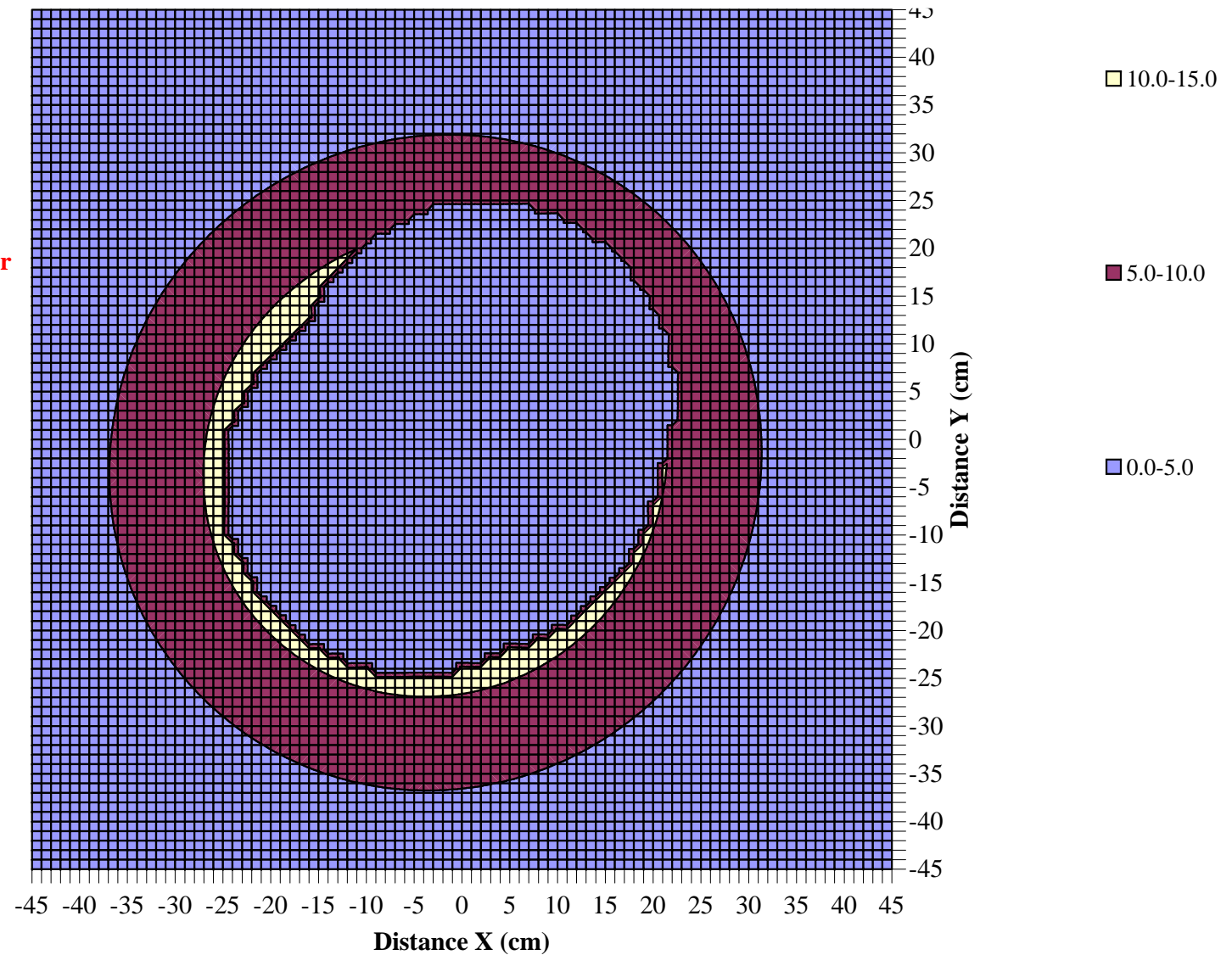


Antenna No.		Total	1	2	3	4	5	6
Tx Status			On	Off	On	Off	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		1.00	0.00	1.00	0.00	1.00	0.00
Max % MPE	%	13.3	2.6	0.0	9.6	0.0	2.1	0.0
Power	(W)	0.495	0.083	0.000	0.305	0.000	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.72	0.132	0.000	0.483	0.000	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 1: DECT Antenna 0 , WiFi antenna 0 ( 802.11g), and Handset Antenna are transmitting at the same time .

Plot 1 : DECT Antenna 0 , WiFi antenna 0 ( 802.11g),and Handset Antenna are transmitting at the same time .

**Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas**



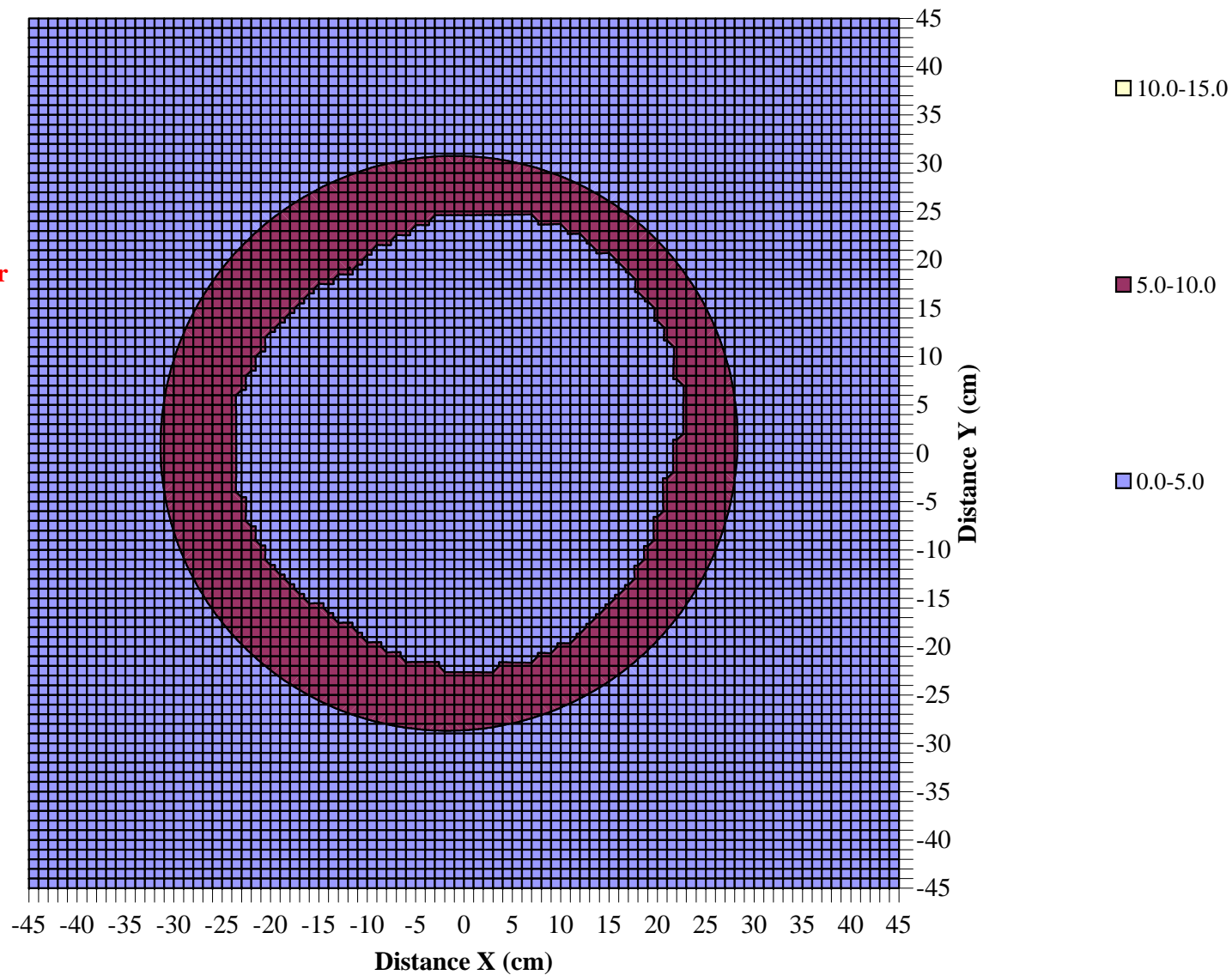
Antenna No.		Total	1	2	3	4	5	6
Tx Status			On	Off	Off	On	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		1.00	0.00	0.00	1.00	1.00	0.00
Max % MPE	%	10.1	2.6	0.0	0.0	6.2	2.1	0.0
Power	(W)	0.386	0.083	0.000	0.000	0.196	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.55	0.132	0.000	0.000	0.311	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 2: DECT Antenna 0,WiFi antenna 1 ( 802.11n/20MHz BW),and Handset Antenna are transmitting at the same time .

Plot 2 : DECT Antenna 0 ,WiFi antenna 1 ( 802.11n/20MHz BW), and Handset Antenna are transmitting at the same time .

**% MPE Contour**

**Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas**

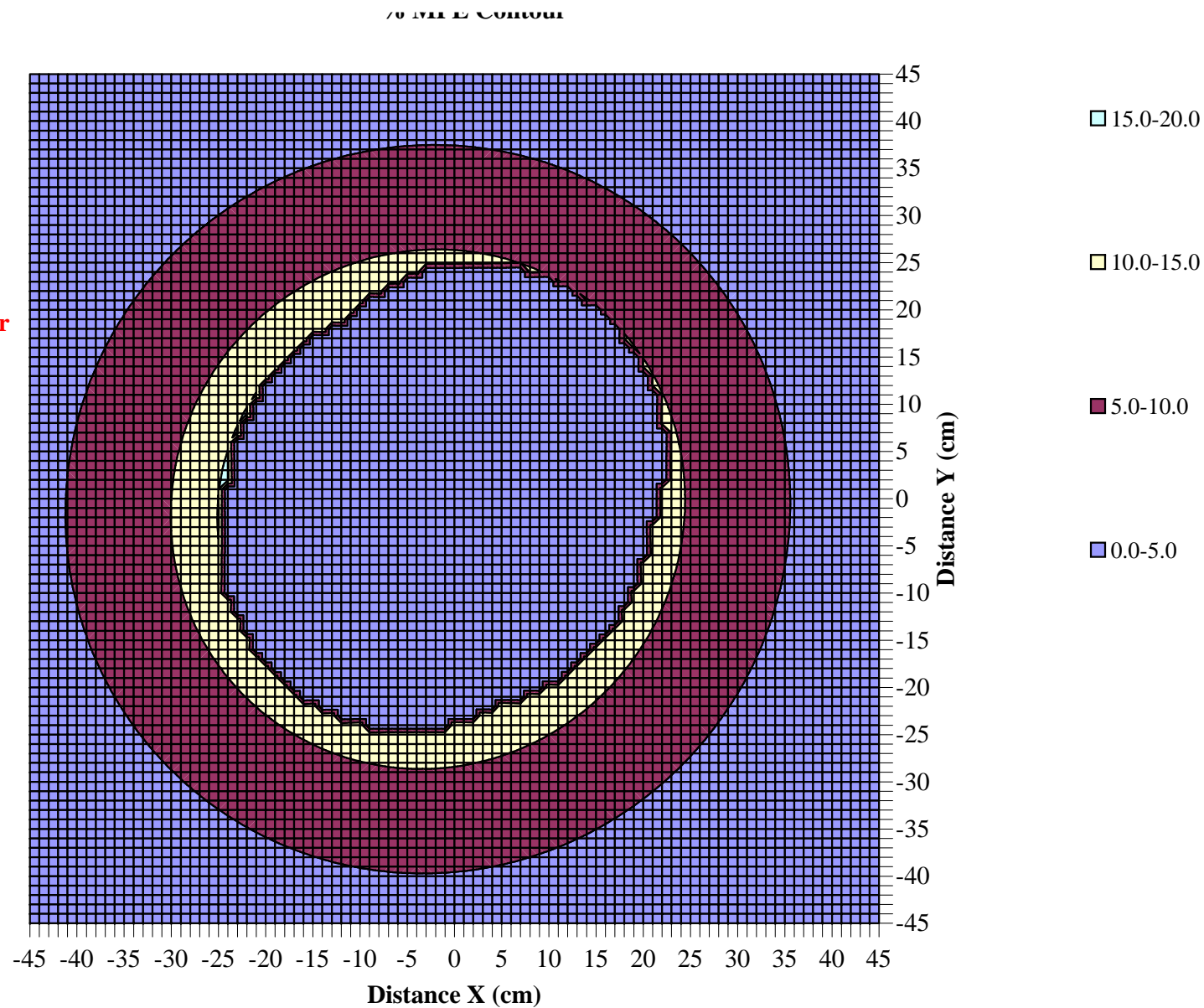


Antenna No.		Total	1	2	3	4	5	6
Tx Status			On	Off	On	On	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		1.00	0.00	1.00	1.00	1.00	0.00
Max % MPE	%	16.1	2.6	0.0	7.1	6.5	2.1	0.0
Power	(W)	0.620	0.083	0.000	0.225	0.205	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.92	0.132	0.000	0.357	0.325	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 3: DECT Antenna 0 m,WiFi antenna 0 &1 ( 802.11n/40MHz BW), and Handset Antenna are transmitting at the same time .

Plot 3 : DECT Antenna 0,WiFi antennas 0 &1 ( 802.11n/40MHz BW),and Handset Antenna are transmitting at the same time .

**Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas**



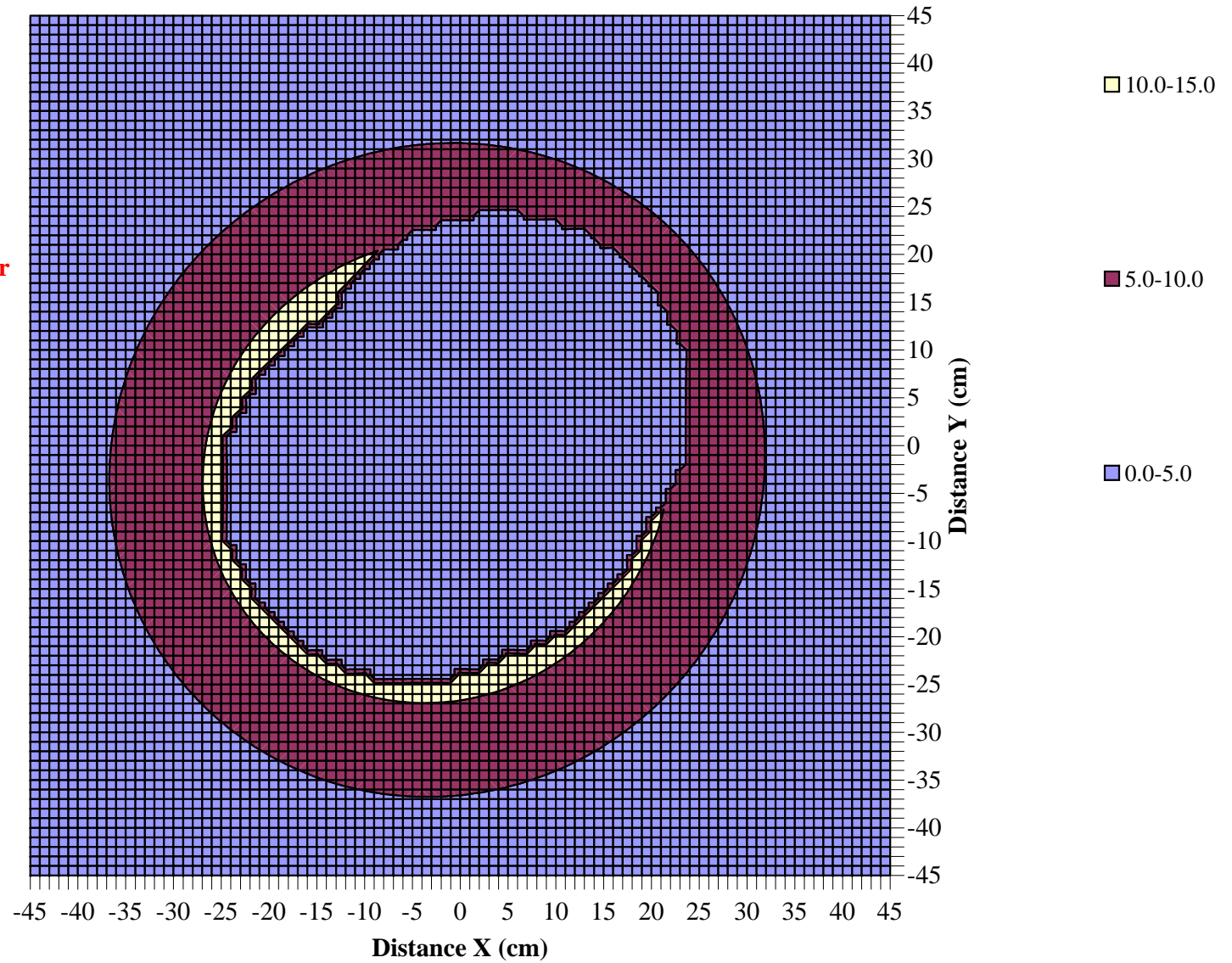


Antenna No.		Total	1	2	3	4	5	6
Tx Status			Off	On	On	Off	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		0.00	1.00	1.00	0.00	1.00	0.00
Max % MPE	%	13.6	0.0	2.6	9.6	0.0	2.1	0.0
Power	(W)	0.495	0.000	0.083	0.305	0.000	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.72	0.000	0.132	0.483	0.000	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 4: DECT Antenna 1, WiFi antenna 0 ( 802.11g), and Handset Antenna are transmitting at the same time .

Plot 4 :DECT Antenna 1, WiFi antenna 0 ( 802.11g),and Handset Antenna are transmitting at the same time .

**Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas**



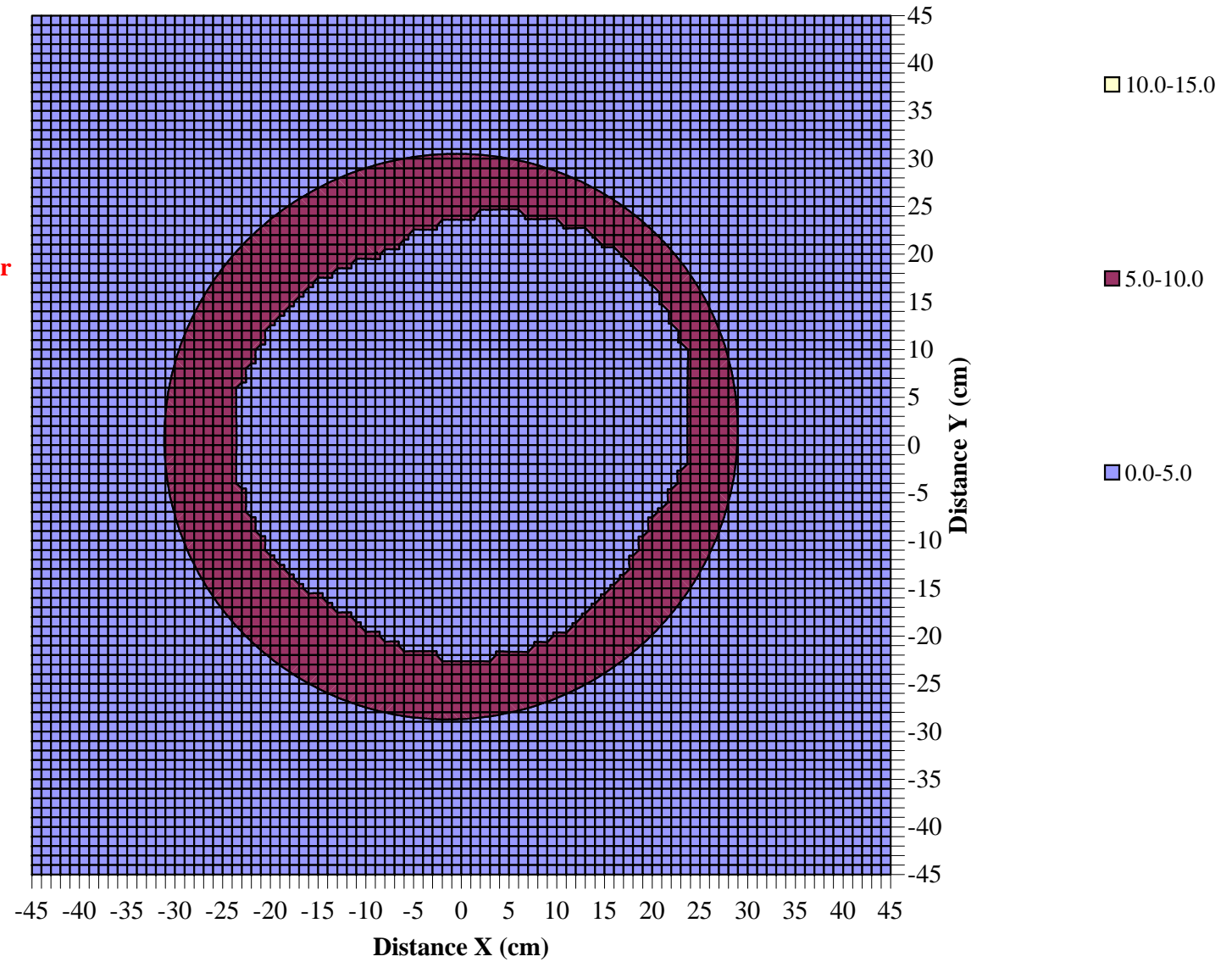
Antenna No.		Total	1	2	3	4	5	6
Tx Status			Off	On	Off	On	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		0.00	1.00	0.00	1.00	1.00	0.00
Max % MPE	%	10.1	0.0	2.6	0.0	6.2	2.1	0.0
Power	(W)	0.386	0.000	0.083	0.000	0.196	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.55	0.000	0.132	0.000	0.311	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 5: DECT Antenna ,WiFi antenna 1 ( 802.11n/20MHz BW),and Handset Antenna are transmitting at the same time .

Plot 5 :DECT Antenna 1,WiFi antenna 1 ( 802.11n/20MHz BW), and Handset Antenna are transmitting at the same time .

70 MHz E-CONTOUT

**Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas**



Antenna No.		Total	1	2	3	4	5	6
Tx Status			Off	On	On	On	On	Off
Frequency	MHz		1925	1925	2450	2450	1925	0
MPE Limit	mW/cm <sup>2</sup>		0.00	1.00	1.00	1.00	1.00	0.00
Max % MPE	%	15.9	0.0	2.6	7.1	6.5	2.1	0.0
Power	(W)	0.620	0.000	0.083	0.225	0.205	0.107	0.000
Antenna Gain	dBi		2.00	2.00	2.00	2.00	0.00	0.00
EIRP	(W)	0.92	0.000	0.132	0.357	0.325	0.107	0.000
X	(cm)		2.2	4.0	-4.8	-3.8	0.5	0.0
Y	(cm)		4.7	4.2	-4.5	0.6	-2.2	0.0
Sector			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Arc			FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
$\theta_1$	degs	input	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0
$\theta_1$		actual	0	0	0	0	0	0
$\theta_2$			0	0	0	0	0	0

Table 6: DECT Antenna 1,WiFi antenna 0 &1 ( 802.11n/40MHz BW), and Handset Antenna are transmitting at the same time .

Plot 6 :DECT Antenna 1,WiFi antenna 0&1 ( 802.11n/40MHz BW), and Handset Antenna are transmitting at the same time .

Note: The 0% contour surrounding the antennas identifies a 20 cm perimeter surrounding all active antennas

