



MOTOROLA SOLUTIONS



TESTING CERT # 2518.01

Exhibit 7B: SAR Test Report Photographs

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Report Revision History

Date	Revision	Comments
1/27/2012	O	Initial release
3/9/2012	A	Revised to accommodate the FCC correspondent reference #721461.
3/22/2012	B	Revised to add FCC ID to the header of the Exhibit 7B report and photo for the Bluetooth's antenna separation distance.

1.0 Highest SAR Test Position per body location

1.1 Body

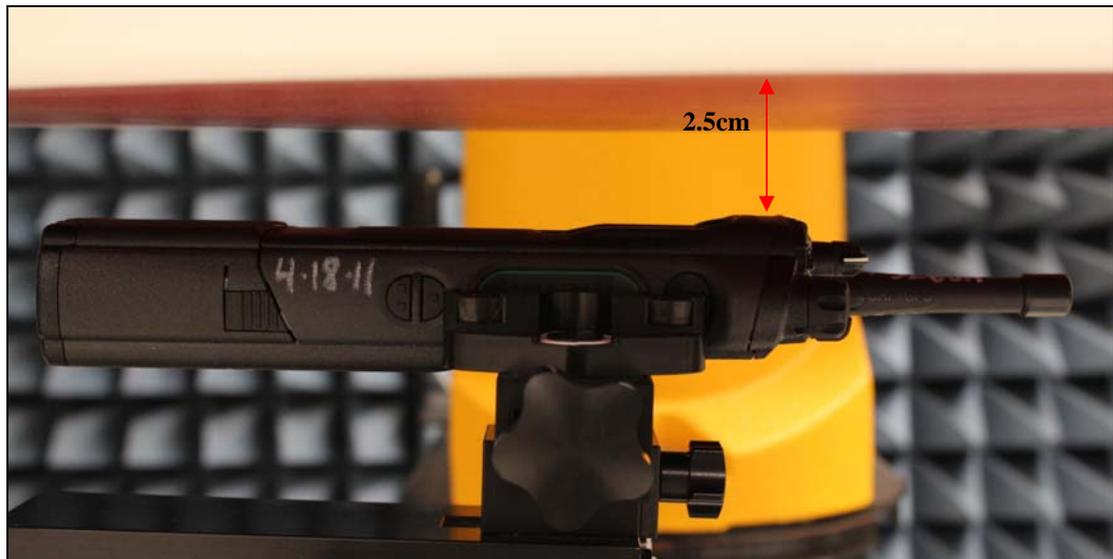
DUT w/ antenna FAF5260A with offered battery NNTN8092A and body worn PMLN5322B/NTN5243A against the phantom and no audio cable attached. Same position used for the other offered antennas (see table below), applicable batteries, and audio cables.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	36	46
FAF5260A	0	36	46
PMAE4065A	0	36	54

1.2 Face

DUT w/ back side separated 2.5cm from phantom with antenna FAF5260A and battery NNTN7034A
 Same position used for the other offered antennas (see table below) and batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	29	42	45
FAF5260A	29	42	44-45 (*)
PMAE4065A	29	42	47

(*) Depending on battery

1.3 Head

Not applicable.

1.4 Hand

Not applicable.

2.0 Other SAR tested positions at the body

2.1 Body worn

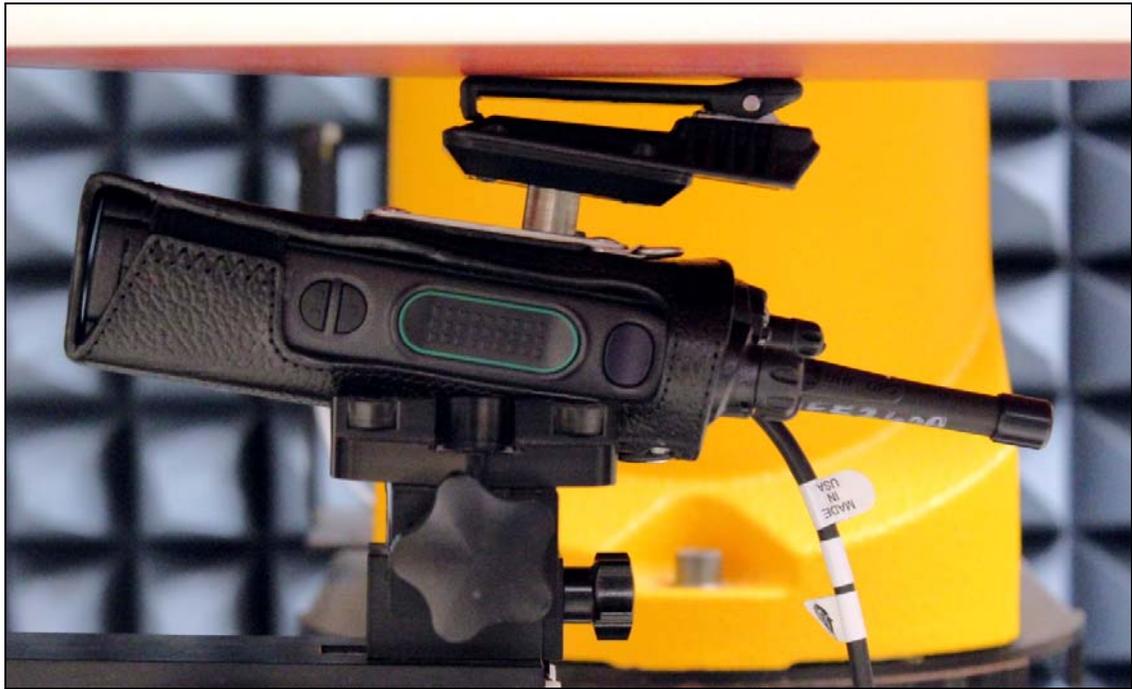
DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn HLN6875A against the phantom. Same position used for the other offered antennas (see table below) and batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	44	60
FAF5260A	0	44	58-62 (*)
PMAE4065A	0	44	74

(*) Depending on battery

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn RLN6458A against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	18	70	87
FAF5260A	18	70	87
PMAE4065A	18	70	106

DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn NTN9179A against the phantom. Same position used for the other offered antennas (see table below) and batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	10	53	67
FAF5260A	10	53	67
PMAE4065A	10	53	81

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn PMLN5322B against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and carry strap.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	36	46
FAF5260A	0	36	46
PMAE4065A	0	36	54

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn PMLN5323B against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and carry strap.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	51	69
FAF5260A	0	51	69
PMAE4065A	0	51	84

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn PMLN5324B against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	10	67	86
FAF5260A	10	67	86
PMAE4065A	10	67	103

DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn PMLN5325B against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and carry strap.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	33	40
FAF5260A	0	33	40
PMAE4065A	0	33	47

DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn PMLN5326B against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and carry strap.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	51	66
FAF5260A	0	51	66
PMAE4065A	0	51	78

DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn PMLN5327B against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	74	96
FAF5260A	0	74	96
PMAE4065A	0	74	115

DUT w/antenna FAF5260A battery NNTN7037A, audio PMLN5275C and body worn PMLN5328B against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and carry strap.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	34	42
FAF5260A	0	34	42
PMAE4065A	0	34	49

DUT w/antenna FAF5260A battery NNTN7037A, audio PMLN5275C and body worn PMLN5329B against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	50	64
FAF5260A	0	50	64
PMAE4065A	0	50	76

DUT w/antenna FAF5260A battery NNTN7037A, audio PMLN5275C and body worn PMLN5330B against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	72	93
FAF5260A	0	72	93
PMAE4065A	0	72	110

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn PMLN5560B against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	58	74
FAF5260A	0	58	74
PMAE4065A	0	58	88

DUT w/antenna FAF5260A battery NNTN7034A, audio PMLN5275C and body worn RLN6459A against the phantom. Same position used for the other offered antennas (see table below), and applicable batteries.



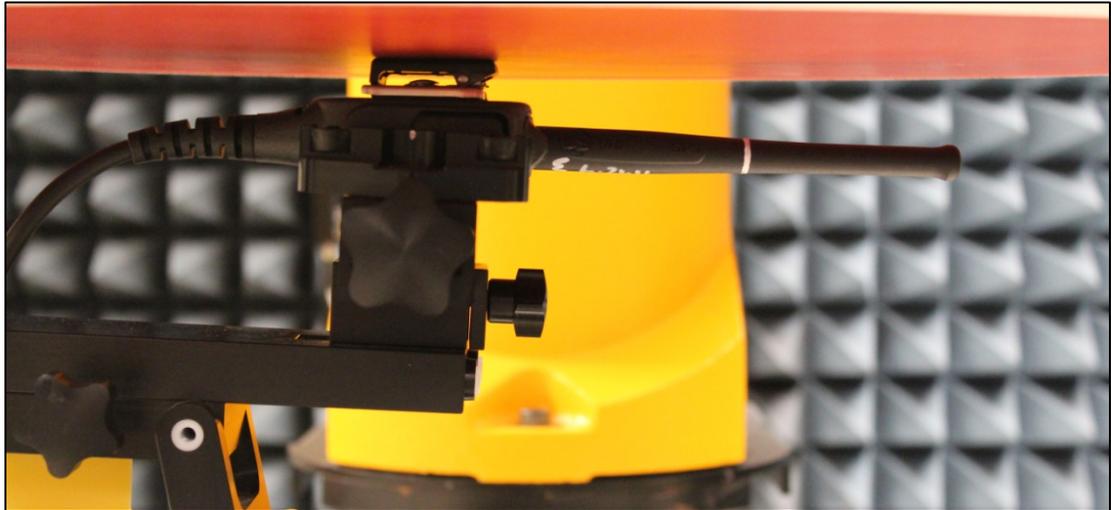
Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	20	70	84
FAF5260A	20	70	84
PMAE4065A	20	70	98

DUT w/antenna FAF5260A battery PMNN4403A, audio PMLN5275C and body worn PMLN5324B/NTN5243A against the phantom. Same position used for the other offered antennas (see table below), applicable batteries, and all other carry cases with swivel belt loop (PMLN5560B, PMLN5327B, PMLN5329B, PMLN5330B).



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	0	48	65
FAF5260A	0	48	65
PMAE4065A	0	48	78

DUT w/ PSM PMMN4060B, antenna PMAE4065A and shoulder clip 4205823V08 against the phantom. Same position used for the other PSM's (see table below).



Antenna kit #	PSM kit #	Separation Distances (mm)		
		@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAE4065A	PMMN4059B	13	20	26
	PMMN4060B	13	20	26
	PMMN4061B	13	20	26

- 2.2 **Front Side against phantom**
Not applicable.
- 2.3 **Back side against phantom**
Not applicable.
- 2.4 **Front 2.5cm separation**
Not applicable
- 2.5 **Antenna 2.5cm separation**
Not applicable
- 2.6 **Back 2.5cm separation**
Not applicable

3.0 Other SAR tested positions at the face

- 3.1 **Back of DUT at 2.5cm separation**
Refers to section 1.2.
- 3.2 **Front of DUT at 2.5cm separation**

DUT's front, w/antenna FAF5260A battery NNTN7034A, separated 2.5cm from the phantom. Same position used for the other offered antennas (see table below), and batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
FAF5259A	26	40	43
FAF5260A	26	40	39-44 (*)
PMAE4065A	26	40	46

(*) Depending on battery

4.0 Other SAR tested positions at the head

4.1 Left ear touch
Not applicable.

4.2 Left ear tilt
Not applicable.

4.3 Right ear touch
Not applicable.

4.4 Right ear tilt
Not applicable.

5.0 Other SAR tested positions at the hand

5.1 Left side
Not applicable.

5.2 Right side
Not applicable.

5.3 Top side
Not applicable.

5.4 Bottom side
Not applicable.

5.5 Back side
Not applicable.

6.0 DUT and Accessory Photos

The purpose of these photos is to illustrate the offered accessories. Refer to Part 1 of 2 section 7.0 for more details.

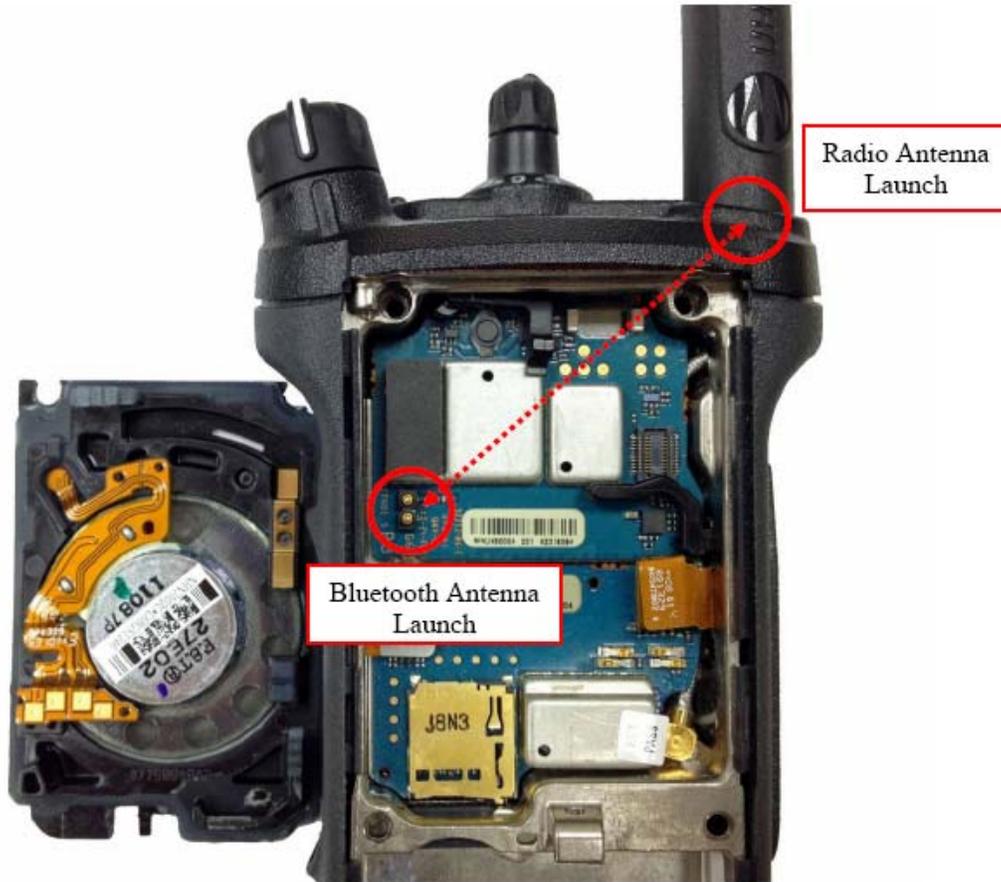
6.1 Antenna dimension and photo:

Antenna Kit #	Physical Length (mm)	Electrical Length
FAF5259A	93	¼ Wave
FAF5260A	93	¼ Wave
PMAE4065A	150	¼ Wave



Left-right: FAF5259A, FAF5260A, and PMAE4065A

6.2 Bluetooth antenna separation:



Bluetooth Antenna Distance from Radio Antenna = 54.4114mm

6.3 Body worn accessories



DUT Back View
Belt clip HLN6875A

DUT Side View
Belt clip HLN6875A



DUT Back View
D- Clip NTN9179AA



DUT Side View
D- Clip NTN9179AA



DUT Back View
Carry case PMLN5322B



DUT Side View
Carry case PMLN5322B



DUT Front View
Carry case PMLN5322B



DUT Back View
Carry case PMLN5323B



DUT Side View
Carry case PMLN5323B



DUT Front View
Carry case PMLN5323B



DUT Back View
Carry case PMLN5324B



DUT Side View
Carry case PMLN5324B



DUT Front View
Carry case PMLN5324B



DUT Back View
Carry case PMLN5325B



DUT Side View
Carry case PMLN5325B



DUT Front View
Carry case PMLN5325B



DUT Back View
Carry case PMLN5326B



DUT Side View
Carry case PMLN5326B



DUT Front View
Carry case PMLN5326B



DUT Back View
Carry case PMLN5327B



DUT Side View
Carry case PMLN5327B



DUT Front View
Carry case PMLN5327B



DUT Back View
Carry case PMLN5328B



DUT Side View
Carry case PMLN5328B



DUT Front View
Carry case PMLN5328B



DUT Back View
Carry case PMLN5329B



DUT Side View
Carry case PMLN5329B



DUT Front View
Carry case PMLN5329B



DUT Back View
Carry case PMLN5330B



DUT Side View
Carry case PMLN5330B



DUT Front View
Carry case PMLN5330B



DUT Back View
Carry case RLN6458A



DUT Side View
Carry case RLN6458A



DUT Front View
Carry case RLN6458A



DUT Back View
Carry case RLN6459A



DUT Side View
Carry case RLN6459A



DUT Front View
Carry case RLN6459A



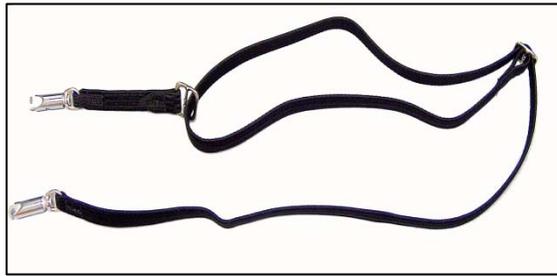
DUT Back View
Carry case PMLN5560BA



DUT Side View
Carry case PMLN5560BA



DUT Front View
Carry case PMLN5560BA



Carry strap NTN5243A

6.4 Battery accessories:
 PMNN4403A, NNTN7038A, NNTN8092A (from left to right)



Kit Number	Thickness x height (mm)
PMNN4403A	37 x 86
NNTN7038A	42 x 86
NNTN8092A	42 x 86

NNTN7033A, NNTN7034A, NNTN7036A, and NNTN7037A (from left to right)



Kit Number	Thickness x height (mm)
NNTN7033A	42 x130
NNTN7034A	42 x130
NNTN7036A	40 x 136
NNTN7037A	40 x 136

6.5 Audio accessories:

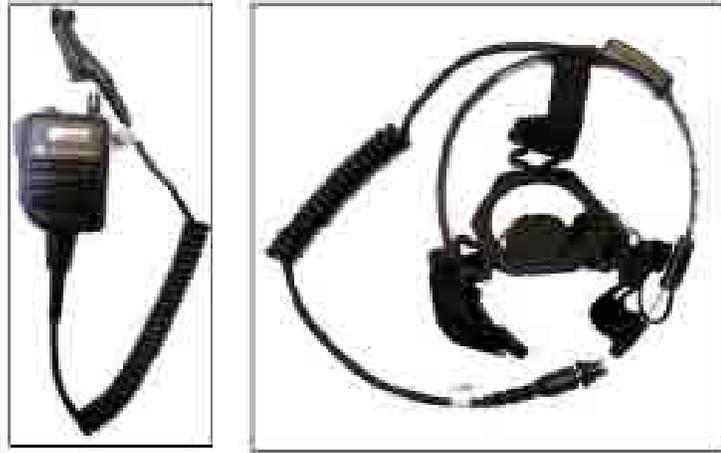
Publix Safety microphone (PSM): PMMN4059B, PMMN4069B, and PMMN4061B (from left to right)



PMLN5275C, PMLN5111A (from left to right)



HMN4104B, RMN5116A (from left to right)



Remote Speaker Microphone (RSM) PMMN4062A, PMMN4065A, and PMMN4024A (from left to right)



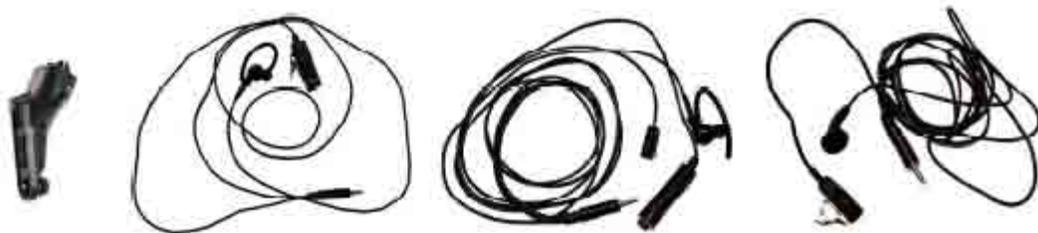
PMLN5101A, RLN5882A, RMN5058A (from left to right)



Adaptor NNTN7869A, and ZMN6031A, ZMN6032A (from left to right)



Adaptor BDN6783A, and BDN6731A, BDN6732A, and BDN6780A (from left to right)



6.6 DUT Dimensions

	Height (mm)	Width (mm)	Depth (mm)
Radio only (w/o battery)	160	76/59	41/34
Radio with battery PMNN4403A	166	76/59	42/34

For illustration purposes the following figure reflects the location of the device’s dimensions.



Note: H = Height; W = Width; D = Depth
 $W1 = (\text{Width @ Top}) / (\text{Width @ PTT})$
 $D2 = (\text{Depth @ Bottom}) / (\text{Depth @ PTT})$