



TESTING CERT # 2518.01

Exhibit 7B: SAR Test Report Photographs

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Date: 2011.07.29 10:04:21 -0400

Report Revision History

Date	Revision	Comments
7/28/11	O	Initial release

1.0 Highest SAR Test Position per body location

1.1 Body

DUT w/ antenna PMAD4118A with offered battery NNTN8129A and body worn accessory PMLN5838A/NNTN5243A against the phantom. Same position was used for the other offered antennas (see table below), batteries and audio (including no cable attached) accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4118A	0	*50-54	*92-100
PMAD4116A	0	50	92
PMAD4117A	0	50	91
PMAD4120A	0	50	72
PMAD4121A	0	50	72

*Depending on battery being tested

1.2 Face

DUT w/ front side separated 2.5cm from phantom with antenna PMAD4117A and battery PMNN4407A.
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
PMAD4116A	27	37	43
PMAD4117A	26	37	43
PMAD4118A	26	37	*43-44
PMAD4120A	26	37	39
PMAD4121A	26	37	39

*Depending on battery being tested

1.3 Head

Not applicable.

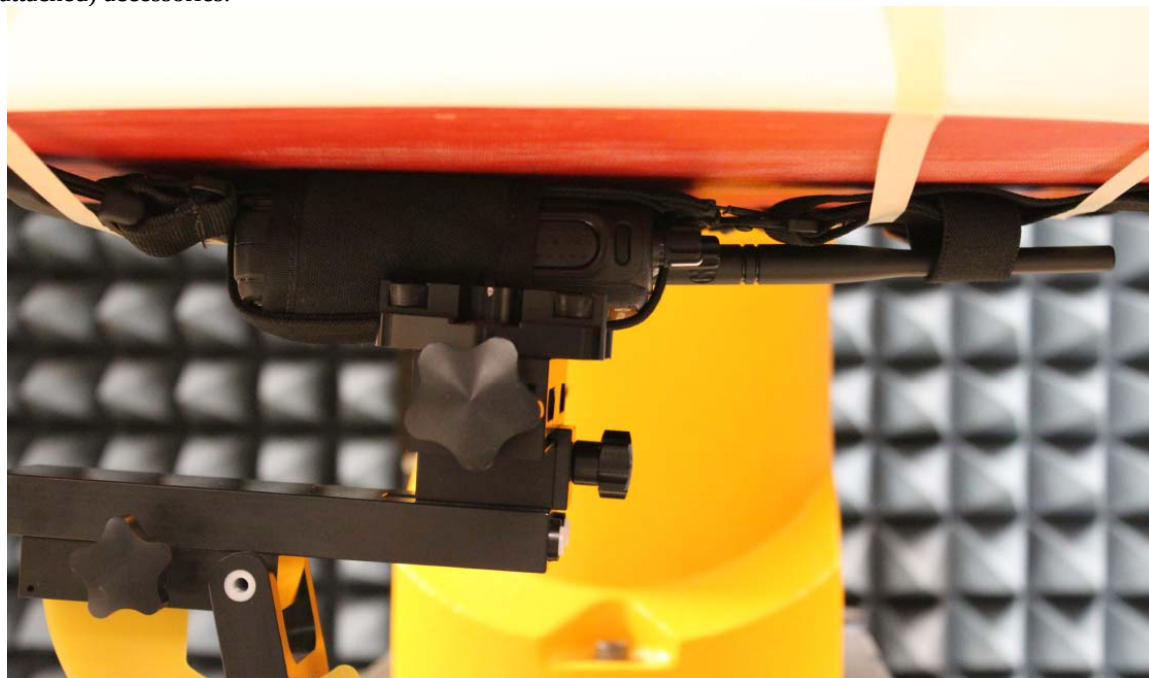
1.4 Hand

Not applicable.

2.0 Other SAR tested positions at the body

2.1 Body worn

DUT w/ antenna PMAD4120A, battery PMNN4407A and body worn RLN4570A against the phantom. Same position used for the other offered antennas (see table below), batteries and audio (including no cable attached) accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	0	15	15
PMAD4117A	0	15	15
PMAD4118A	0	15	16
PMAD4120A	0	*14-27	*14-29
PMAD4121A	0	15	17

*Depending on battery being tested

DUT w/ antenna PMAD4118A, battery PMNN4406A, audio cable PMMN4024A, and body worn RLN4815A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	16	31	44
PMAD4117A	16	31	44
PMAD4118A	16	*31-39	*43-47
PMAD4120A	16	33	37
PMAD4121A	16	33	37

*Depending on battery being tested

DUT w/ antenna PMAD4116A, battery PMNN4407A, audio cable PMMN4024A, and body worn PMLN4651A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.

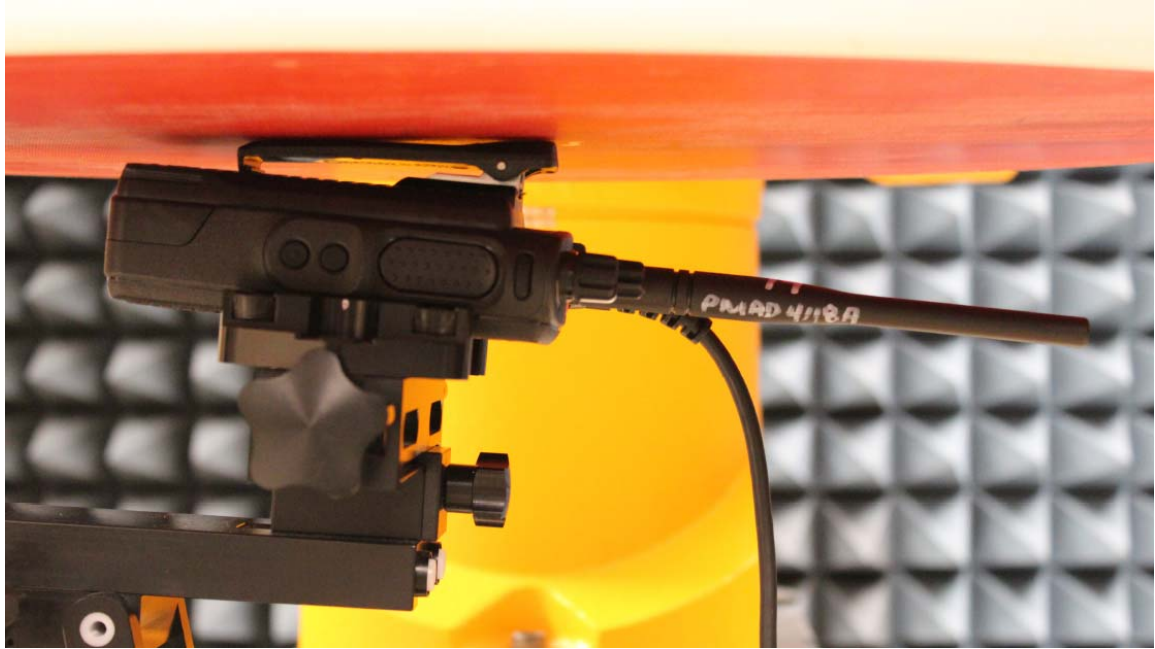


Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	6	28	48
PMAD4117A	6	28	48
PMAD4118A	6	*28-33	*48-53
PMAD4120A	6	28	39
PMAD4121A	6	28	38

*Depending on battery being tested

DUT w/ antenna PMAD4118A, battery NNTN8129A, audio cable PMMN4024A, and body worn PMLN7008A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	6	29	49
PMAD4117A	6	29	48
PMAD4118A	6	*29-34	*49-55
PMAD4120A	6	28	39
PMAD4121A	6	29	39

*Depending on battery being tested

DUT w/ antenna PMAD4118A, battery PMNN4407A, audio cable PMMN4024A, and body worn PMLN5844A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	3	31	49
PMAD4117A	3	31	50
PMAD4118A	3	*31-36	*51-56
PMAD4120A	3	31	40
PMAD4121A	3	31	40

*Depending on battery being tested

DUT w/ antenna PMAD4116A, battery PMNN4407A, audio cable PMMN4024A, and body worn PMLN5842A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	14	71	117
PMAD4117A	14	71	116
PMAD4118A	14	*71-74	*116-129
PMAD4120A	15	69	93
PMAD4121A	15	69	93

*Depending on battery being tested

DUT w/ antenna PMAD4120A, battery PMNN4406A, audio cable PMMN4024A, and body worn HLN6602A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	6	18	21
PMAD4117A	6	18	21
PMAD4118A	6	18	21
PMAD4120A	6	20	20
PMAD4121A	6	20	20

*Depending on battery being tested

DUT w/ antenna PMAD4120A, battery NNTN8129A, audio cable PMMN4024A, and body worn PMLN5838A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	0	50	92
PMAD4117A	0	50	91
PMAD4118A	0	*50-54	*92-100
PMAD4120A	0	50	72
PMAD4121A	0	50	72

*Depending on battery being tested

DUT w/ antenna PMAD4116A, battery NNTN8129A, audio cable PMMN4024A, and body worn PMLN5842A/NTN5243A (without belt loop- Intended use with carry strap) against the phantom. Same position used for the other offered antennas (see table below), batteries and audio (including no cable attached) accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	0	43	77
PMAD4117A	0	43	77
PMAD4118A	0	*43-47	*77-83
PMAD4120A	0	43	62
PMAD4121A	0	43	62

*Depending on battery being tested

DUT w/ antenna PMAD4118A, battery PMNN4407A, audio cable PMMN4024A, and body worn PMLN5844A/NTN5243A against the phantom.

Same position used for the other offered antennas (see table below), batteries and audio (including no cable attached) accessories.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4116A	3	31	49
PMAD4117A	3	31	50
PMAD4118A	3	31	51
PMAD4120A	3	31	40
PMAD4121A	3	*31-37	*40-47

*Depending on battery being tested

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
Not Applicable

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
PMAD4116A	150	$\frac{1}{2}$ wave
PMAD4117A	150	$\frac{1}{2}$ wave
PMAD4118A	150	$\frac{1}{2}$ wave
PMAD4119A	90	$\frac{1}{4}$ wave
PMAD4120A	90	$\frac{1}{4}$ wave
PMAD4121A	90	$\frac{1}{4}$ wave



Left-right: PMAD4116A, PMAD4117A, PMAD4118A, PMAD4119A, PMAD4120A, PMAD4121A

6.2 Body worn accessories



DUT Back View
Belt clip PMLN4651A



DUT Side View
Belt clip PMLN4651A



DUT Back View
Belt Clip PMLN7008A



DUT Side View
Belt Clip PMLN7008A



DUT Back View
Carry case PMLN5842A
Similar to PMLN5843A except
for no display cut out.



DUT Side View
Carry case PMLN5842A
Similar to PMLN5843A except
for no display cut out.



DUT Front View
Carry case PMLN5842A
Similar to PMLN5843A except
for no display cut out.



DUT Back View
Carry case PMLN5844A



DUT Side View
Carry case PMLN5844A



DUT Front View
Carry case PMLN5844A



DUT Back View
Carry case PMLN5840A
Same separation distance and
metal content as
PMLN5842A



DUT Side View
Carry case PMLN5840A
Same separation distance and
metal content as
PMLN5842A



DUT Front View
Carry case PMLN5840A
Same separation distance and
metal content as
PMLN5842A



DUT Back View
Carry Case PMLN5838A
Similar to PMLN5839A



DUT Side View
Carry Case PMLN5838A
Similar to PMLN5839A



DUT Front View
Carry Case PMLN5838A
Similar to PMLN5839A



Carry strap NTN5243A



Chest pack HLN6602A



**Break-A-Way Chest
 pack RLN4570A**



Radio pack RLN4815A

6.3 Battery accessories:



Left – right: PMNN4406A, PMNN4407A, PMNN4409A, PMNN4412A, NNTN8129A

6.4 Audio accessories:



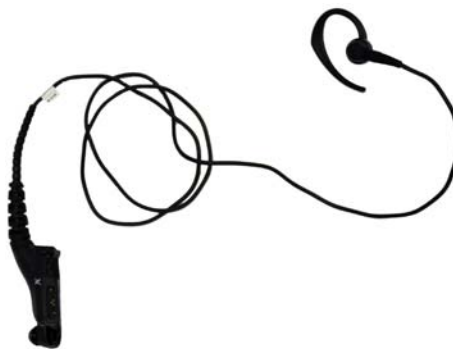
RMN5058A Headset w/
PTT

PMLN5102A Headset

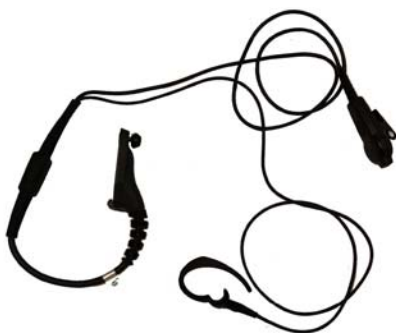
PMLN5096A Ear set D-
Shell



**PMLN5275C Heavy
Duty Headset**



**RLN5878A 1 wire
surveillance**



**RLN5880A 2 wire
surveillance**



**RLN5882A 2 wire
surveillance w/ acoustic
tube**



**PMLN5097A 3 wire
surveillance w/ acoustic
tube**



**PMLN5111A 3 wire
surveillance w/ acoustic
tube**



**PMLN5101A IMPRES
Temple transducer**



**PMMN4050A RSM with
ear jack, noise cancelling**



**AARLN4885B Receive
only ear bud - test with
PMMN4050A**



PMMN4024A RSM

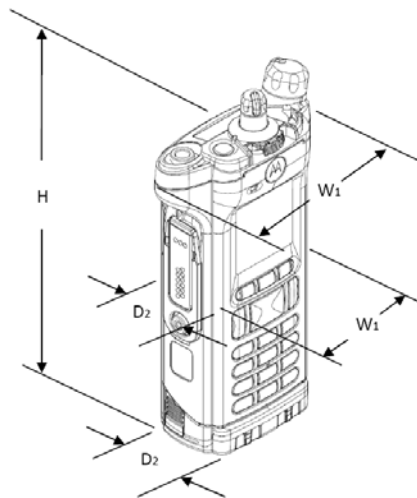


**PMMN4040A
Submersible RSM**

6.5 DUT Dimensions

	Height (mm)	Width (mm)	Depth (mm)
Radio only (w/o battery)	134	65/58	36/31
Radio with battery PMNN4407A	134	65/58	36/40

The following figure reflects the location of the device's dimensions.



Note: H = Height; W = Width; D = Depth

$W1 = (\text{Width @ Top}) / (\text{Width @ PTT})$

$D2 = (\text{Depth @ Bottom}) / (\text{Depth @ PTT})$