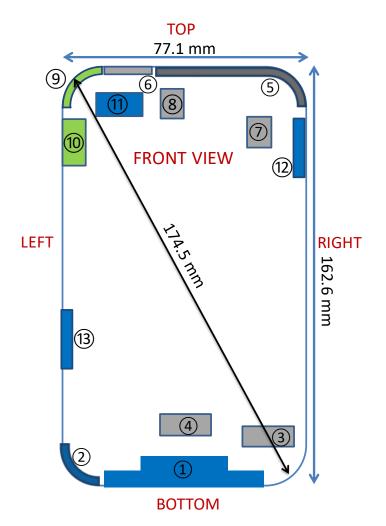
## APPENDIX E: DUT ANTENNA DIAGRAM & TEST SETUP PHOTOGRAPHS

| FCC ID: A3LSMG977U                     | ENGINEERING LABORATORY, INC. | NEAR-FIELD POWER DENSITY<br>EVALUATION REPORT | SAMSUNG | Approved by:  Quality Manager |
|--|------------------------------|---|---------|-------------------------------|
| Test Dates:<br>03/12/2019 – 03/28/2019 | DUT Type: Portable Handset   |   |         | APPENDIX E:<br>Page 1 of 6    |



- 1 Main Band Antenna A Tx/Rx
- 1. CDMA/EVDO BCO/1 Tx/Rx
- 2. GSM/GPRS/EDGE 850/1900 Tx/Rx
- 3. UMTS B2/4/5 Tx/Rx
- 4. LTE B2/4/5/12/13/14/26/66 Tx/Rx
- 5. LTE B30 Tx/Rx (Tx with CA PCC Only)
- 6. LTE B29 Rx Only
- (2) Main Band Antenna B Tx/Rx
- 1. LTE B7/30/38/41/48 Tx/Rx
- (3) Sub Antenna C Rx
- 1. LTE B30 Rx Only (4x4 DL MIMO)
- 4 Sub Antenna D Rx
  - LTE B2/4/66 Rx Only (4x4 DL MIMO)
- (5) Sub Antenna E Rx
- 1. CDMA/EVDO BC0 Rx Only
- 2. GSM/GPRS/EDGE 850 Rx Only
- 3. UMTS B5 Rx Only
- 4. LTE B5/12/13/14/26/29 Rx Only
- 6 Sub Antenna F Rx
- 1. CDMA/EVDO BC1 Rx Only
- 2. GSM/GPRS/EDGE 1900 Rx Only
- 3. UMTS B2/4 Rx Only
- 4. LTE B2/4/7/30/38/41/66 Rx Only
- 5. GPS Rx Only
- (7) Sub Antenna G Rx
- 1. LTE B2/4/30/66 Rx Only (4x4 DL MIMO)
- 8 Sub Antenna H Rx
- 1. LTE B48 Rx Only
- (9) WIFI Antenna #1
- 1. 2.4/5GHz WiFi Ant\_1 Tx/Rx,
- 2. LTE B46 Rx
- 3. BT/ANT+Tx/Rx
- 10 WIFI Antenna#2
  - 1. WiFi Ant\_2 (2.4/5GHz) Tx/Rx
  - 2. LTE B46 Rx
- (11) Antenna J
- 1. NR n260/n261
- 12 Antenna K
- 1. NR n260/n261
- (13) Antenna L 1. NR n260/n261

Figure E-1
DUT Antenna Locations

Note: Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC Filing.

| FCC ID: A3LSMG977U      | PCTEST*          | NEAR-FIELD POWER DENSITY<br>EVALUATION REPORT | SAMSUNG | Approved by:  Quality Manager |
|-------------------------|------------------|---|---------|-------------------------------|
| Test Dates:             | DUT Type:        |   |         | APPENDIX E:                   |
| 03/12/2019 – 03/28/2019 | Portable Handset |   |         | Page 2 of 6                   |

© 2019 PCTEST Engineering Laboratory, Inc.

REV 1.0

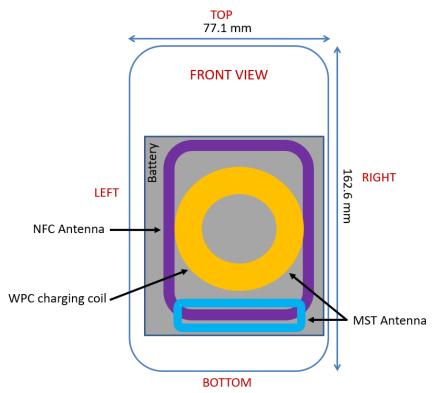
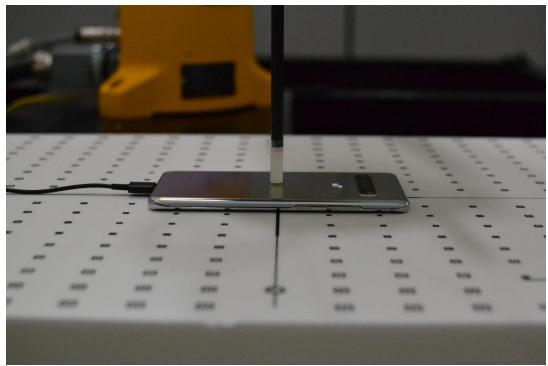
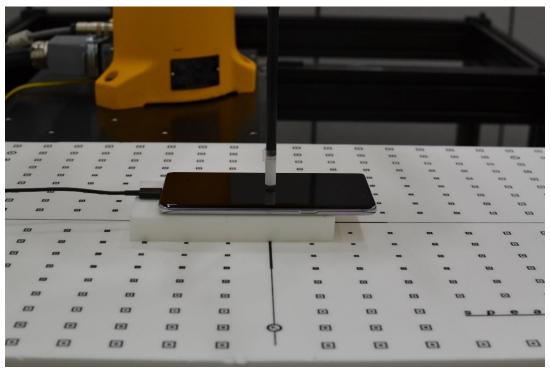


Figure E-2 NFC Antenna Locations

| FCC ID: A3LSMG977U                     | PCTEST*                    | NEAR-FIELD POWER DENSITY<br>EVALUATION REPORT | SAMSUNG | Approved by:  Quality Manager |
|--|----------------------------|---|---------|-------------------------------|
| Test Dates:<br>03/12/2019 – 03/28/2019 | DUT Type: Portable Handset |   |         | APPENDIX E:<br>Page 3 of 6    |

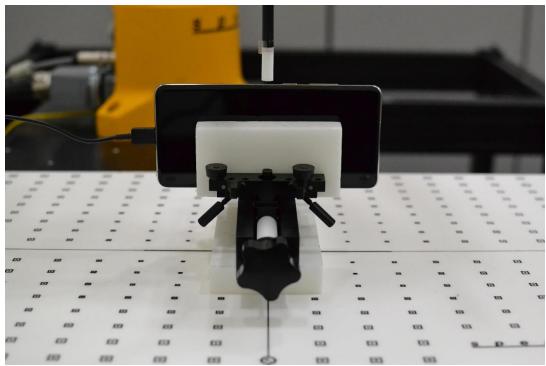


Near-Field Power Density Test Setup Photo 1 - Back Side at 2 mm

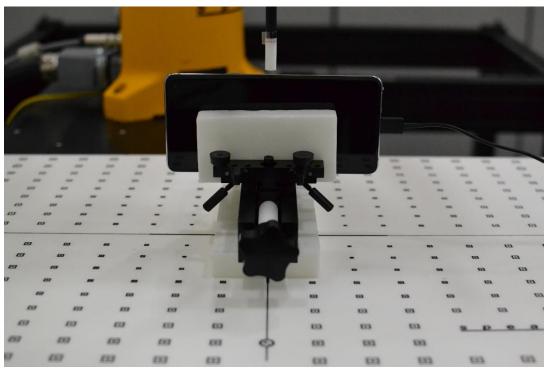


Near-Field Power Density Test Setup Photo 2 - Front Side at 2 mm

| FCC ID: A3LSMG977U      | PCTEST*          | NEAR-FIELD POWER DENSITY<br>EVALUATION REPORT | SAMSUNG | Approved by:  Quality Manager |
|-------------------------|------------------|---|---------|-------------------------------|
| Test Dates:             | DUT Type:        |   |         | APPENDIX E:                   |
| 03/12/2019 - 03/28/2019 | Portable Handset |   |         | Page 4 of 6                   |

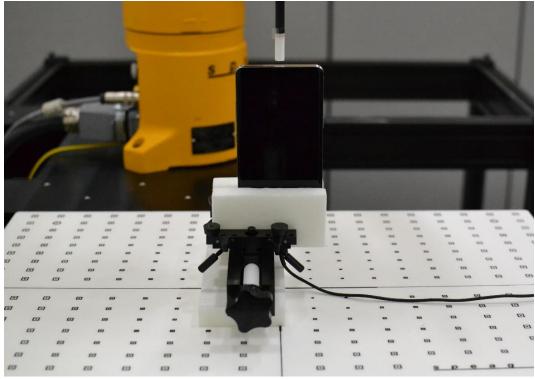


Near-Field Power Density Test Setup Photo 3 – Left Edge at 2 mm

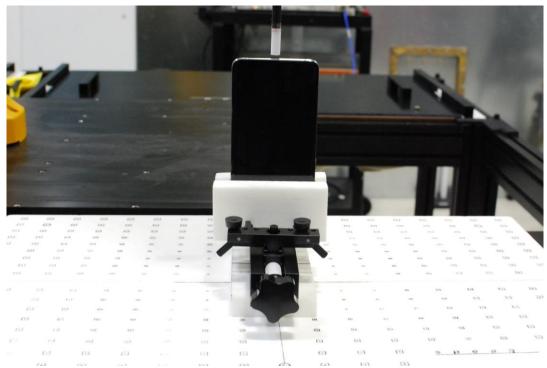


Near-Field Power Density Test Setup Photo 4 - Right Edge at 2 mm

| FCC ID: A3LSMG977U                     | PCTEST: NEAR-FIELD POWER DENSITY EVALUATION REPORT  SAMSUNG | Approved by:  Quality Manager |
|--|---|-------------------------------|
| Test Dates:<br>03/12/2019 – 03/28/2019 | DUT Type: Portable Handset                                  | APPENDIX E:<br>Page 5 of 6    |



Near-Field Power Density Test Setup Photo 5 - Top Edge at 2 mm



Near-Field Power Density Test Setup Photo 6 - Bottom Edge at 2 mm

| FCC ID: A3LSMG977U      | PCTEST: NEAR-FIELD POWER DENSITY EVALUATION REPORT  SAMSUNG | Approved by:  Quality Manager |
|-------------------------|---|-------------------------------|
| Test Dates:             | DUT Type:   | APPENDIX E:<br>Page 6 of 6    |
| 03/12/2019 – 03/28/2019 | Portable Handset  | 1 ago o oi o                  |