

(Band Edge Low)



(QPSK Middle Channel)



(30 MHz ~ 1 GHz)

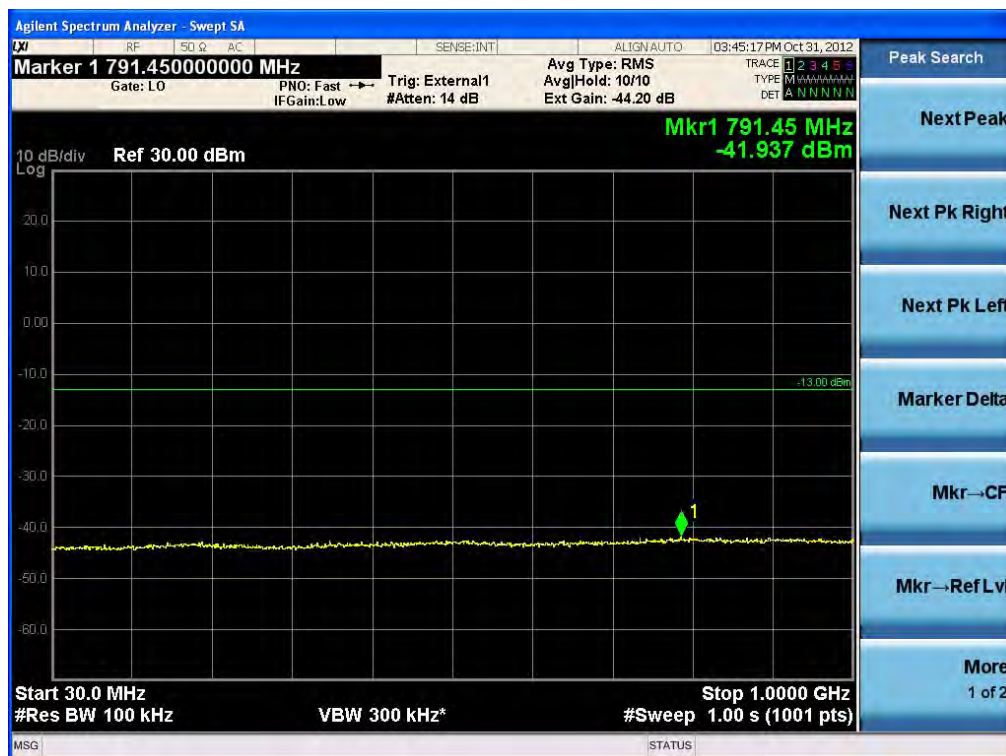
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 211 of 277          |

(QPSK Middle Channel)



(1 GHz ~ 26.5 GHz)

(QPSK High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 212 of 277          |

(QPSK High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 213 of 277          |

(16QAM Low Channel)



(30 MHz ~ 1 GHz)

(16QAM Low Channel)



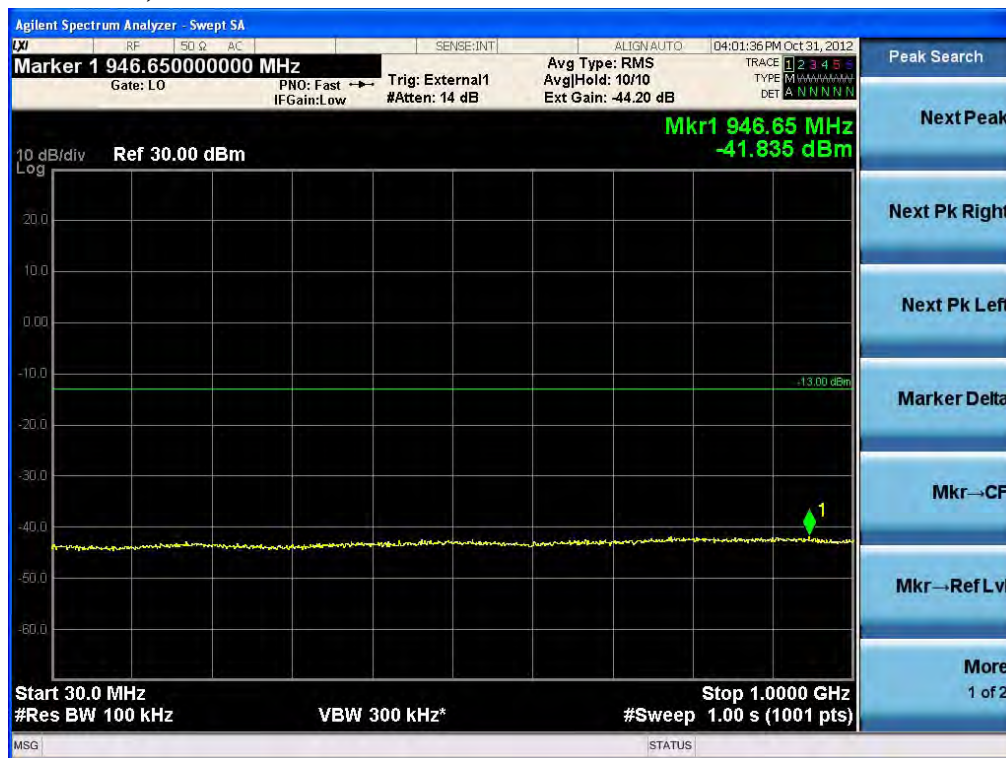
(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 214 of 277          |

(Band Edge Low)



(16QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 215 of 277          |

(16QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(16QAM High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 216 of 277          |

(16QAM High Channel)



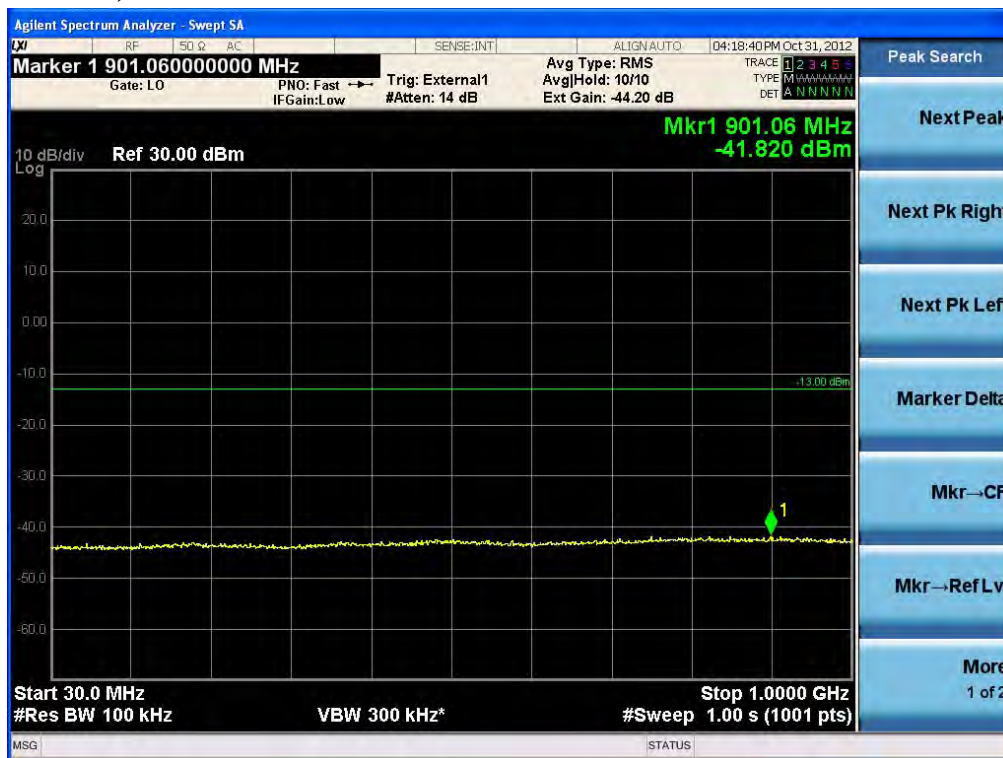
(1 GHz ~ 26.5 GHz)

(Band Edge High)



|                                 |                                     |                                            |                          |                          |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 217 of 277          |

(64QAM Low Channel)



(30 MHz ~ 1 GHz)

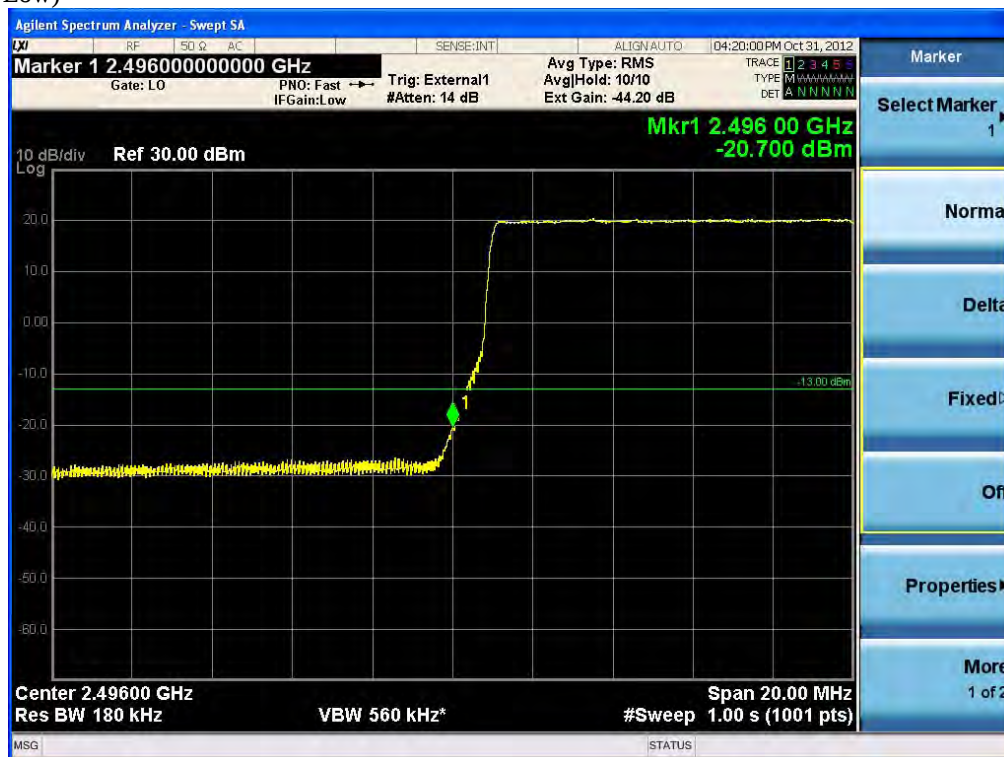
(64QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 218 of 277          |

(Band Edge Low)



(64QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 219 of 277          |

(64QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(64QAM High Channel)



(30 MHz ~ 1 GHz)

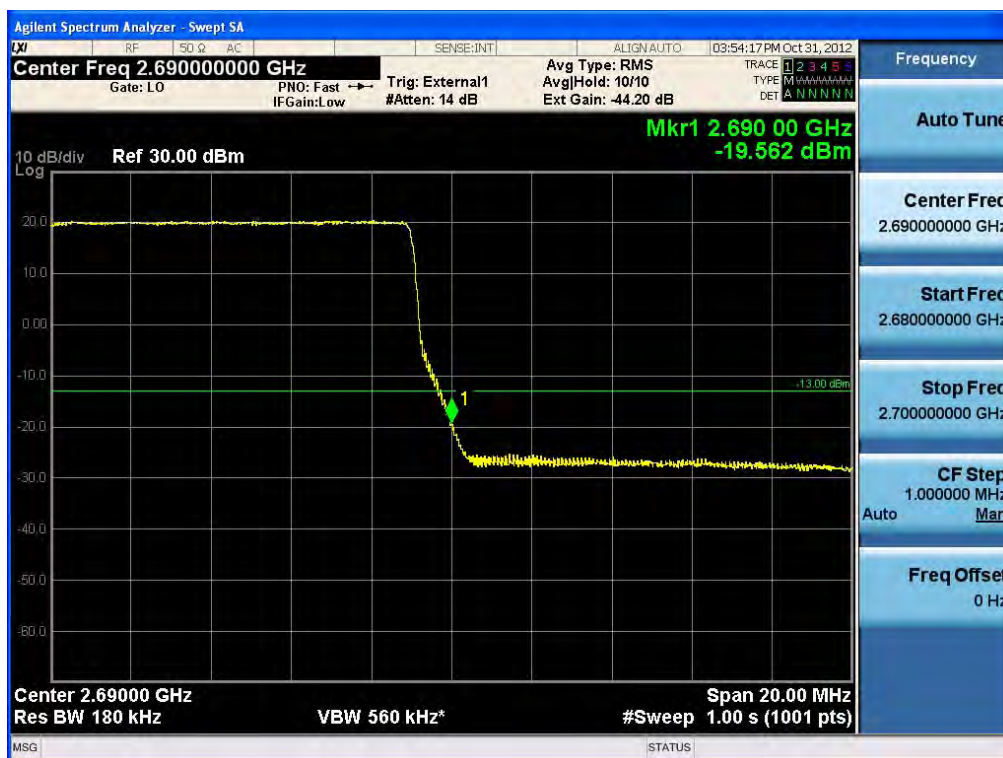
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 220 of 277          |

(64QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 221 of 277          |

## [TD-LTE Power Boosting mode]

### 7.4.9. Plot Data at Output Port 1

(QPSK Low Channel)



(30 MHz ~ 1 GHz)

(QPSK Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 222 of 277          |

(Band Edge Low)



(QPSK Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 223 of 277          |

(QPSK Middle Channel)



(1 GHz ~ 26.5 GHz)

(QPSK High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 224 of 277          |

(QPSK High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 225 of 277          |

(16QAM Low Channel)



(30 MHz ~ 1 GHz)

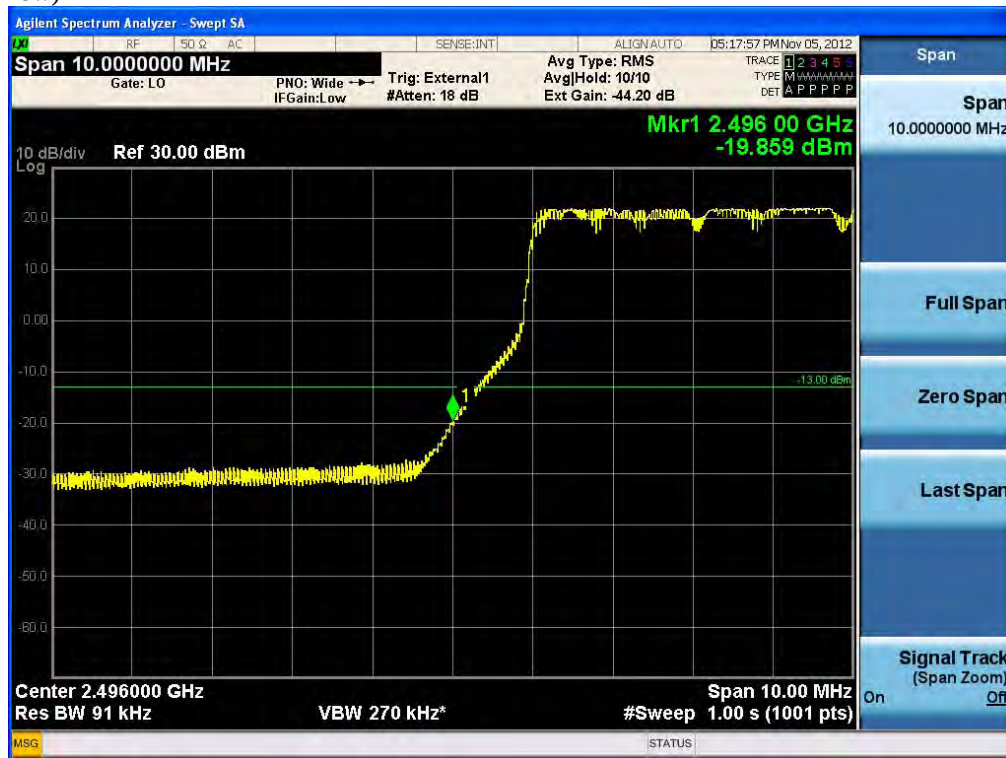
(16QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 226 of 277          |

(Band Edge Low)



(16QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 227 of 277          |

(16QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(16QAM High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 228 of 277          |

(16QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 229 of 277          |

(64QAM Low Channel)



(30 MHz ~ 1 GHz)

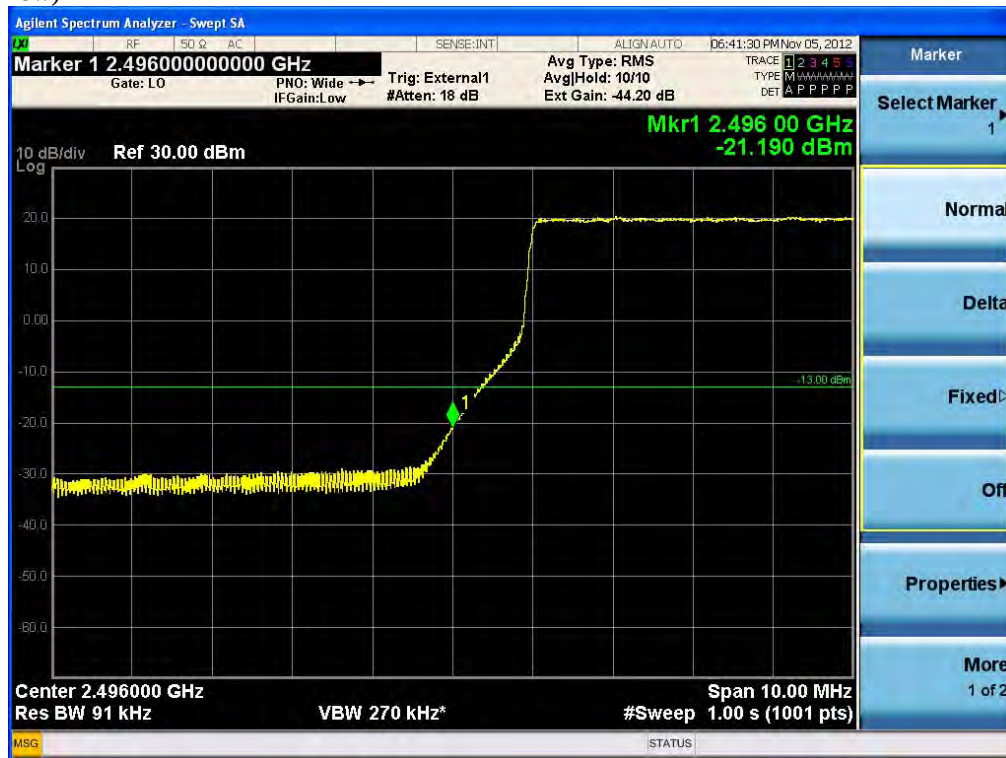
(64QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 230 of 277          |

(Band Edge Low)



(64QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 231 of 277          |

(64QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(64QAM High Channel)



(30 MHz ~ 1 GHz)

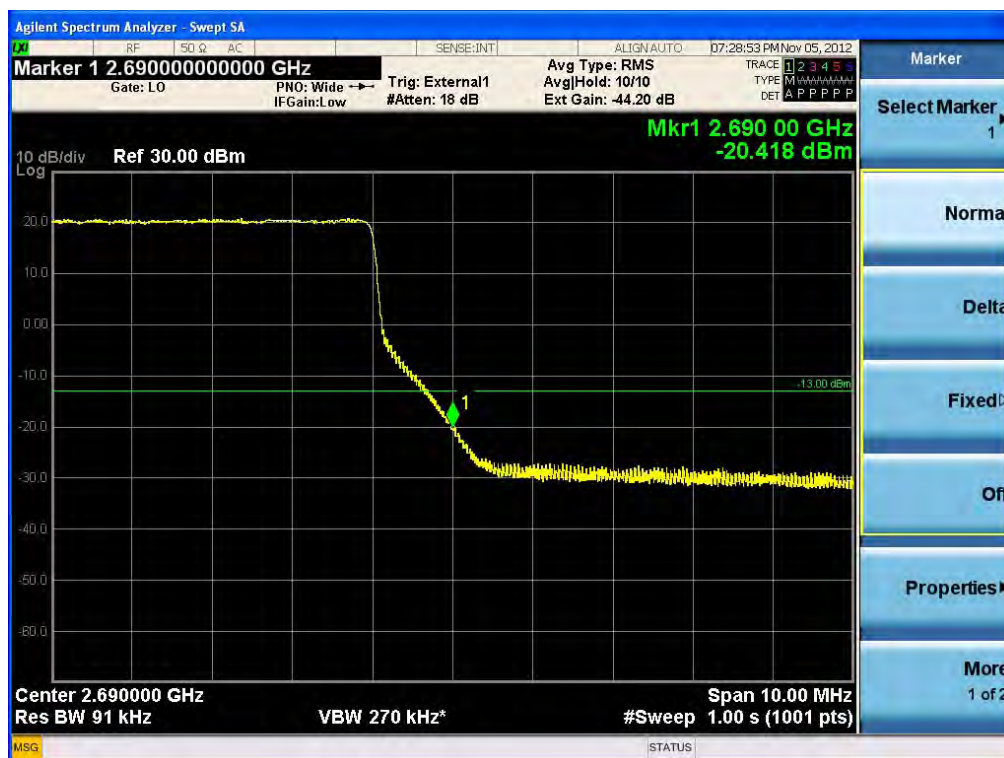
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 232 of 277          |

(64QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 233 of 277          |

7.4.10. Plot Data at Output Port 2  
(QPSK Low Channel)



(30 MHz ~ 1 GHz)

(QPSK Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 234 of 277          |

(Band Edge Low)



(QPSK Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 235 of 277          |

(QPSK Middle Channel)



(1 GHz ~ 26.5 GHz)

(QPSK High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 236 of 277          |

(QPSK High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 237 of 277          |

(16QAM Low Channel)



(30 MHz ~ 1 GHz)

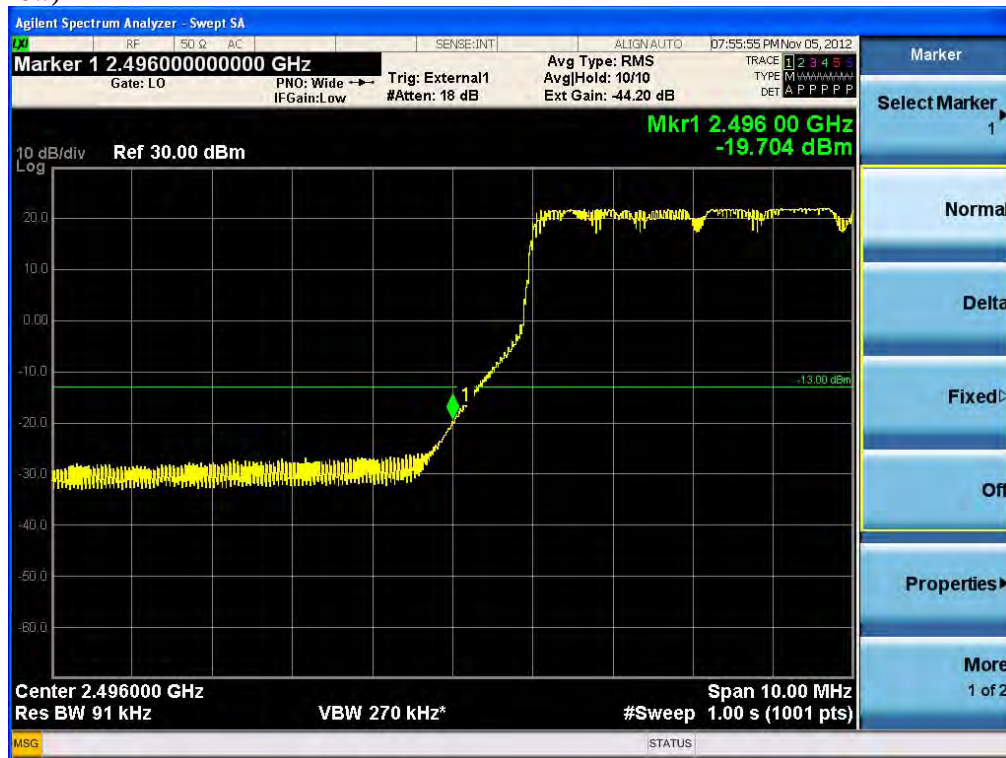
(16QAM Low Channel)



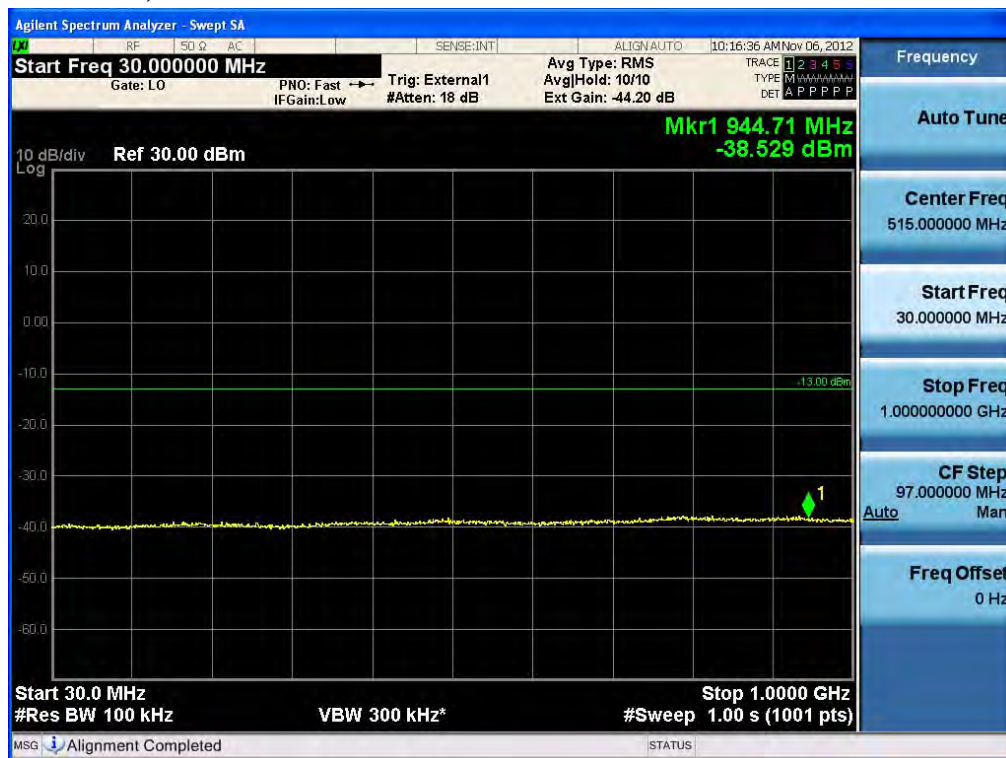
(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 238 of 277          |

(Band Edge Low)



(16QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 239 of 277          |

(16QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(16QAM High Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 240 of 277          |

(16QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 241 of 277          |

(64QAM Low Channel)



(30 MHz ~ 1 GHz)

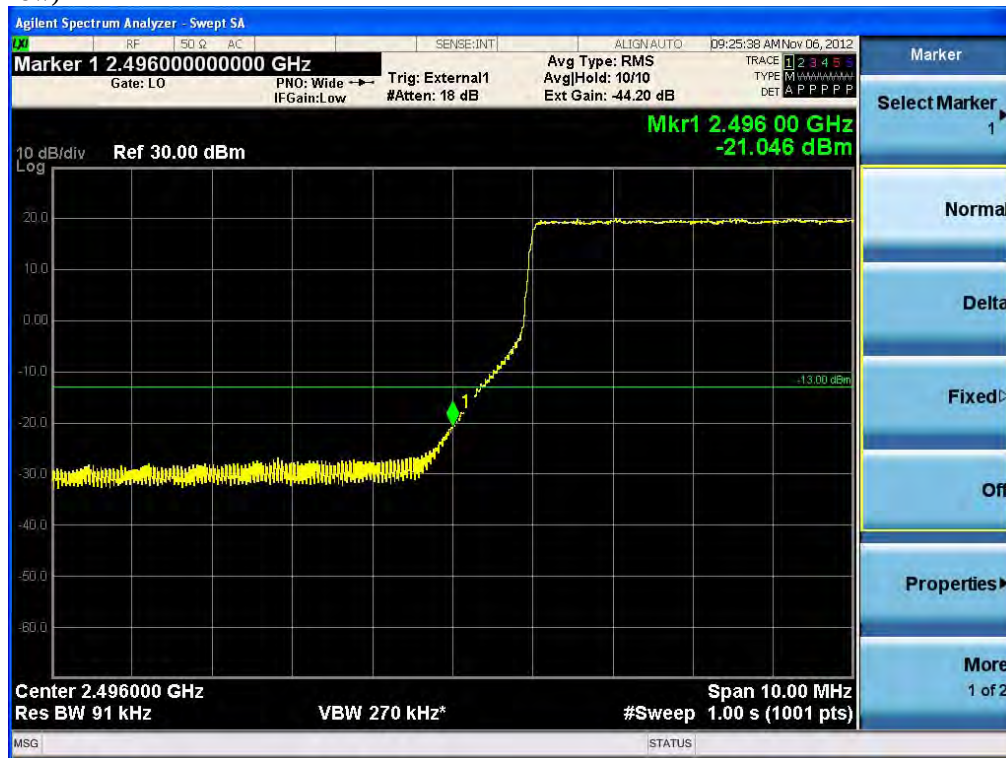
(64QAM Low Channel)



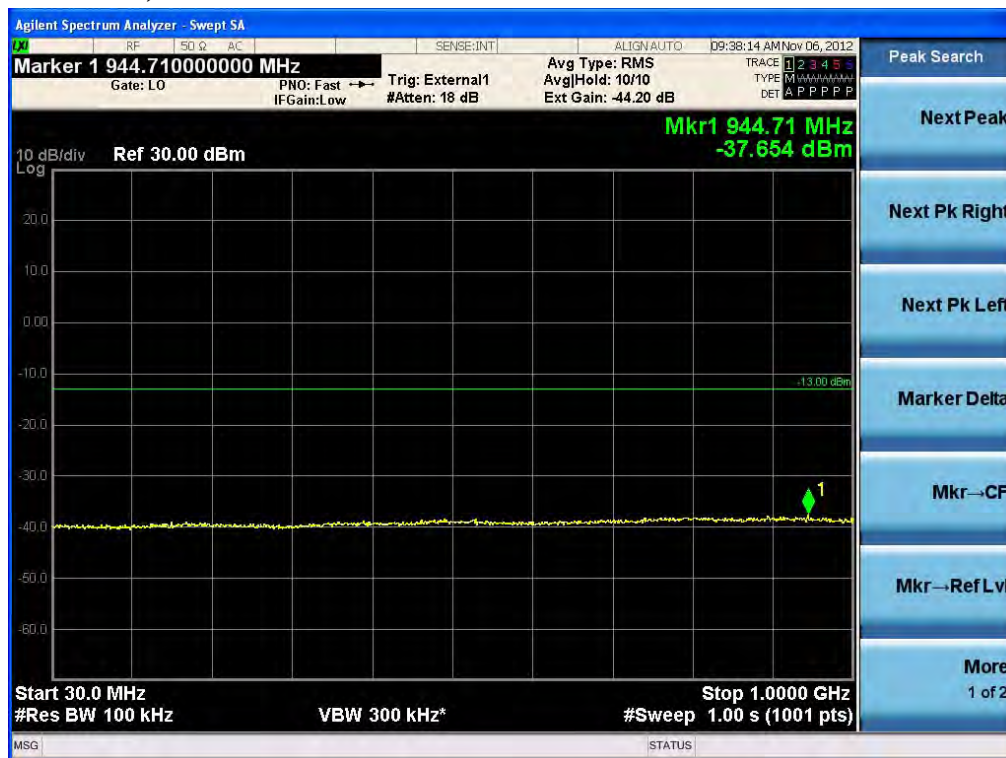
(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 242 of 277          |

(Band Edge Low)



(64QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 243 of 277          |

(64QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(64QAM High Channel)



(30 MHz ~ 1 GHz)

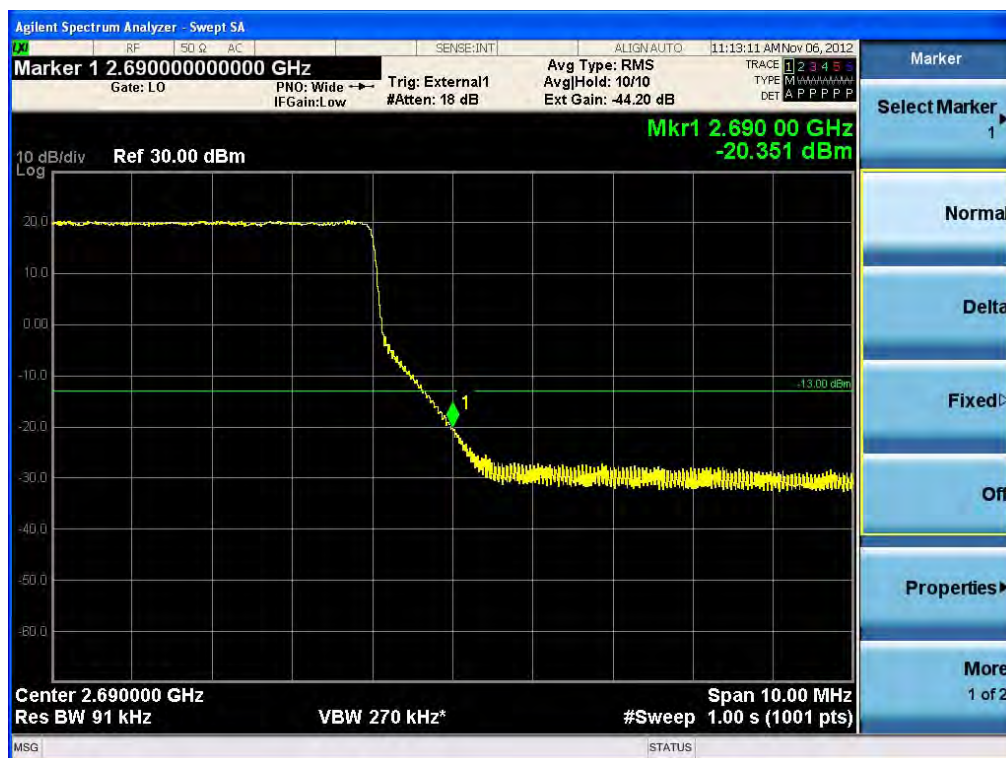
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 244 of 277          |

(64QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 245 of 277          |

## [WiMax Power Boosting mode]

7.4.11. Plot Data at Output Port 1

(QPSK Low Channel)



(30 MHz ~ 1 GHz)

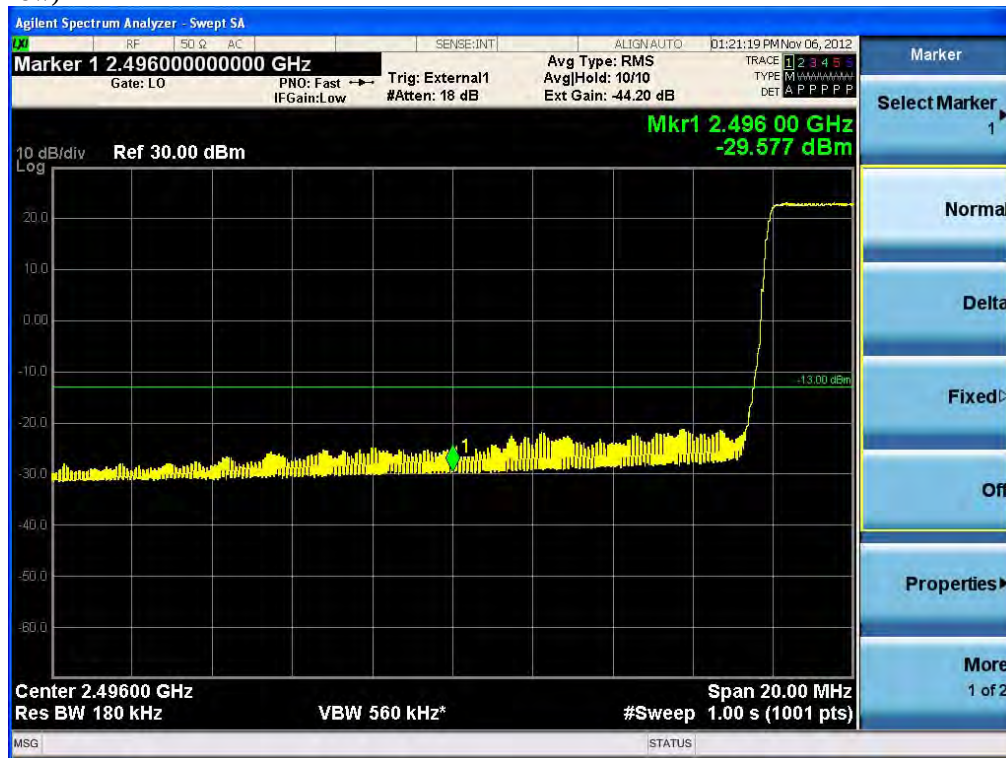
(QPSK Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 246 of 277          |

(Band Edge Low)



(QPSK Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 247 of 277          |

(QPSK Middle Channel)



(1 GHz ~ 26.5 GHz)

(QPSK High Channel)



(30 MHz ~ 1 GHz)

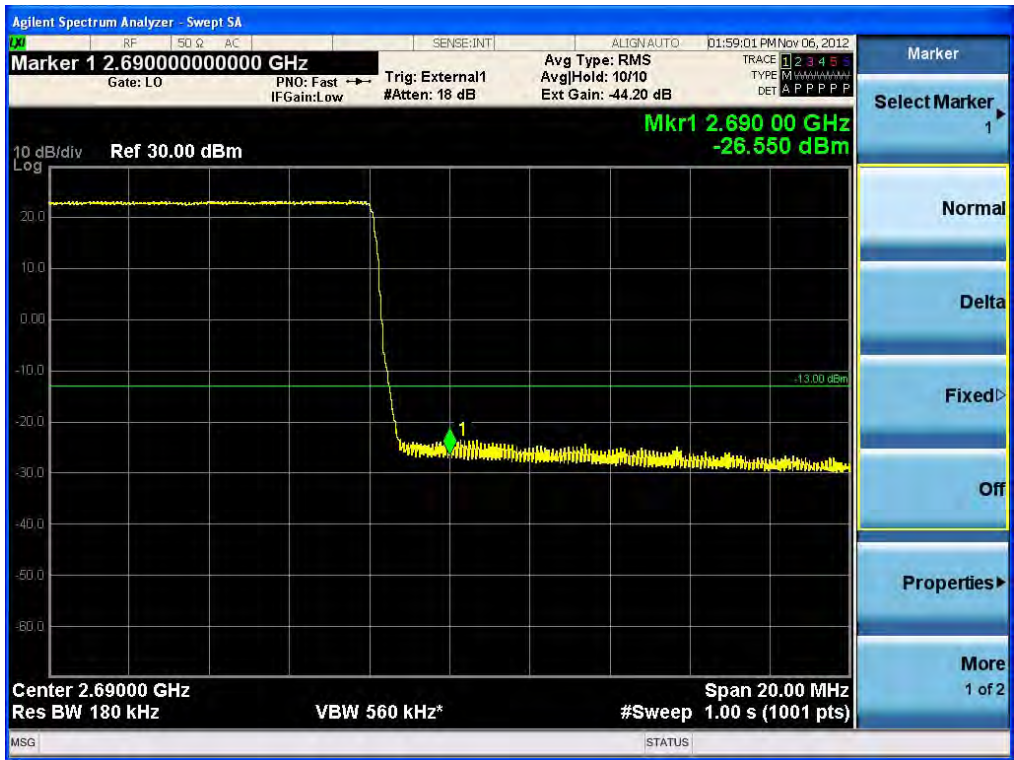
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 248 of 277          |

(QPSK High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 249 of 277          |

(16QAM Low Channel)



(30 MHz ~ 1 GHz)

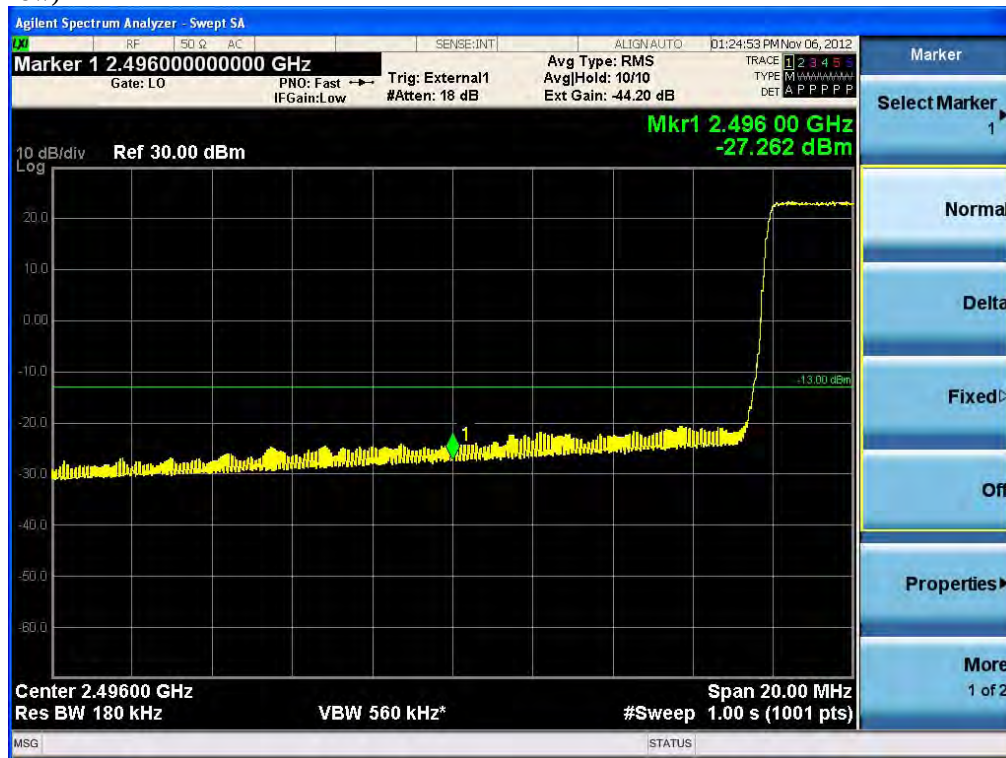
(16QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 250 of 277          |

(Band Edge Low)



(16QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 251 of 277          |

(16QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(16QAM High Channel)



(30 MHz ~ 1 GHz)

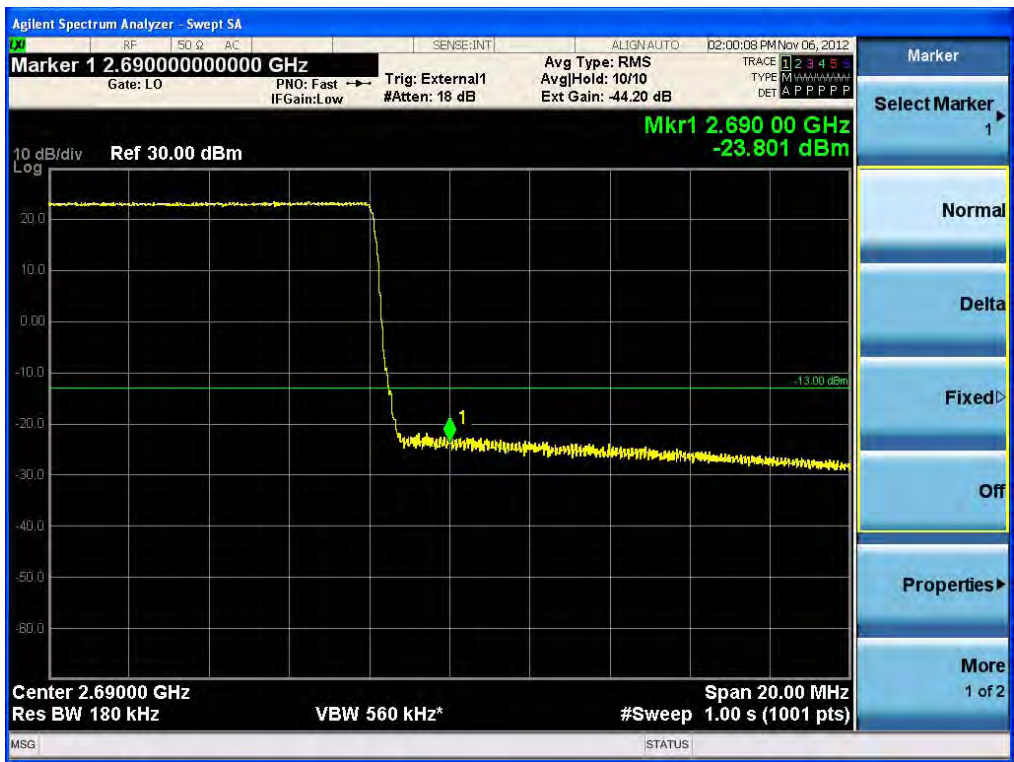
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 252 of 277          |

(16QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 253 of 277          |

(64QAM Low Channel)



(30 MHz ~ 1 GHz)

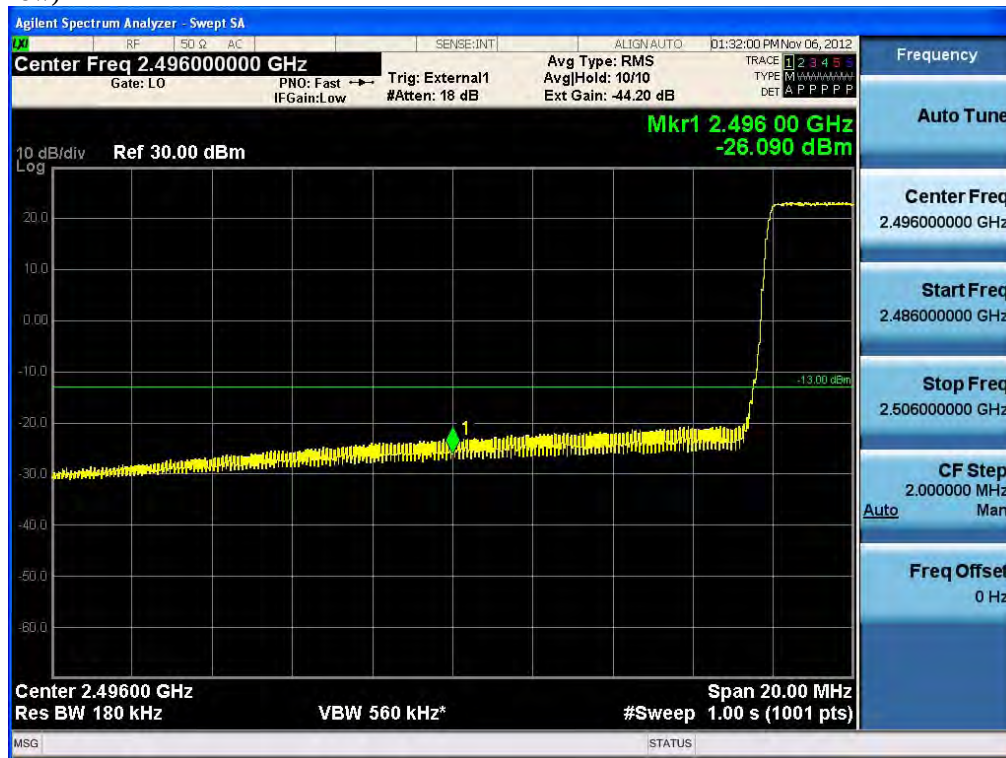
(64QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 254 of 277          |

(Band Edge Low)



(64QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 255 of 277          |

(64QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(64QAM High Channel)



(30 MHz ~ 1 GHz)

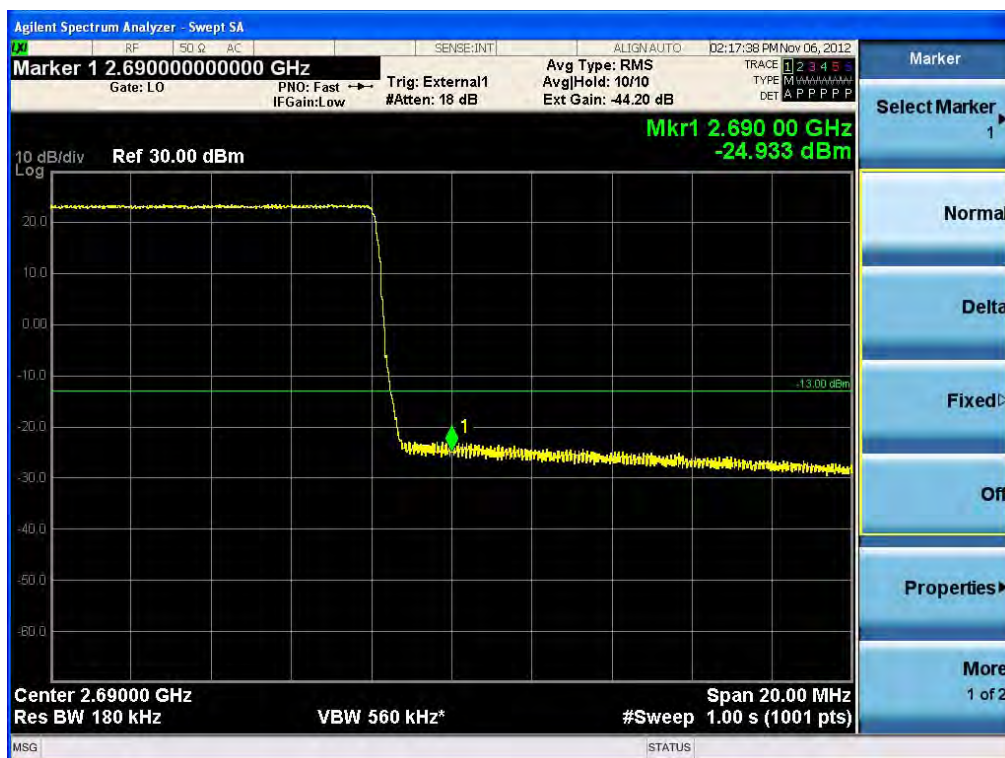
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 256 of 277          |

(64QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 257 of 277          |

7.4.12. Plot Data at Output Port 2  
(QPSK Low Channel)



(30 MHz ~ 1 GHz)

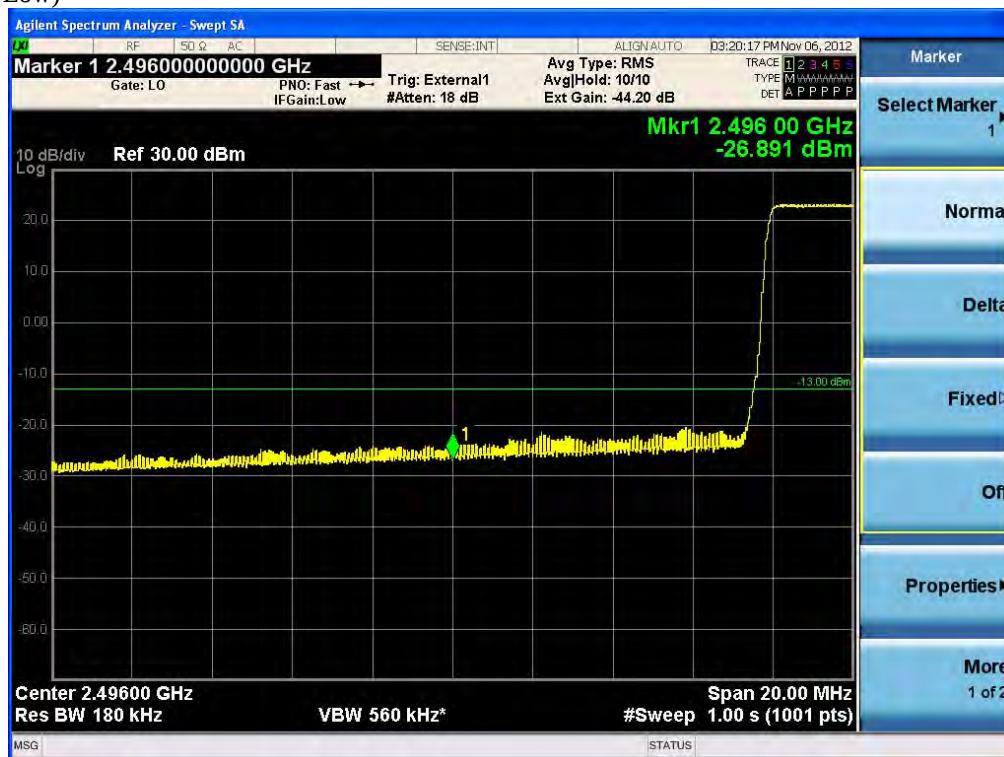
(QPSK Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 258 of 277          |

(Band Edge Low)



(QPSK Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 259 of 277          |

(QPSK Middle Channel)



(1 GHz ~ 26.5 GHz)

(QPSK High Channel)



(30 MHz ~ 1 GHz)

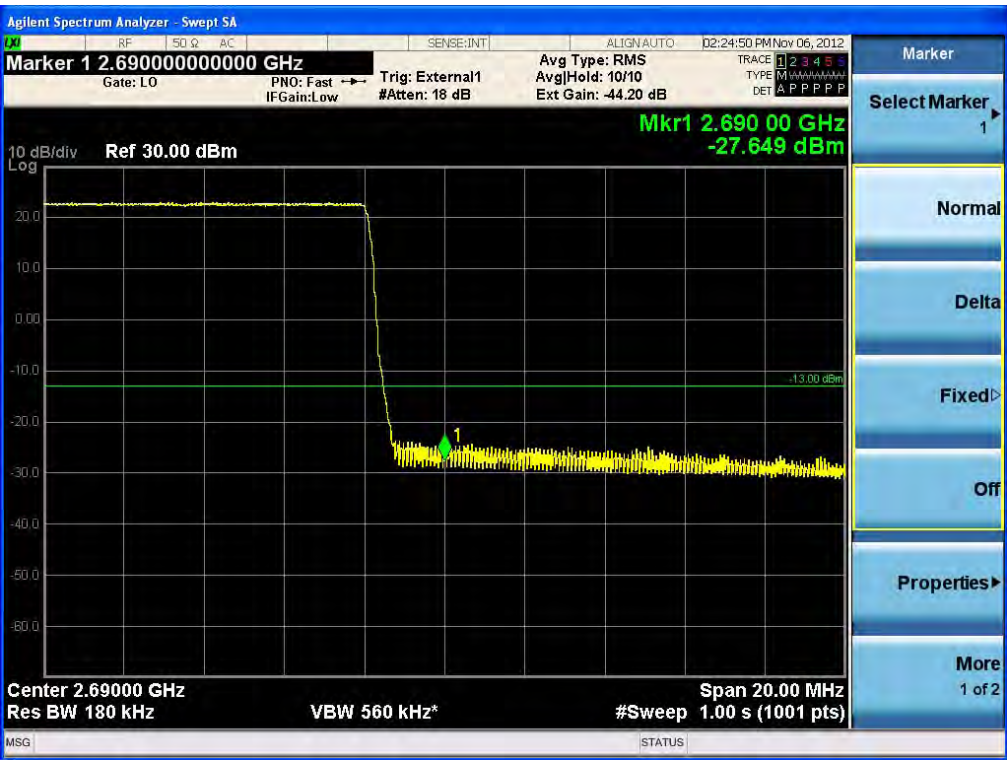
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 260 of 277          |

(QPSK High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 261 of 277          |

(16QAM Low Channel)



(30 MHz ~ 1 GHz)

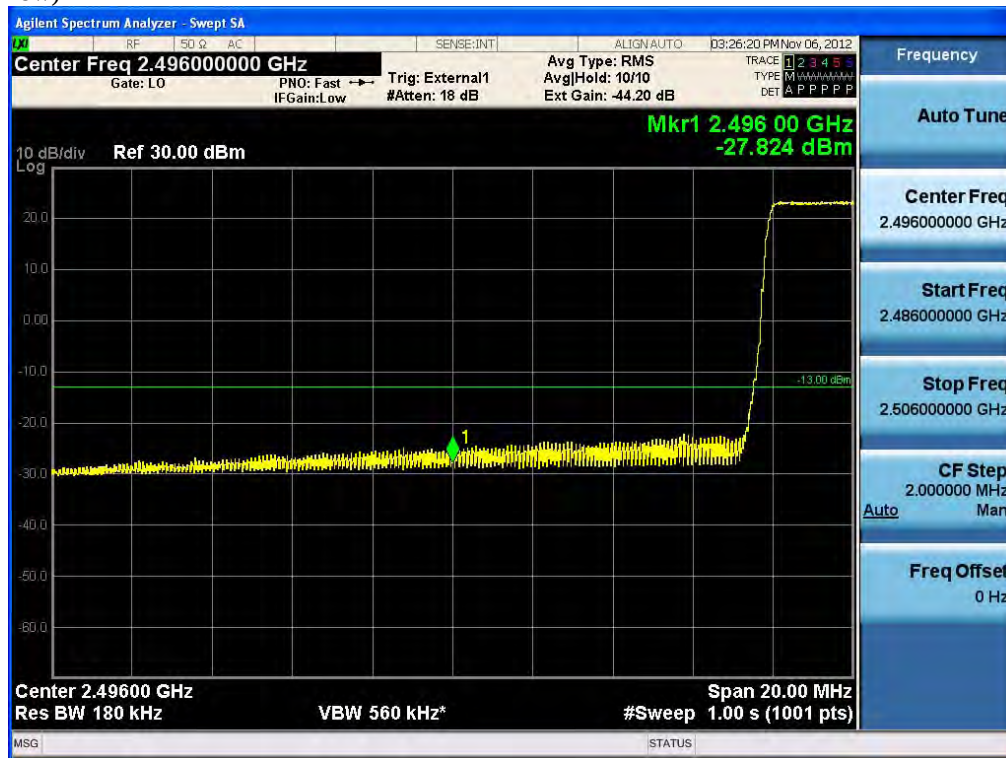
(16QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 262 of 277          |

(Band Edge Low)



(16QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 263 of 277          |

(16QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(16QAM High Channel)



(30 MHz ~ 1 GHz)

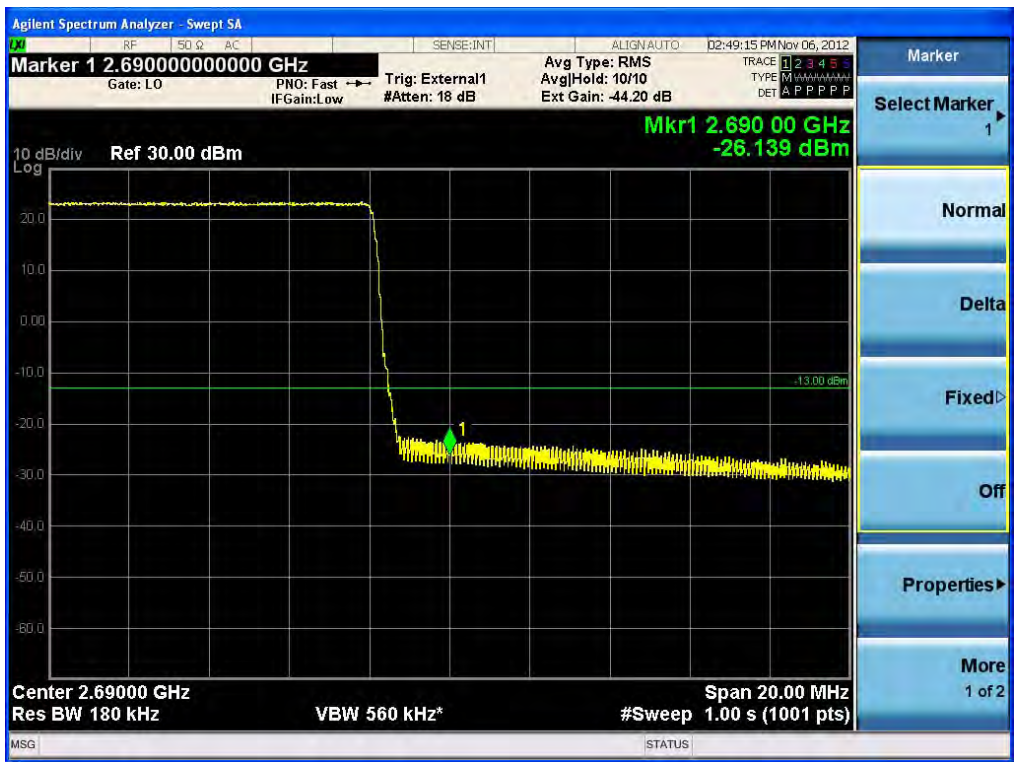
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 264 of 277          |

(16QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 265 of 277          |

(64QAM Low Channel)



(30 MHz ~ 1 GHz)

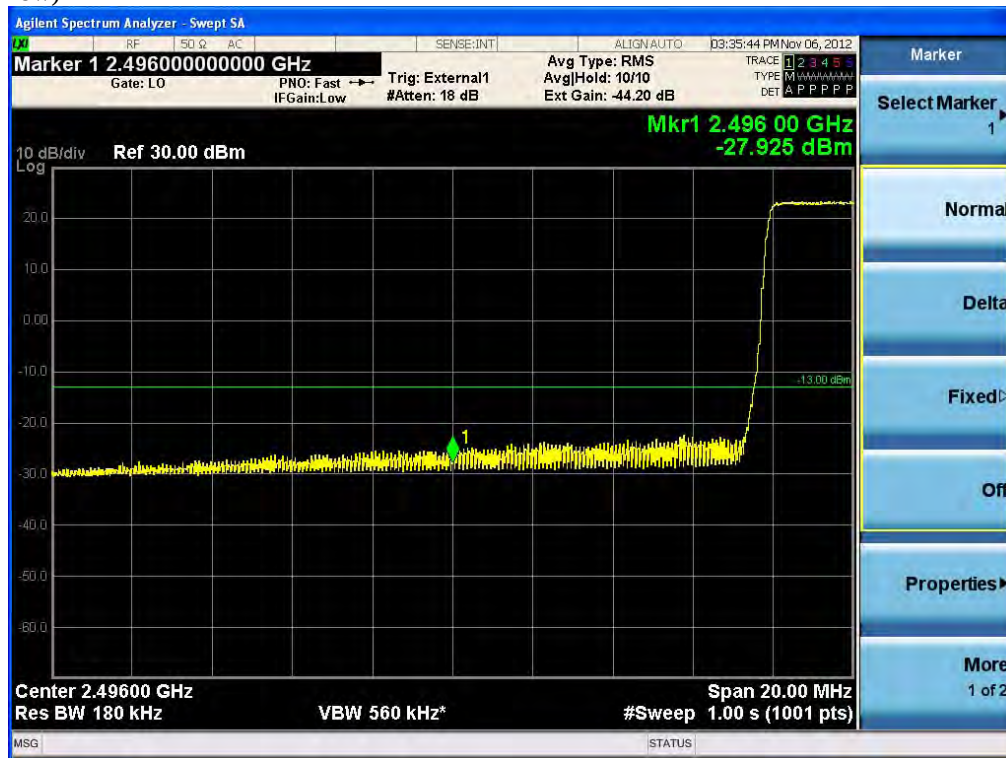
(64QAM Low Channel)



(1 GHz ~ 26.5 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 266 of 277          |

(Band Edge Low)



(64QAM Middle Channel)



(30 MHz ~ 1 GHz)

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 267 of 277          |

(64QAM Middle Channel)



(1 GHz ~ 26.5 GHz)

(64QAM High Channel)



(30 MHz ~ 1 GHz)

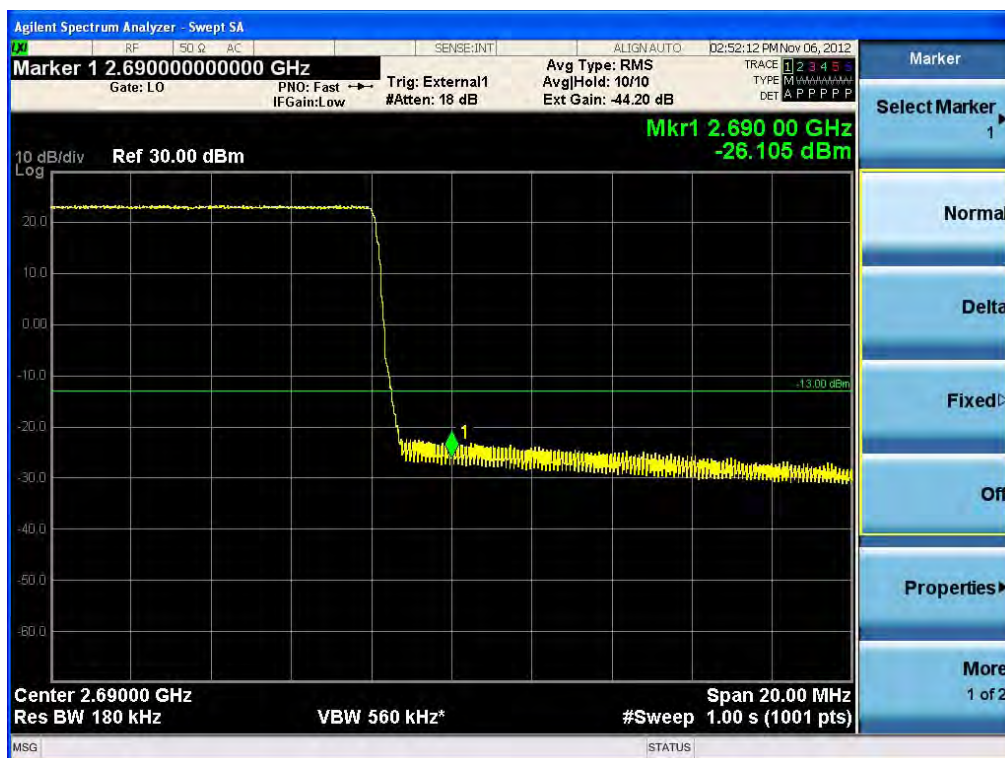
| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 268 of 277          |

(64QAM High Channel)



(1 GHz ~ 26.5 GHz)

(Band Edge High)



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 269 of 277          |

## 8. RADIATED SPURIOUS EMISSION

### 8.1 Applicable Standard

(1) For BRS and EBS stations, the power of any emissions outside the licensee's frequency bands of operation shall be attenuated below the transmitter power (P) measured in watts. (2) For fixed and temporary fixed digital stations, the attenuation shall be not less than  $43 + 10 \log (P)$  dB, unless a documented interference complaint is received from an adjacent channel licensee. Provided that the complaint cannot be mutually resolved between the parties, both licensees of existing and new systems shall reduce their out-of-band emissions by at least  $67 + 10 \log (P)$  dB measured at 3 MHz from their channel's edges for distances between stations exceeding 1.5 km.

### 8.2 Test Equipment List and Details

| Manufacturer | Model / Equipment                       | Serial No. | Calibration Due |
|--------------|-----------------------------------------|------------|-----------------|
| Schwarzbeck  | BBHA 9120D / Double Ridged Horn Antenna | 147        | 05/15/2014      |
| Schwarzbeck  | BBHA 9120D / Double Ridged Horn Antenna | 937        | 10/17/2013      |
| Schwarzbeck  | VULB 9168 / TRILOG Antenna              | 9168-200   | 02/19/2013      |
| HD           | MA240 / Antenna Position Tower          | 556        | N/A             |
| EMCO         | 1050 / Turn Table                       | 114        | N/A             |
| HD GmbH      | HD 100 / Controller                     | 13         | N/A             |
| HD GmbH      | KMS 560 / SlideBar                      | 12         | N/A             |
| MITEQ        | AMF-6B-180265-35-10P / POWER AMP        | 667624     | 04/16/2013      |
| Agilent      | N9020A /Signal Analyzer                 | US46220219 | 05/02/2013      |
| Agilent      | 6674A / DC Power Supply                 | 3501A00901 | 05/02/2013      |
| HP           | 83640B / Signal Generator               | 3614A00105 | 11/07/2013      |
| WEINSCHL     | 67-30-33 / Attenuator                   | BU5347     | 11/07/2013      |
| WEINSCHL     | 67-30-33 / Attenuator                   | BR0530     | 11/07/2013      |
| WEINSCHL     | AF9003-69-31 / Attenuator               | 11787      | 11/07/2013      |
| WEINSCHL     | AF9003-69-31 / Attenuator               | 5701       | 11/07/2013      |

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 270 of 277          |

### 8.3 Test Procedure

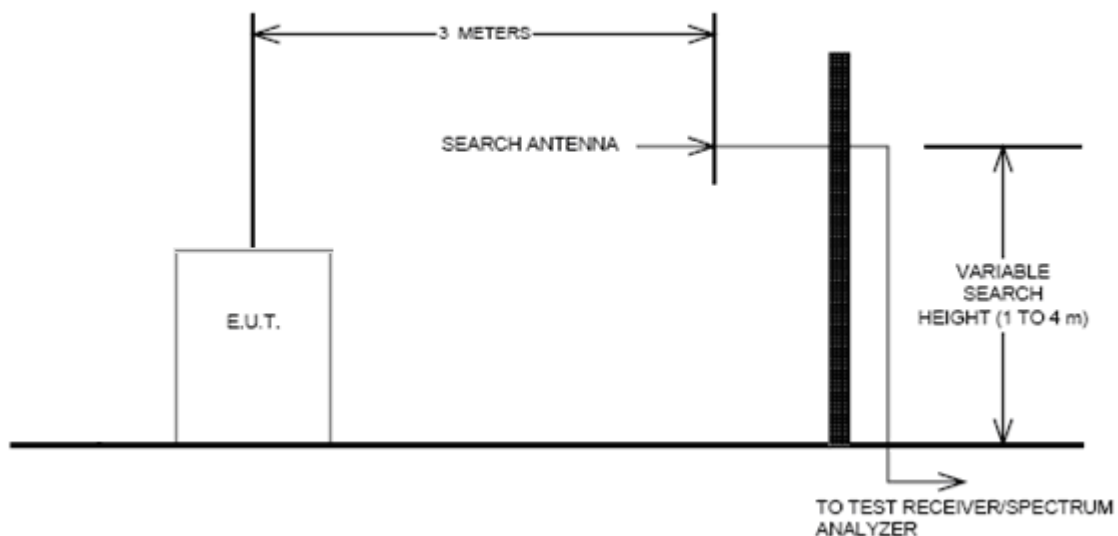
Radiated emission measurements were performed at an semi-anechoic chamber.

The EUT was set at a distance of 3m from the receiving antenna. The EUT's RF ports were terminated to 50ohm load. The EUT was set to transmit at the low, mid and high channels of the transmitter frequency range at its maximum power level. The EUT was rotated about 360° and the receiving antenna scanned from 1-4m in order to capture the maximum emission.

A calibrated antenna source was positioned in place of the EUT and the previously recorded signal was duplicated.

The maximum EIRP of the emission was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried out with the receiving antenna in both vertical and horizontal polarization. Harmonic emissions up to the 10<sup>th</sup> or 40GHz, whichever was the lesser, were investigated.

#### 8.3.1 Radiated Spurious Emissions Test Setup



| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 271 of 277          |

## 8.4 Test Result

: PASS

| Mode   | Test Frequency | Freq.(MHz) | Measured<br>Level<br>[dBm] | Ant.<br>Gain<br>(dBi) | C.L   | SigGen<br>Level<br>[dBm] | Pol. | EIRP<br>(dBm) | Margin<br>(dB) |
|--------|----------------|------------|----------------------------|-----------------------|-------|--------------------------|------|---------------|----------------|
| TD-LTE | 2506           | 5012       | -76.58                     | 12.46                 | 9.57  | -35.26                   | V    | -32.37        | 19.37          |
|        |                | 7518       | -74.96                     | 10.98                 | 12.23 | -25.98                   | V    | -27.23        | 14.23          |
|        | 2592           | 5184       | -76.09                     | 12.66                 | 9.72  | -34.53                   | V    | -31.59        | 18.59          |
|        |                | 7776       | -75.21                     | 11.12                 | 12.36 | -25.95                   | V    | -27.19        | 14.19          |
|        | 2680           | 5360       | -76.32                     | 12.86                 | 9.87  | -34.52                   | V    | -31.53        | 18.53          |
|        |                | 8040       | -74.88                     | 11.27                 | 12.52 | -25.31                   | V    | -26.56        | 13.56          |

※ It was tested at Power Boosting mode

## Sample Calculation

| Freq.(MHz) | Measured<br>Level<br>[dBm] | Ant. Gain<br>(dBi) | C.L  | SigGen<br>Level<br>[dBm] | Pol. | EIRP<br>(dBm) | Margin<br>(dB) |
|------------|----------------------------|--------------------|------|--------------------------|------|---------------|----------------|
| 5012       | -76.58                     | 12.46              | 9.57 | -35.26                   | V    | -32.37        | 19.37          |

EIRP = SigGen LEVEL(dBm) + Ant. Gain – CL(Cable Loss)

-32.37 = -35.26 + 12.46 – 9.57

- 1) The EUT mounted on a table on 0.8 meter above test site ground level.
- 2) During the test, the turn table is rotated and the antenna height is also varied from 1 to 4 meters until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power (**EIRP**).

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 272 of 277          |

## 9. FREQUENCY STABILITY

### 9.1 Applicable Standard

Requirements: FCC § 2.1055 (a), Part 27.54 following: The frequency stability shall be sufficient to ensure that the fundamental emissions stay

### 9.2 Test Equipment List and Details

| Manufacturer | Model / Equipment         | Serial No. | Calibration Due |
|--------------|---------------------------|------------|-----------------|
| Agilent      | N9020A /Signal Analyzer   | US46220219 | 05/02/2013      |
| Agilent      | 6674A / DC Power Supply   | 3501A00901 | 05/02/2013      |
| WEINSCHEL    | 67-30-33 / Attenuator     | BU5347     | 11/07/2013      |
| WEINSCHEL    | 67-30-33 / Attenuator     | BR0530     | 11/07/2013      |
| WEINSCHEL    | AF9003-69-31 / Attenuator | 11787      | 11/07/2013      |
| WEINSCHEL    | AF9003-69-31 / Attenuator | 5701       | 11/07/2013      |

### 9.3 Test Procedure

Frequency Stability over Temperature variation:

The equipment under test was connected to an external DC power supply and the RF output was connected to a Spectrum Analyzer via feed-through attenuators. The EUT was placed inside the temperature chamber. RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 30 minutes, the frequency output was recorded from the VSA8960 S/W via MXA Signal Analyzer.

Frequency stability over Voltage variation: An external variable DC power supply Source. The voltage was set to 85% and 115% of the nominal value. The output frequency was recorded for each voltage.

### 9.4. Test Result

: Pass

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 273 of 277          |

#### 9.4.1. Frequency Stability over Temperature and Voltage variation

##### Modulation: QPSK

**Reference:** - 48 Vdc at 20°C **Freq.** = 2506,000,000 MHz

| Voltage (%) | Temp. (°C) | Frequency (Hz) | Frequency Error (Hz) | Deviation (Hz) | ppm     |
|-------------|------------|----------------|----------------------|----------------|---------|
| 100%        | +20(Ref)   | 2508 499 949   | -51.0                | 0.0            | 0.0000  |
|             | -30        | 2508 499 955   | -45.0                | 6.0            | 0.0024  |
|             | -20        | 2508 499 954   | -46.0                | 5.0            | 0.0020  |
|             | -10        | 2508 499 954   | -46.0                | 5.0            | 0.0020  |
|             | 0          | 2508 499 952   | -48.0                | 3.0            | 0.0012  |
|             | +10        | 2508 499 937   | -63.0                | -12.0          | -0.0048 |
|             | +30        | 2508 499 949   | -51.0                | 0.0            | 0.0000  |
|             | +40        | 2508 499 948   | -52.0                | -1.0           | -0.0004 |
|             | +50        | 2508 499 954   | -46.0                | 5.0            | 0.0020  |
| 115%        | +20        | 2508 499 950   | -50.0                | 1.0            | 0.0004  |
| 85%         | +20        | 2508 499 951   | -49.0                | 2.0            | 0.0008  |

(Output Port 1)

##### Modulation: 16QAM

**Reference:** - 48 Vdc at 20°C **Freq.** = 2592,000,000 MHz

| Voltage (%) | Temp. (°C) | Frequency (Hz) | Frequency Error (Hz) | Deviation (Hz) | ppm    |
|-------------|------------|----------------|----------------------|----------------|--------|
| 100%        | +20(Ref)   | 2591 999 955   | -44.7                | 0.0            | 0.0000 |
|             | -30        | 2591 999 957   | -42.8                | 1.9            | 0.0007 |
|             | -20        | 2591 999 956   | -43.6                | 1.1            | 0.0004 |
|             | -10        | 2591 999 957   | -42.8                | 1.9            | 0.0007 |
|             | 0          | 2591 999 957   | -43.5                | 1.2            | 0.0005 |
|             | +10        | 2591 999 956   | -44.2                | 0.5            | 0.0002 |
|             | +30        | 2591 999 956   | -43.7                | 1.0            | 0.0004 |
|             | +40        | 2591 999 956   | -43.8                | 0.9            | 0.0003 |
|             | +50        | 2591 999 957   | -42.9                | 1.8            | 0.0007 |
| 115%        | +20        | 2591 999 957   | -43.4                | 1.3            | 0.0005 |
| 85%         | +20        | 2591 999 956   | -44.0                | 0.7            | 0.0003 |

(Output Port 2)

|                                  |                                     |                                            |                          |                                  |
|----------------------------------|-------------------------------------|--------------------------------------------|--------------------------|----------------------------------|
| <b>FCC PT.27<br/>TEST REPORT</b> | <b>FCC CERTIFICATION REPORT</b>     |                                            |                          | <b>HCT PT.27<br/>TEST REPORT</b> |
| Test Report No.<br>HCTR1211FR02  | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 274 of 277                  |

**Modulation: 64QAM**

**Reference:** - 48 Vdc at 20°C   **Freq.** = 2680,000,000 MHz

| Voltage (%) | Temp. (°C) | Frequency (Hz) | Frequency Error (Hz) | Deviation (Hz) | ppm     |
|-------------|------------|----------------|----------------------|----------------|---------|
| 100%        | +20(Ref)   | 2679 999 957   | -43.5                | 0.0            | 0.0000  |
|             | -30        | 2679 999 957   | -43.1                | 0.4            | 0.0001  |
|             | -20        | 2679 999 956   | -43.9                | -0.4           | -0.0001 |
|             | -10        | 2679 999 957   | -43.0                | 0.5            | 0.0002  |
|             | 0          | 2679 999 956   | -44.2                | -0.7           | -0.0003 |
|             | +10        | 2679 999 956   | -43.6                | -0.1           | 0.0000  |
|             | +30        | 2679 999 956   | -43.8                | -0.3           | -0.0001 |
|             | +40        | 2679 999 957   | -43.4                | 0.1            | 0.0000  |
|             | +50        | 2679 999 956   | -44.2                | -0.7           | -0.0003 |
| 115%        | +20        | 2679 999 956   | -43.7                | -0.2           | -0.0001 |
| 85%         | +20        | 2679 999 957   | -43.5                | 0.0            | 0.0000  |

**(Output Port 3)**

## 10. RF EXPOSURE STATEMENT

### 1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

#### (B) Limits for General Population/Uncontrolled Exposures

| Frequency range<br>(MHz) | Electric field<br>Strength (V/m) | Magnetic field<br>Strength (A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|--------------------------|----------------------------------|----------------------------------|----------------------------------------|-----------------------------|
| 0.3 - 1.34.....          | 614                              | 1.63                             | *(100)                                 | 30                          |
| 1.34 - 30.....           | 824/f                            | 2.19/f                           | *(180/ f <sup>2</sup> )                | 30                          |
| 30 - 300.....            | 27.5                             | 0.073                            | 0.2                                    | 30                          |
| 300 - 1500.....          | .....                            | .....                            | f/1500                                 | 30                          |
| 1500 - 100.000.....      | .....                            | .....                            | 1.0                                    | 30                          |

F = frequency in MHz

\* = Plane-wave equivalent power density

### 2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

| FCC PT.27<br>TEST REPORT        | FCC CERTIFICATION REPORT            |                                            |                          | HCT PT.27<br>TEST REPORT |
|---------------------------------|-------------------------------------|--------------------------------------------|--------------------------|--------------------------|
| Test Report No.<br>HCTR1211FR02 | Date of Issue:<br>November 13, 2012 | EUT Type:<br>Mobile RRH(Remote Radio Head) | FCC ID:<br>A3LSLS-BD106Q | Page 276 of 277          |

[TD-LTE]

|                                                             |            |                    |
|-------------------------------------------------------------|------------|--------------------|
| Max Peak output Power at antenna input terminal             | 42.89000   | dBm                |
| Max Peak output Power at antenna input terminal             | 19.45360   | W                  |
| Prediction distance                                         | 300.00000  | cm                 |
| Prediction frequency                                        | 2602.00000 | MHz                |
| Antenna Gain(typical)                                       | 17.00000   | dBi                |
| Antenna Gain(numeric)                                       | 50.11872   | –                  |
| Power density at prediction frequency (S)                   | 0.86208    | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.00000    | mW/cm <sup>2</sup> |

### 3. RESULTS

The power density level at 300 cm is 0.86208 mW/cm<sup>2</sup>, which is below the uncontrolled exposure limit of 1.0 mW/cm<sup>2</sup> at TD-LTE BAND

|                                        |                                            |                                                   |                                 |                                  |
|----------------------------------------|--------------------------------------------|---------------------------------------------------|---------------------------------|----------------------------------|
| <b>FCC PT.27<br/>TEST REPORT</b>       | <b>FCC CERTIFICATION REPORT</b>            |                                                   |                                 | <b>HCT PT.27<br/>TEST REPORT</b> |
| <b>Test Report No.</b><br>HCTR1211FR02 | <b>Date of Issue:</b><br>November 13, 2012 | <b>EUT Type:</b><br>Mobile RRH(Remote Radio Head) | <b>FCC ID:</b><br>A3LSLS-BD106Q | Page 277 of 277                  |