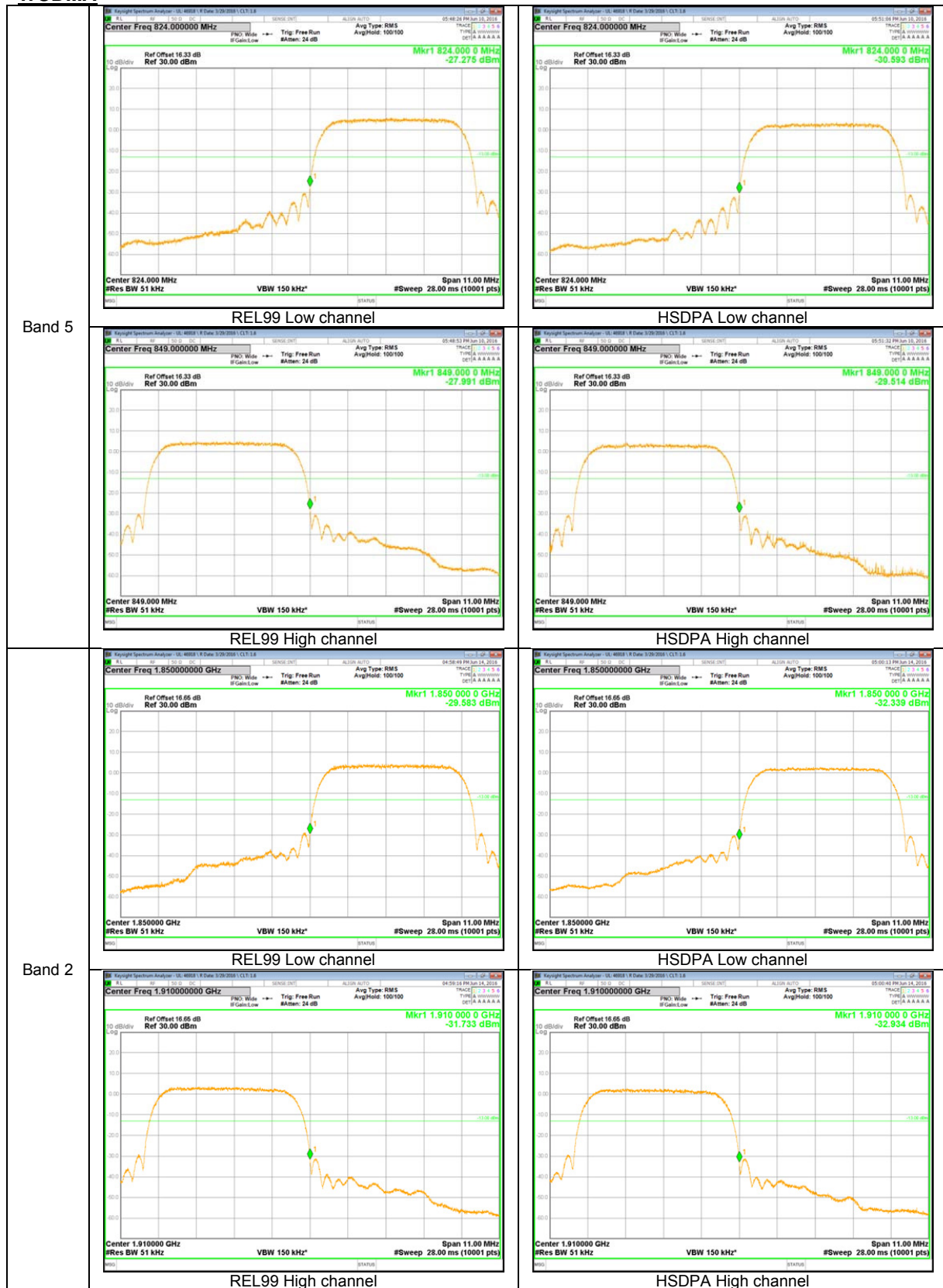
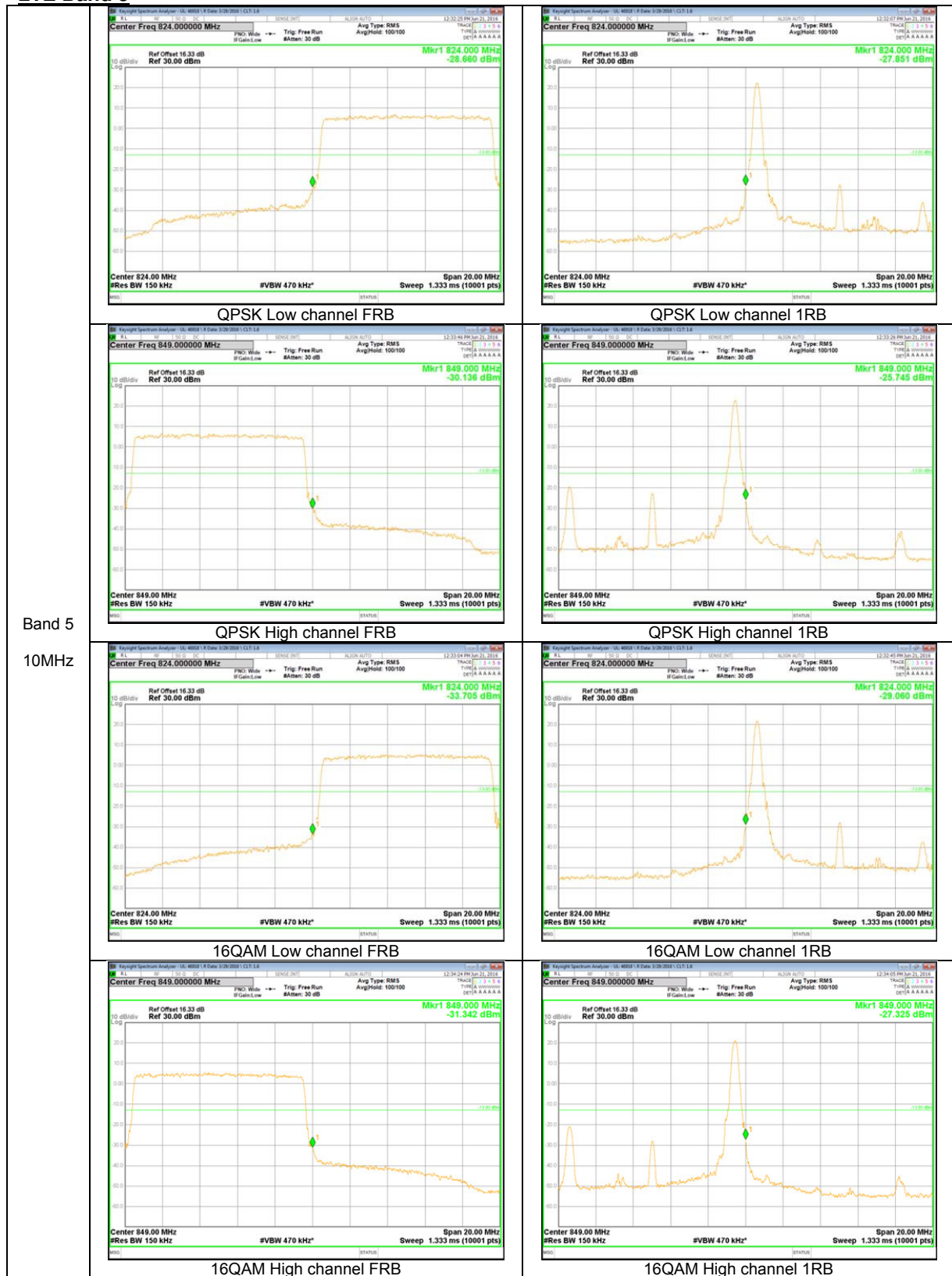


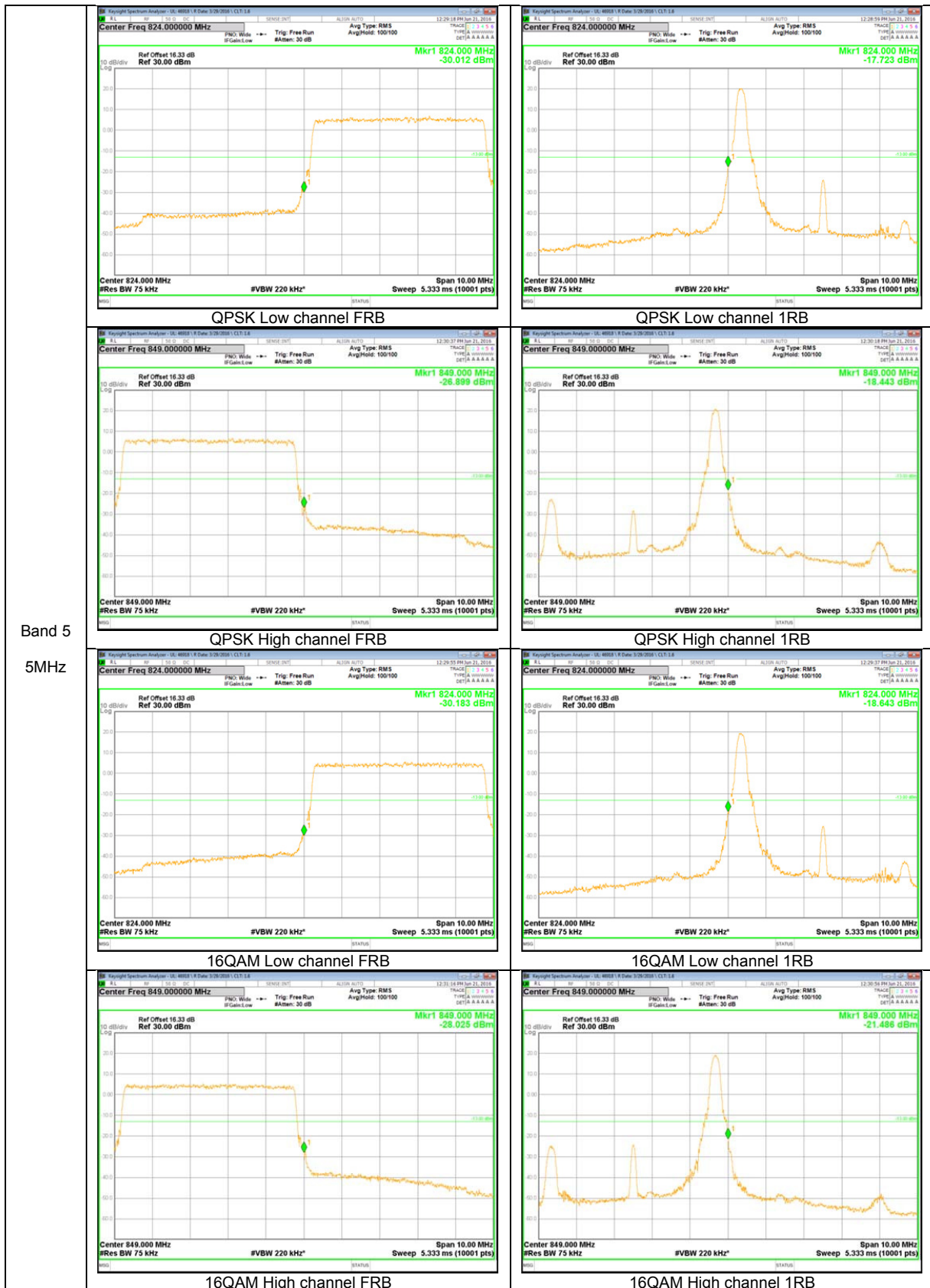
WCDMA

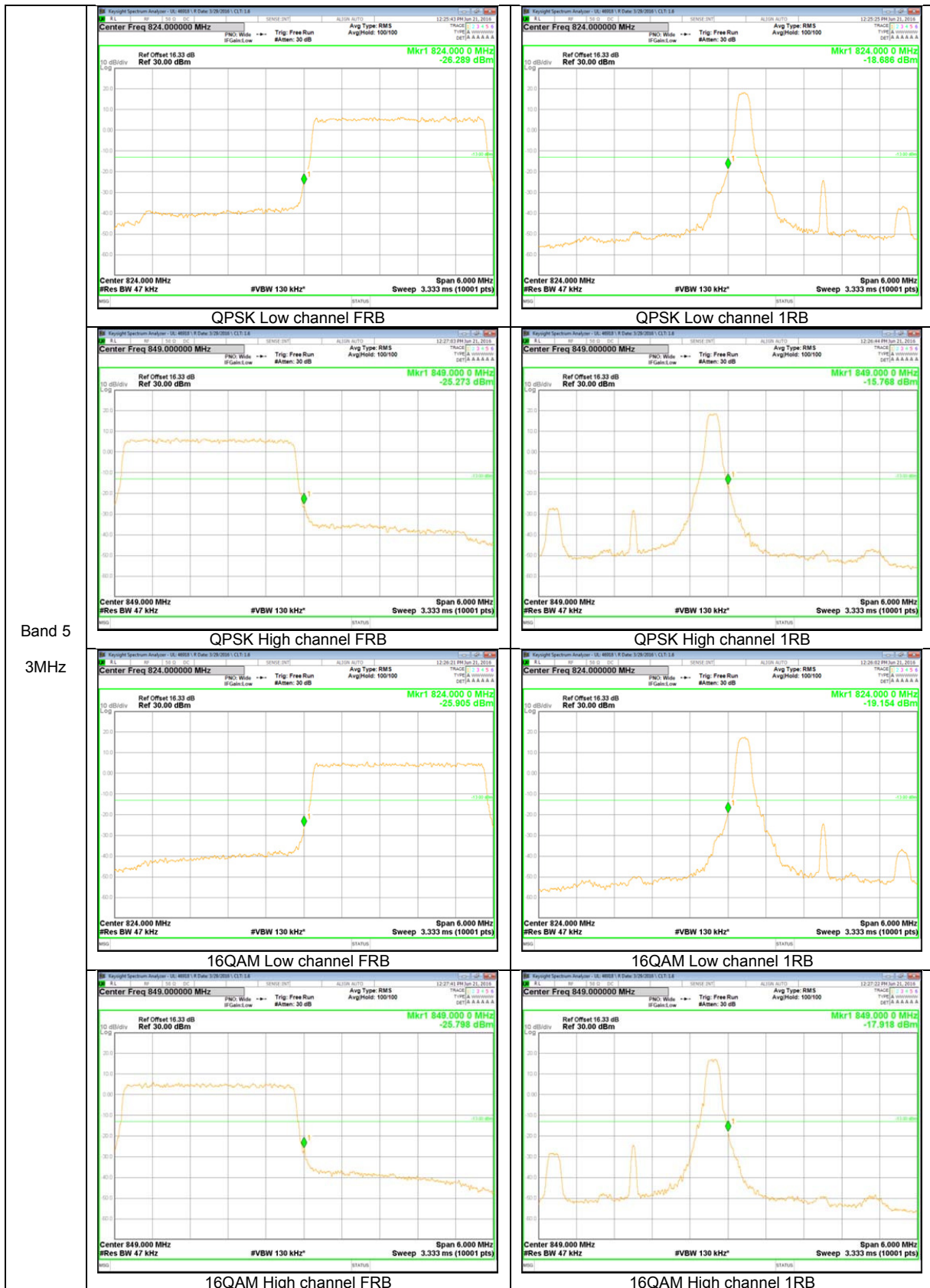


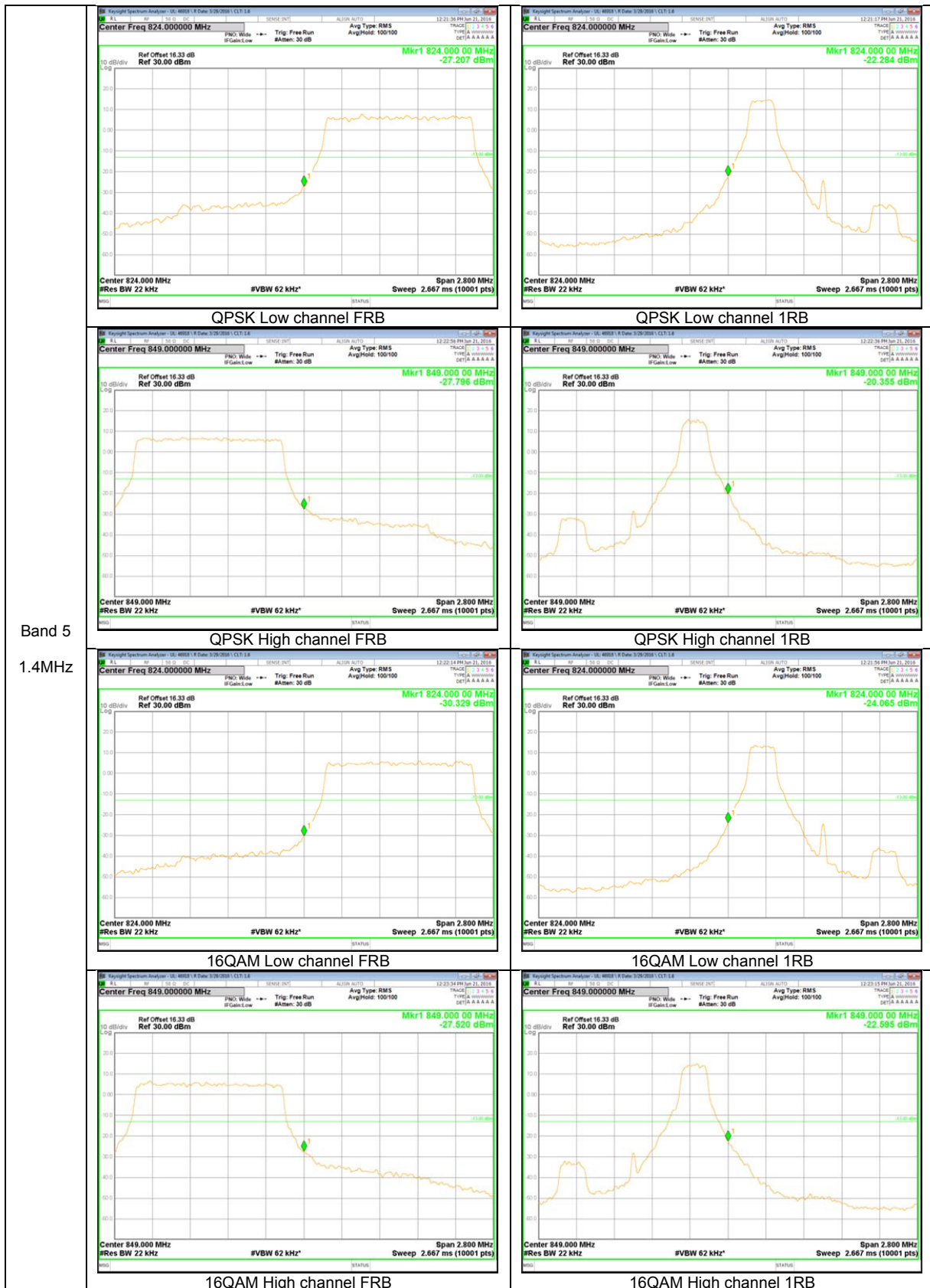
LTE Band 5



Band 5
 10MHz





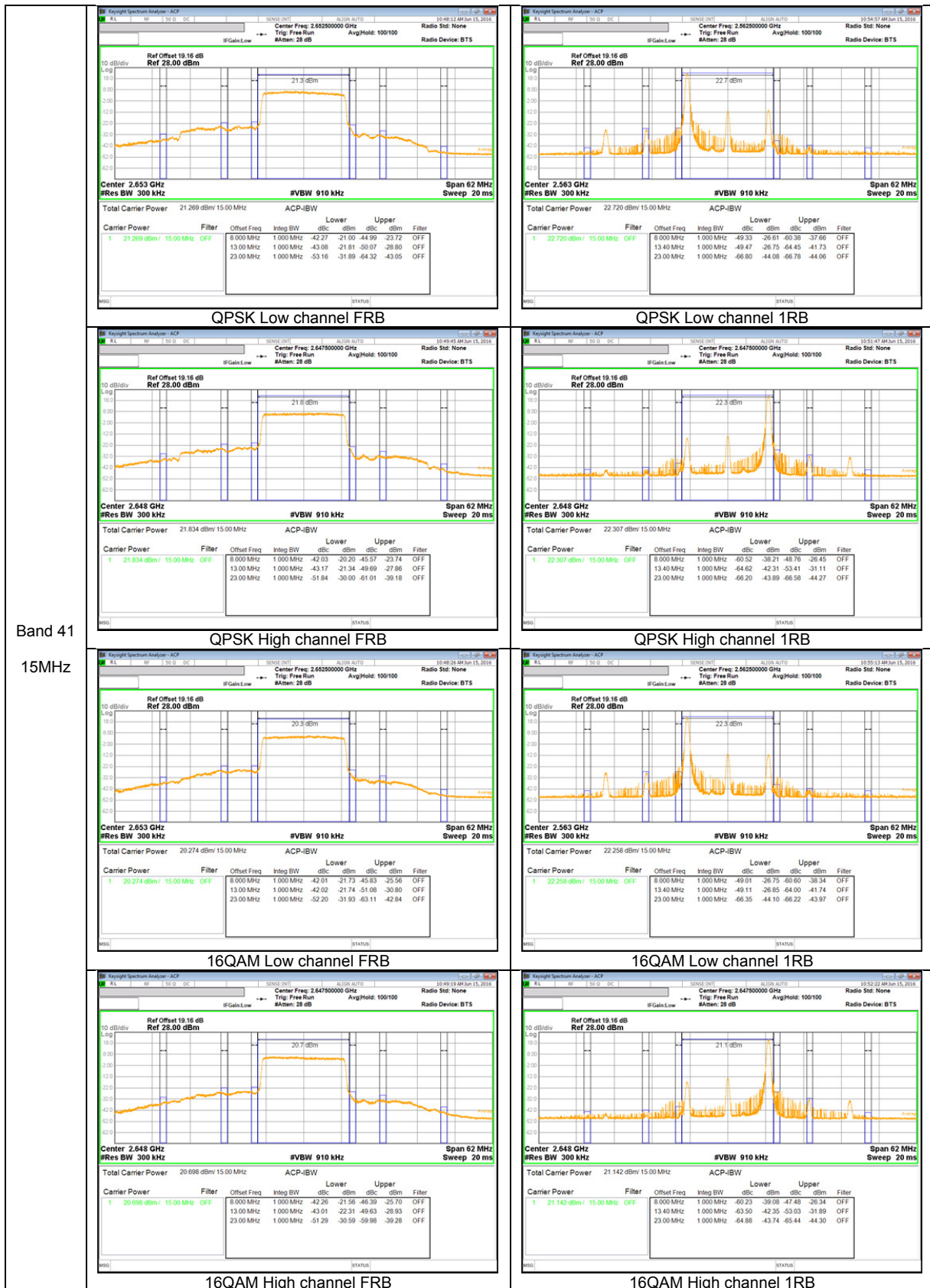


10.2.1. EMISSION MASK PLOTS

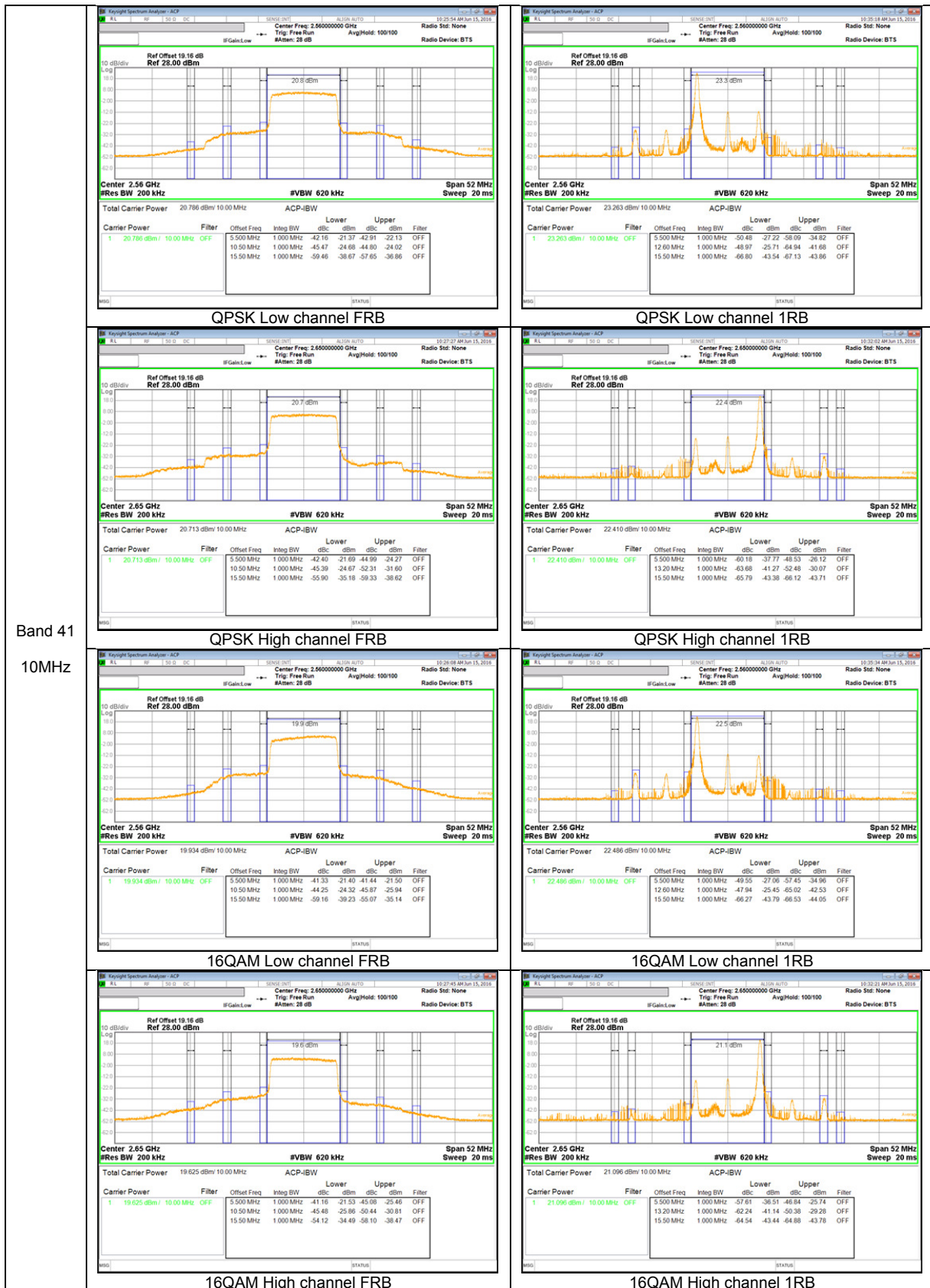
LTE Band 41



Band 41
 20MHz



Band 41
 15MHz



Band 41
 10MHz



Band 41
5MHz

10.3 OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238 and §27. 53

LIMITS

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

Part 27: (m)(4) For mobile station, the attenuation factor shall be not less than $43 + 10 \log (P)$ dB at the channel edge and $(55 + 10 \log (P))$ dB at the 5.5 MHz from the channel edges.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

RESULTS

10.3.1. OUT OF BAND EMISSIONS RESULT

GSM

| Band | Mode | f [MHz] | Spurious [dBm] | Limit [dBm] |
|---------|-------|---------|----------------|-------------|
| GSM850 | GPRS | 824.2 | -24.06 | -13.00 |
| | | 836.6 | -24.61 | |
| | | 848.8 | -24.99 | |
| | EGPRS | 824.2 | -24.57 | |
| | | 836.6 | -24.71 | |
| | | 848.8 | -24.83 | |
| GSM1900 | GPRS | 1850.2 | -24.02 | |
| | | 1880.0 | -22.63 | |
| | | 1909.8 | -24.17 | |
| | EGPRS | 1850.2 | -23.99 | |
| | | 1880.0 | -24.47 | |
| | | 1909.8 | -23.96 | |

WCDMA

| Band | Mode | f [MHz] | Spurious [dBm] | Limit [dBm] |
|--------|-------|---------|----------------|-------------|
| Band 5 | REL99 | 826.4 | -34.64 | -13.00 |
| | | 836.6 | -35.00 | |
| | | 846.6 | -34.76 | |
| | HSDPA | 826.4 | -34.57 | |
| | | 836.6 | -34.40 | |
| | | 846.6 | -34.40 | |
| Band 2 | REL99 | 1852.4 | -34.41 | |
| | | 1880.0 | -32.60 | |
| | | 1907.6 | -34.83 | |
| | HSDPA | 1852.4 | -33.96 | |
| | | 1880.0 | -33.81 | |
| | | 1907.6 | -34.17 | |

LTE 41

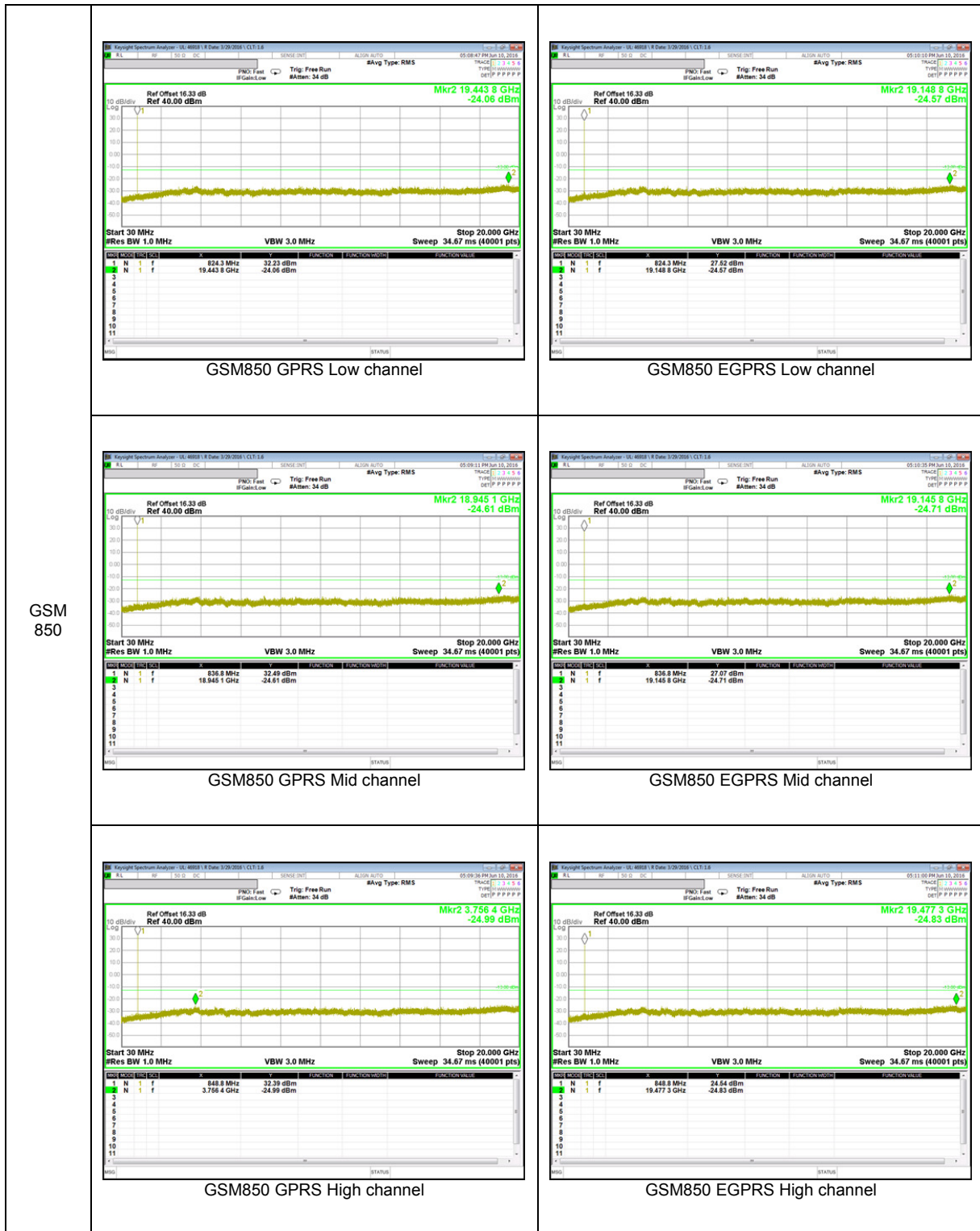
| Bandwidth | Mode | f [MHz] | Spurious [dBm] | Limit [dBm] |
|-----------|-------|---------|----------------|-------------|
| 20 MHz | QPSK | 2565.0 | -34.05 | -25.00 |
| | | 2605.0 | -33.67 | |
| | | 2645.0 | -32.71 | |
| | 16QAM | 2565.0 | -33.32 | |
| | | 2605.0 | -33.25 | |
| | | 2645.0 | -32.36 | |
| 15 MHz | QPSK | 2562.5 | -32.43 | |
| | | 2605.0 | -33.92 | |
| | | 2647.5 | -33.65 | |
| | 16QAM | 2562.5 | -33.14 | |
| | | 2605.0 | -33.19 | |
| | | 2647.5 | -33.24 | |
| 10 MHz | QPSK | 2560.0 | -33.33 | |
| | | 2605.0 | -33.31 | |
| | | 2650.0 | -32.85 | |
| | 16QAM | 2560.0 | -33.21 | |
| | | 2605.0 | -33.74 | |
| | | 2650.0 | -33.72 | |
| 5 MHz | QPSK | 2557.5 | -33.11 | |
| | | 2605.0 | -33.37 | |
| | | 2652.5 | -32.44 | |
| | 16QAM | 2557.5 | -33.85 | |
| | | 2605.0 | -33.69 | |
| | | 2652.5 | -32.97 | |

LTE 5

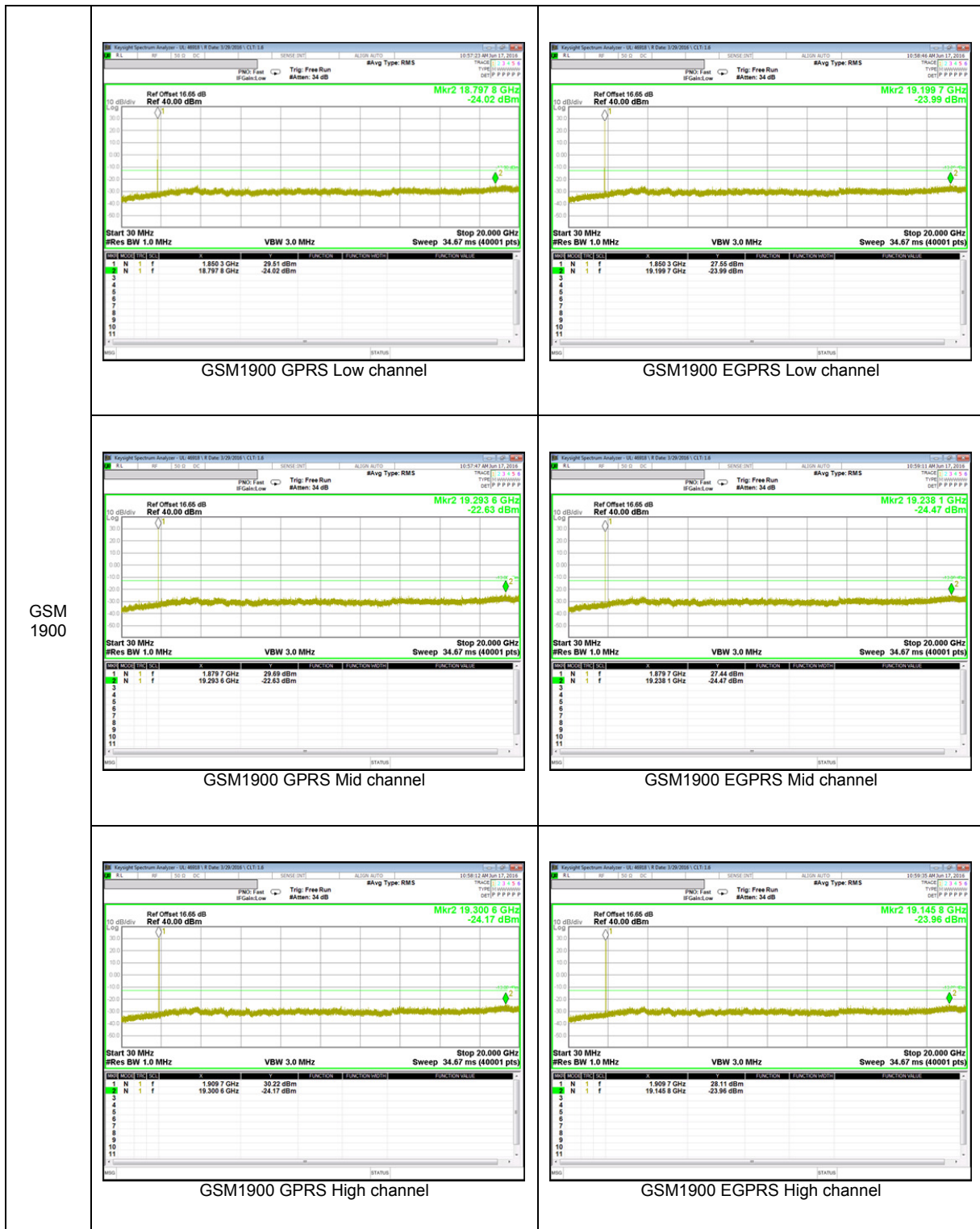
| Bandwidth | Mode | f [MHz] | Spurious [dBm] | Limit [dBm] |
|-----------|-------|---------|----------------|-------------|
| 10 MHz | QPSK | 829.0 | -29.03 | -13.00 |
| | | 836.5 | -28.41 | |
| | | 844.0 | -29.13 | |
| | 16QAM | 829.0 | -29.40 | |
| | | 836.5 | -28.71 | |
| | | 844.0 | -28.52 | |
| 5 MHz | QPSK | 826.5 | -29.53 | |
| | | 836.5 | -29.23 | |
| | | 846.5 | -28.99 | |
| | 16QAM | 826.5 | -28.73 | |
| | | 836.5 | -29.24 | |
| | | 846.5 | -28.82 | |
| 3 MHz | QPSK | 825.5 | -29.36 | |
| | | 836.5 | -29.40 | |
| | | 847.5 | -29.33 | |
| | 16QAM | 825.5 | -28.21 | |
| | | 836.5 | -28.99 | |
| | | 847.5 | -28.69 | |
| 1.4 MHz | QPSK | 824.7 | -28.62 | |
| | | 836.5 | -29.94 | |
| | | 848.3 | -29.25 | |
| | 16QAM | 824.7 | -29.39 | |
| | | 836.5 | -29.09 | |
| | | 848.3 | -29.05 | |

10.3.2. OUT OF BAND EMISSIONS PLOTS

GSM 850

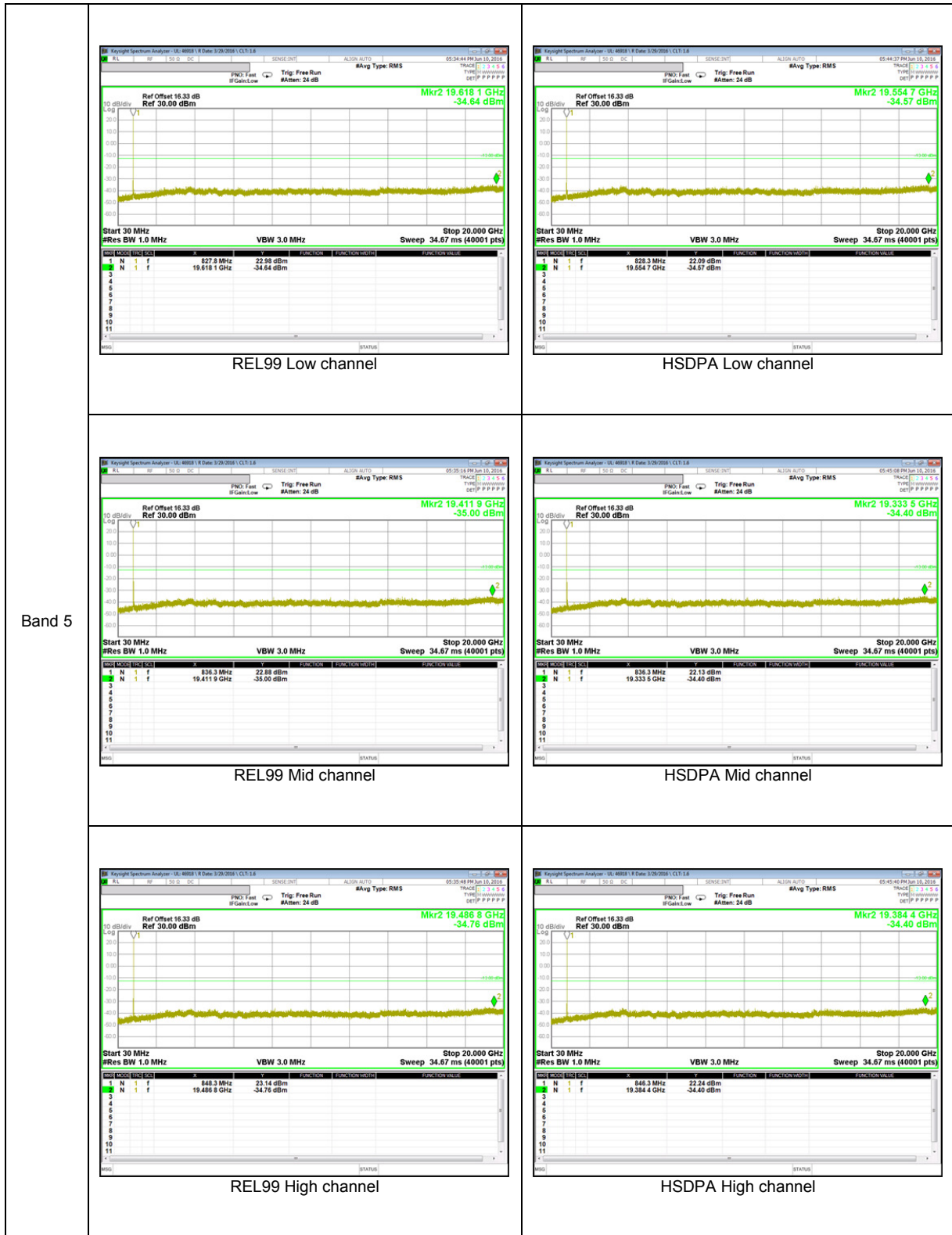


GSM 1900

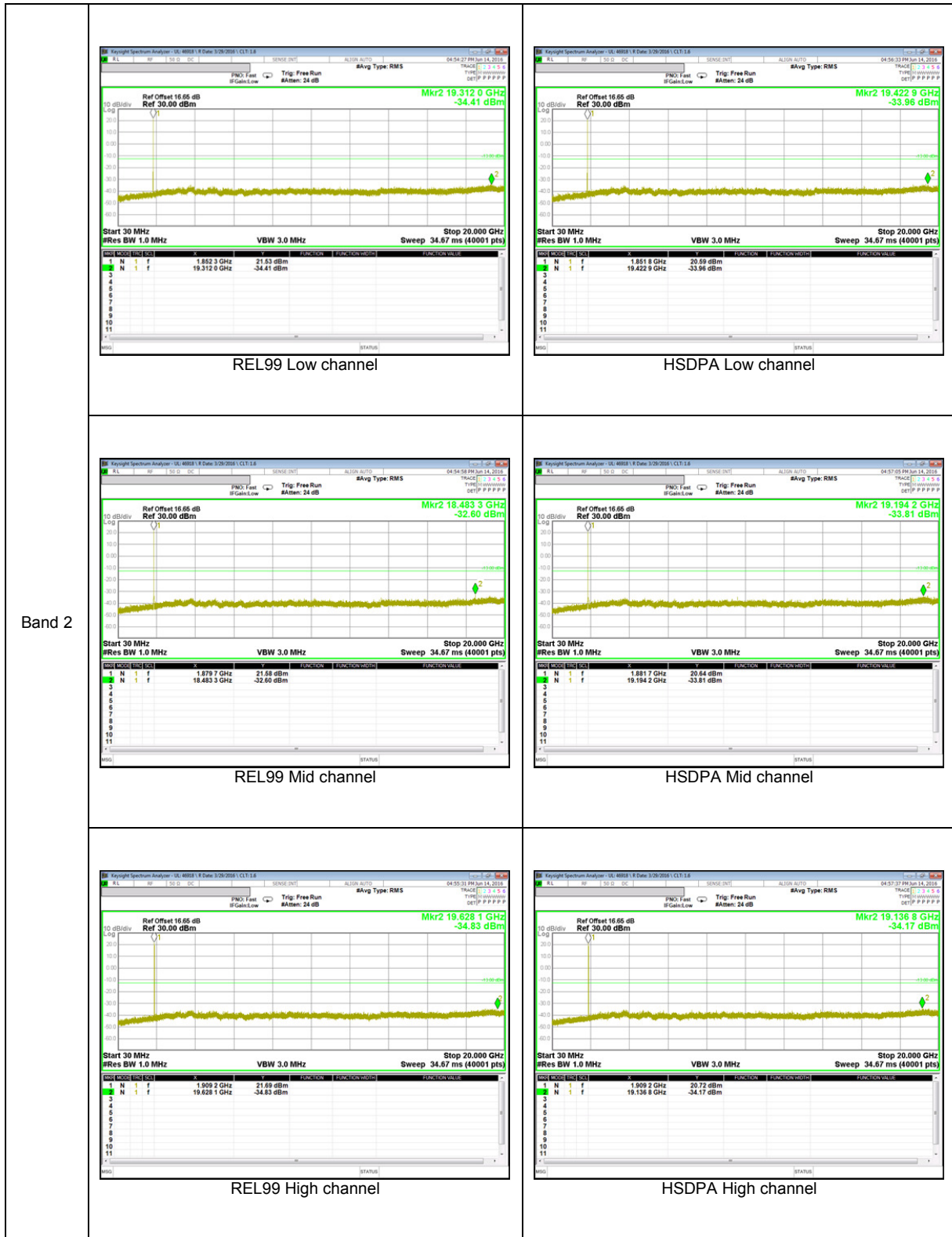


GSM 1900

WCDMA Band 5



WCDMA Band 2



Band 2

LTE Band 41

