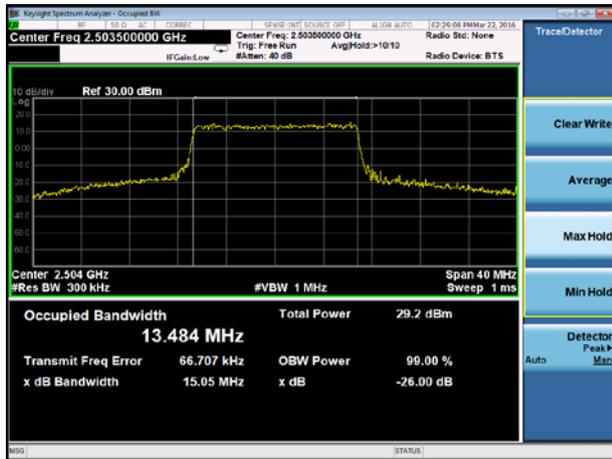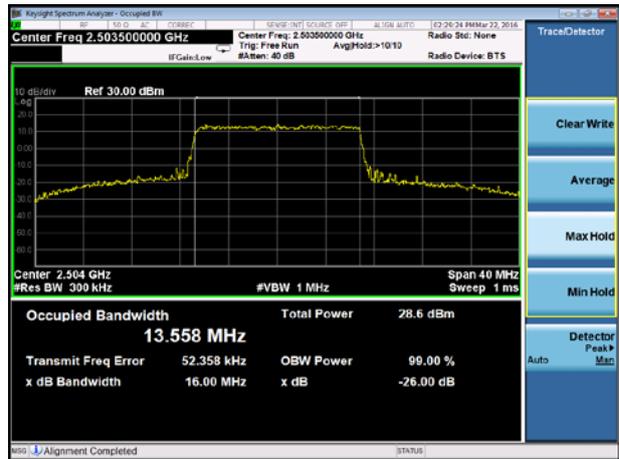LTE Band 41 QPSK Bandwidth = 15MHz
CH39725 Occupied Bandwidth

LTE Band 41 16QAM Bandwidth = 15MHz
CH39725 Occupied Bandwidth

LTE Band 41 QPSK Bandwidth = 15MHz
CH40620 Occupied Bandwidth

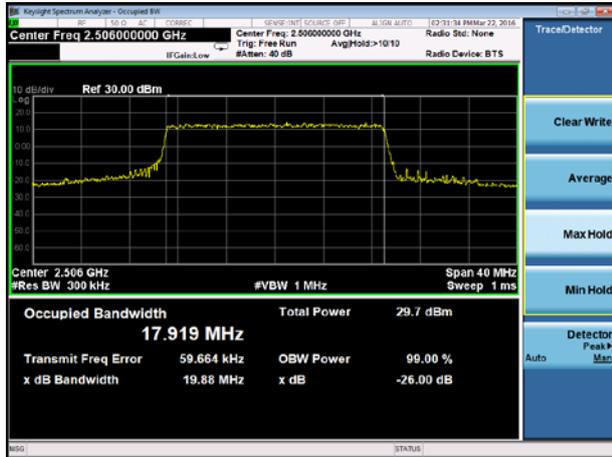LTE Band 41 16QAM Bandwidth = 15MHz
CH40620 Occupied Bandwidth

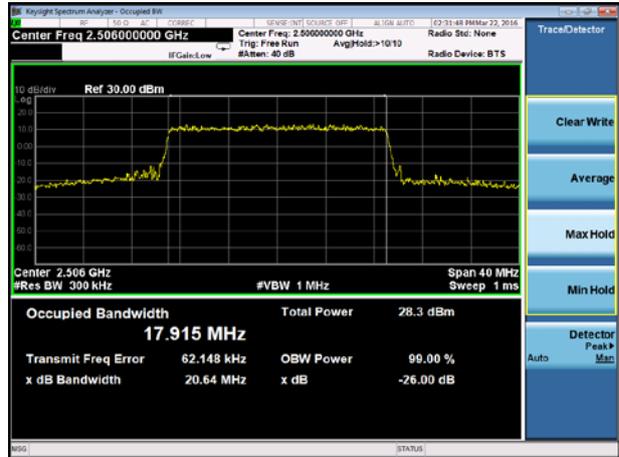LTE Band 41 QPSK Bandwidth = 15MHz
CH41515 Occupied Bandwidth

LTE Band 41 16QAM Bandwidth = 15MHz
CH41515 Occupied Bandwidth

TA Technology (Shanghai) Co., Ltd.   **Page 44 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

LTE Band 41 QPSK Bandwidth = 20MHz CH39750 Occupied Bandwidth	LTE Band 41 16QAM Bandwidth = 20MHz CH39750 Occupied Bandwidth
LTE Band 41 QPSK Bandwidth = 20MHz CH40620 Occupied Bandwidth	LTE Band 41 16QAM Bandwidth = 20MHz CH40620 Occupied Bandwidth
LTE Band 41 QPSK Bandwidth = 20MHz CH41490 Occupied Bandwidth	LTE Band 41 16QAM Bandwidth = 20MHz CH41490 Occupied Bandwidth

4.4   Band Edge Compliance

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 v02r02 Section 6.0

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.

2. The band edges of low and high channels for the highest RF powers were measured.

3. For LTE Band 41 Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

   For WCDMA Band IV and LTE Band 4/12, RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV. RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 4/12 (1.4MHz). RBW is set to 30 kHz, VBW is set to 100 kHz for LTE Band 4/12 (3MHz). RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4/12 (5MHz). RBW is set to 100kHz, VBW is set to 300kHz for LTE Band 4/12 (10MHz). RBW is set to 150kHz, VBW is set to 510 kHz for LTE Band 4 (15MHz). RBW is set to 200kHz, VBW is set to 620 kHz for LTE Band 4 (20MHz) on spectrum analyzer.

4. Set spectrum analyzer with RMS detector.

5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

6. Checked that all the results comply with the emission limit line.

Test Setup
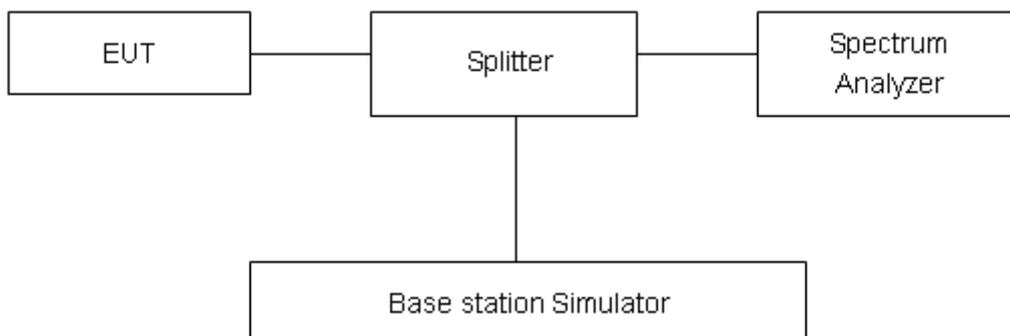
Limits

Rule Part 27.53(h)/ specifies that " for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}$ (P) dB"

Part 27.53(g) specifies that " For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log10 (P) dB."

Part 27.53(m)(4) / specifies that " For BRS and EBS stations.

 For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Example:

The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
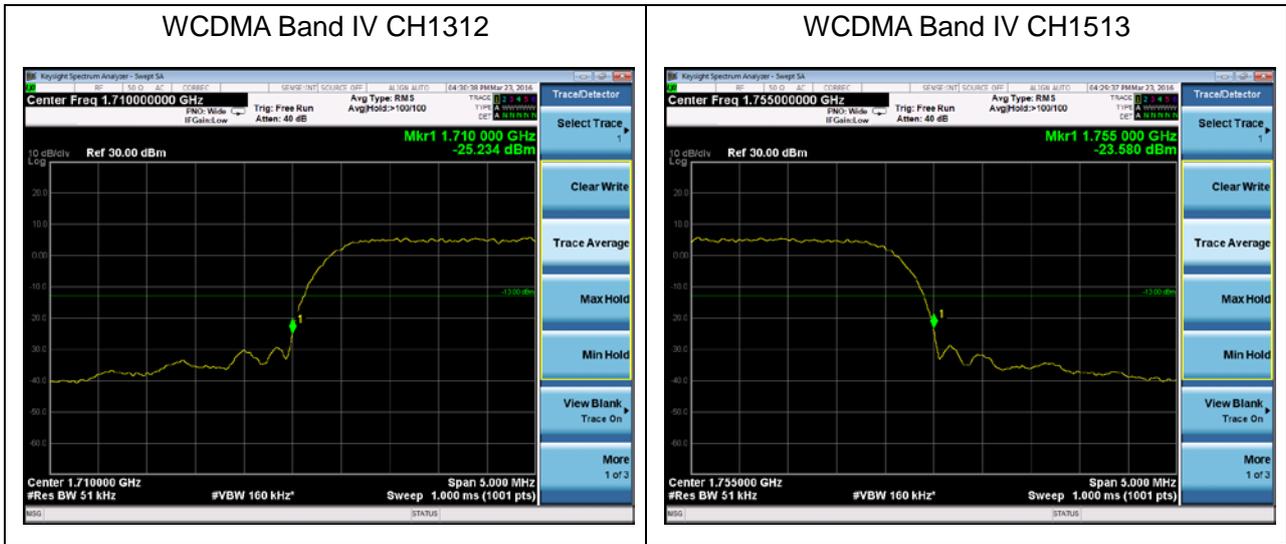
= P(W)- [43 + 10log(P)] (dB)

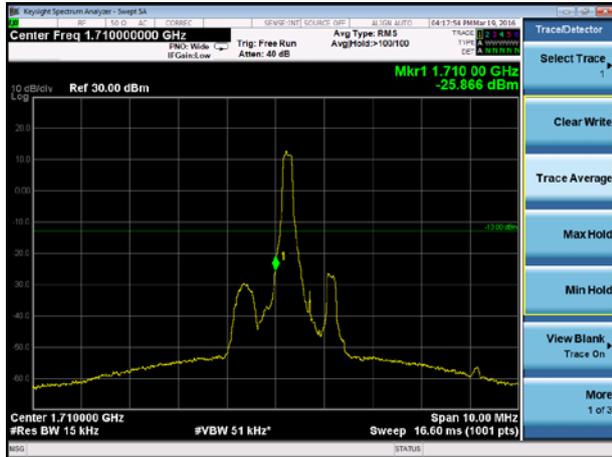= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U=0.684dB.
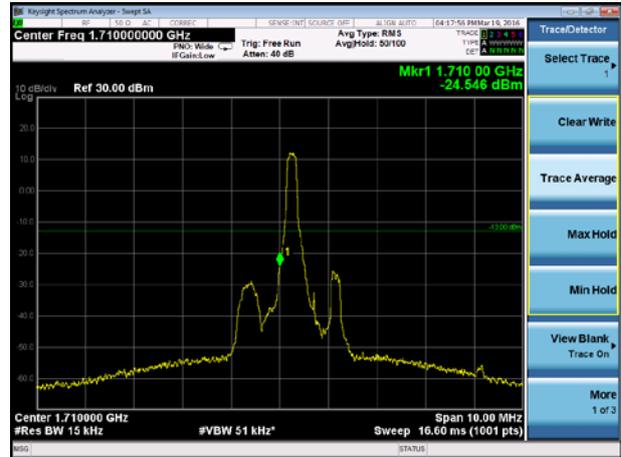
Test Result

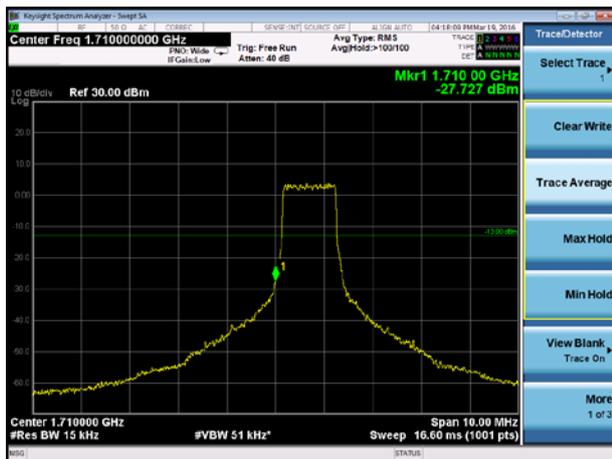All the test traces in the plots shows the test results clearly.

WCDMA Band IV CH1312	WCDMA Band IV CH1513

TA Technology (Shanghai) Co., Ltd.   **Page 48 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

LTE Band 4 QPSK Bandwidth = 1.4MHz CH19957, RB 1	LTE Band 4 16QAM Bandwidth = 1.4MHz CH19957, RB 1
LTE Band 4 QPSK Bandwidth = 1.4MHz CH19957, RB 6	LTE Band 4 16QAM Bandwidth = 1.4MHz CH19957, RB 6
LTE Band 4 QPSK Bandwidth = 1.4MHz CH20393, RB 1	LTE Band 4 16QAM Bandwidth = 1.4MHz CH20393, RB 1
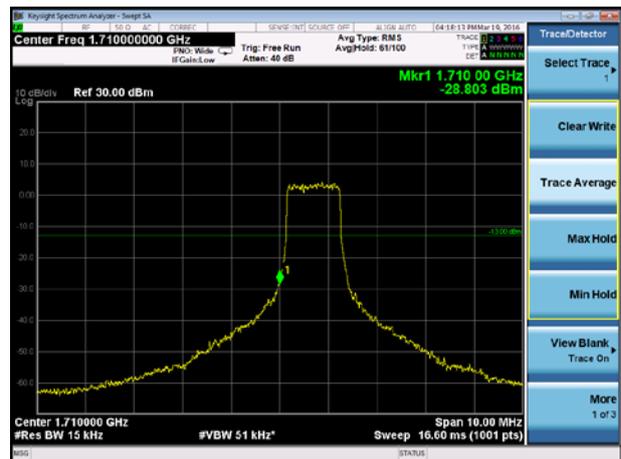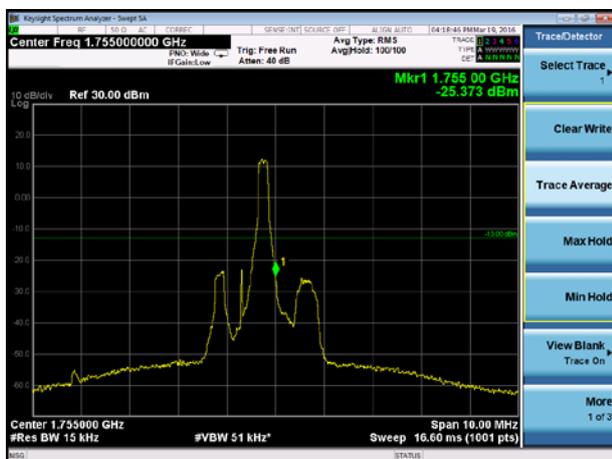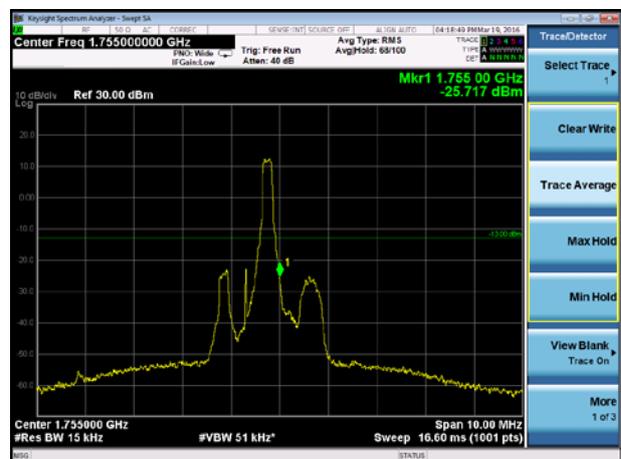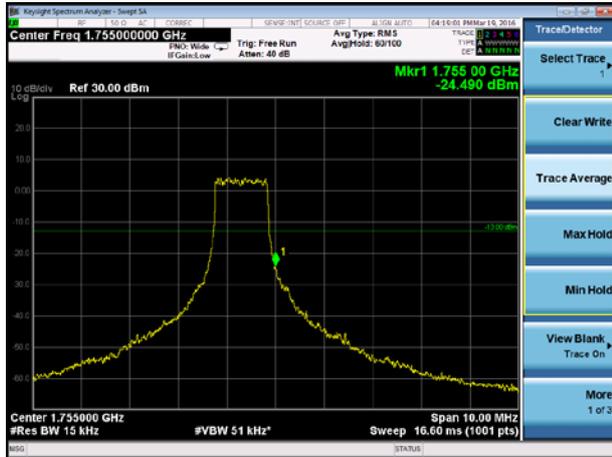
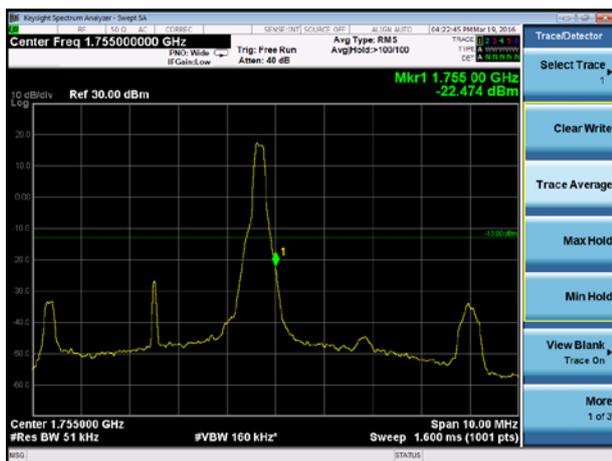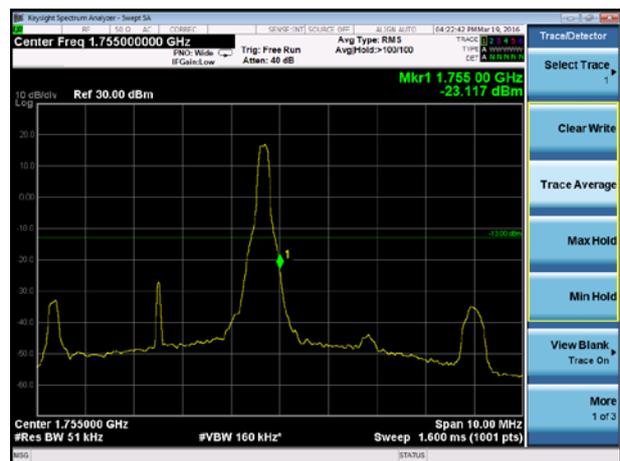| LTE Band 4 QPSK Bandwidth = 1.4MHz CH20393, RB 6	LTE Band 4 16QAM Bandwidth = 1.4MHz CH20393, RB 6
LTE Band 4 QPSK Bandwidth = 3MHz CH19965, RB 1	LTE Band 4 16QAM Bandwidth = 3MHz CH19965, RB 1
LTE Band 4 QPSK Bandwidth = 3MHz CH19965, RB 15	LTE Band 4 16QAM Bandwidth = 3MHz CH19965, RB 15
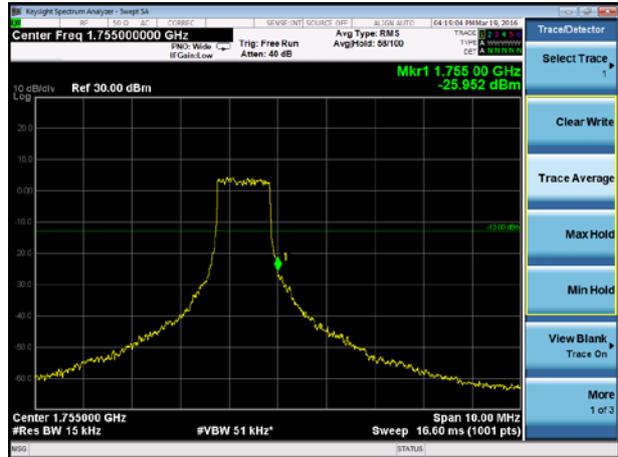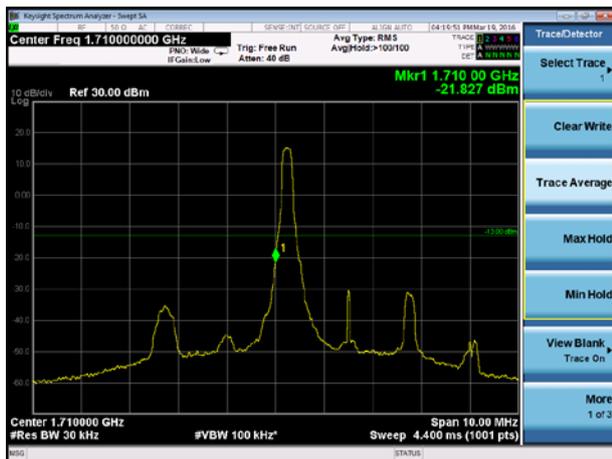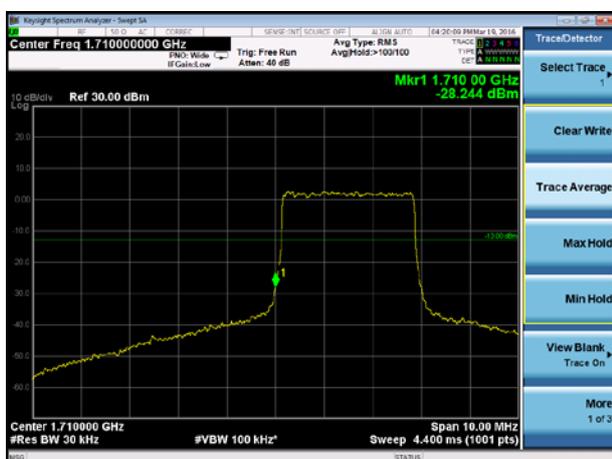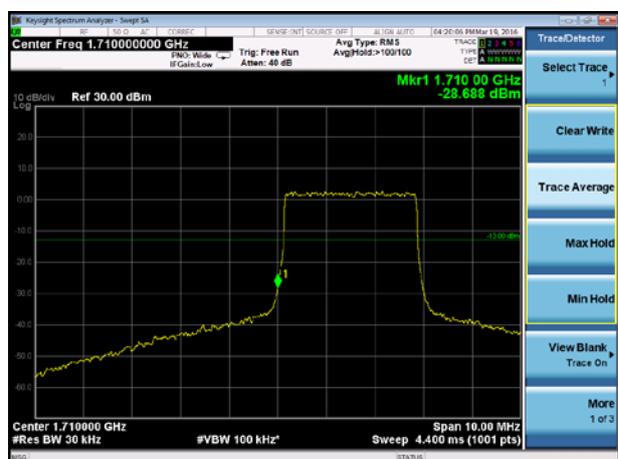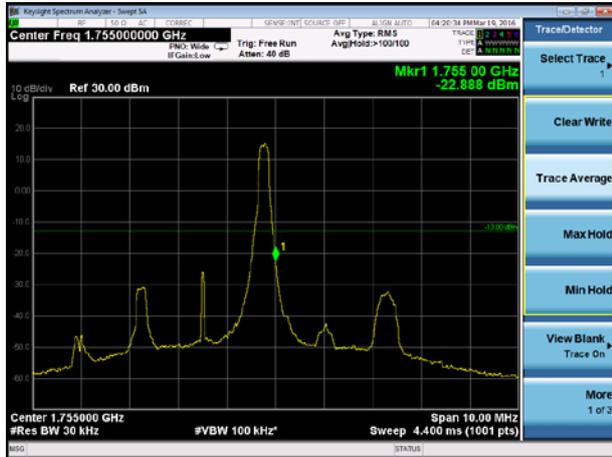
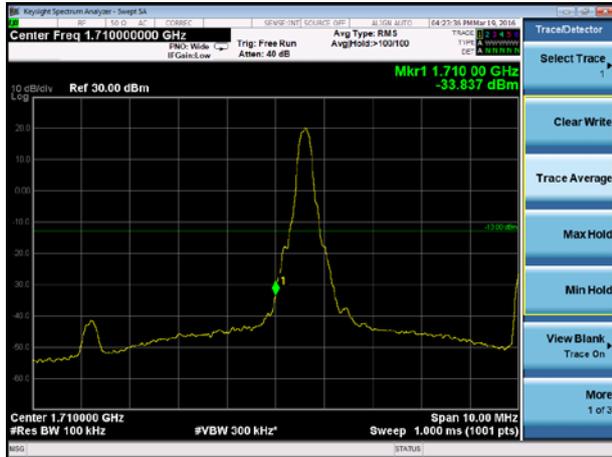| LTE Band 4 QPSK Bandwidth = 3MHz CH20385, RB 1	LTE Band 4 16QAM Bandwidth = 3MHz CH20385, RB 1
LTE Band 4 QPSK Bandwidth = 3MHz CH20385, RB 15	LTE Band 4 16QAM Bandwidth = 3MHz CH20385, RB 15
LTE Band 4 QPSK Bandwidth = 5MHz CH19975, RB 1	LTE Band 4 16QAM Bandwidth = 5MHz CH19975, RB 1
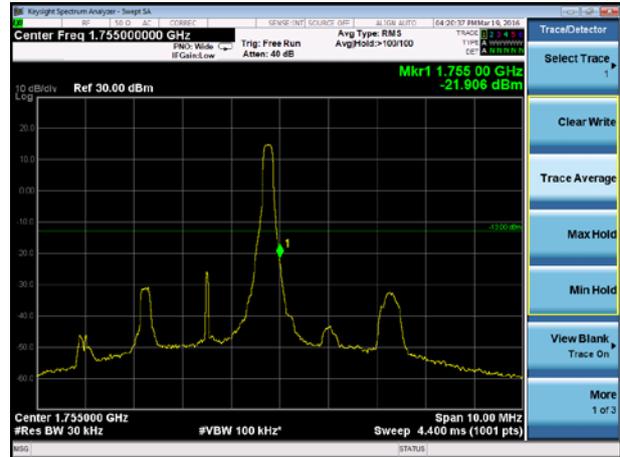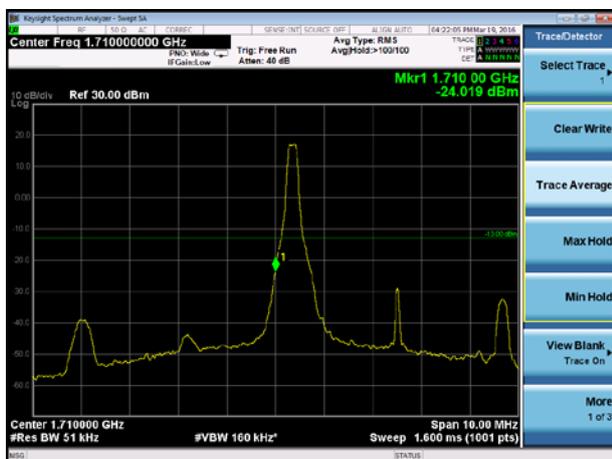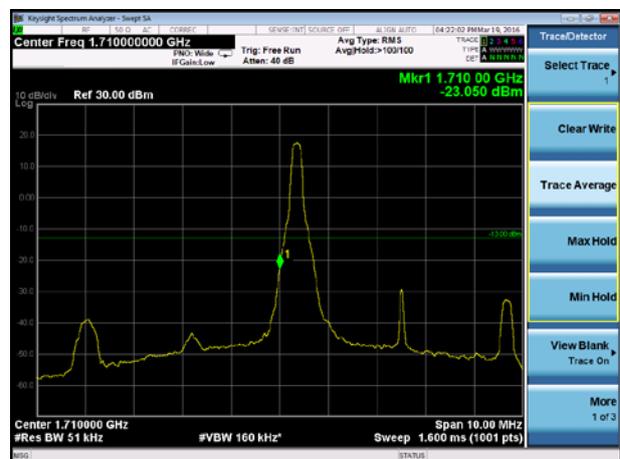
LTE Band 4 QPSK Bandwidth = 5MHz CH19975, RB 25	LTE Band 4 16QAM Bandwidth = 5MHz CH19975, RB 25
LTE Band 4 QPSK Bandwidth = 5MHz CH20375, RB 1	LTE Band 4 16QAM Bandwidth = 5MHz CH20375, RB 1
LTE Band 4 QPSK Bandwidth = 5MHz CH20375, RB 25	LTE Band 4 16QAM Bandwidth = 5MHz CH20375, RB 25

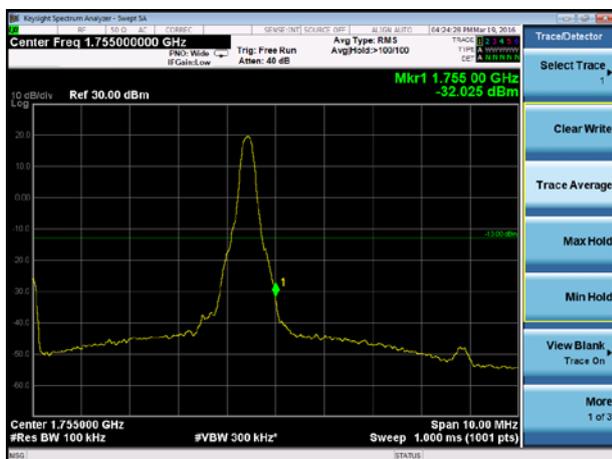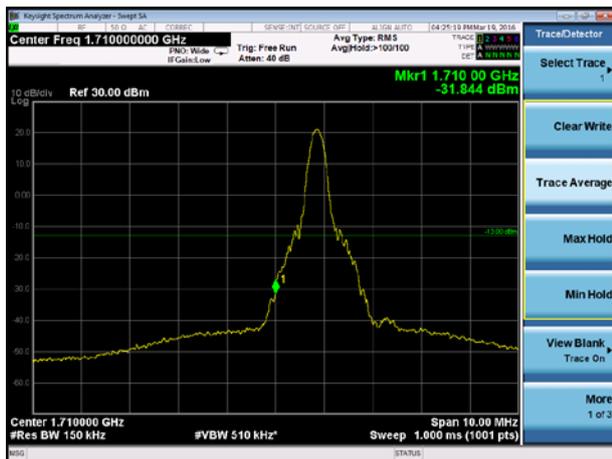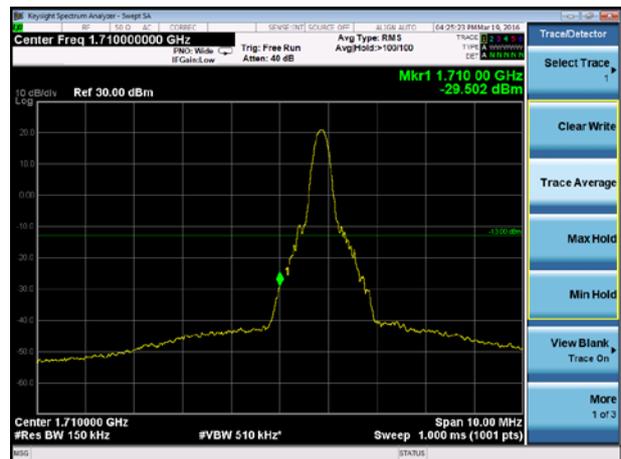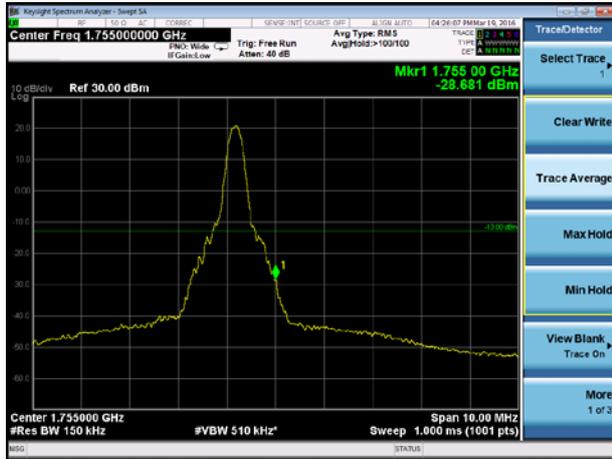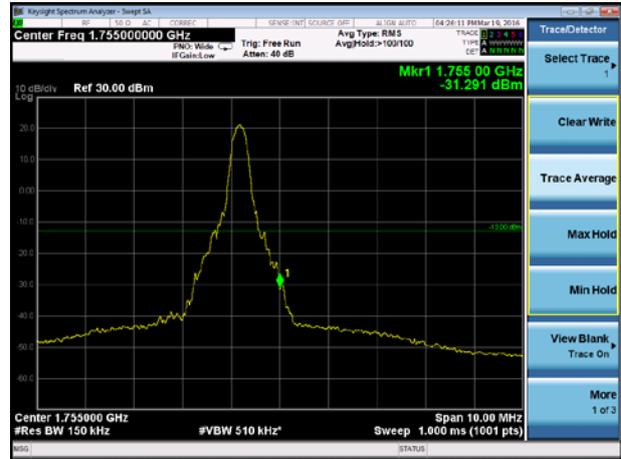| LTE Band 4 QPSK Bandwidth = 10MHz CH20000, RB 1	LTE Band 4 16QAM Bandwidth = 10MHz CH20000, RB 1
LTE Band 4 QPSK Bandwidth = 10MHz CH20000, RB 50	**LTE Band 4 16QAM Bandwidth = 10MHz CH20000, RB 50**
LTE Band 4 QPSK Bandwidth = 10MHz CH20350, RB 1	**LTE Band 4 16QAM Bandwidth = 10MHz CH20350, RB 1**
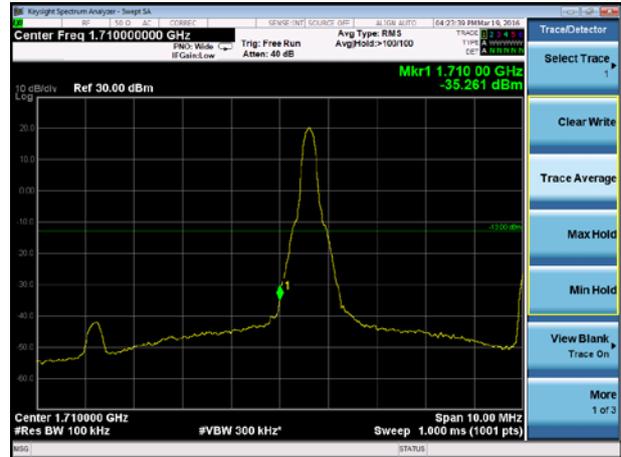
TA Technology (Shanghai) Co., Ltd. **Page 53 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.
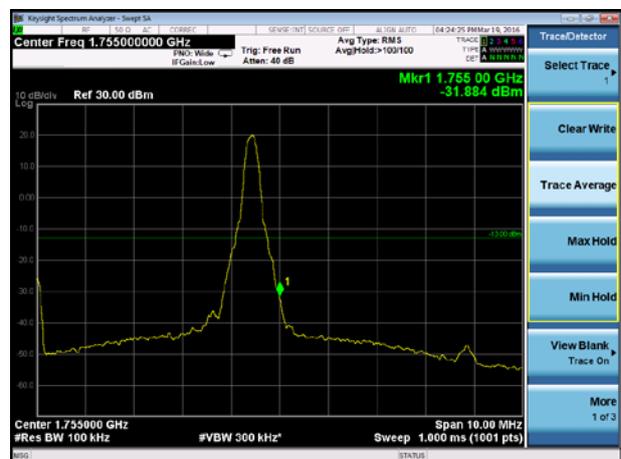
LTE Band 4 QPSK Bandwidth = 10MHz CH20350, RB 50	LTE Band 4 16QAM Bandwidth = 10MHz CH20350, RB 50
LTE Band 4 QPSK Bandwidth = 15MHz CH20025, RB 1	LTE Band 4 16QAM Bandwidth = 15MHz CH20025, RB 1
LTE Band 4 QPSK Bandwidth = 15MHz CH20025, RB 75	LTE Band 4 16QAM Bandwidth = 15MHz CH20025, RB 75

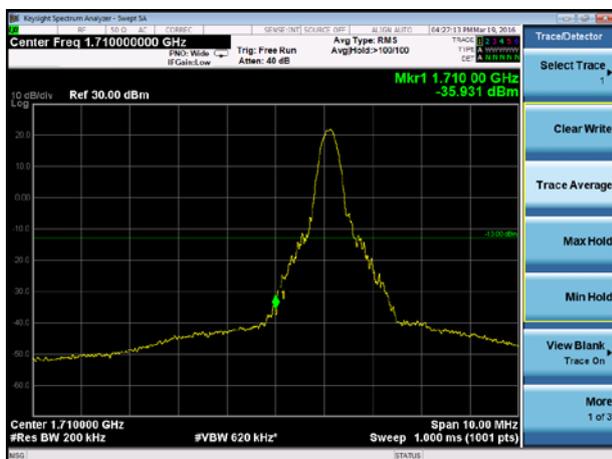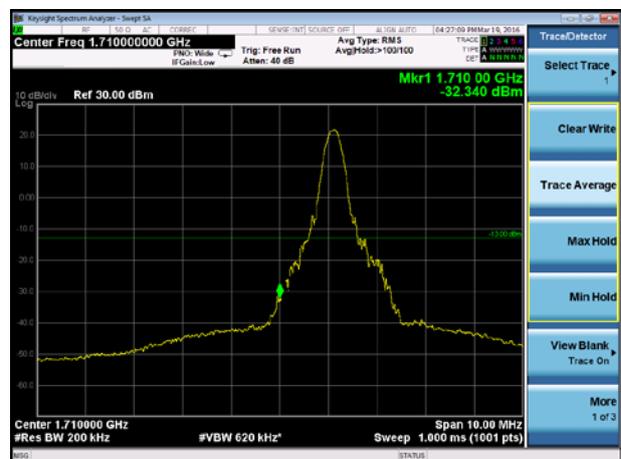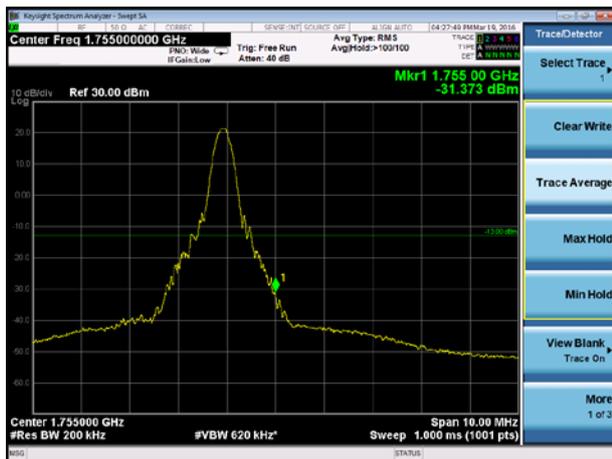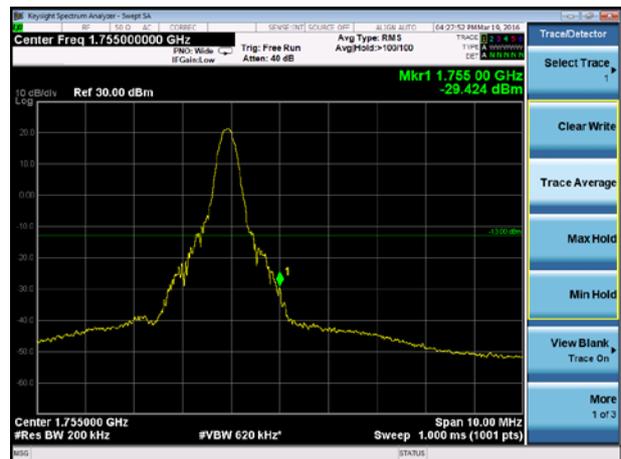| LTE Band 4 QPSK Bandwidth = 15MHz CH20325, RB 1	LTE Band 4 16QAM Bandwidth = 15MHz CH20325, RB 1

LTE Band 4 QPSK Bandwidth = 15MHz CH20325, RB 75	LTE Band 4 16QAM Bandwidth = 15MHz CH20325, RB 75

LTE Band 4 QPSK Bandwidth = 20MHz CH20050, RB 1	LTE Band 4 16QAM Bandwidth = 20MHz CH20050, RB 1

LTE Band 4 QPSK Bandwidth = 20MHz CH20050, RB 100	LTE Band 4 16QAM Bandwidth = 20MHz CH20050, RB 100

LTE Band 4 QPSK Bandwidth = 20MHz CH20300, RB 1	LTE Band 4 16QAM Bandwidth = 20MHz CH20300, RB 1

LTE Band 4 QPSK Bandwidth = 20MHz CH20300, RB 100	LTE Band 4 16QAM Bandwidth = 20MHz CH20300, RB 100

TA Technology (Shanghai) Co., Ltd. **Page 56 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.
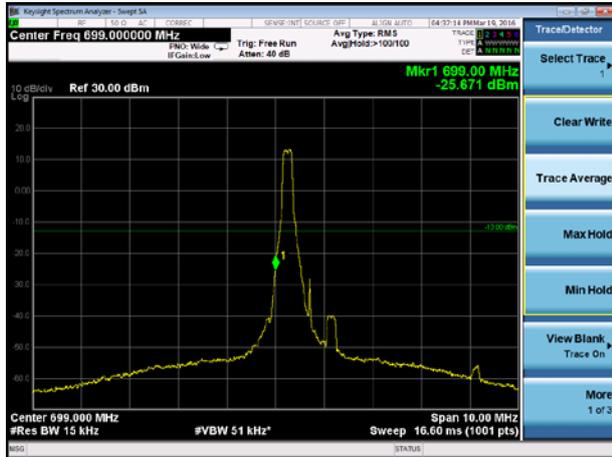
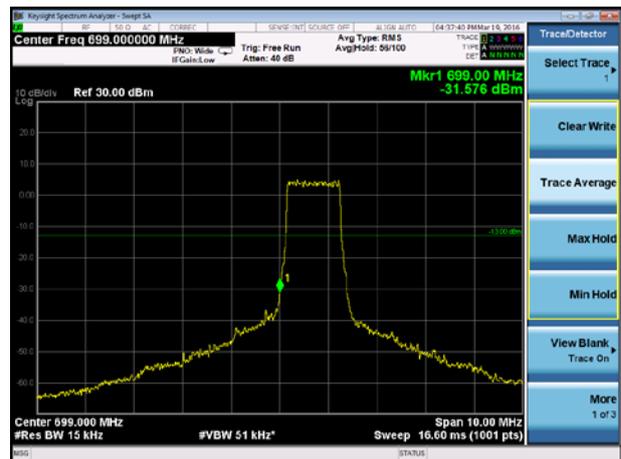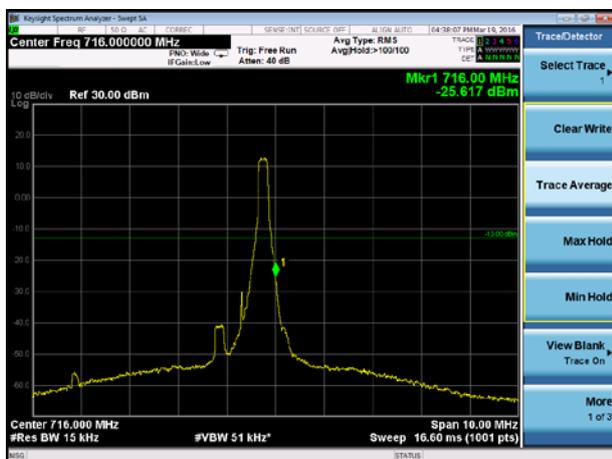| LTE Band 12 QPSK Bandwidth = 1.4MHz CH23017, RB 1	LTE Band 12 16QAM Bandwidth = 1.4MHz CH23017, RB 1
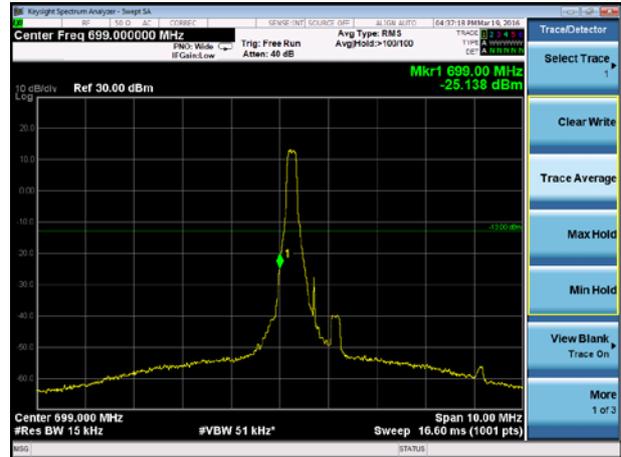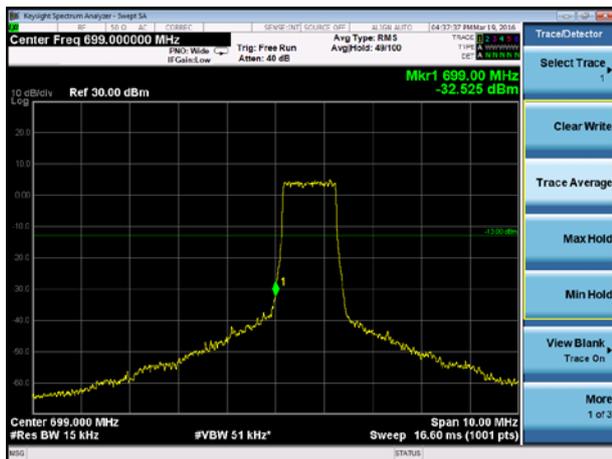
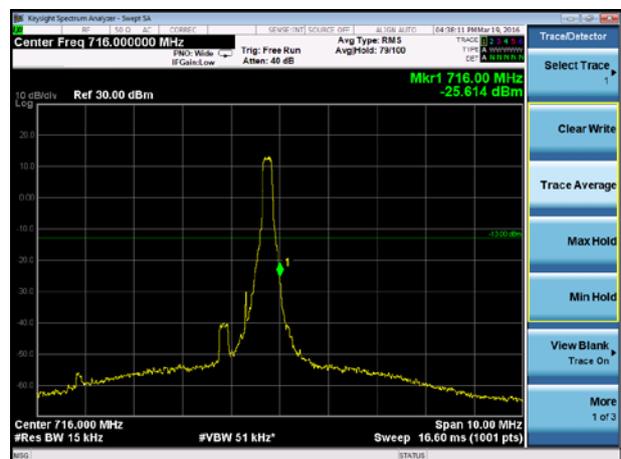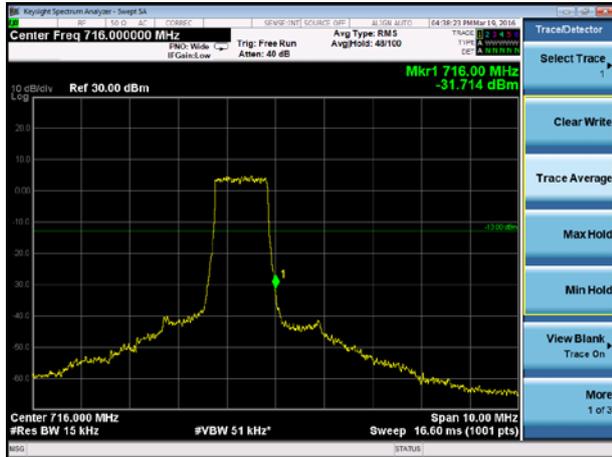| LTE Band 12 QPSK Bandwidth = 1.4MHz CH23017, RB 6	LTE Band 12 16QAM Bandwidth = 1.4MHz CH23017, RB 6

LTE Band 12 QPSK Bandwidth = 1.4MHz CH23173, RB 1	LTE Band 12 16QAM Bandwidth = 1.4MHz CH23173, RB 1

LTE Band 12 QPSK Bandwidth = 1.4MHz
CH23173, RB 6

LTE Band 12 16QAM Bandwidth = 1.4MHz
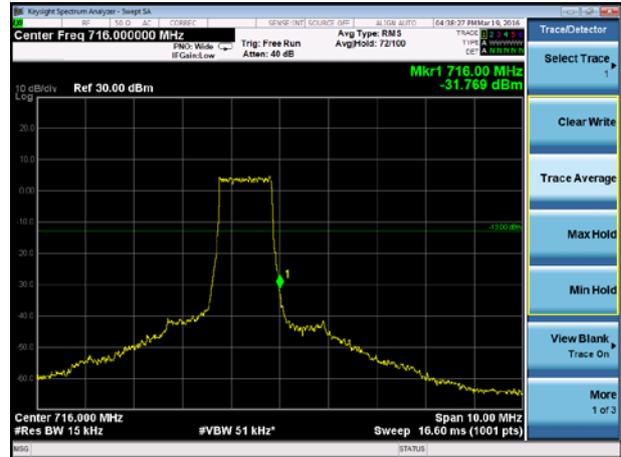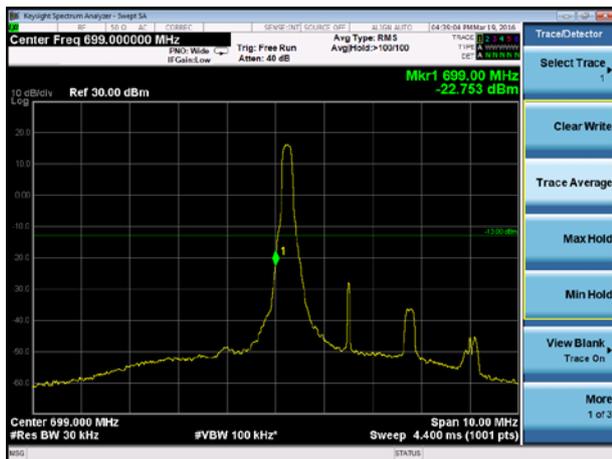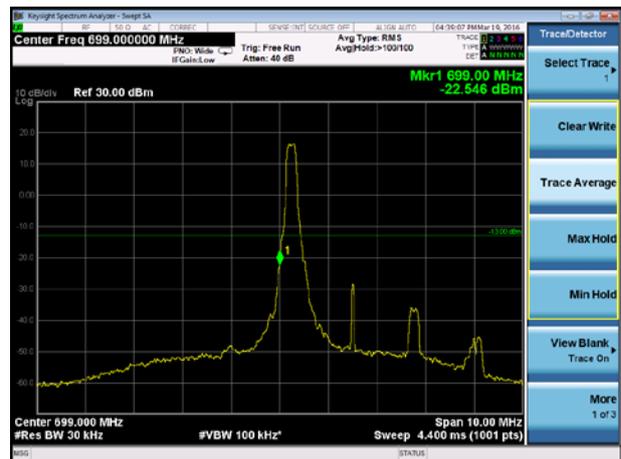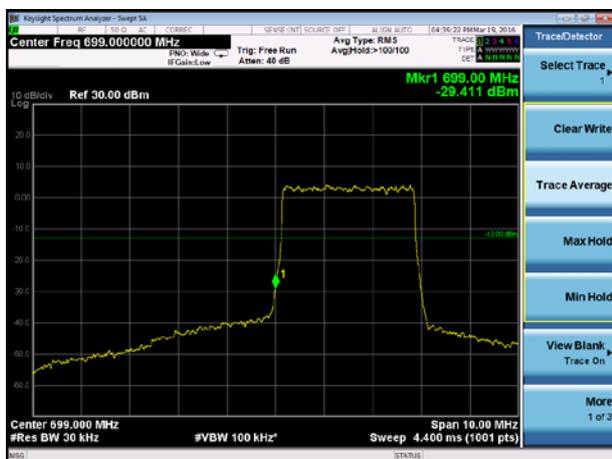CH23173, RB 6

LTE Band 12 QPSK Bandwidth = 3MHz
CH23025, RB 1

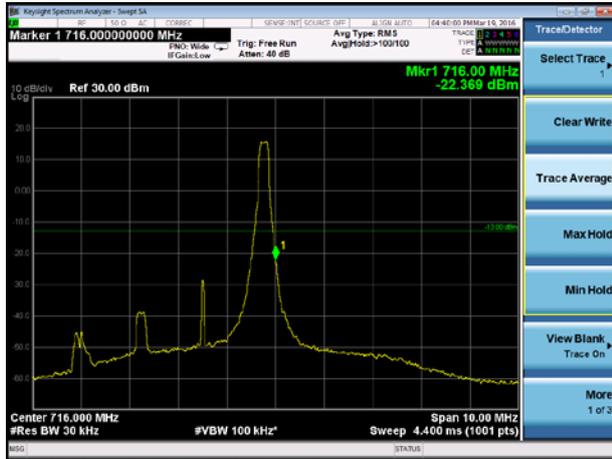LTE Band 12 16QAM Bandwidth = 3MHz
CH23025, RB 1
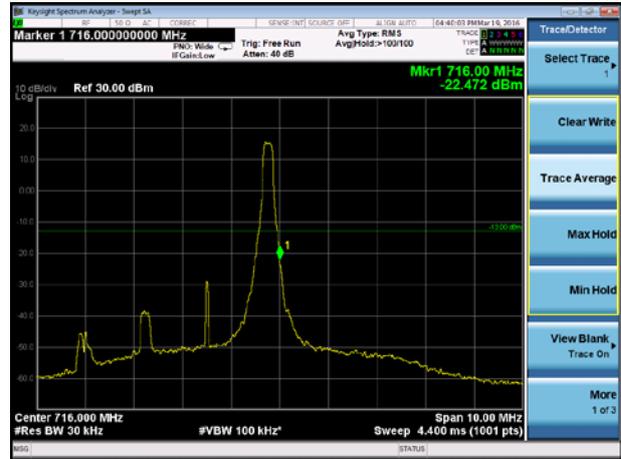

LTE Band 12 QPSK Bandwidth = 3MHz
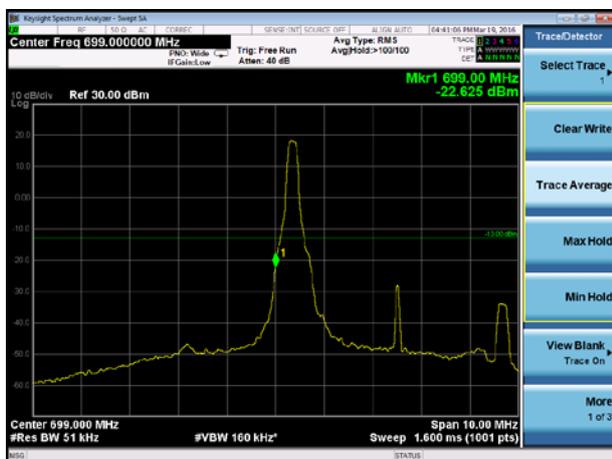CH23025, RB 15

LTE Band 12 16QAM Bandwidth = 3MHz
CH23025, RB 15

TA Technology (Shanghai) Co., Ltd.   **Page 58 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.

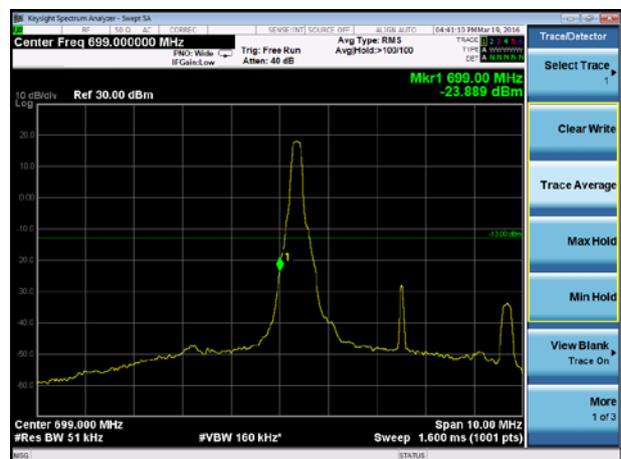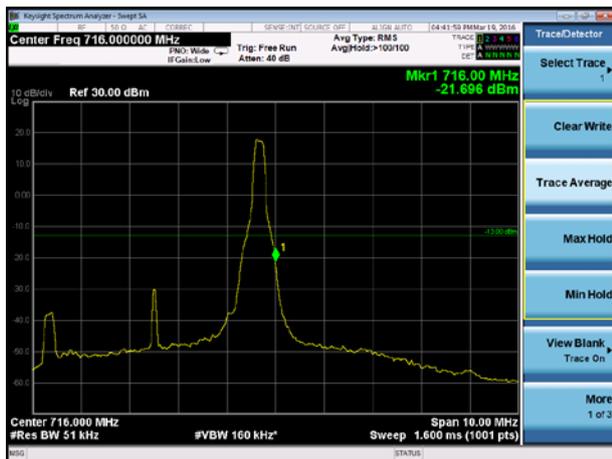| LTE Band 12 QPSK Bandwidth = 3MHz CH23165, RB 1	LTE Band 12 16QAM Bandwidth = 3MHz CH23165, RB 1
LTE Band 12 QPSK Bandwidth = 3MHz CH23165, RB 15	LTE Band 12 16QAM Bandwidth = 3MHz CH23165, RB 15
LTE Band 12 QPSK Bandwidth = 5MHz CH23035, RB 1	LTE Band 12 16QAM Bandwidth = 5MHz CH23035, RB 1

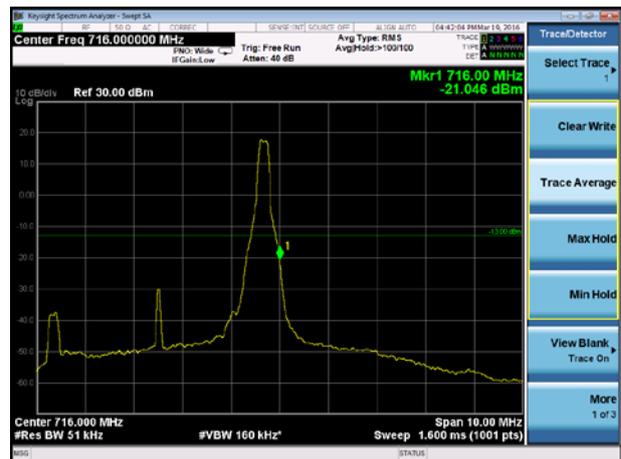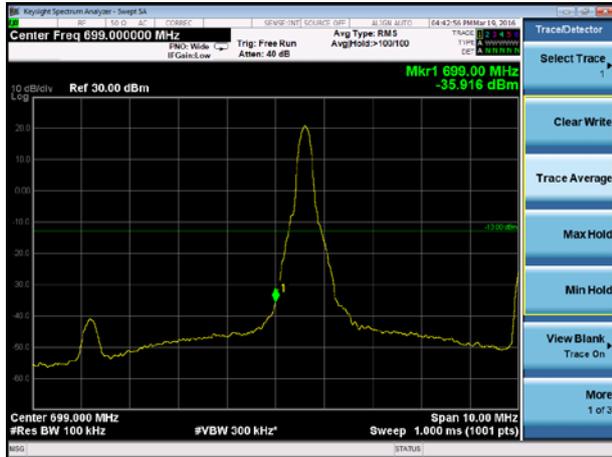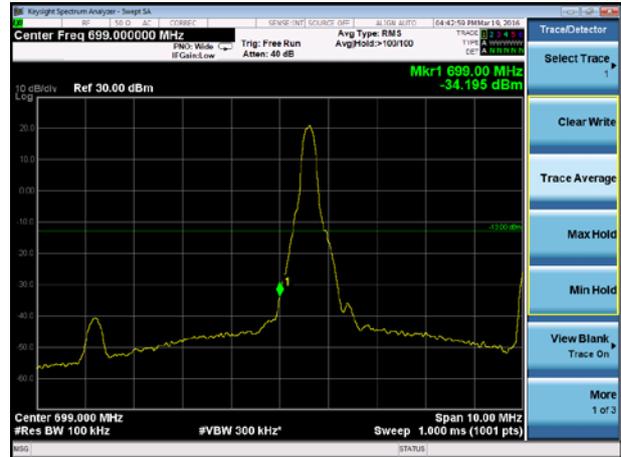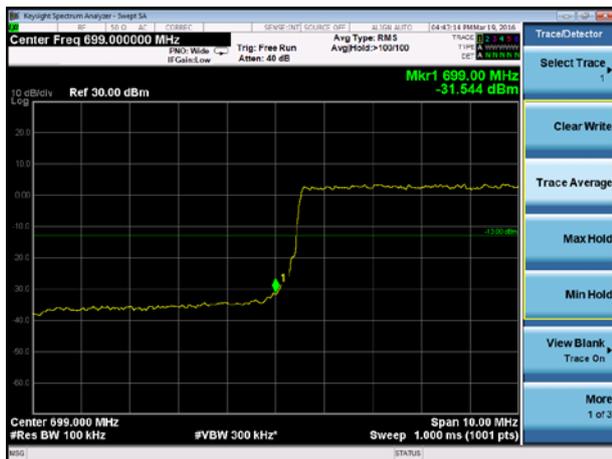| LTE Band 12 QPSK Bandwidth = 5MHz CH23035, RB 25	LTE Band 12 16QAM Bandwidth = 5MHz CH23035, RB 25
LTE Band 12 QPSK Bandwidth = 5MHz CH23155, RB 1	LTE Band 12 16QAM Bandwidth = 5MHz CH23155, RB 1
LTE Band 12 QPSK Bandwidth = 5MHz CH23155, RB 25	LTE Band 12 16QAM Bandwidth = 5MHz CH23155, RB 25

LTE Band 12 QPSK Bandwidth = 10MHz
CH23060, RB 1

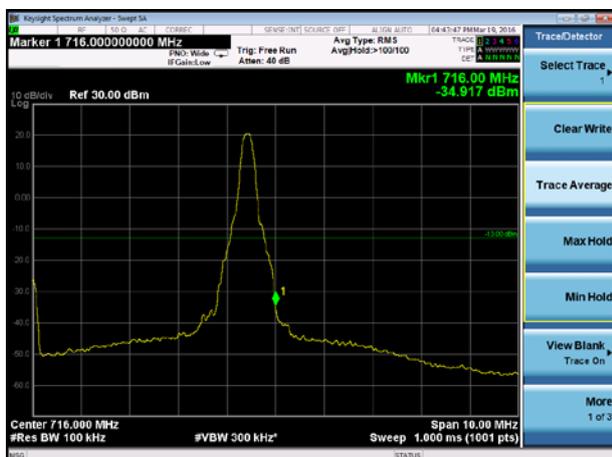
LTE Band 12 16QAM Bandwidth = 10MHz
CH23060, RB 1

LTE Band 12 QPSK Bandwidth = 10MHz
CH23060, RB 50

LTE Band 12 16QAM Bandwidth = 10MHz
CH23060, RB 50

LTE Band 12 QPSK Bandwidth = 10MHz
CH23130, RB 1

LTE Band 12 16QAM Bandwidth = 10MHz
CH23130, RB 1

TA Technology (Shanghai) Co., Ltd. **Page 61 of 130**

This report shall not be reproduced except in full, without the written approval of TA Technology (Shanghai) Co., Ltd.