

## APPENDIX A – TEST DATA OF CONDUCTED EMISSION

### LTE Band 7

#### 1 RF Power Output

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK       | 2502.5                  | 20775      | 5  | 1       | 0         | 21.41                 |
|            |                         |            |    | 1       | 24        | 21.37                 |
|            |                         |            |    | 12      | 6         | 20.29                 |
|            |                         |            |    | 25      | 0         | 20.35                 |
|            | 2535                    | 21100      |    | 1       | 0         | 21.52                 |
|            |                         |            |    | 1       | 24        | 21.42                 |
|            |                         |            |    | 12      | 6         | 20.52                 |
|            |                         |            |    | 25      | 0         | 20.48                 |
|            | 2567.5                  | 21425      |    | 1       | 0         | 21.28                 |
|            |                         |            |    | 1       | 24        | 21.16                 |
|            |                         |            |    | 12      | 6         | 20.16                 |
|            |                         |            |    | 25      | 0         | 20.17                 |
| 16QAM      | 2502.5                  | 20775      | 5  | 1       | 0         | 20.41                 |
|            |                         |            |    | 1       | 24        | 20.32                 |
|            |                         |            |    | 12      | 6         | 19.23                 |
|            |                         |            |    | 25      | 0         | 19.30                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.55                 |
|            |                         |            |    | 1       | 24        | 20.40                 |
|            |                         |            |    | 12      | 6         | 19.54                 |
|            |                         |            |    | 25      | 0         | 19.42                 |
|            | 2567.5                  | 21425      |    | 1       | 0         | 20.19                 |
|            |                         |            |    | 1       | 24        | 20.20                 |
|            |                         |            |    | 12      | 6         | 19.14                 |
|            |                         |            |    | 25      | 0         | 19.11                 |
| 64QAM      | 2502.5                  | 20775      | 5  | 1       | 0         | 20.32                 |
|            |                         |            |    | 1       | 24        | 20.21                 |
|            |                         |            |    | 12      | 6         | 19.33                 |
|            |                         |            |    | 25      | 0         | 19.21                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.43                 |
|            |                         |            |    | 1       | 24        | 20.42                 |
|            |                         |            |    | 12      | 6         | 19.37                 |
|            |                         |            |    | 25      | 0         | 19.32                 |
|            | 2567.5                  | 21425      |    | 1       | 0         | 20.10                 |
|            |                         |            |    | 1       | 24        | 20.13                 |
|            |                         |            |    | 12      | 6         | 19.08                 |
|            |                         |            |    | 25      | 0         | 18.94                 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK       | 2505                    | 20800      | 10 | 1       | 0         | 21.47                 |
|            |                         |            |    | 1       | 49        | 21.39                 |
|            |                         |            |    | 24      | 12        | 20.47                 |
|            | 2535                    | 21100      |    | 50      | 0         | 20.40                 |
|            |                         |            |    | 1       | 0         | 21.59                 |
|            |                         |            |    | 1       | 49        | 21.54                 |
|            | 2565                    | 21400      |    | 24      | 12        | 20.65                 |
|            |                         |            |    | 50      | 0         | 20.54                 |
|            |                         |            |    | 1       | 0         | 21.33                 |
| 16QAM      | 2505                    | 20800      | 10 | 1       | 0         | 21.33                 |
|            |                         |            |    | 1       | 49        | 21.33                 |
|            |                         |            |    | 24      | 12        | 20.20                 |
|            | 2535                    | 21100      |    | 50      | 0         | 20.20                 |
|            |                         |            |    | 1       | 0         | 20.38                 |
|            |                         |            |    | 1       | 49        | 20.39                 |
|            | 2565                    | 21400      |    | 24      | 12        | 19.38                 |
|            |                         |            |    | 50      | 0         | 19.39                 |
|            |                         |            |    | 1       | 0         | 20.60                 |
| 64QAM      | 2505                    | 20800      | 10 | 1       | 0         | 20.43                 |
|            |                         |            |    | 1       | 49        | 20.43                 |
|            |                         |            |    | 24      | 12        | 19.55                 |
|            | 2535                    | 21100      |    | 50      | 0         | 19.50                 |
|            |                         |            |    | 1       | 0         | 20.26                 |
|            |                         |            |    | 1       | 49        | 20.22                 |
|            | 2565                    | 21400      |    | 24      | 12        | 19.20                 |
|            |                         |            |    | 50      | 0         | 19.21                 |
|            |                         |            |    | 1       | 0         | 20.40                 |
| 64QAM      | 2505                    | 20800      | 10 | 1       | 0         | 20.34                 |
|            |                         |            |    | 1       | 49        | 20.34                 |
|            |                         |            |    | 24      | 12        | 19.33                 |
|            | 2535                    | 21100      |    | 50      | 0         | 19.23                 |
|            |                         |            |    | 1       | 0         | 20.53                 |
|            |                         |            |    | 1       | 49        | 20.50                 |
|            | 2565                    | 21400      |    | 24      | 12        | 19.53                 |
|            |                         |            |    | 50      | 0         | 19.48                 |
|            |                         |            |    | 1       | 0         | 20.18                 |
|            |                         |            | 10 | 1       | 49        | 20.17                 |
|            |                         |            |    | 24      | 12        | 19.11                 |
|            |                         |            |    | 50      | 0         | 19.03                 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK       | 2507.5                  | 20825      | 15 | 1       | 0         | 21.51                 |
|            |                         |            |    | 1       | 74        | 21.52                 |
|            |                         |            |    | 40      | 18        | 20.43                 |
|            |                         |            |    | 75      | 0         | 20.39                 |
|            | 2535                    | 21100      |    | 1       | 0         | 21.68                 |
|            |                         |            |    | 1       | 74        | 21.53                 |
|            |                         |            |    | 40      | 18        | 20.59                 |
|            |                         |            |    | 75      | 0         | 20.55                 |
|            | 2562.5                  | 21375      |    | 1       | 0         | 21.32                 |
|            |                         |            |    | 1       | 74        | 21.27                 |
|            |                         |            |    | 40      | 18        | 20.30                 |
|            |                         |            |    | 75      | 0         | 20.21                 |
| 16QAM      | 2507.5                  | 20825      | 15 | 1       | 0         | 20.45                 |
|            |                         |            |    | 1       | 74        | 20.44                 |
|            |                         |            |    | 40      | 18        | 19.41                 |
|            |                         |            |    | 75      | 0         | 19.42                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.62                 |
|            |                         |            |    | 1       | 74        | 20.46                 |
|            |                         |            |    | 40      | 18        | 19.60                 |
|            |                         |            |    | 75      | 0         | 19.50                 |
|            | 2562.5                  | 21375      |    | 1       | 0         | 20.34                 |
|            |                         |            |    | 1       | 74        | 20.22                 |
|            |                         |            |    | 40      | 18        | 19.27                 |
|            |                         |            |    | 75      | 0         | 19.19                 |
| 64QAM      | 2507.5                  | 20825      | 15 | 1       | 0         | 20.34                 |
|            |                         |            |    | 1       | 74        | 20.32                 |
|            |                         |            |    | 40      | 18        | 19.42                 |
|            |                         |            |    | 75      | 0         | 19.31                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.50                 |
|            |                         |            |    | 1       | 74        | 20.47                 |
|            |                         |            |    | 40      | 18        | 19.55                 |
|            |                         |            |    | 75      | 0         | 19.46                 |
|            | 2562.5                  | 21375      |    | 1       | 0         | 20.28                 |
|            |                         |            |    | 1       | 74        | 20.18                 |
|            |                         |            |    | 40      | 18        | 19.16                 |
|            |                         |            |    | 75      | 0         | 19.10                 |

| Modulation | Carrier frequency (MHz) | UL Channel | BW | RB Size | RB Offset | Conducted power (dBm) |
|------------|-------------------------|------------|----|---------|-----------|-----------------------|
| QPSK       | 2510                    | 20850      | 20 | 1       | 0         | 21.63                 |
|            |                         |            |    | 1       | 99        | 21.57                 |
|            |                         |            |    | 50      | 25        | 20.55                 |
|            |                         |            |    | 100     | 0         | 20.51                 |
|            | 2535                    | 21100      |    | 1       | 0         | 21.77                 |
|            |                         |            |    | 1       | 99        | 21.68                 |
|            |                         |            |    | 50      | 25        | 20.74                 |
|            |                         |            |    | 100     | 0         | 20.66                 |
|            | 2560                    | 21350      |    | 1       | 0         | 21.44                 |
|            |                         |            |    | 1       | 99        | 21.41                 |
|            |                         |            |    | 50      | 25        | 20.38                 |
|            |                         |            |    | 100     | 0         | 20.32                 |
| 16QAM      | 2510                    | 20850      | 20 | 1       | 0         | 20.56                 |
|            |                         |            |    | 1       | 99        | 20.52                 |
|            |                         |            |    | 50      | 25        | 19.46                 |
|            |                         |            |    | 100     | 0         | 19.49                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.70                 |
|            |                         |            |    | 1       | 99        | 20.58                 |
|            |                         |            |    | 50      | 25        | 19.69                 |
|            |                         |            |    | 100     | 0         | 19.60                 |
|            | 2560                    | 21350      |    | 1       | 0         | 20.40                 |
|            |                         |            |    | 1       | 99        | 20.37                 |
|            |                         |            |    | 50      | 25        | 19.34                 |
|            |                         |            |    | 100     | 0         | 19.29                 |
| 64QAM      | 2510                    | 20850      | 20 | 1       | 0         | 20.49                 |
|            |                         |            |    | 1       | 99        | 20.46                 |
|            |                         |            |    | 50      | 25        | 19.49                 |
|            |                         |            |    | 100     | 0         | 19.40                 |
|            | 2535                    | 21100      |    | 1       | 0         | 20.63                 |
|            |                         |            |    | 1       | 99        | 20.61                 |
|            |                         |            |    | 50      | 25        | 19.63                 |
|            |                         |            |    | 100     | 0         | 19.59                 |
|            | 2560                    | 21350      |    | 1       | 0         | 20.33                 |
|            |                         |            |    | 1       | 99        | 20.28                 |
|            |                         |            |    | 50      | 25        | 19.27                 |
|            |                         |            |    | 100     | 0         | 19.21                 |

## 2 Occupied Bandwidth

Test result

| Band | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of 99% Power (MHz) |        |        |        |        |        |
|------|-------------------------|---------|----------|---------|-----------|------------------------------|--------|--------|--------|--------|--------|
|      |                         |         |          |         |           | QPSK                         |        | 16-QAM |        | 64-QAM |        |
| 7    | 2502.5                  | 20775   | 5        | 25      | 0         | 4.4762                       | Fig.1  | 4.4744 | Fig.2  | 4.4682 | Fig.3  |
|      | 2535                    | 21100   |          | 25      | 0         | 4.4732                       | Fig.4  | 4.4680 | Fig.5  | 4.4726 | Fig.6  |
|      | 2567.5                  | 21425   |          | 25      | 0         | 4.4734                       | Fig.7  | 4.4743 | Fig.8  | 4.4728 | Fig.9  |
|      | 2505                    | 20800   | 10       | 50      | 0         | 8.9329                       | Fig.10 | 8.9436 | Fig.11 | 8.9180 | Fig.12 |
|      | 2535                    | 21100   |          | 50      | 0         | 8.9420                       | Fig.13 | 8.9319 | Fig.14 | 8.9409 | Fig.15 |
|      | 2565                    | 21400   |          | 50      | 0         | 8.9371                       | Fig.16 | 8.9358 | Fig.17 | 8.9289 | Fig.18 |
|      | 2507.5                  | 20825   | 15       | 75      | 0         | 13.415                       | Fig.19 | 13.387 | Fig.20 | 13.364 | Fig.21 |
|      | 2535                    | 21100   |          | 75      | 0         | 13.430                       | Fig.22 | 13.396 | Fig.23 | 13.367 | Fig.24 |
|      | 2562.5                  | 21375   |          | 75      | 0         | 13.431                       | Fig.25 | 13.407 | Fig.26 | 13.440 | Fig.27 |
|      | 2510                    | 20850   | 20       | 100     | 0         | 17.803                       | Fig.28 | 17.804 | Fig.29 | 17.810 | Fig.30 |
|      | 2535                    | 21100   |          | 100     | 0         | 17.856                       | Fig.31 | 17.878 | Fig.32 | 17.818 | Fig.33 |
|      | 2560                    | 21350   |          | 100     | 0         | 17.839                       | Fig.34 | 17.833 | Fig.35 | 17.805 | Fig.36 |

| Band | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | Bandwidth of -26dB transmitter power (MHz) |        |        |        |        |        |
|------|-------------------------|---------|----------|---------|-----------|--|--------|--------|--------|--------|--------|
|      |                         |         |          |         |           | QPSK                                       |        | 16-QAM |        | 64-QAM |        |
| 7    | 2502.5                  | 20775   | 5        | 25      | 0         | 4.936                                      | Fig.1  | 4.930  | Fig.2  | 4.896  | Fig.3  |
|      | 2535                    | 21100   |          | 25      | 0         | 4.945                                      | Fig.4  | 4.888  | Fig.5  | 4.928  | Fig.6  |
|      | 2567.5                  | 21425   |          | 25      | 0         | 4.946                                      | Fig.7  | 4.921  | Fig.8  | 4.875  | Fig.9  |
|      | 2505                    | 20800   | 10       | 50      | 0         | 9.718                                      | Fig.10 | 9.677  | Fig.11 | 9.587  | Fig.12 |
|      | 2535                    | 21100   |          | 50      | 0         | 9.692                                      | Fig.13 | 9.658  | Fig.14 | 9.660  | Fig.15 |
|      | 2565                    | 21400   |          | 50      | 0         | 9.666                                      | Fig.16 | 9.621  | Fig.17 | 9.665  | Fig.18 |
|      | 2507.5                  | 20825   | 15       | 75      | 0         | 14.42                                      | Fig.19 | 14.40  | Fig.20 | 14.31  | Fig.21 |
|      | 2535                    | 21100   |          | 75      | 0         | 14.38                                      | Fig.22 | 14.44  | Fig.23 | 14.36  | Fig.24 |
|      | 2562.5                  | 21375   |          | 75      | 0         | 14.41                                      | Fig.25 | 14.28  | Fig.26 | 14.27  | Fig.27 |
|      | 2510                    | 20850   | 20       | 100     | 0         | 18.93                                      | Fig.28 | 18.93  | Fig.29 | 19.08  | Fig.30 |
|      | 2535                    | 21100   |          | 100     | 0         | 18.98                                      | Fig.31 | 19.04  | Fig.32 | 19.01  | Fig.33 |
|      | 2560                    | 21350   |          | 100     | 0         | 19.14                                      | Fig.34 | 19.13  | Fig.35 | 18.90  | Fig.36 |

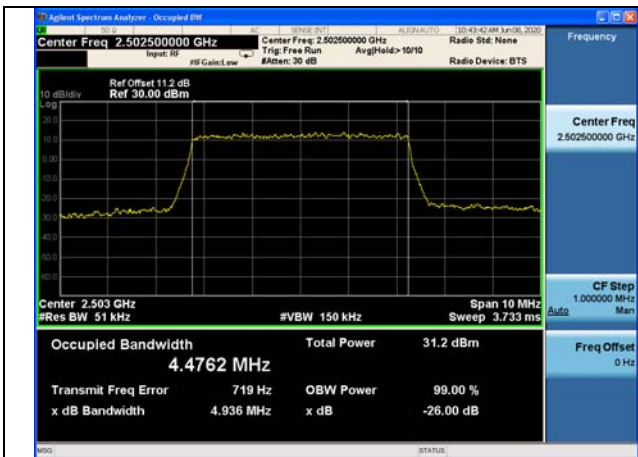


Fig.1

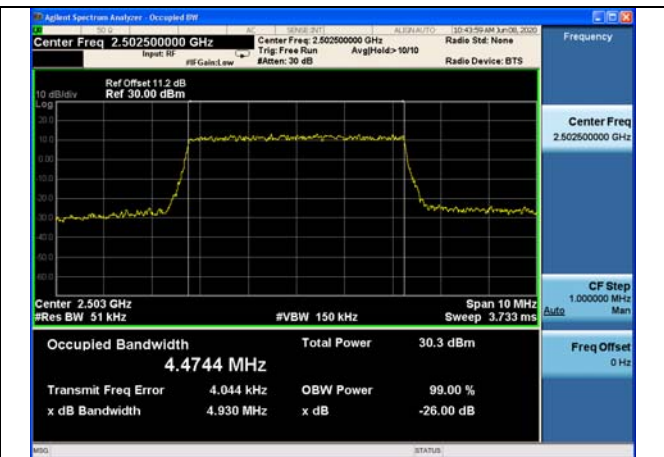


Fig.2

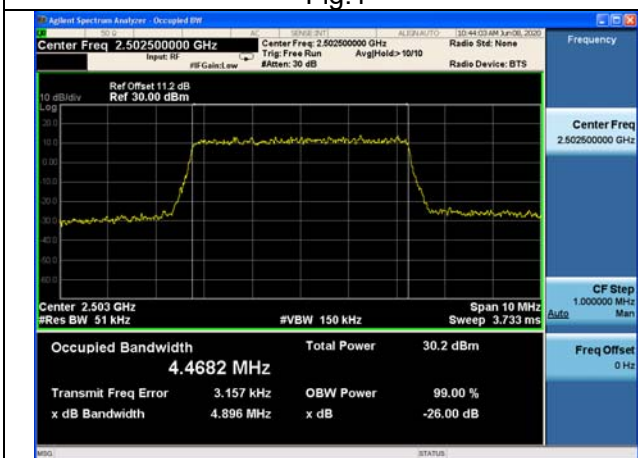


Fig.3

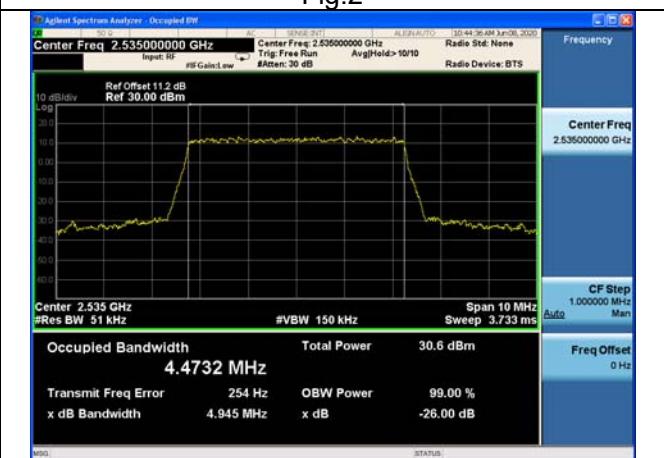


Fig.4

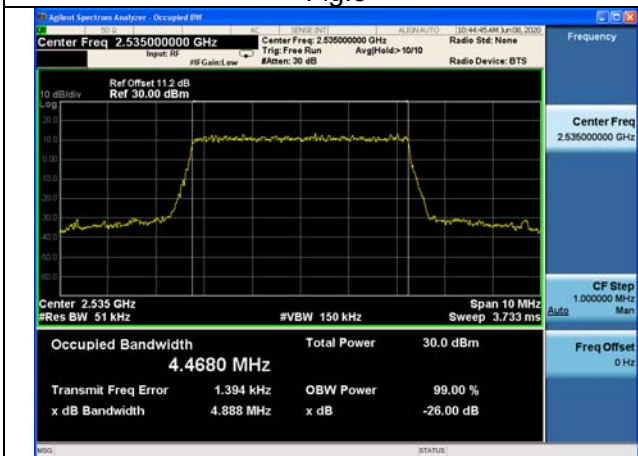


Fig.5

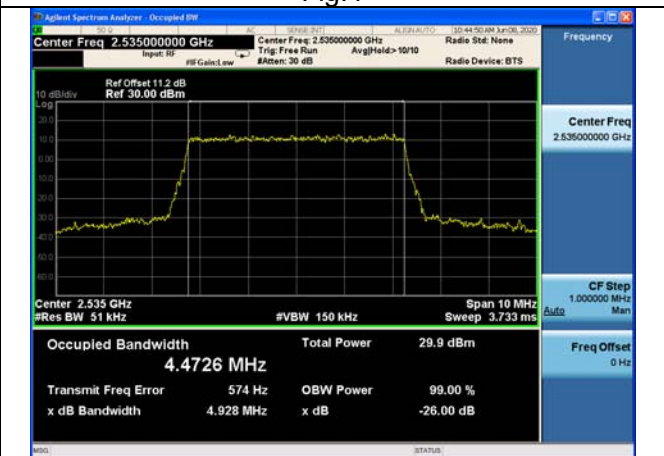


Fig.6

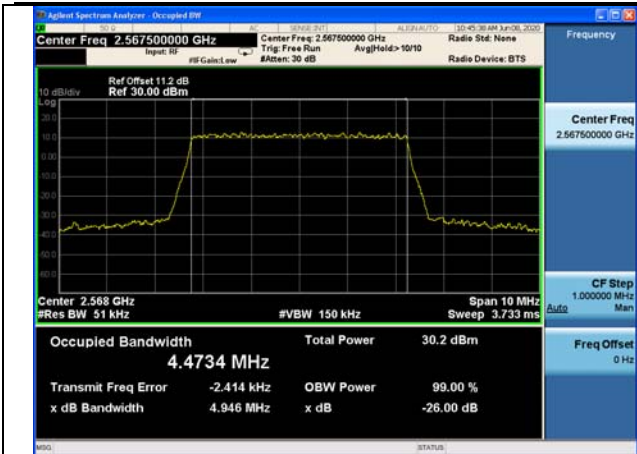


Fig.7

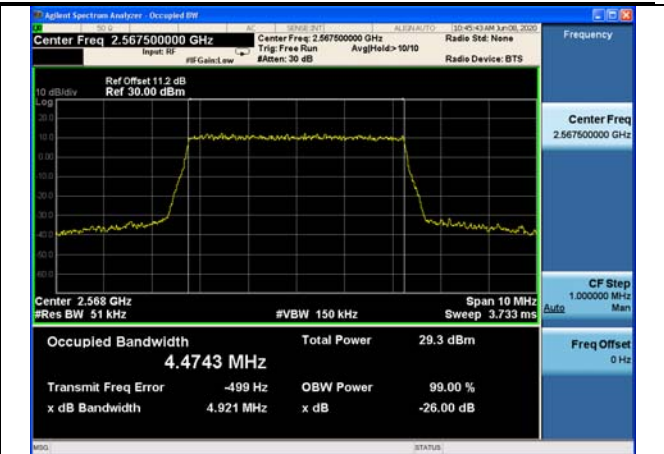


Fig.8

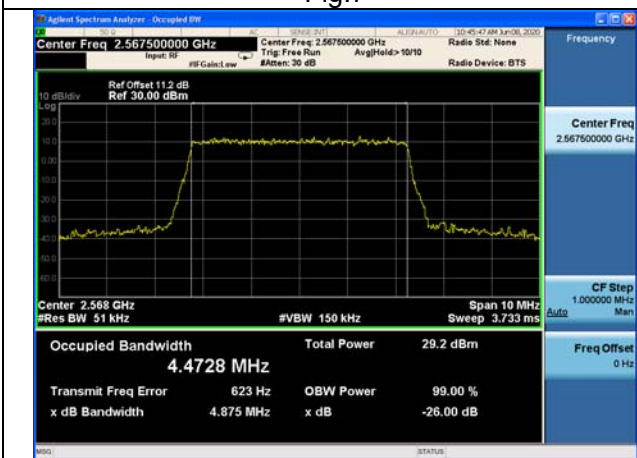


Fig.9

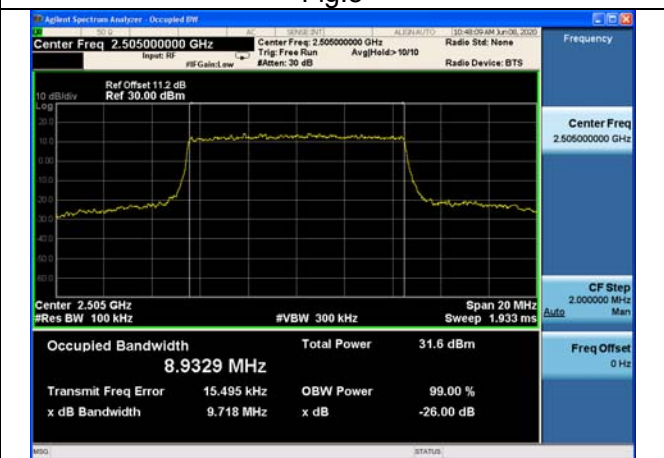


Fig.10

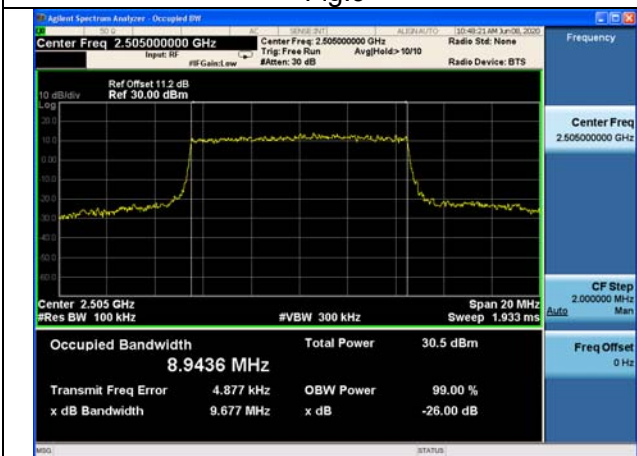


Fig.11

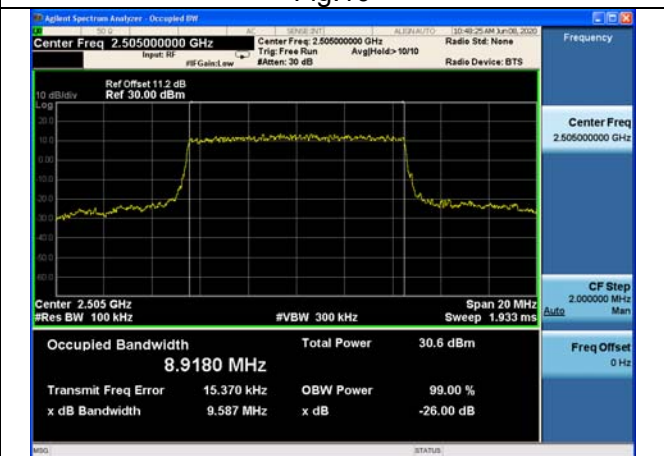


Fig.12

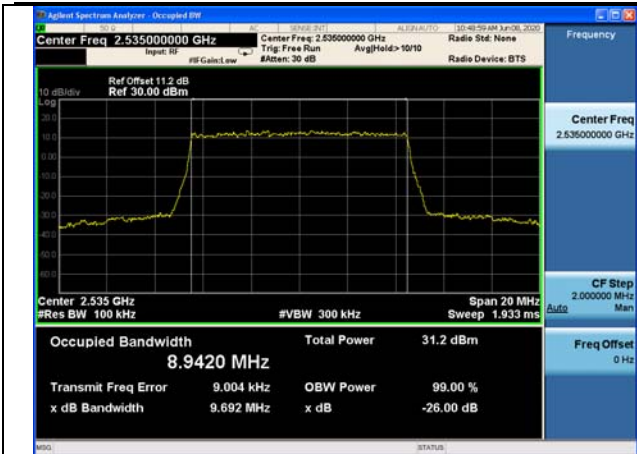


Fig.13

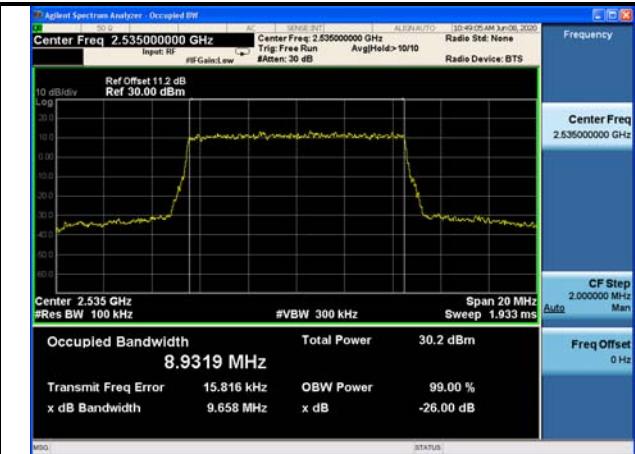


Fig.14

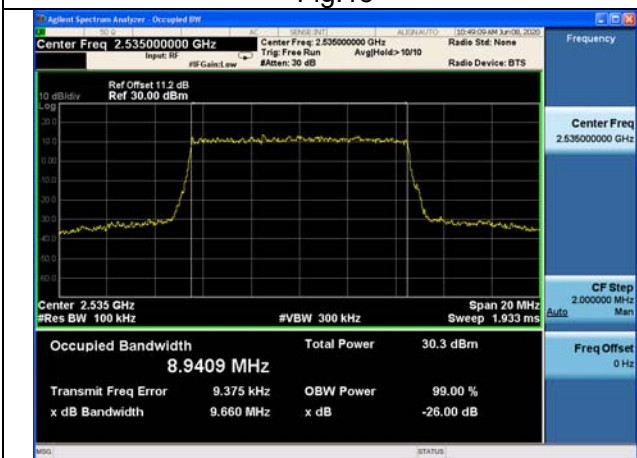


Fig.15

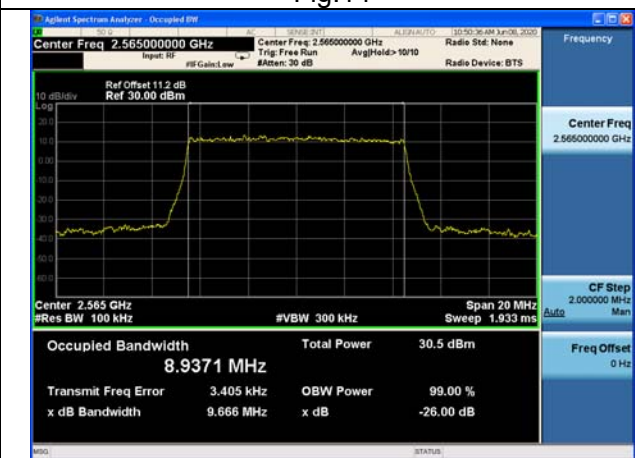


Fig.16

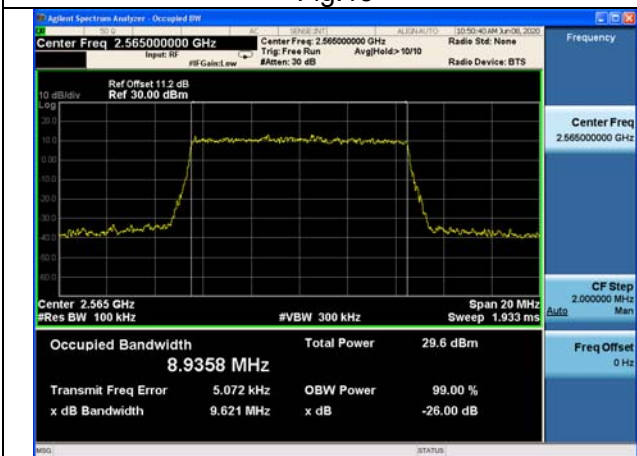


Fig.17

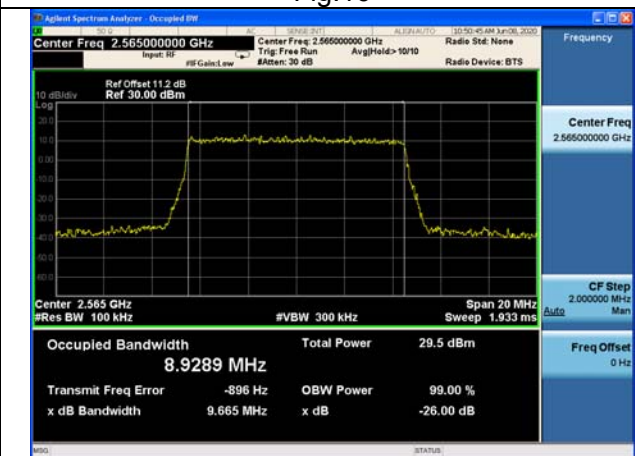


Fig.18



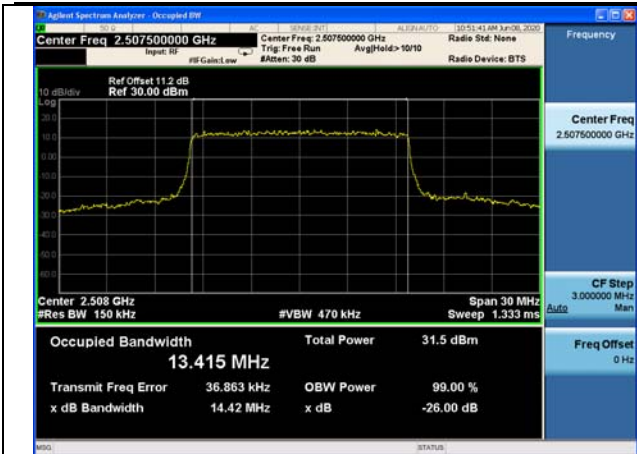


Fig.19

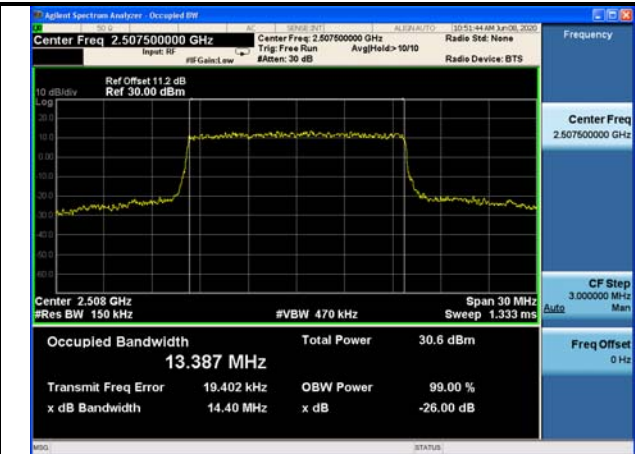


Fig.20

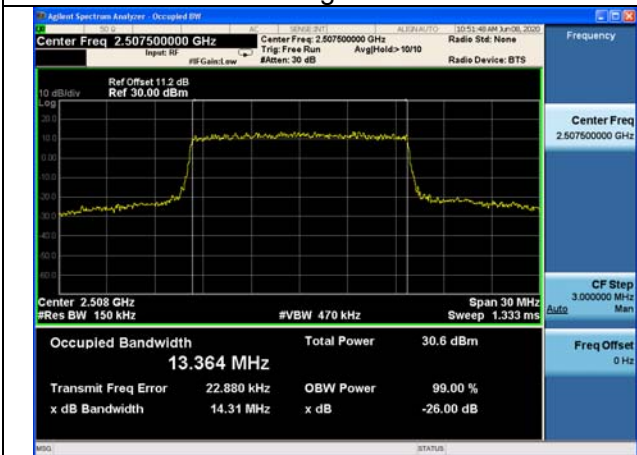


Fig.21

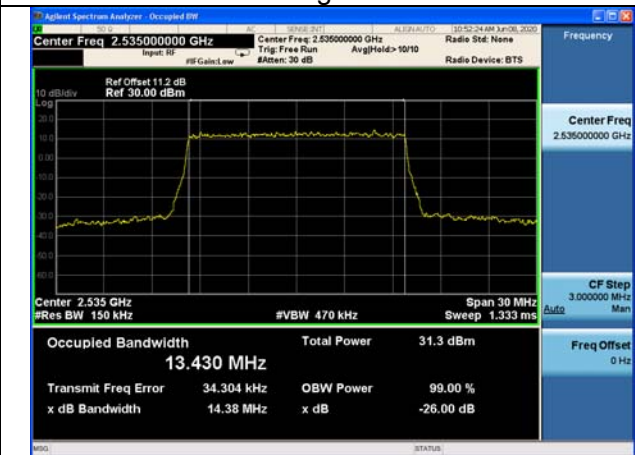


Fig.22

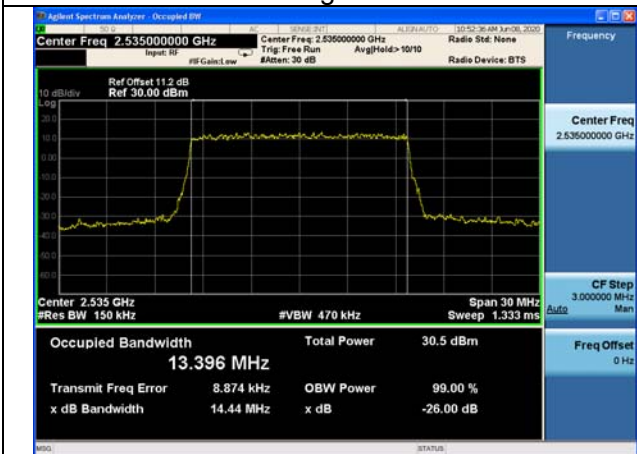


Fig.23

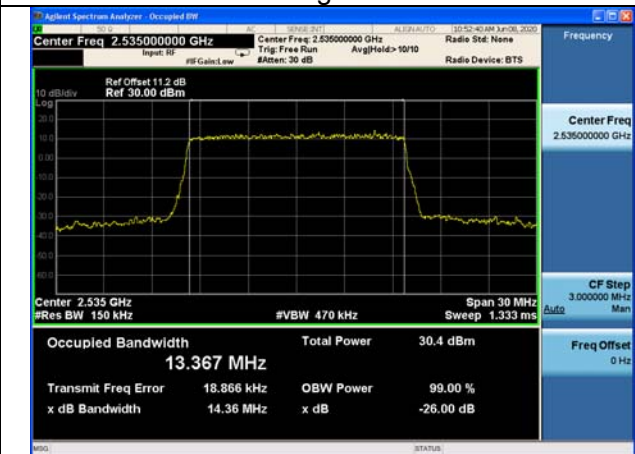


Fig.24

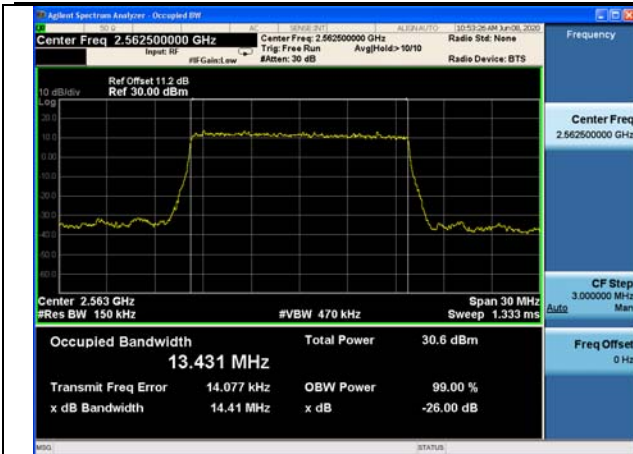


Fig.25

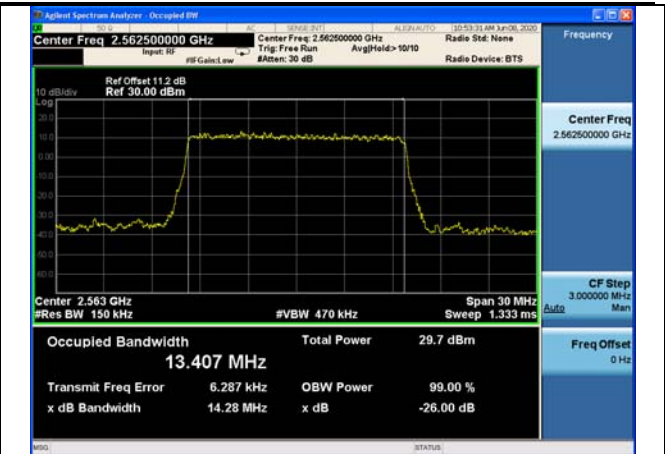


Fig.26

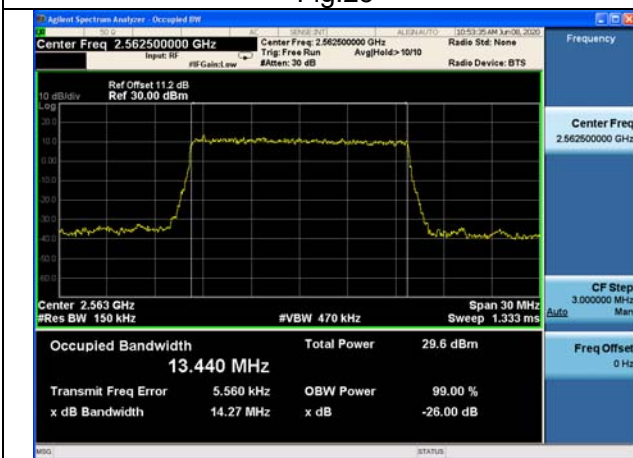


Fig.27

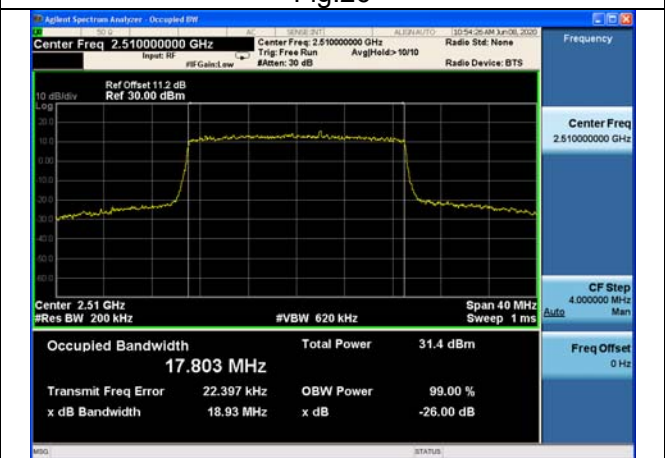


Fig.28

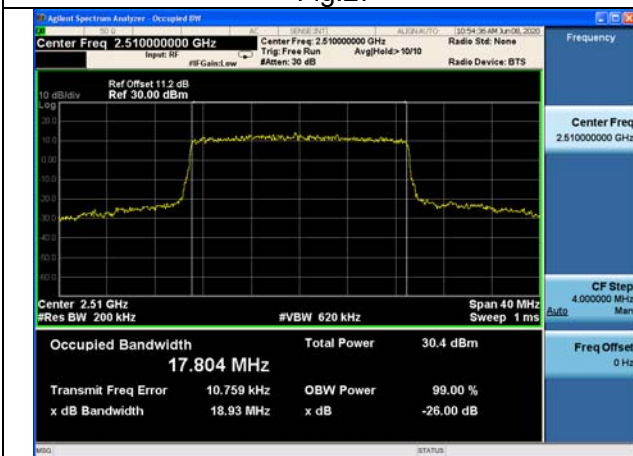


Fig.29

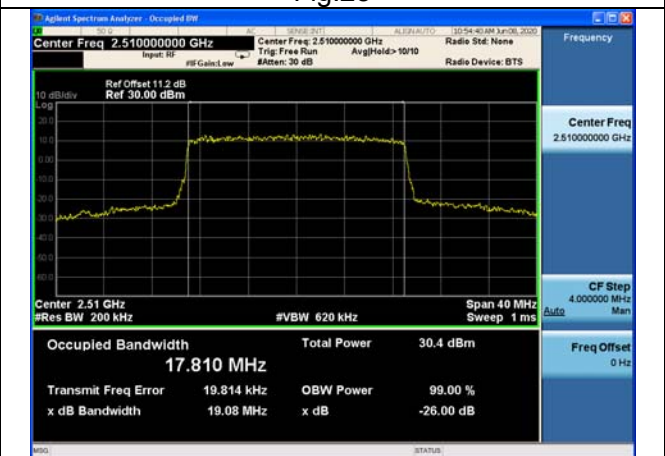


Fig.30

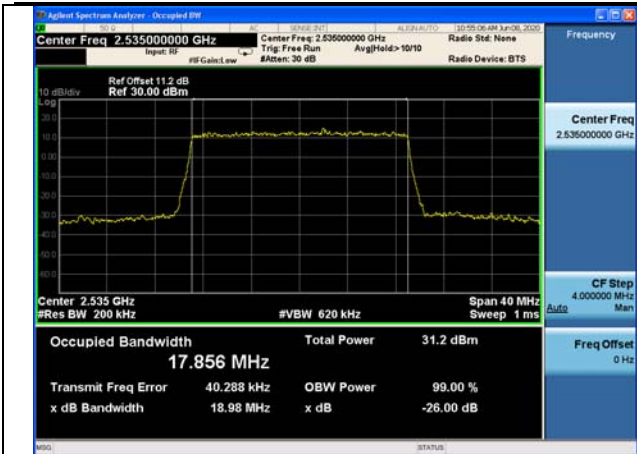


Fig.31

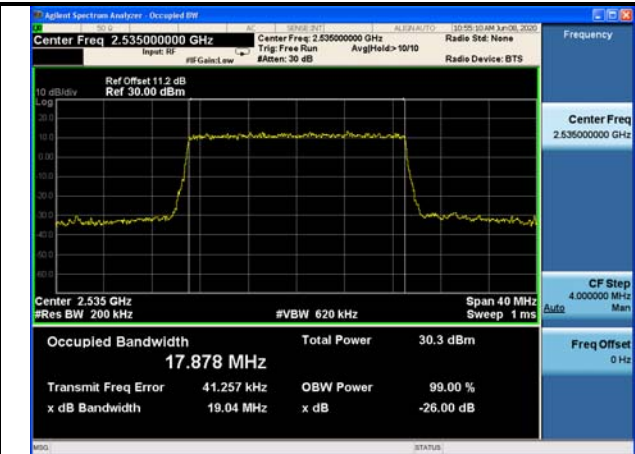


Fig.32

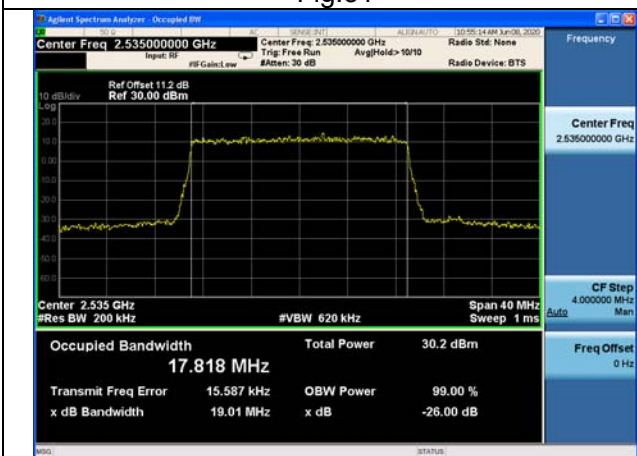


Fig.33

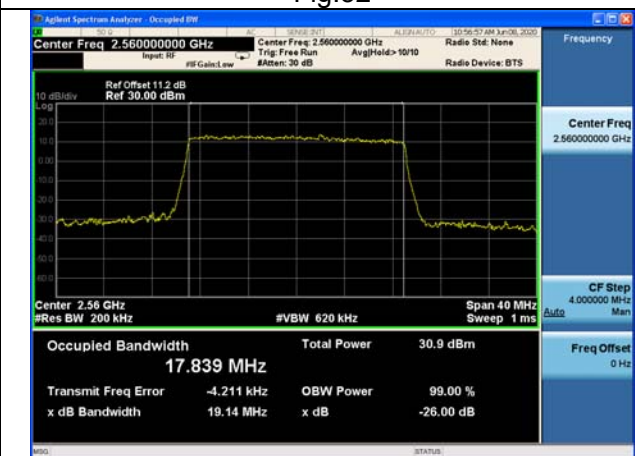


Fig.34

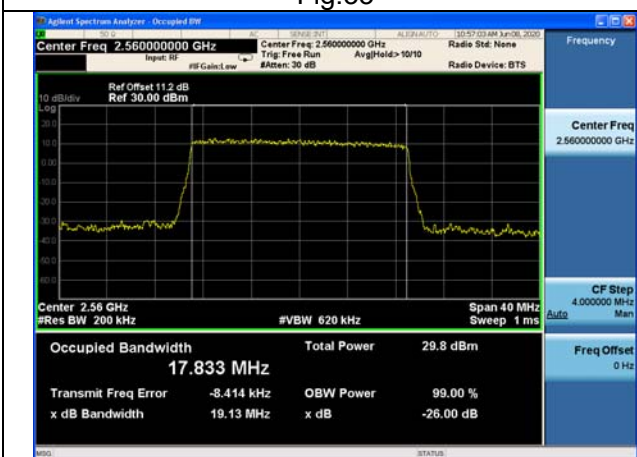


Fig.35

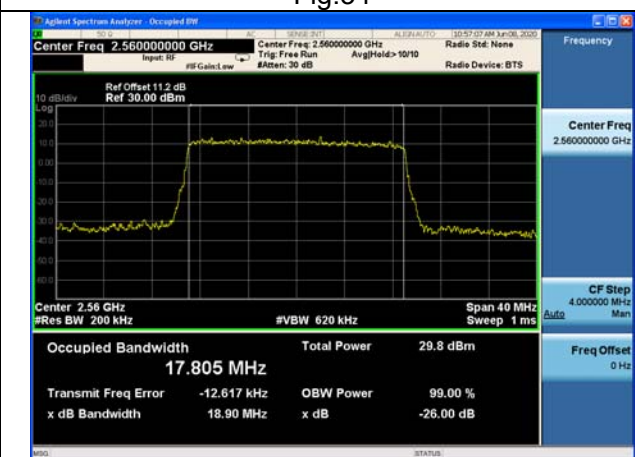


Fig.36

### 3 Peak-Average Ratio

| Band | Carrier frequency (MHz) | Channel | BW (MHz) | RB Size | RB Offset | QPSK   | 16-QAM | 64-QAM |
|------|-------------------------|---------|----------|---------|-----------|--------|--------|--------|
| 7    | 2535                    | 21100   | 5        | 1       | 0         | Fig.1  | Fig.2  | Fig.3  |
|      |                         |         | 10       | 1       | 0         | Fig.4  | Fig.5  | Fig.6  |
|      |                         |         | 15       | 1       | 0         | Fig.7  | Fig.8  | Fig.9  |
|      |                         |         | 20       | 1       | 0         | Fig.10 | Fig.11 | Fig.12 |

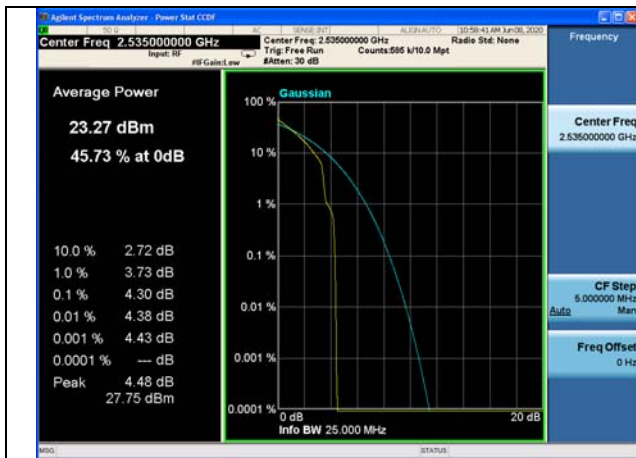


Fig.1

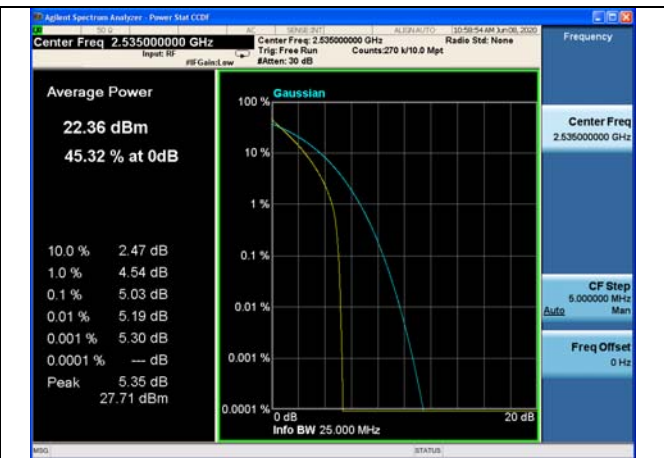


Fig.2

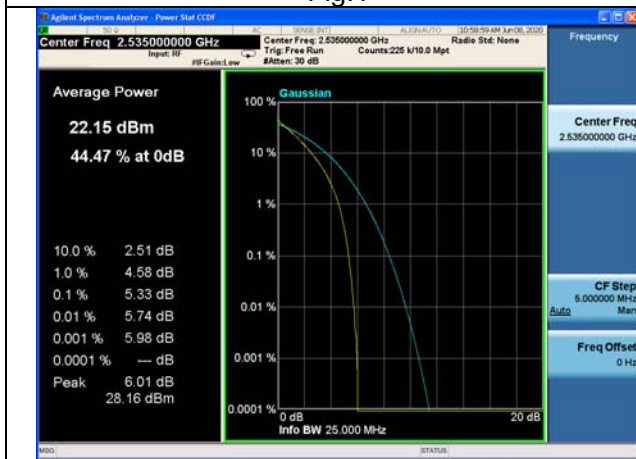


Fig.3



Fig.4

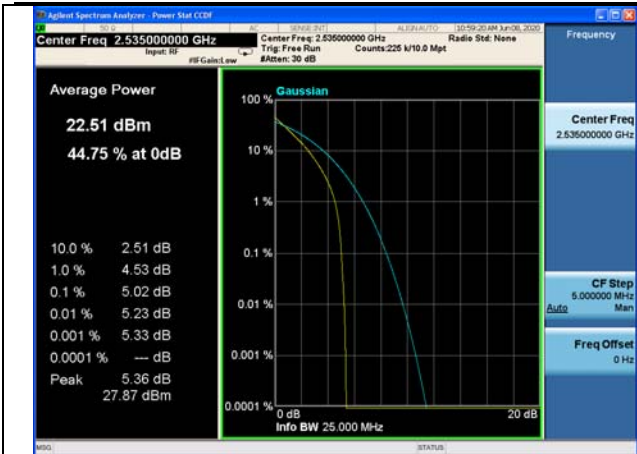


Fig.5



Fig.6



Fig.7

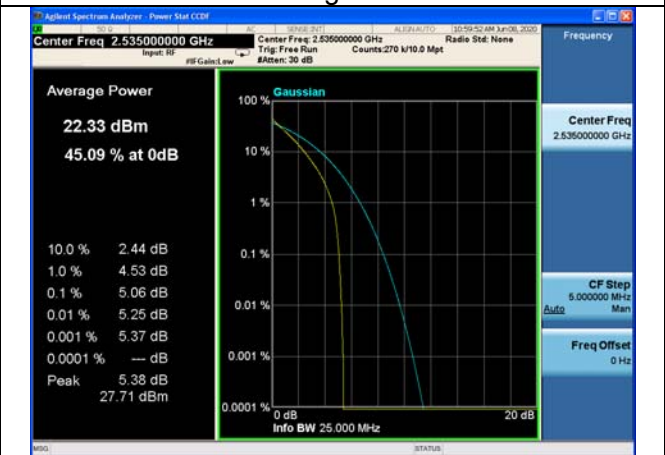


Fig.8

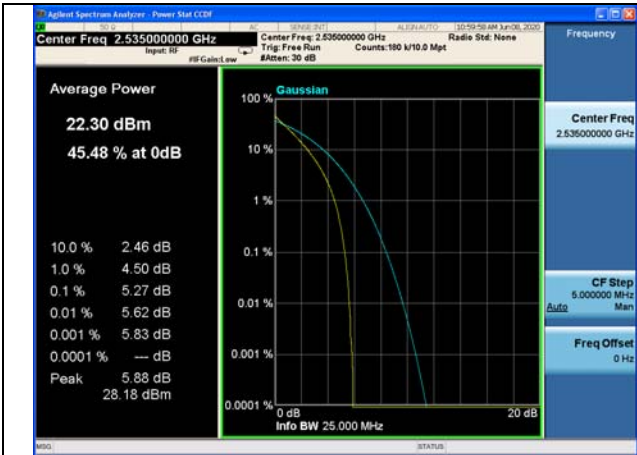


Fig.9

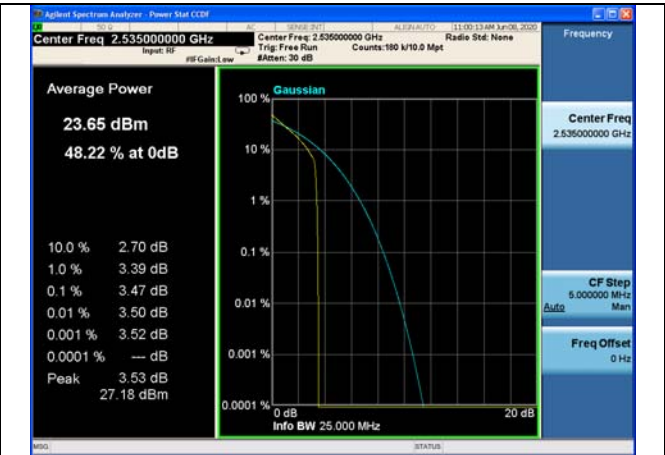


Fig.10



Fig.11



Fig.12

**4 Spurious Emissions at antenna terminal**

| Band | Carrier frequency (MHz) | Channel | BW | RB Size | RB Offset | Conducted Spurious Plot |
|------|-------------------------|---------|----|---------|-----------|-------------------------|
|      |                         |         |    |         |           | QPSK                    |
| 7    | 2510                    | 20850   | 20 | 1       | 0         | Fig.1-2                 |
|      | 2535                    | 21100   | 20 | 1       | 0         | Fig.3-4                 |
|      | 2560                    | 21350   | 20 | 1       | 0         | Fig.5-6                 |

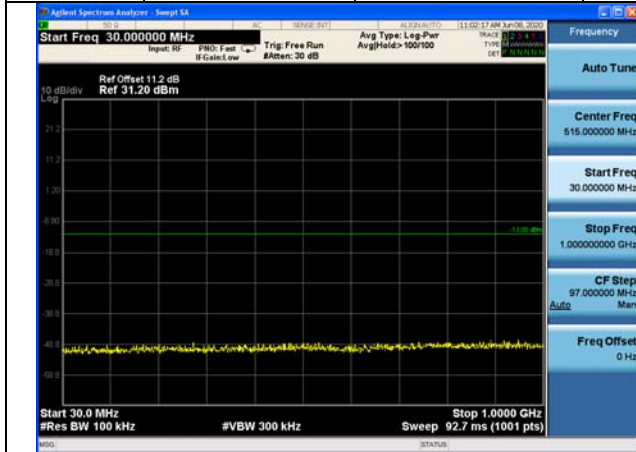


Fig.1

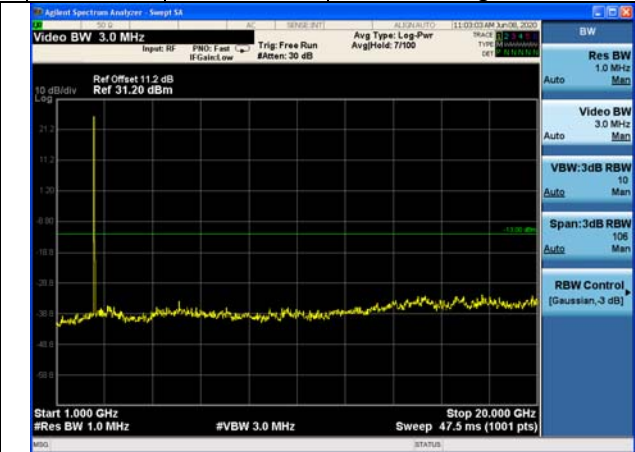


Fig.2

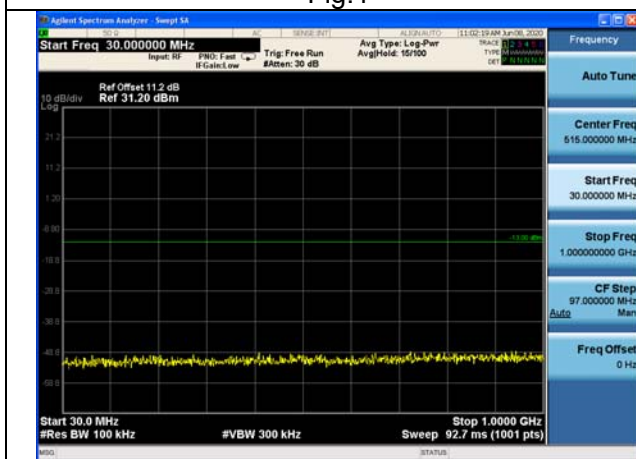


Fig3

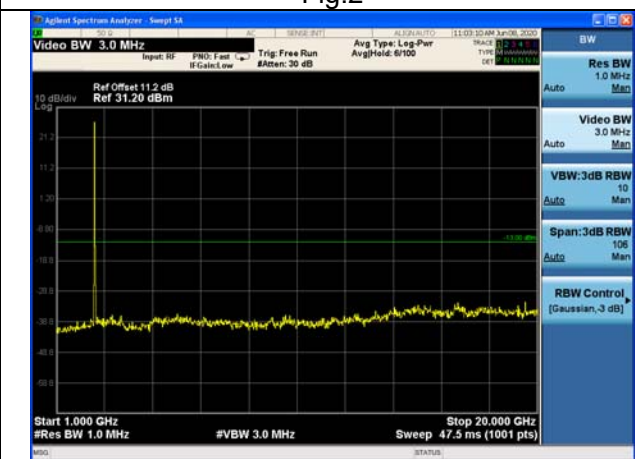


Fig4

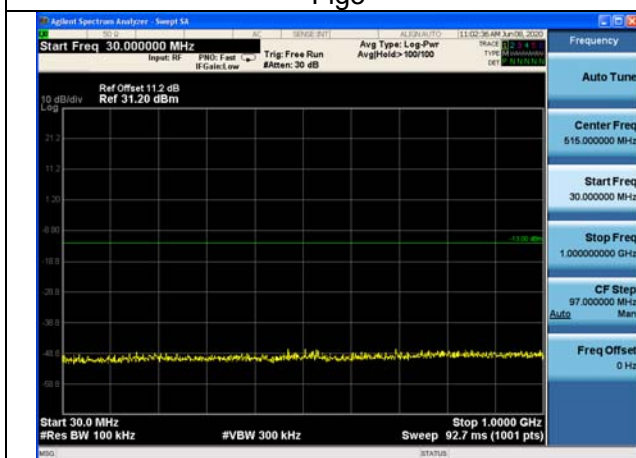


Fig5

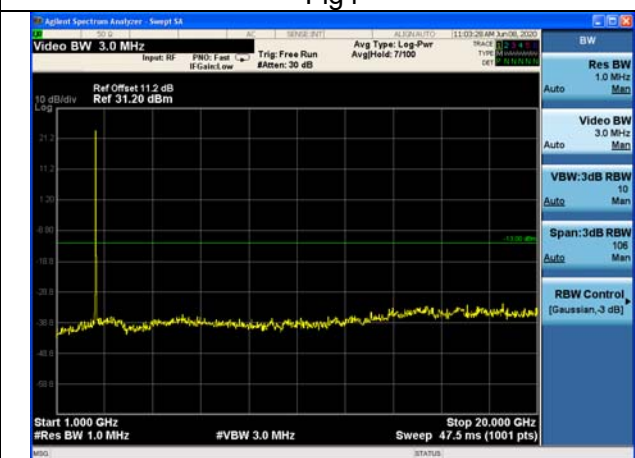


Fig6

**5 Band Edges Compliance**  
Test result

| Band | Carrier frequency (MHz) | Channel | BW | RB Size | RB Offset | Band Edges Plot |
|------|-------------------------|---------|----|---------|-----------|-----------------|
|      |                         |         |    |         |           | QPSK            |
| 7    | 2502.5                  | 20775   | 5  | 1       | 0         | Fig.1           |
|      |                         |         |    | 25      | 0         | Fig.2           |
|      | 2567.5                  | 21425   |    | 1       | 24        | Fig.3           |
|      |                         |         |    | 25      | 0         | Fig.4           |
|      | 2505                    | 20800   | 10 | 1       | 0         | Fig.5           |
|      |                         |         |    | 50      | 0         | Fig.6           |
|      | 2565                    | 21400   |    | 1       | 49        | Fig.7           |
|      |                         |         |    | 50      | 0         | Fig.8           |
|      | 2507.5                  | 20825   | 15 | 1       | 0         | Fig.9           |
|      |                         |         |    | 75      | 0         | Fig.10          |
|      | 2562.5                  | 21375   |    | 1       | 74        | Fig.11          |
|      |                         |         |    | 75      | 0         | Fig.12          |
|      | 2510                    | 20850   | 20 | 1       | 0         | Fig.13          |
|      |                         |         |    | 100     | 0         | Fig.14          |
|      | 2560                    | 21350   |    | 1       | 99        | Fig.15          |
|      |                         |         |    | 100     | 0         | Fig.16          |

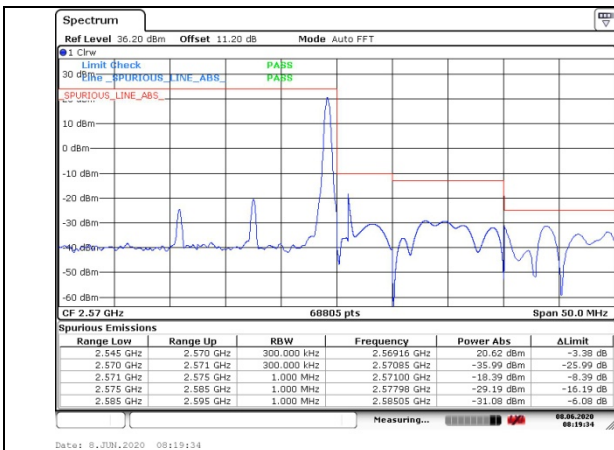


Fig.1

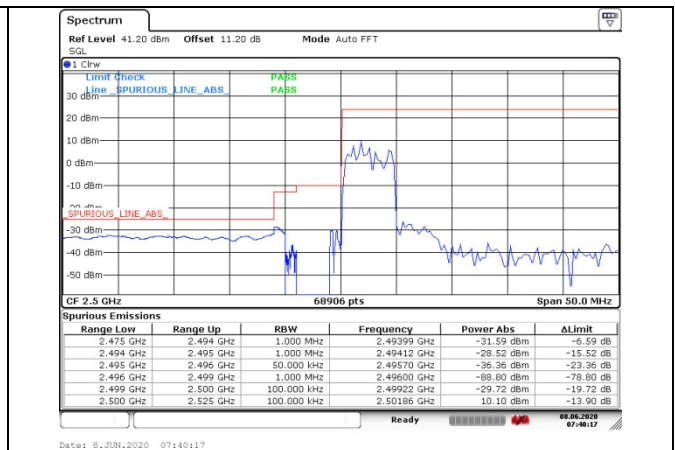


Fig.2

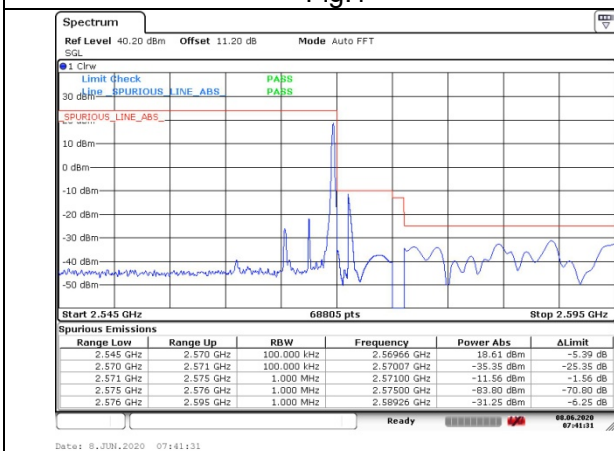


Fig.3

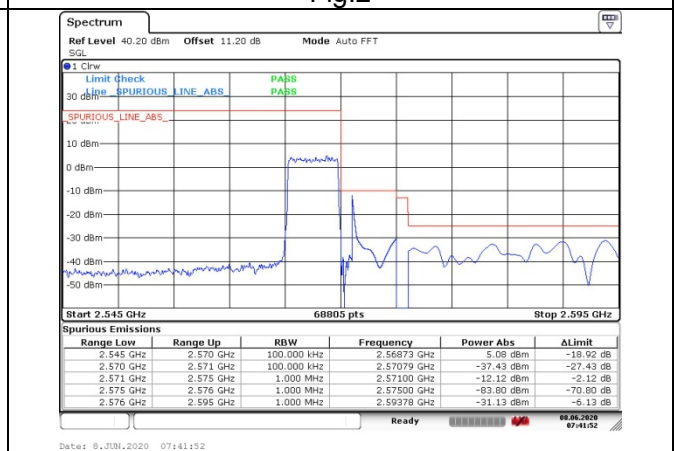


Fig.4



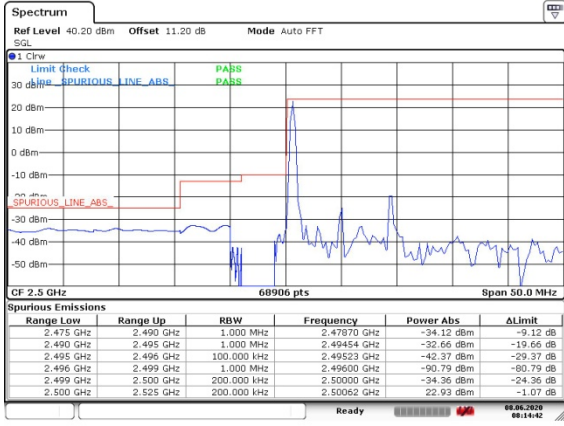


Fig.5

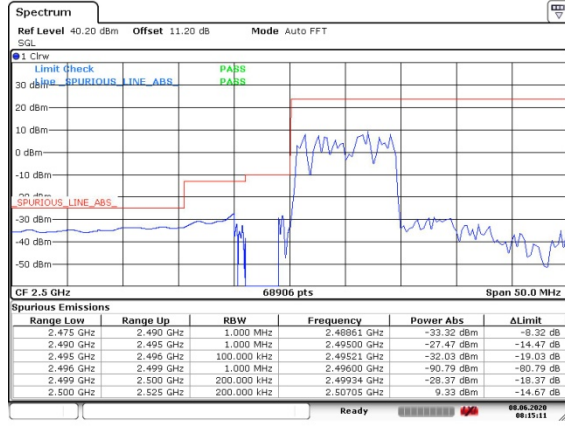


Fig.6

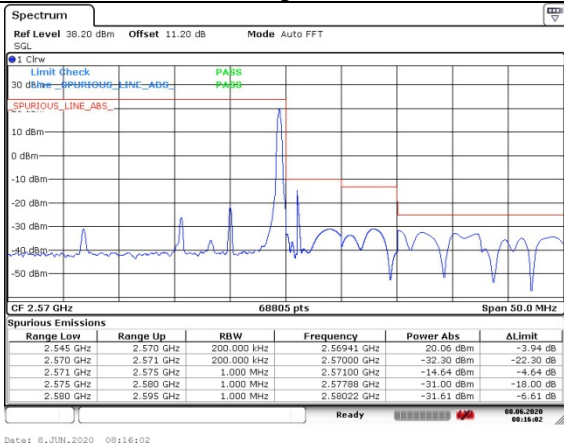


Fig.7

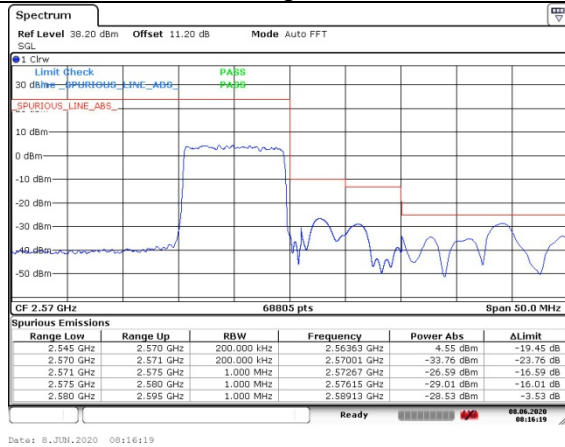


Fig.8

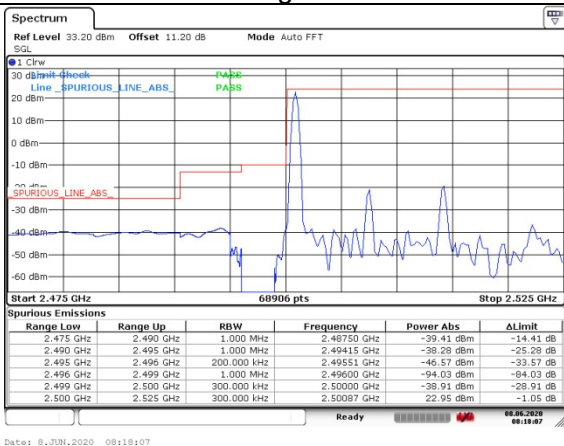


Fig.9

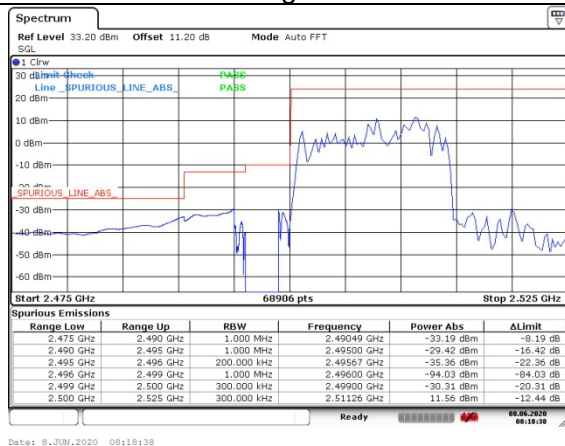


Fig.10

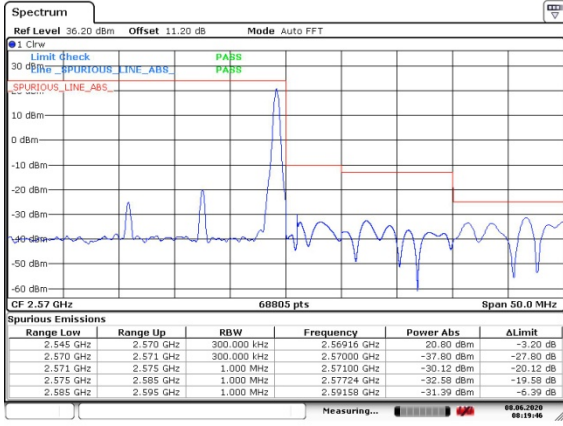


Fig.11

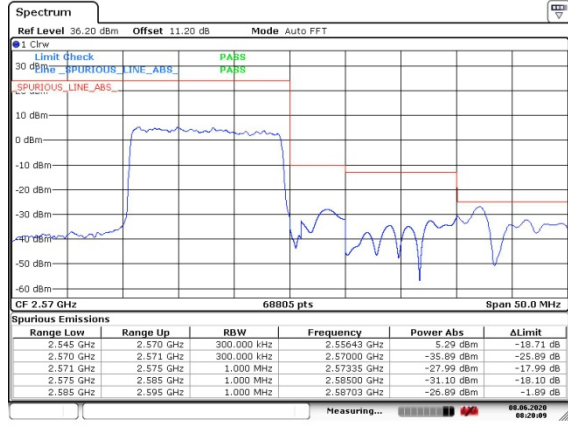


Fig.12

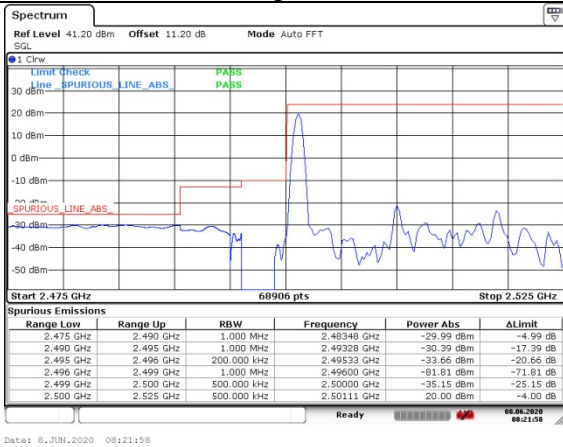


Fig.13

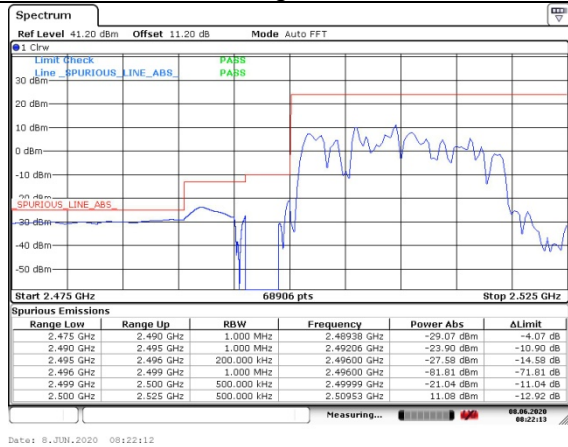


Fig.14

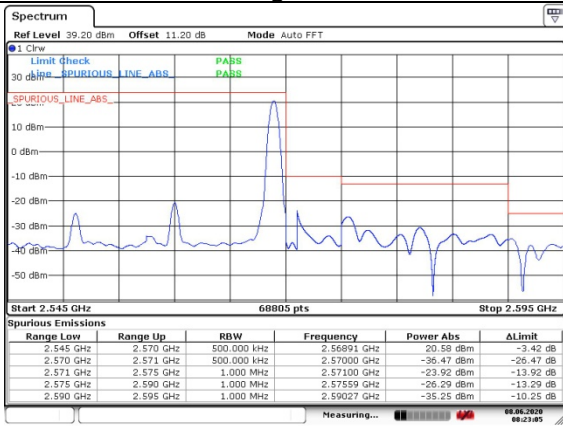


Fig.15

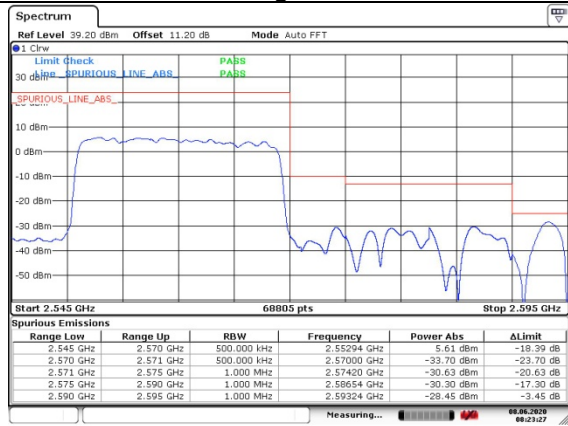


Fig.16

## 6 Frequency Stability

Test result:

| Temperature(°C) | Voltage | Test Result (ppm) Band7 Low Channel |        |        |        |
|-----------------|---------|-------------------------------------|--------|--------|--------|
|                 |         | 5M                                  | 10M    | 15M    | 20M    |
| -10             | NV      | 0.003                               | -0.012 | 0.005  | 0.000  |
| 0               | NV      | 0.008                               | -0.005 | -0.003 | 0.003  |
| +10             | NV      | -0.009                              | -0.004 | -0.003 | -0.002 |
| +20             | NV      | 0.000                               | 0.000  | 0.000  | 0.000  |
| +30             | NV      | -0.006                              | -0.010 | -0.001 | -0.002 |
| +40             | NV      | -0.029                              | -0.003 | 0.001  | 0.015  |
| +50             | NV      | -0.011                              | 0.016  | 0.003  | -0.006 |
| +55             | NV      | -0.013                              | -0.014 | 0.006  | -0.014 |
| +20             | LV      | -0.009                              | -0.007 | -0.006 | 0.011  |
| +20             | HV      | 0.022                               | -0.019 | -0.001 | -0.008 |

| Temperature(°C) | Voltage | Test Result (ppm) Band7 High Channel |        |        |        |
|-----------------|---------|--------------------------------------|--------|--------|--------|
|                 |         | 5M                                   | 10M    | 15M    | 20M    |
| -10             | NV      | 0.020                                | 0.002  | -0.021 | 0.007  |
| 0               | NV      | 0.017                                | 0.011  | -0.009 | -0.015 |
| +10             | NV      | -0.002                               | 0.012  | -0.014 | 0.005  |
| +20             | NV      | 0.000                                | 0.000  | 0.000  | 0.000  |
| +30             | NV      | 0.002                                | -0.012 | -0.006 | -0.014 |
| +40             | NV      | -0.010                               | -0.005 | 0.023  | 0.018  |
| +50             | NV      | 0.020                                | -0.011 | 0.002  | -0.001 |
| +55             | NV      | 0.002                                | 0.015  | 0.006  | -0.004 |
| +20             | LV      | -0.020                               | -0.005 | -0.018 | 0.011  |
| +20             | HV      | 0.013                                | -0.019 | -0.011 | 0.000  |