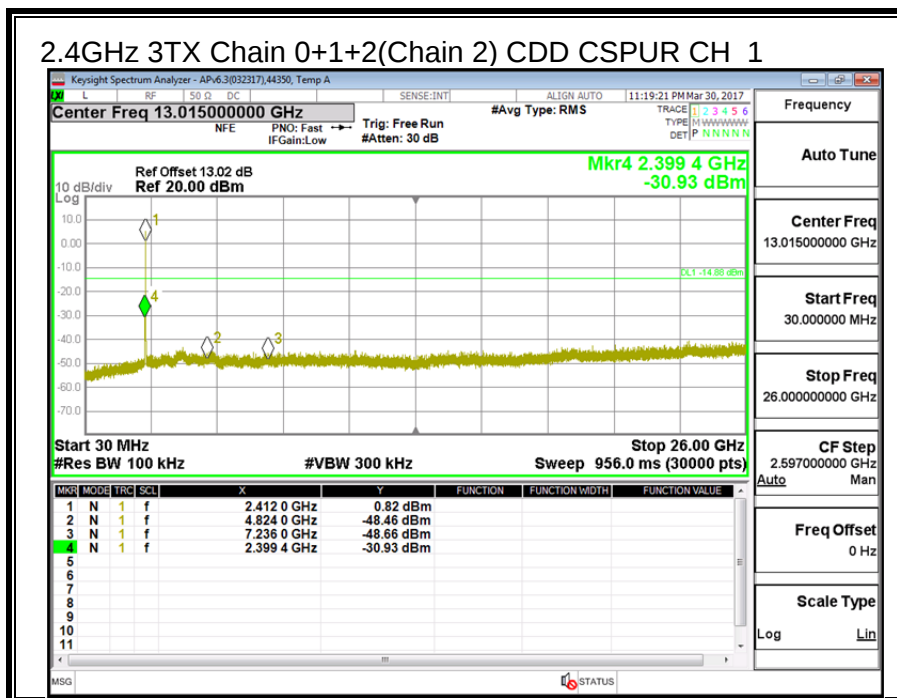
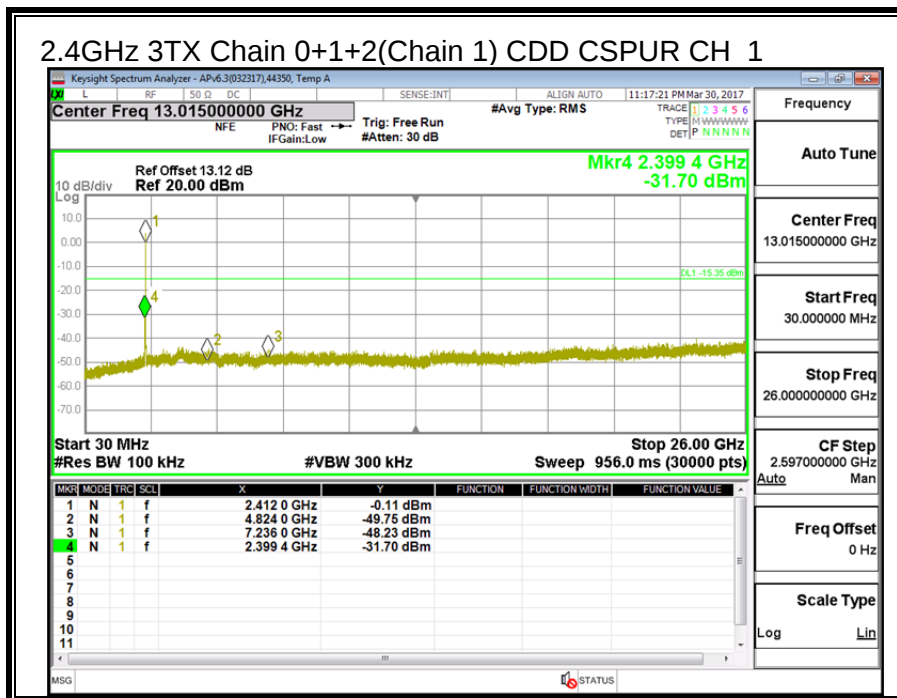
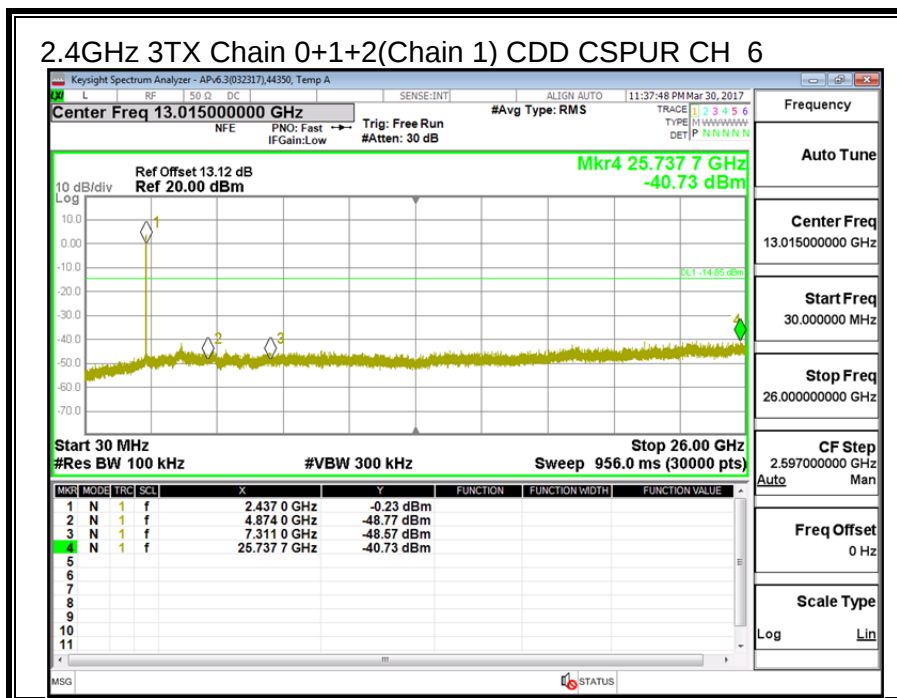
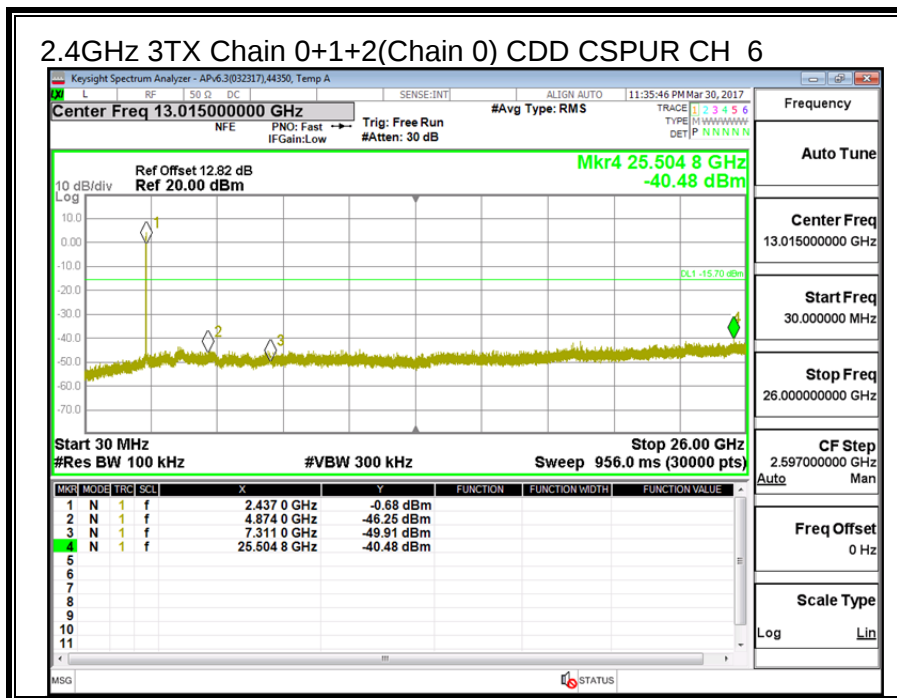
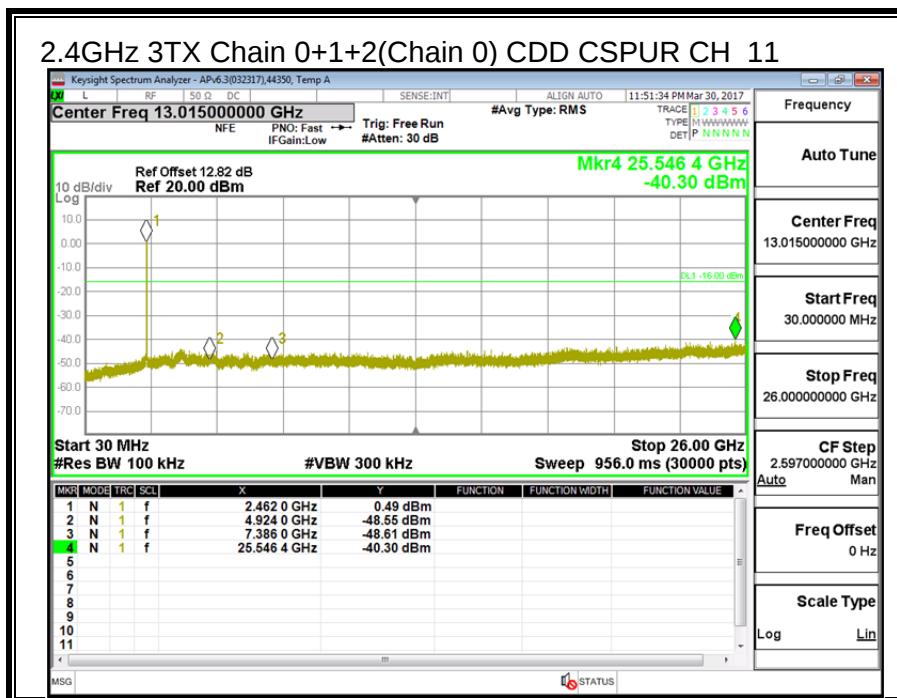
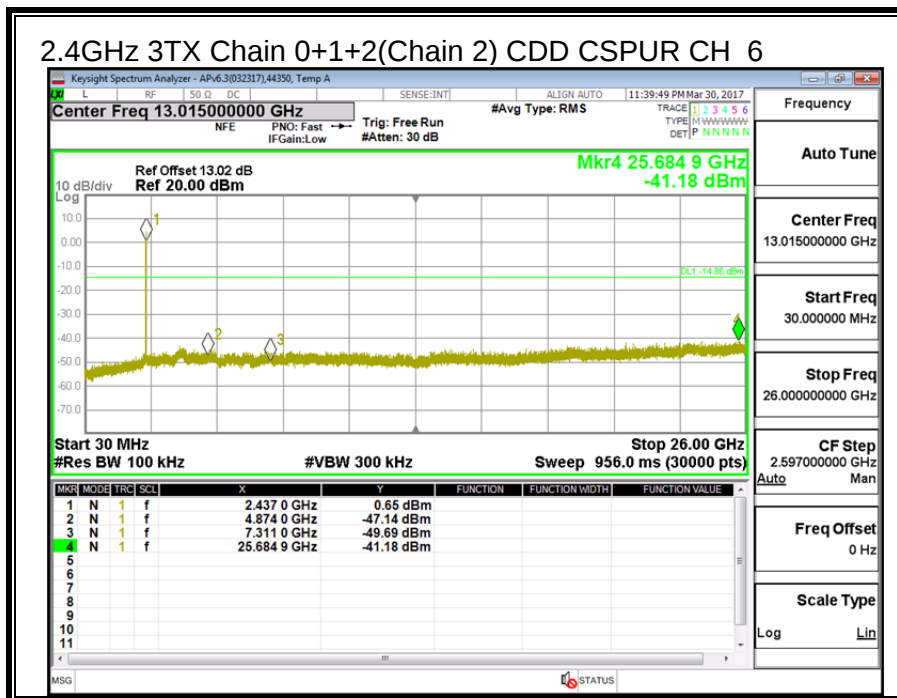
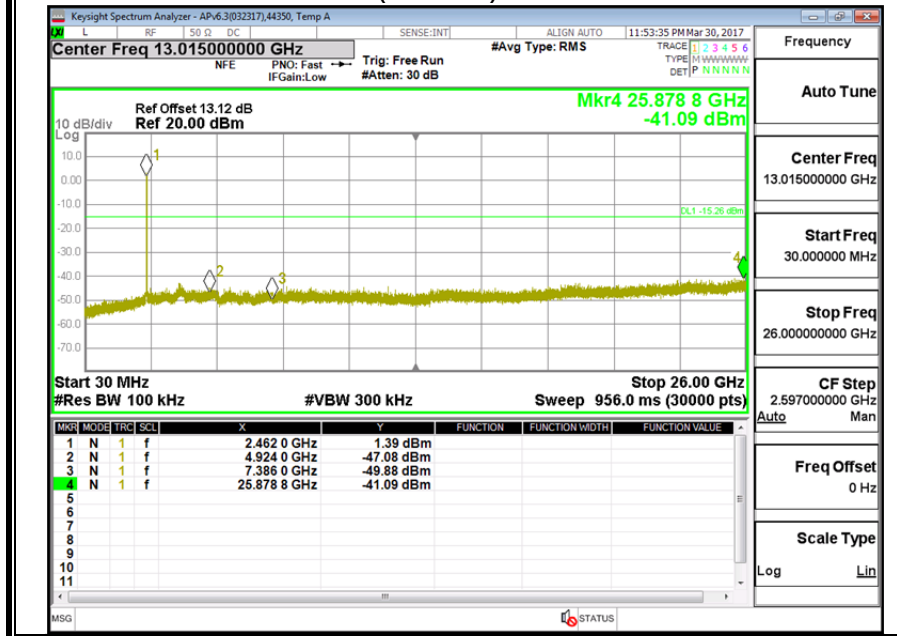




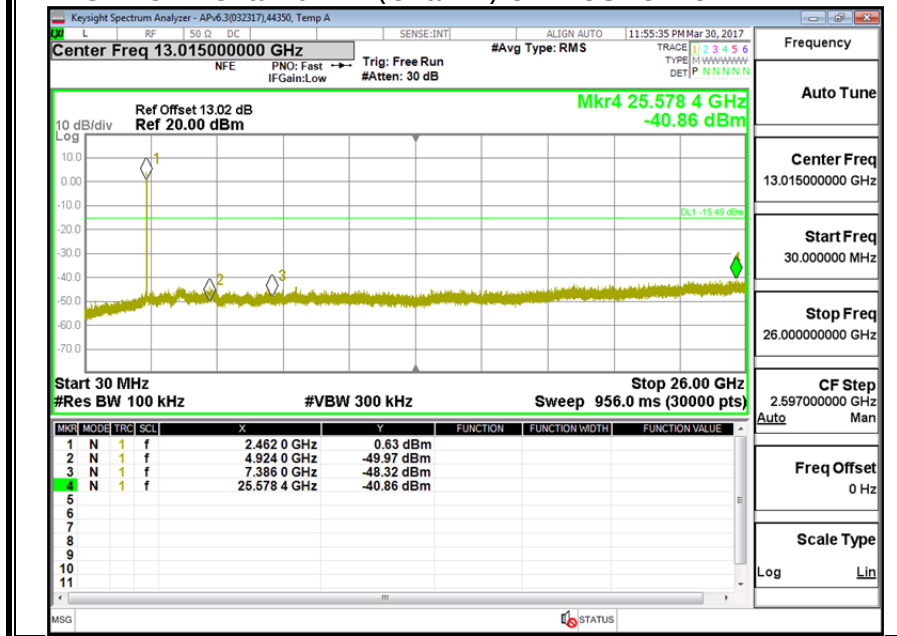




## 2.4GHz 3TX Chain 0+1+2(Chain 1) CDD CSPUR CH 11



## 2.4GHz 3TX Chain 0+1+2(Chain 2) CDD CSPUR CH 11



### 8.3. 11n HT20 3TX CDD MIMO MODE IN THE 2.4GHz BAND

#### 8.3.1. 6 dB BANDWIDTH

##### LIMITS

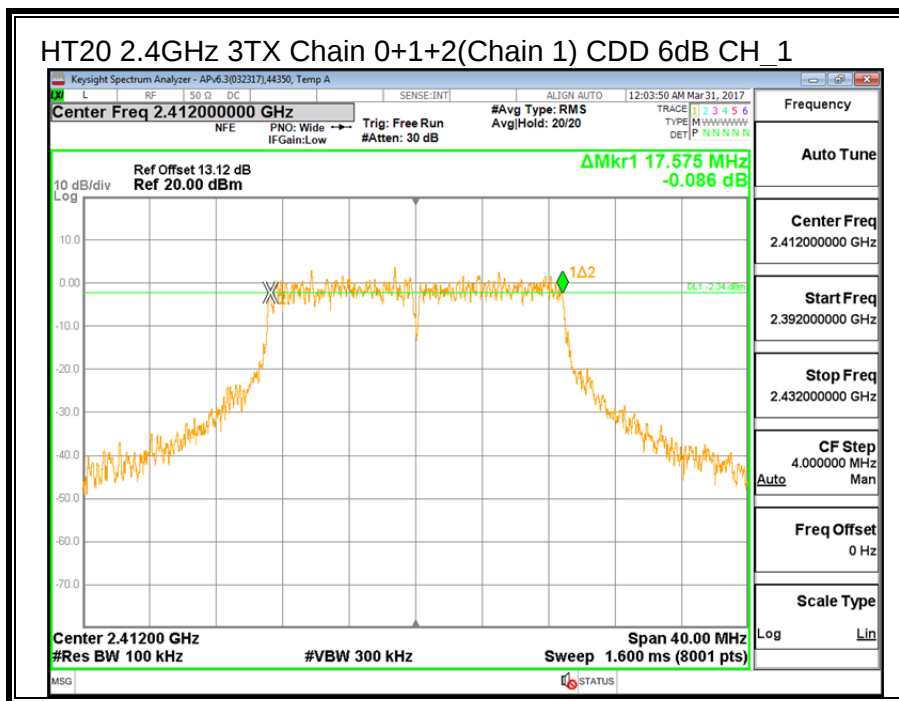
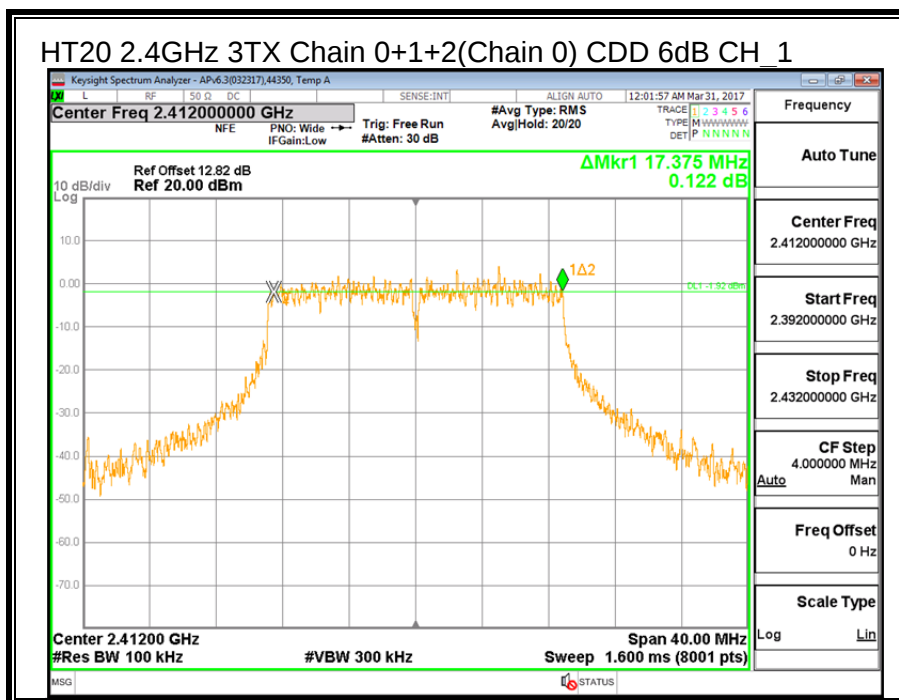
FCC §15.247 (a) (2)

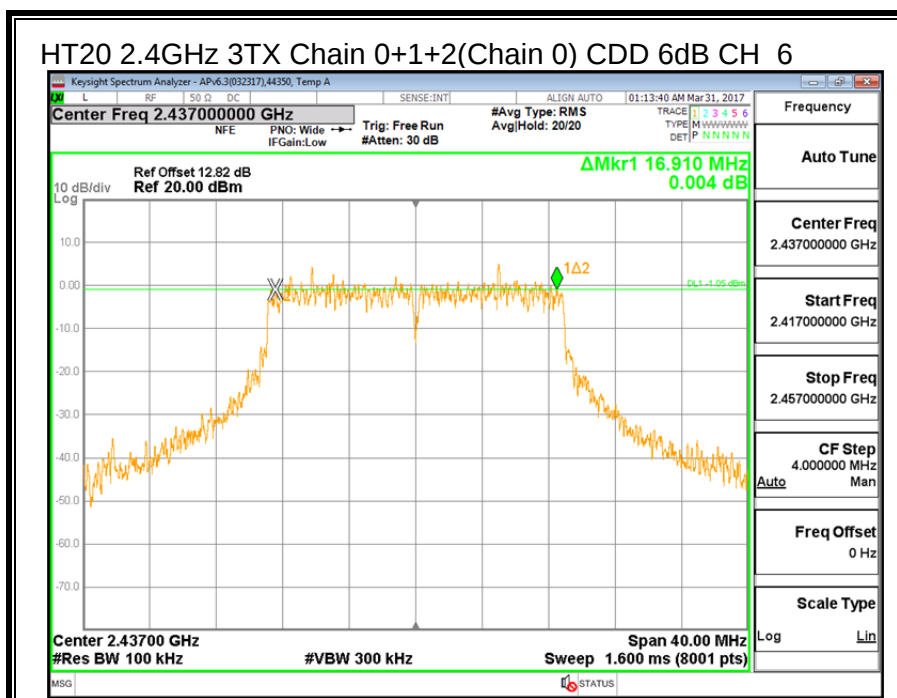
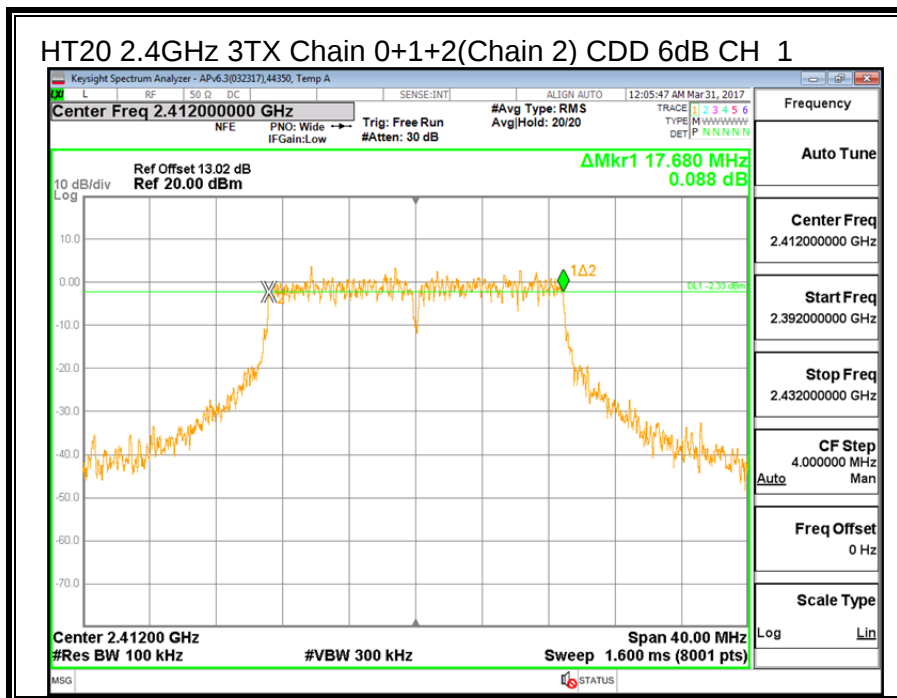
IC RSS-247 (5.2) (a)

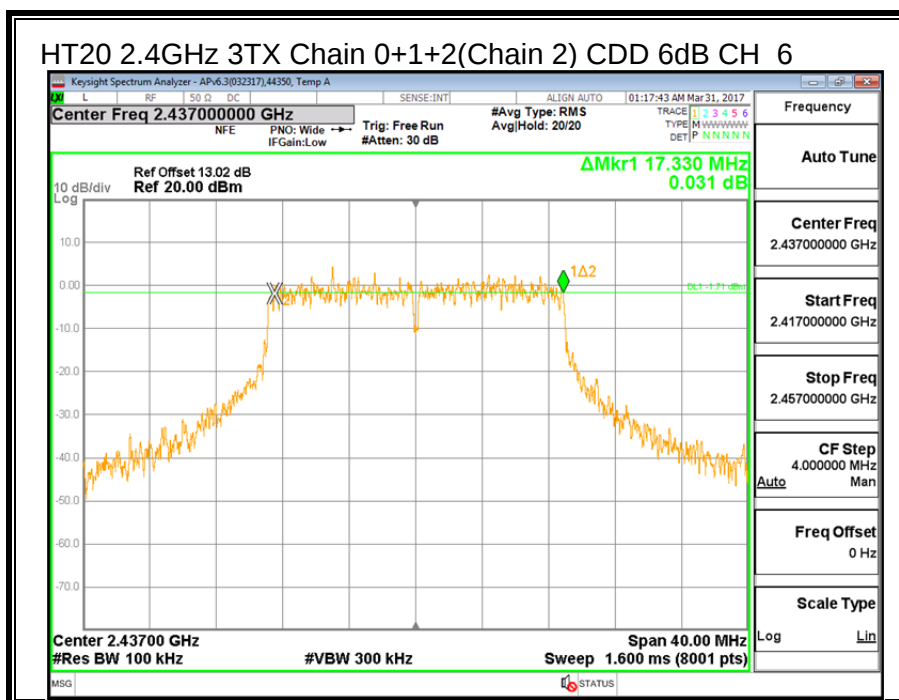
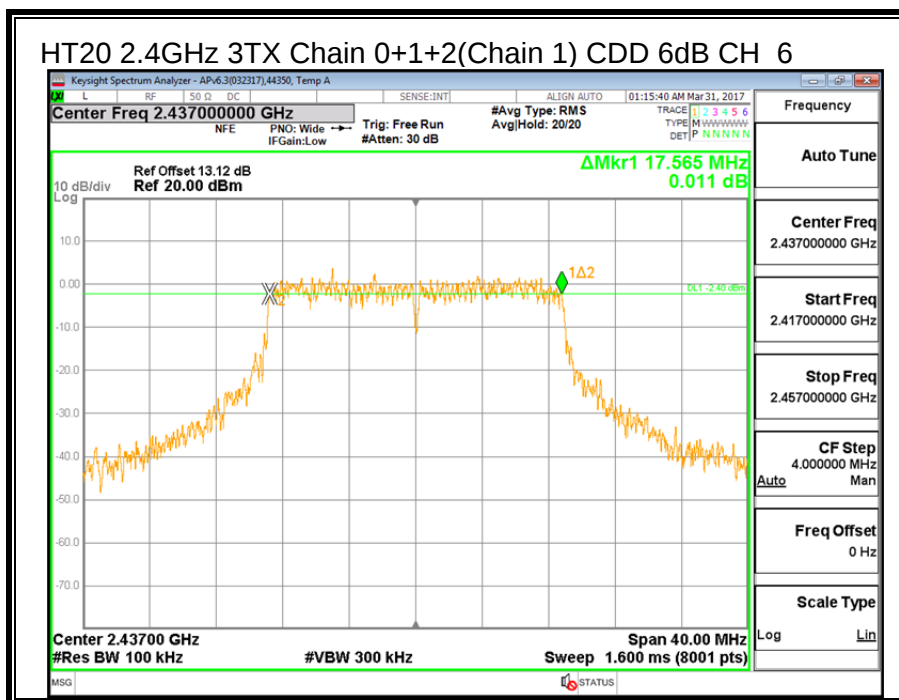
The minimum 6 dB bandwidth shall be at least 500 kHz.

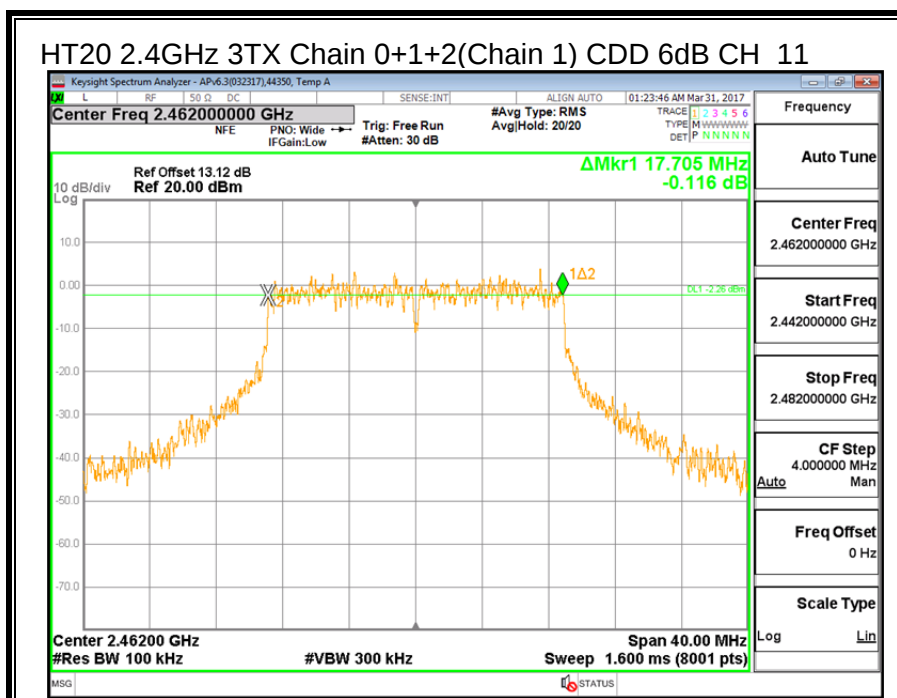
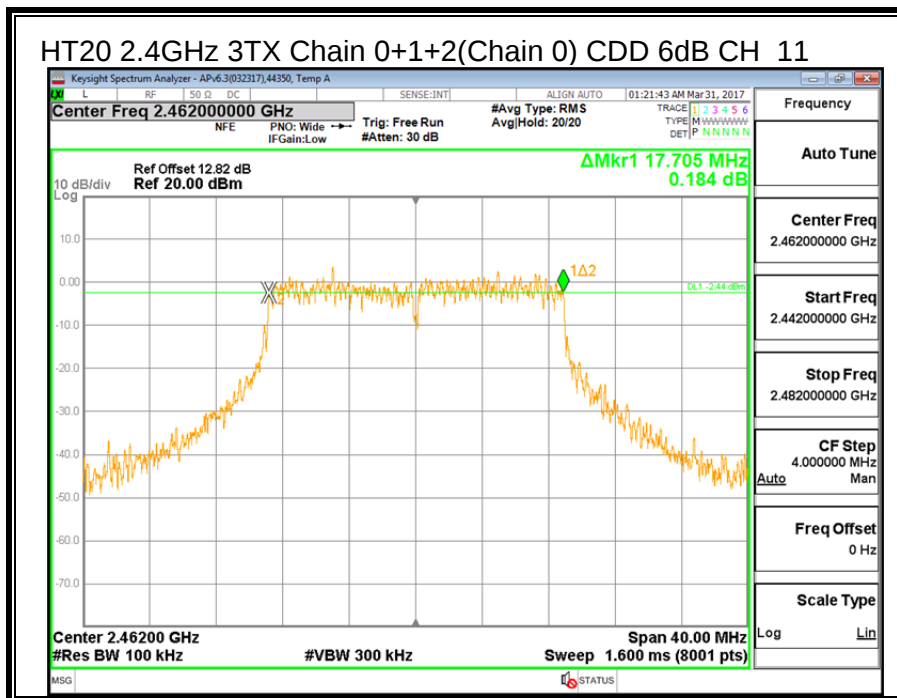
##### RESULTS

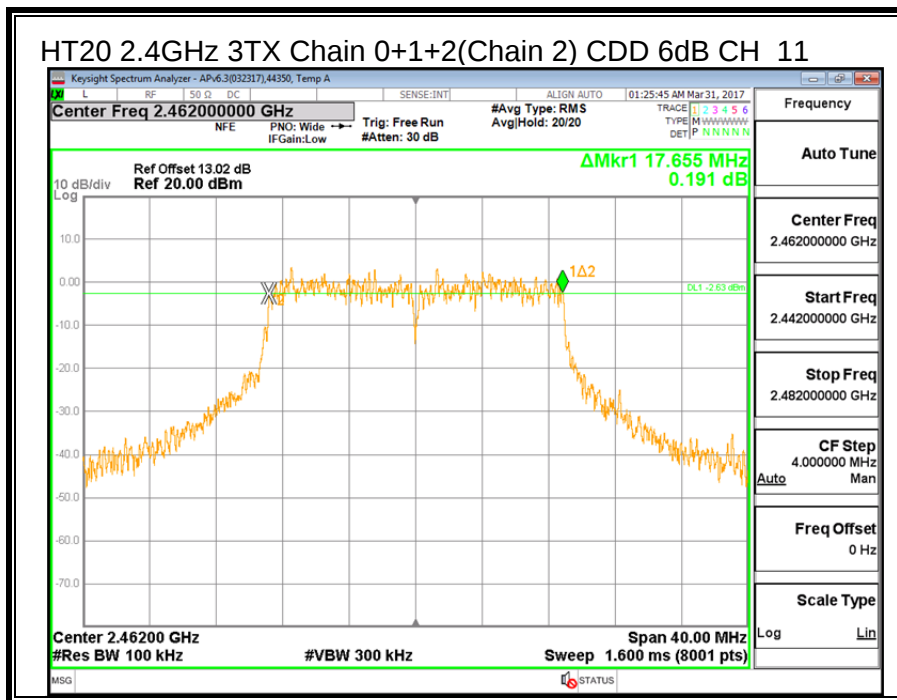
| Channel  | Frequency | 6 dB BW Chain 0 (MHz) | 6 dB BW Chain 1 (MHz) | 6 dB BW Chain 2 (MHz) | Minimum Limit (MHz) |
|----------|-----------|-----------------------|-----------------------|-----------------------|---------------------|
| Low_1    | 2412      | 17.375                | 17.575                | 17.680                | 0.5                 |
| Middle_6 | 2437      | 16.910                | 17.565                | 17.330                | 0.5                 |
| High_11  | 2462      | 17.705                | 17.705                | 17.655                | 0.5                 |











### 8.3.2. 99% BANDWIDTH

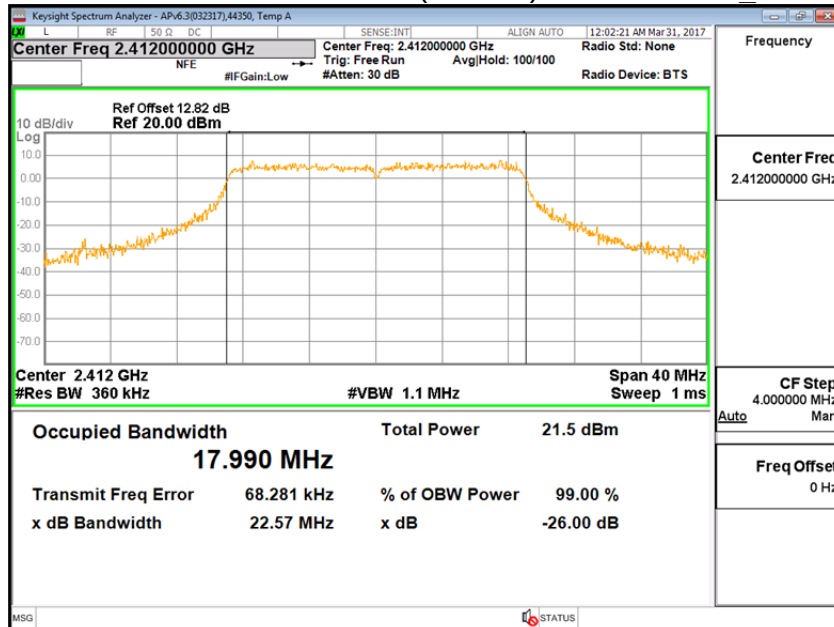
#### LIMITS

None; for reporting purposes only.

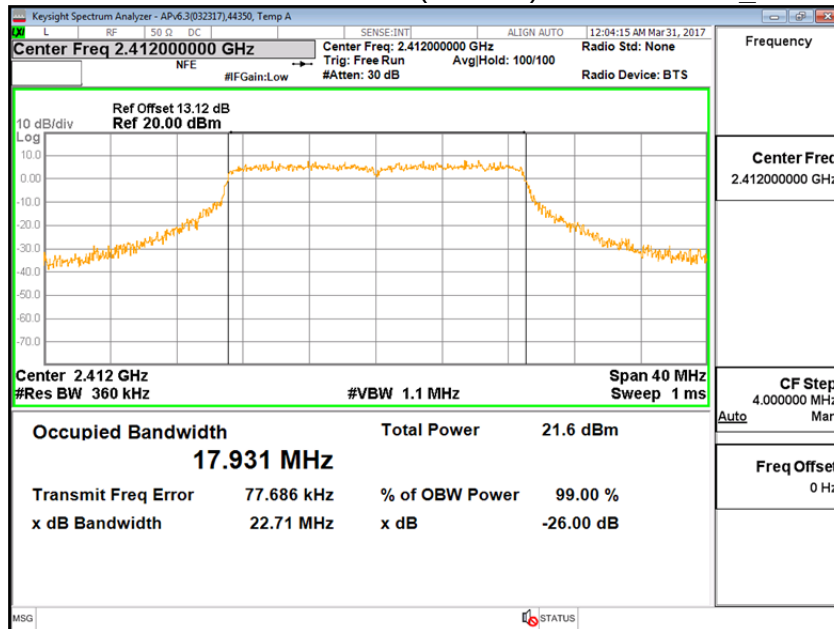
#### RESULTS

| Channel  | Frequency (MHz) | 99% Bandwidth Chain 0 (MHz) | 99% Bandwidth Chain 1 (MHz) | 99% Bandwidth Chain 2 (MHz) |
|----------|-----------------|-----------------------------|-----------------------------|-----------------------------|
| Low_1    | 2412            | 17.990                      | 17.931                      | 17.944                      |
| Middle_6 | 2437            | 17.925                      | 17.956                      | 17.849                      |
| High_11  | 2462            | 17.951                      | 17.943                      | 17.943                      |

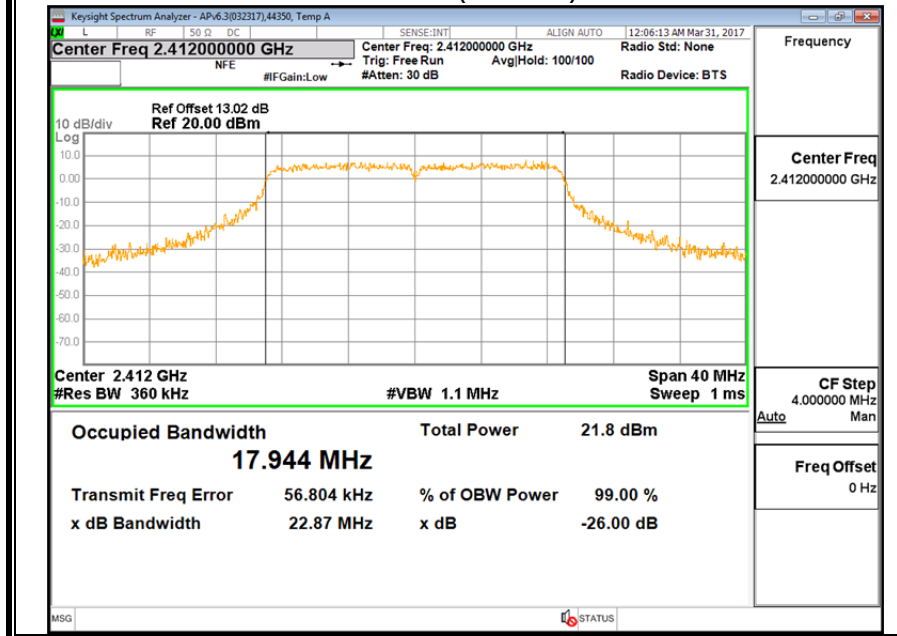
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 0) CDD OBW CH 1



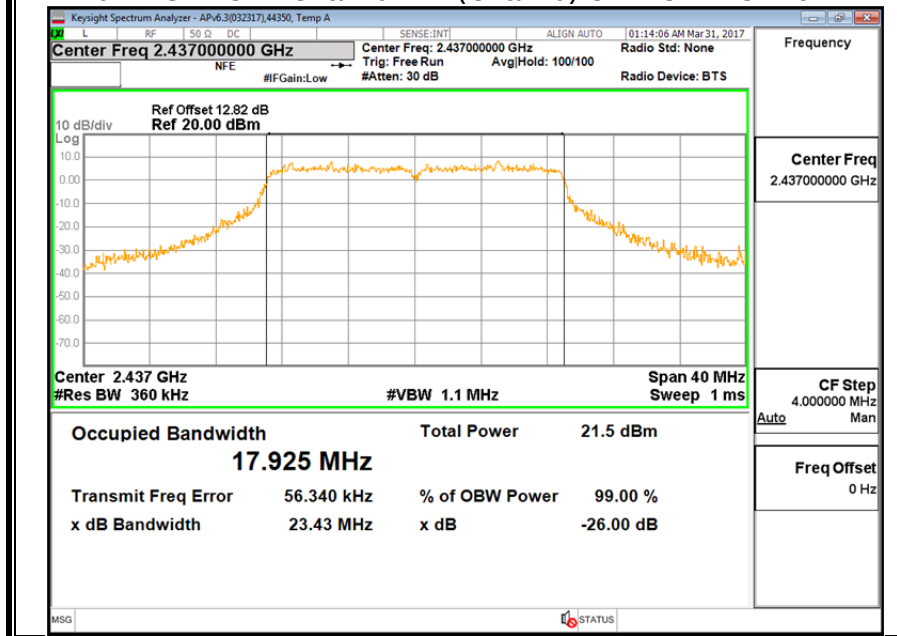
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 1) CDD OBW CH 1



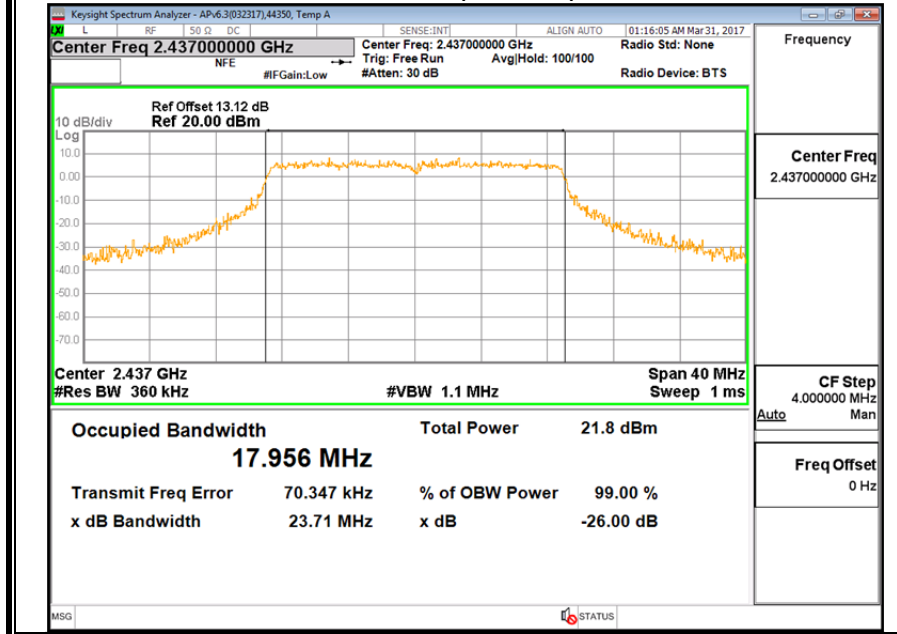
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 2) CDD OBW CH 1



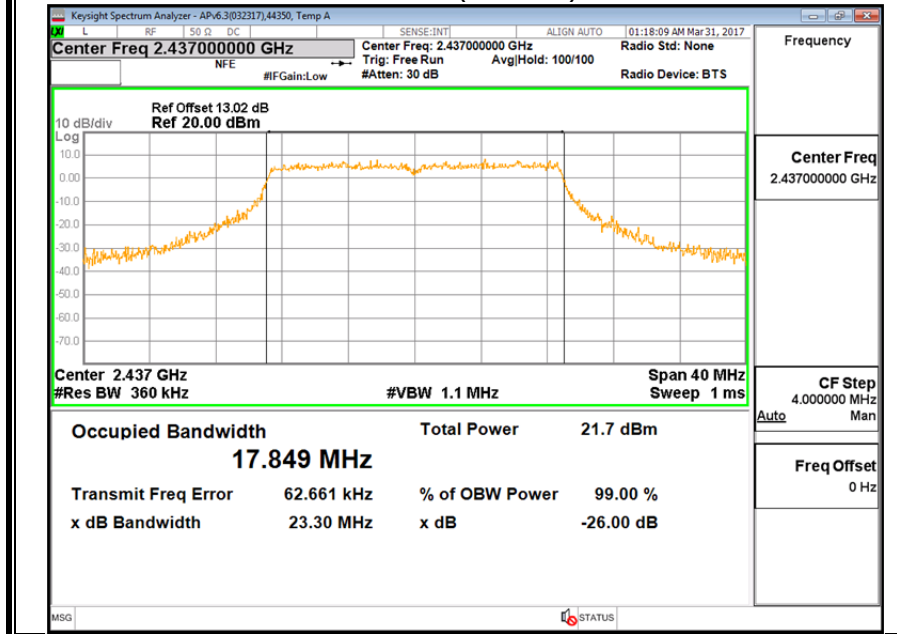
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 0) CDD OBW CH 6



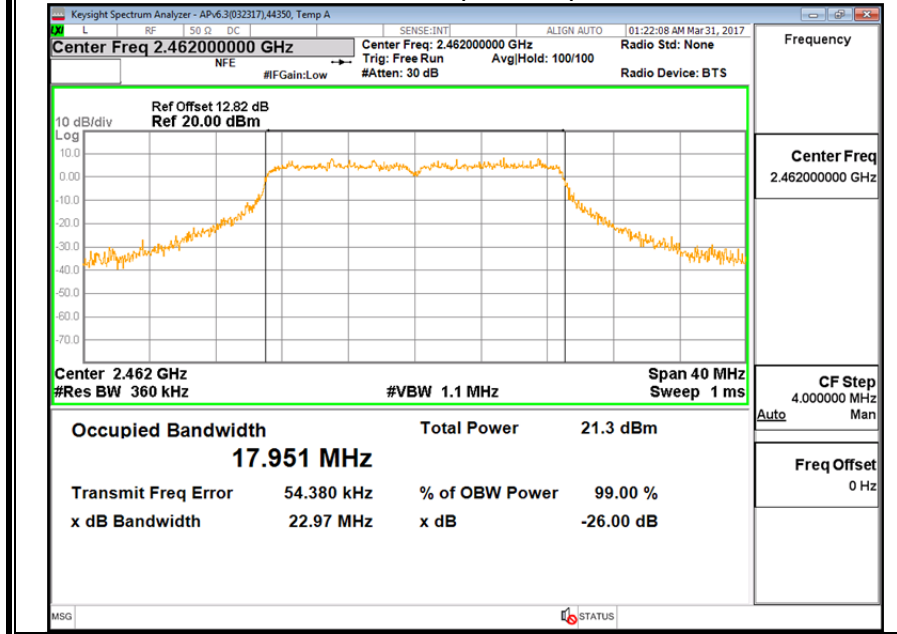
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 1) CDD OBW CH 6



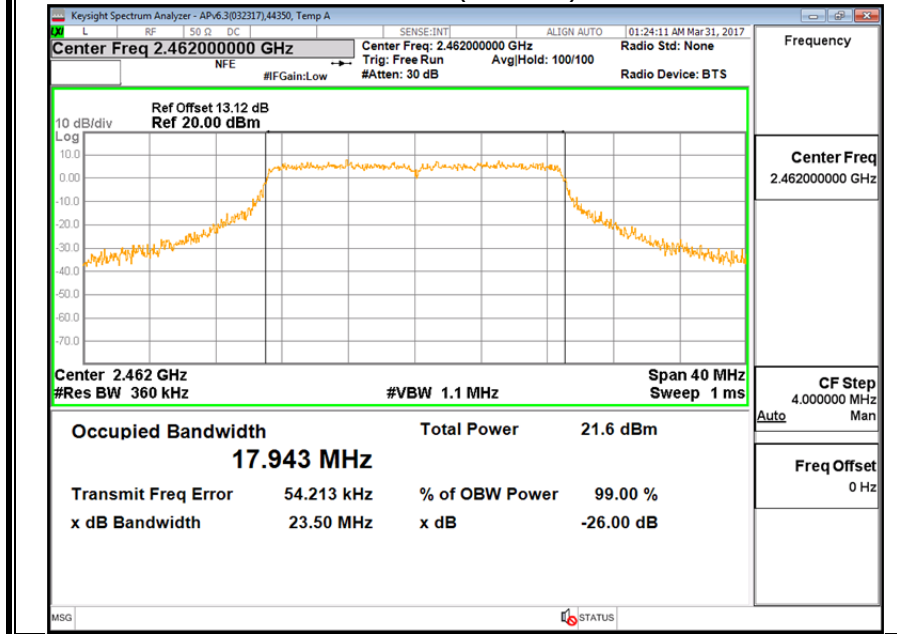
### HT20 2.4GHz 3TX Chain 0+1+2(Chain 2) CDD OBW CH 6

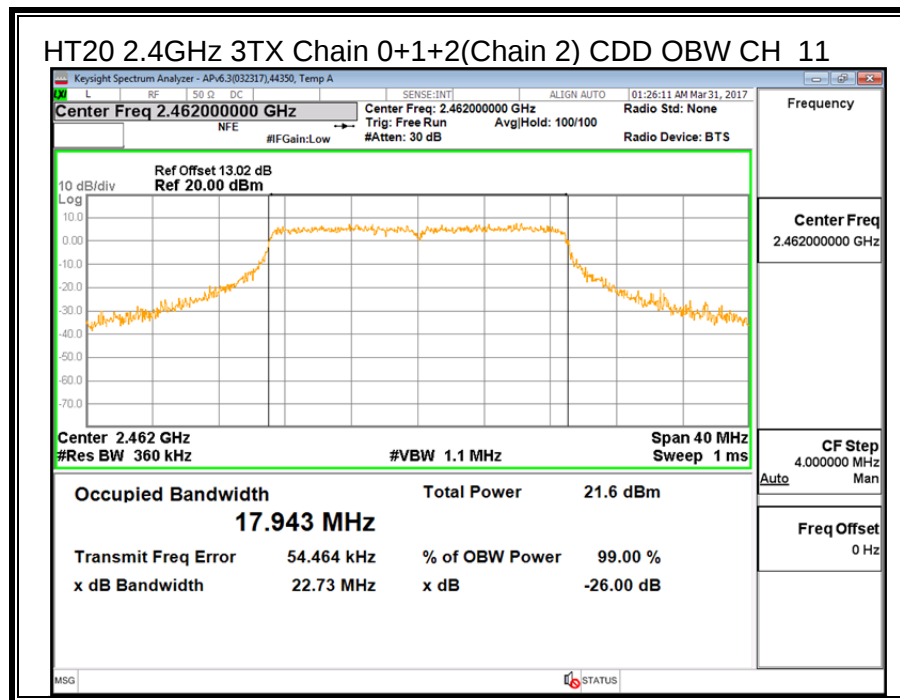


### HT20 2.4GHz 3TX Chain 0+1+2(Chain 0) CDD OBW CH 11



### HT20 2.4GHz 3TX Chain 0+1+2(Chain 1) CDD OBW CH 11





### 8.3.3. OUTPUT POWER

|            |         |              |        |
|------------|---------|--------------|--------|
| <b>ID:</b> | GE43578 | <b>Date:</b> | 6/1/17 |
|------------|---------|--------------|--------|

#### **LIMITS**

FCC §15.247

IC RSS-247 (5.4) (d)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **DIRECTIONAL ANTENNA GAIN**

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

| <b>Chain 0<br/>Antenna<br/>Gain<br/>(dBi)</b> | <b>Chain 1<br/>Antenna<br/>Gain<br/>(dBi)</b> | <b>Chain 2<br/>Antenna<br/>Gain<br/>(dBi)</b> | <b>Uncorrelated Chains<br/>Directional<br/>Gain<br/>(dBi)</b> |
|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|---------------------------------------------------------------|
| 2.69                                          | 2.02                                          | 1.33                                          | 2.05                                                          |

## RESULTS

### Limits

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | FCC<br>Power<br>Limit<br>(dBm) | IC<br>Power<br>Limit<br>(dBm) | IC<br>EIRP<br>Limit<br>(dBm) | Max<br>Power<br>(dBm) |
|---------|--------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|-----------------------|
| Low     | 2412               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| Low     | 2417               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| Low     | 2422               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| Mid     | 2437               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High    | 2452               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High    | 2457               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |
| High    | 2462               | 2.05                         | 30.00                          | 30                            | 36                           | 30.00                 |

### Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Chain 2<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|----------------|
| Low     | 2412               | 15.78                             | 15.36                             | 15.62                             | 20.36                             | 30.00                   | -9.64          |
| Low     | 2417               | 16.81                             | 17.15                             | 17.31                             | 21.87                             | 30.00                   | -8.13          |
| Low     | 2422               | 18.45                             | 18.68                             | 18.75                             | 23.40                             | 30.00                   | -6.60          |
| Mid     | 2437               | 18.12                             | 18.26                             | 18.50                             | 23.07                             | 30.00                   | -6.93          |
| High    | 2452               | 18.14                             | 18.02                             | 18.45                             | 22.98                             | 30.00                   | -7.02          |
| High    | 2457               | 16.57                             | 15.86                             | 16.36                             | 21.04                             | 30.00                   | -8.96          |
| High    | 2462               | 15.34                             | 15.50                             | 15.52                             | 20.23                             | 30.00                   | -9.77          |

### 8.3.4. POWER SPECTRAL DENSITY

#### LIMITS

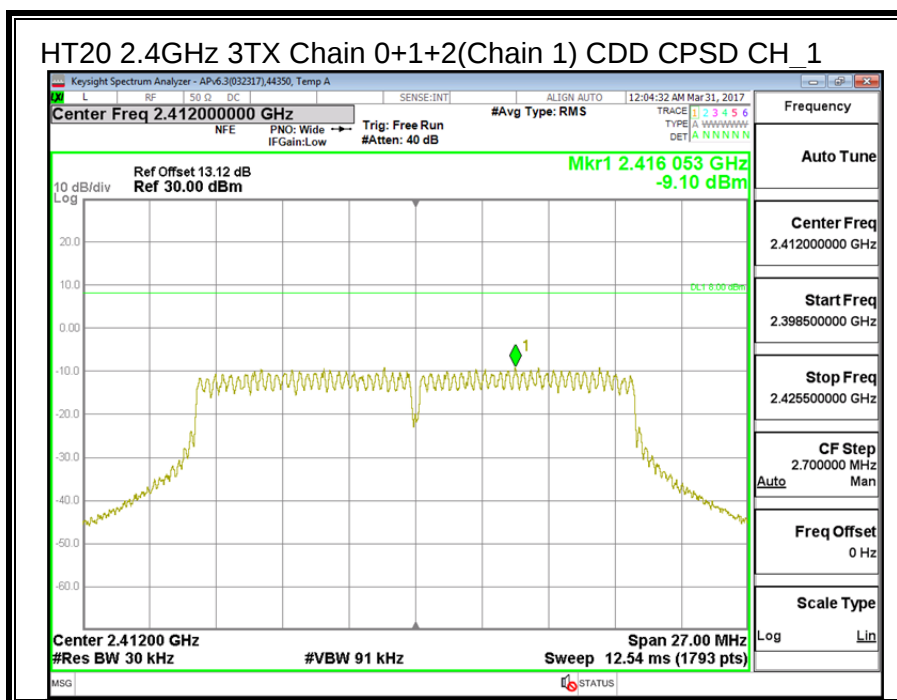
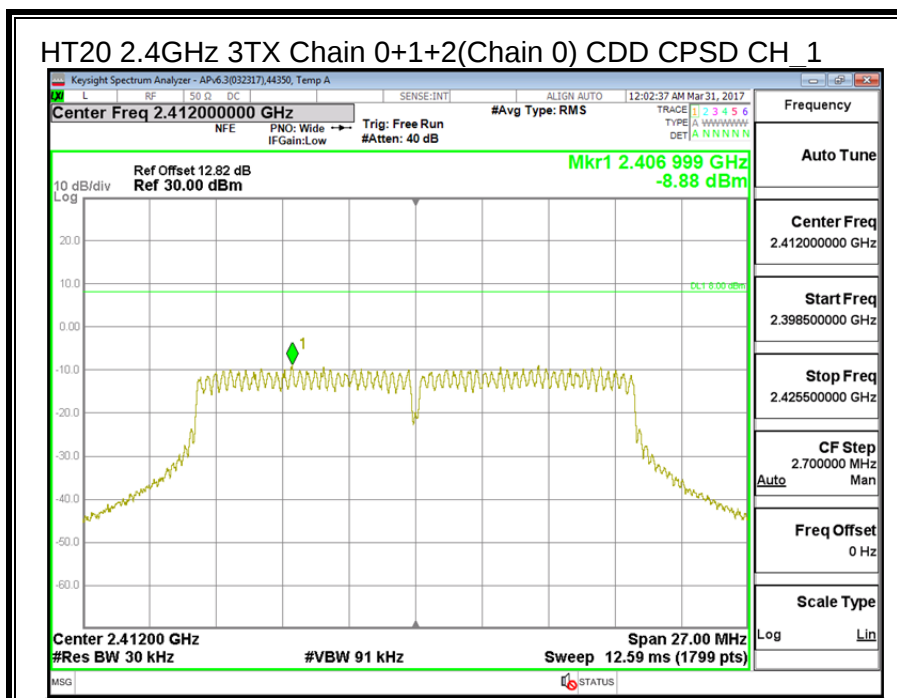
FCC §15.247

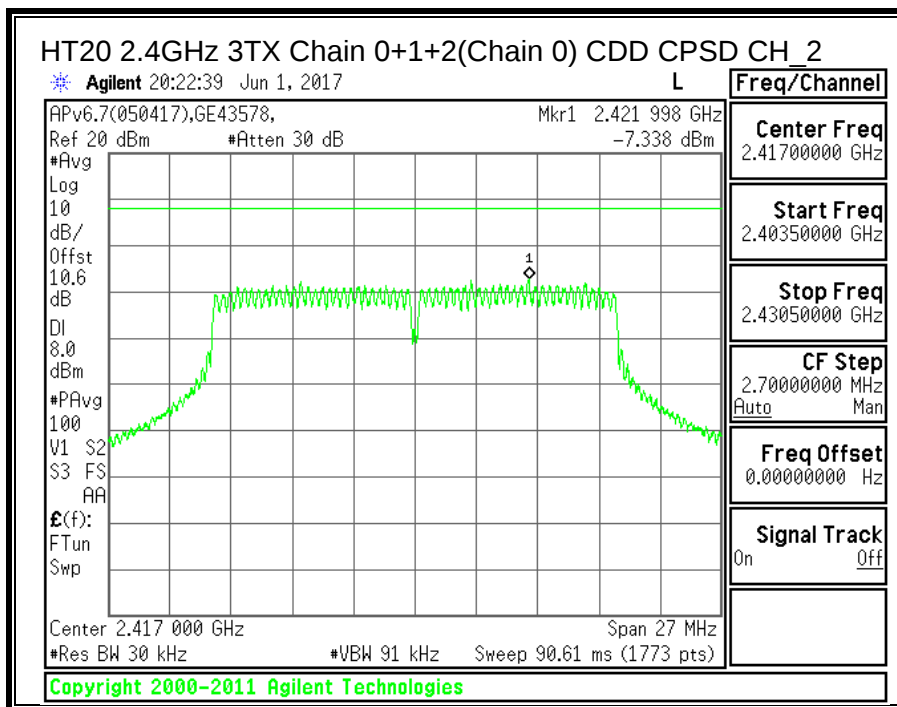
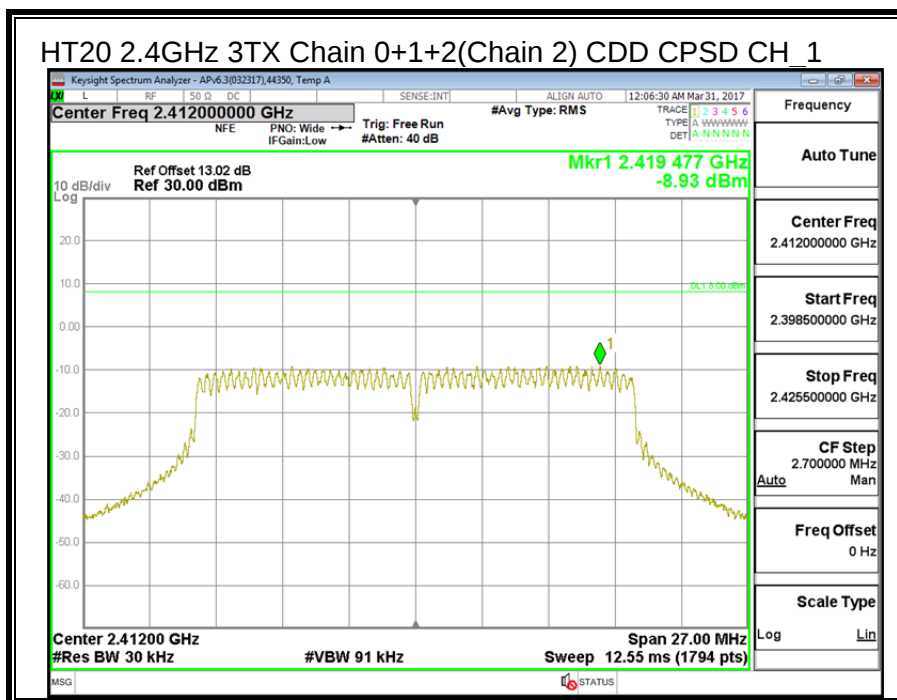
IC RSS-247 (5.2) (b)

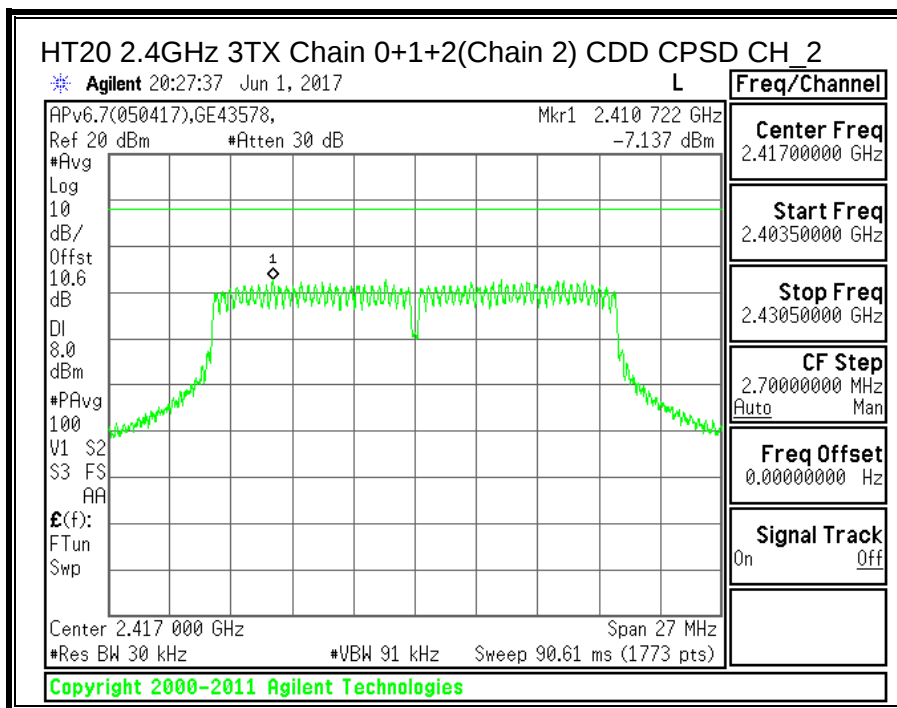
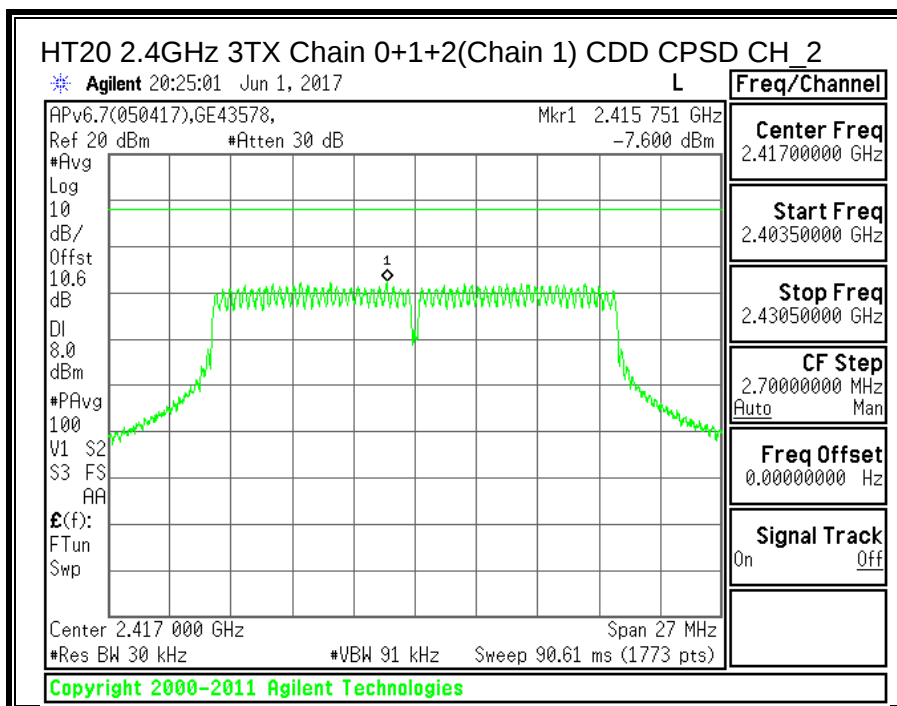
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 KHz band during any time interval of continuous transmissions.

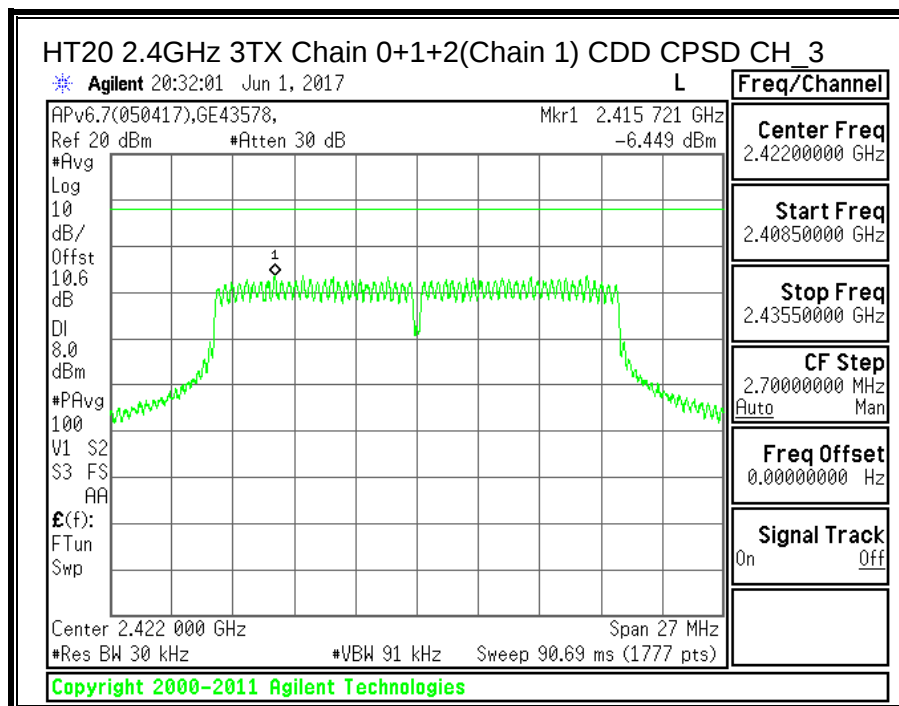
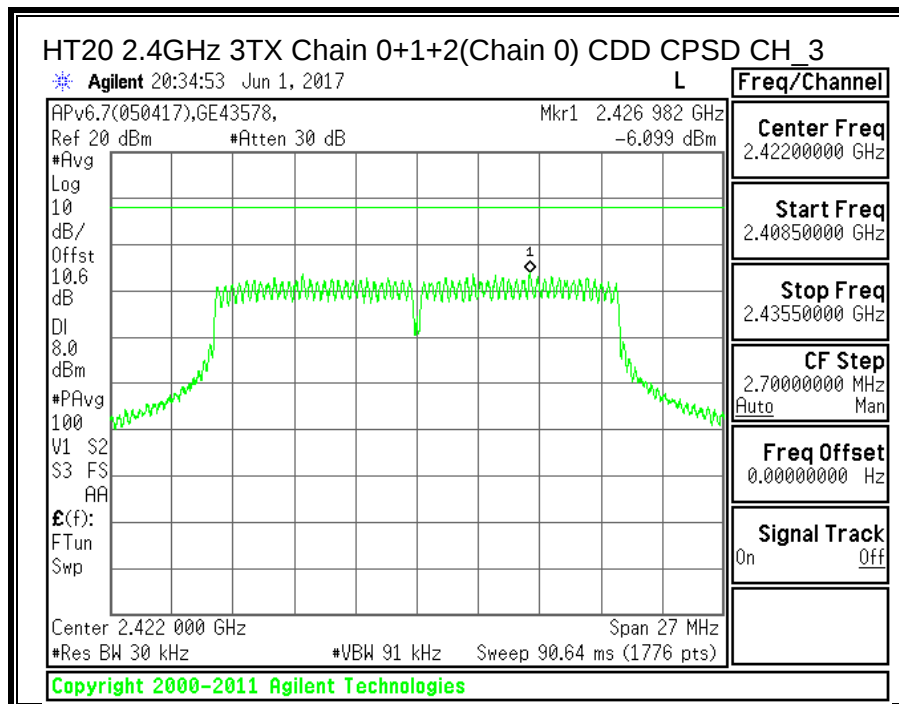
#### RESULTS

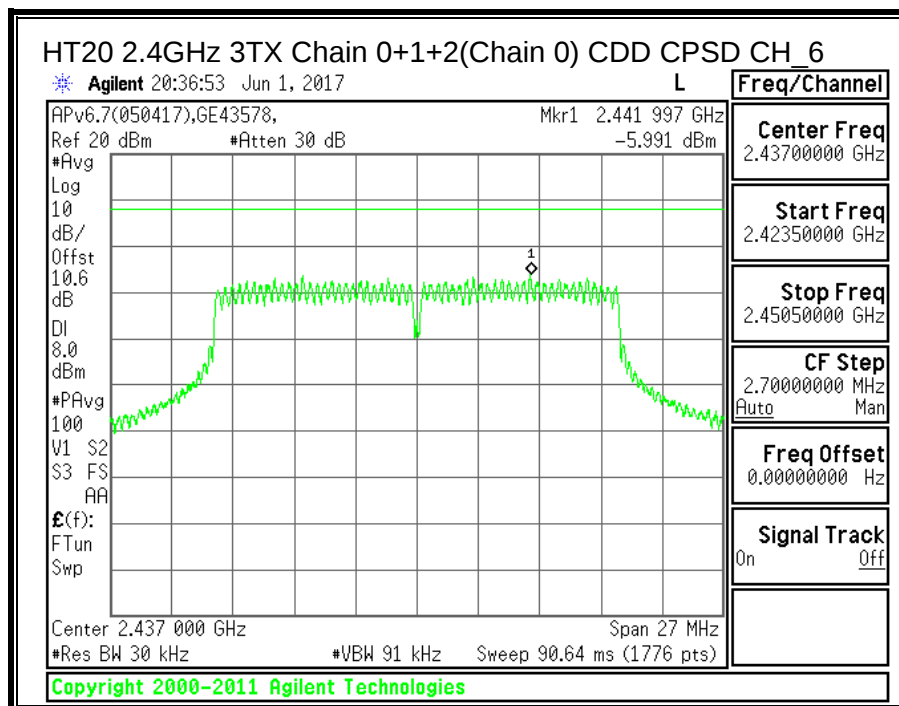
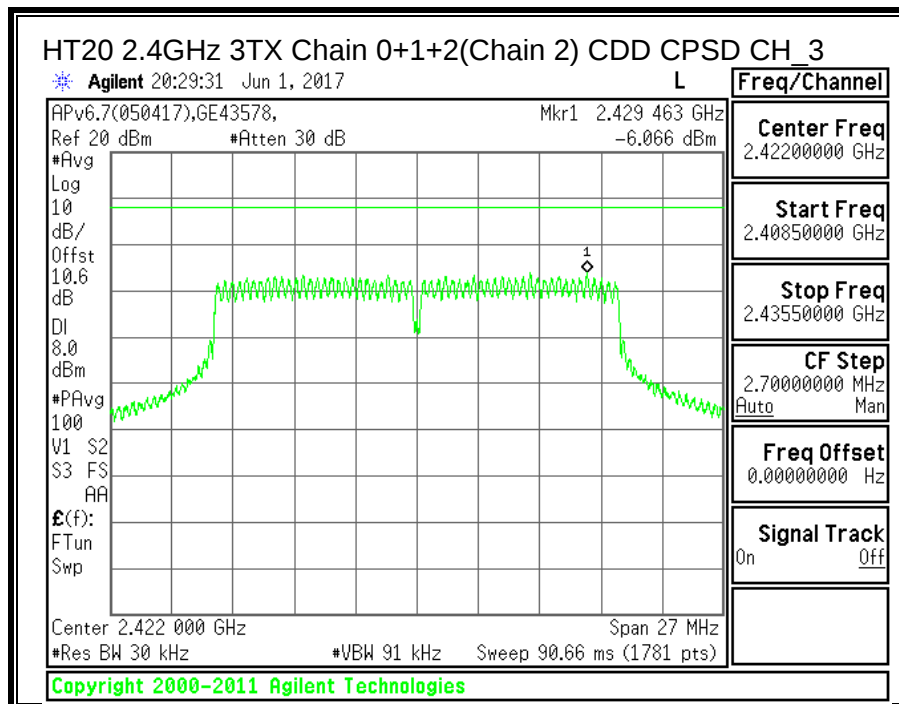
| Duty Cycle CF (dB) |           | 0.22         | Included in Calculations of Corr'd PSD |              |                  |       |        |
|--------------------|-----------|--------------|----------------------------------------|--------------|------------------|-------|--------|
| PSD Results        |           |              |                                        |              |                  |       |        |
| Channel            | Frequency | Chain 0 Meas | Chain 1 Meas                           | Chain 2 Meas | Total Corr'd PSD | Limit | Margin |
|                    | (MHz)     | (dBm)        | (dBm)                                  | (dBm)        | (dBm)            | (dBm) | (dB)   |
| Low                | 2412      | -8.88        | -9.10                                  | -8.93        | -3.98            | 8.0   | -12.0  |
| Low                | 2417      | -7.34        | -7.60                                  | -7.14        | -2.36            | 8.0   | -10.4  |
| Low                | 2422      | -6.10        | -6.45                                  | -6.07        | -1.21            | 8.0   | -9.2   |
| Mid                | 2437      | -5.99        | -6.40                                  | -6.50        | -1.30            | 8.0   | -9.3   |
| High               | 2452      | -6.27        | -6.18                                  | -6.45        | -1.31            | 8.0   | -9.3   |
| High               | 2457      | -7.80        | -7.98                                  | -8.36        | -3.05            | 8.0   | -11.0  |
| High               | 2462      | -9.09        | -9.09                                  | -8.92        | -4.04            | 8.0   | -12.0  |

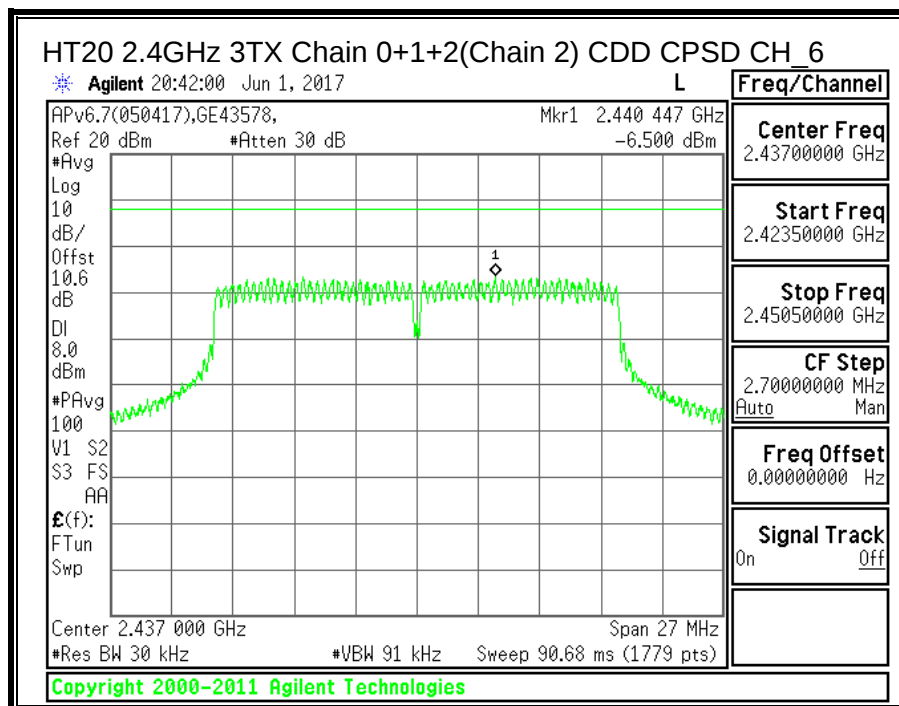
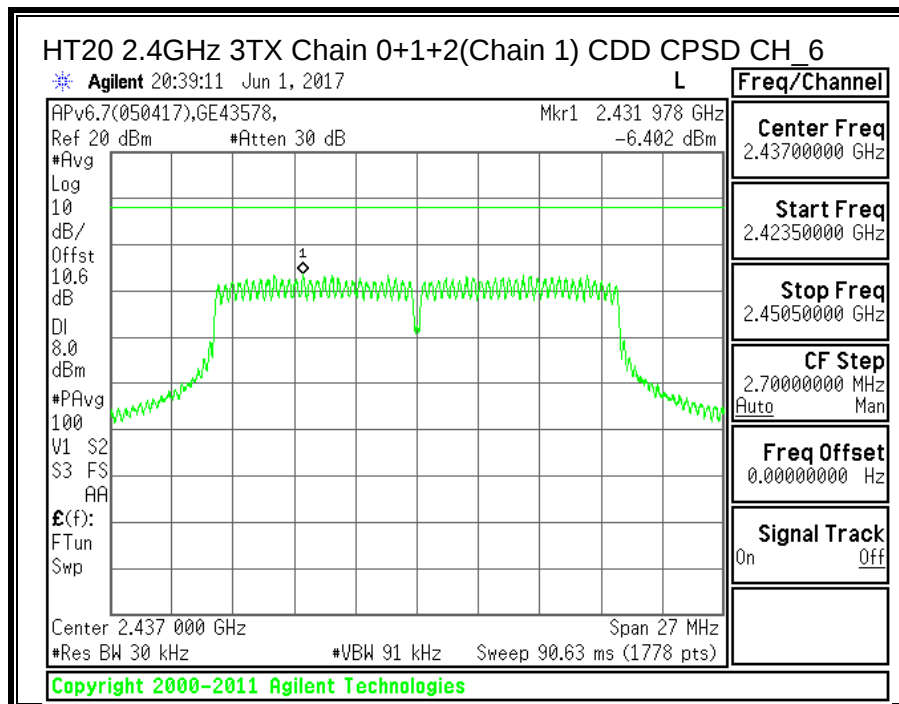


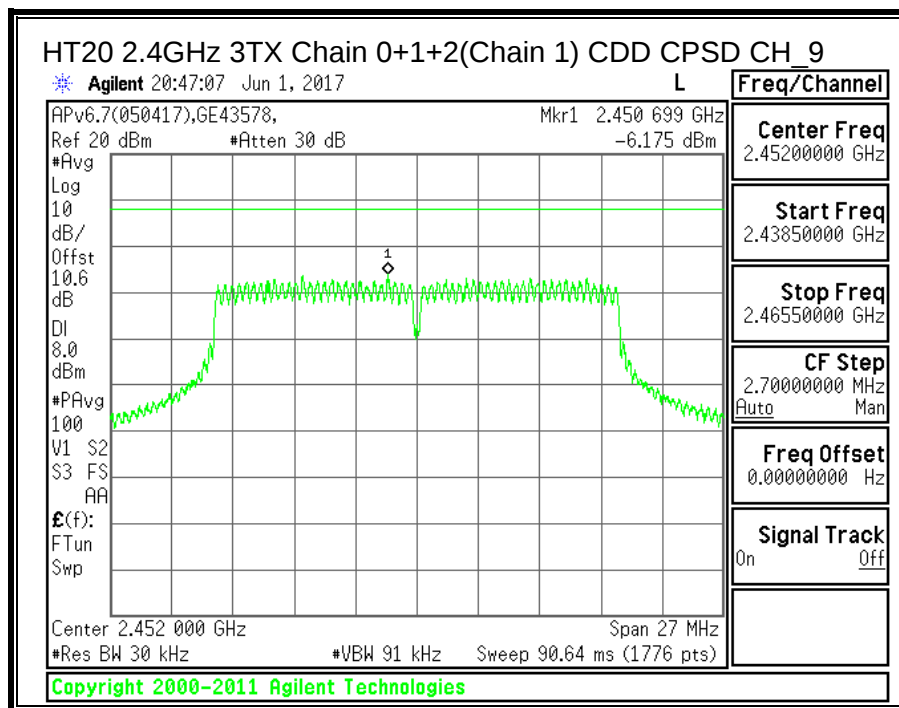
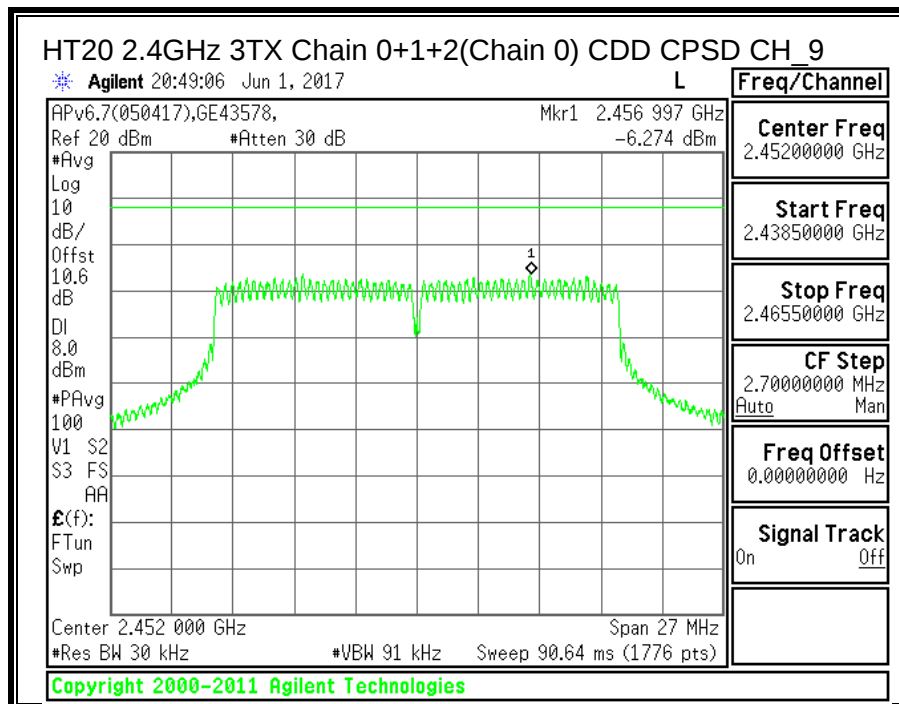


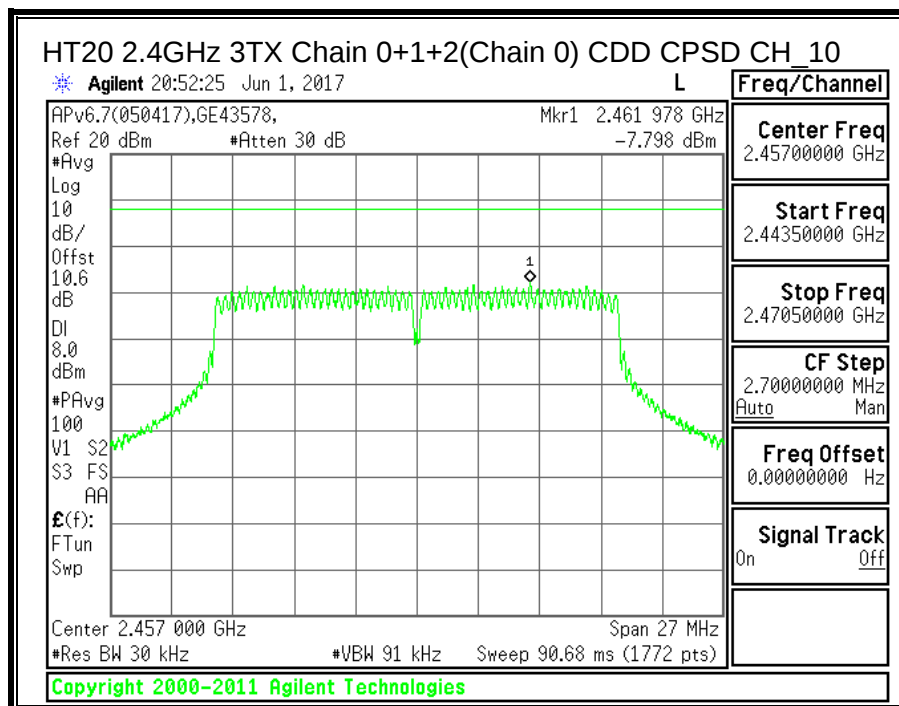
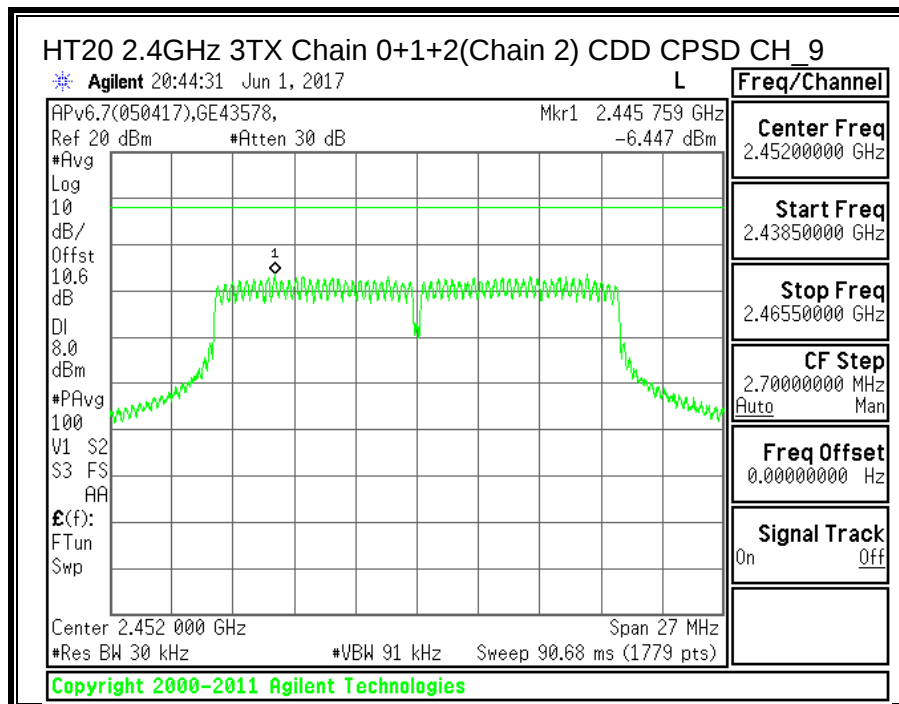


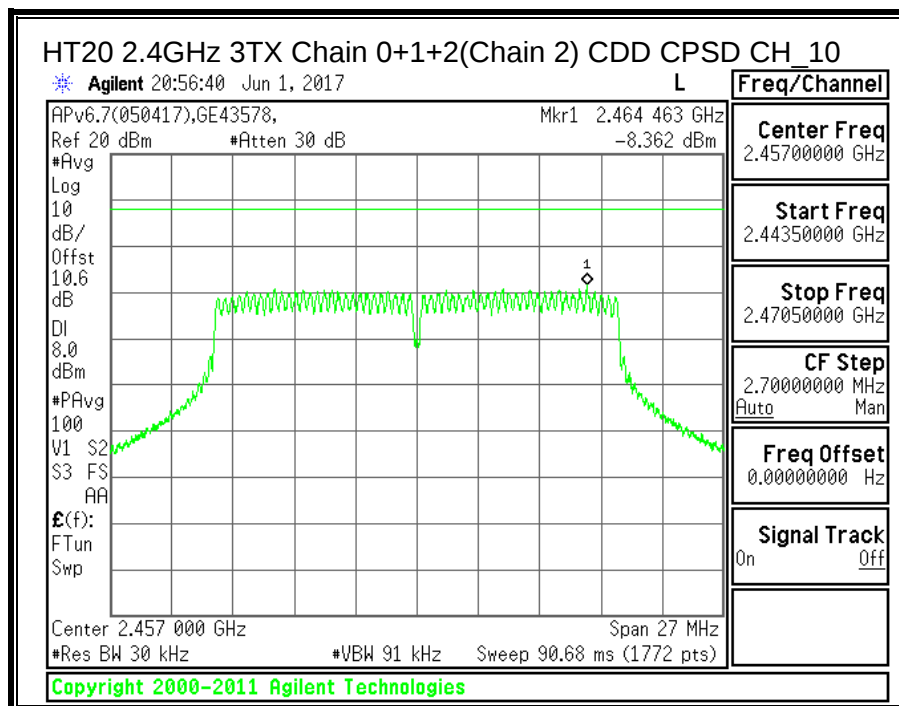
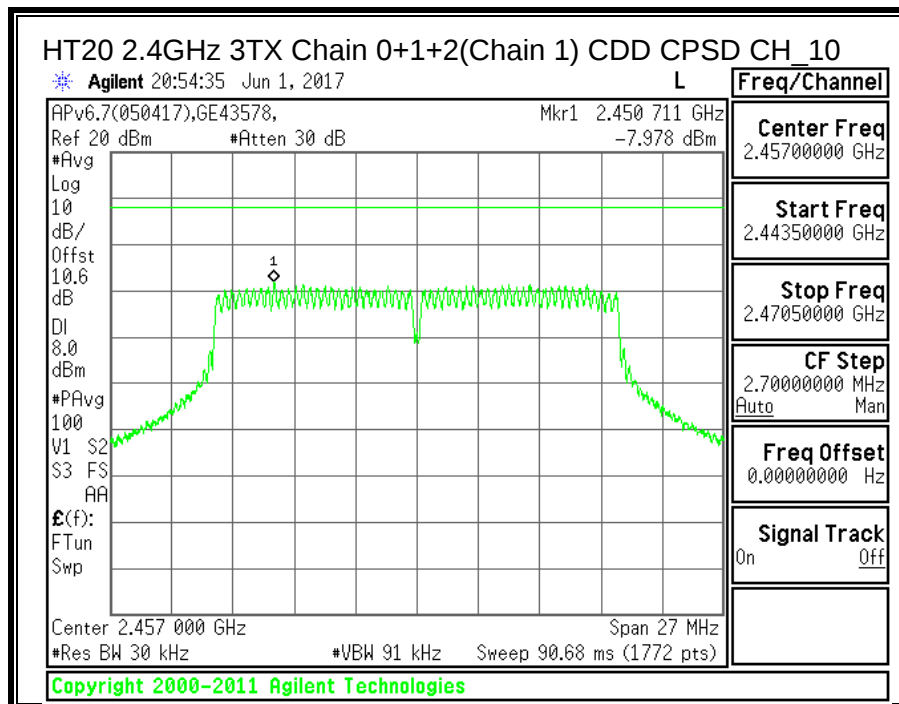


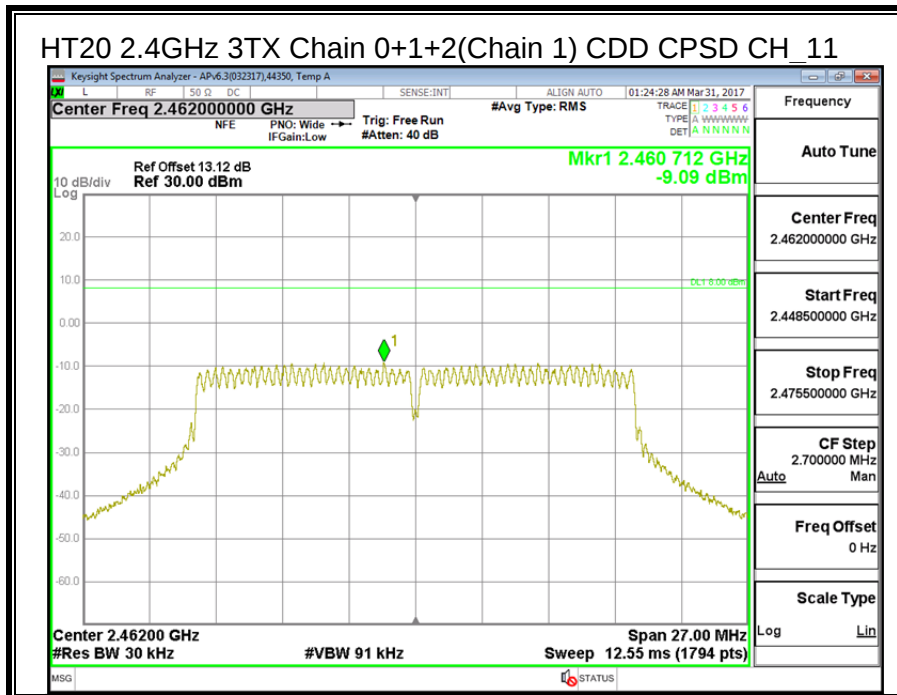
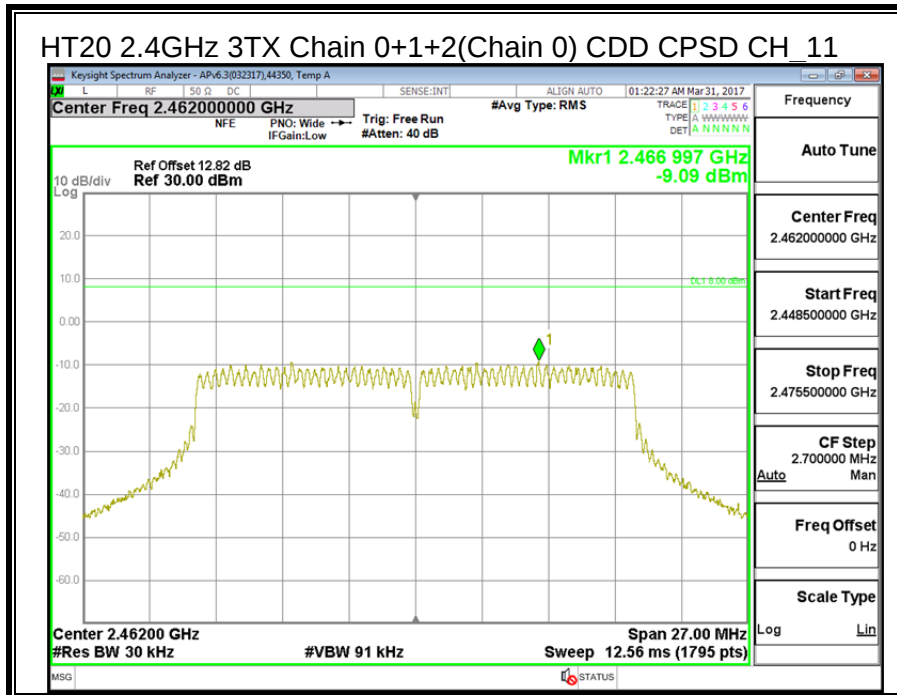


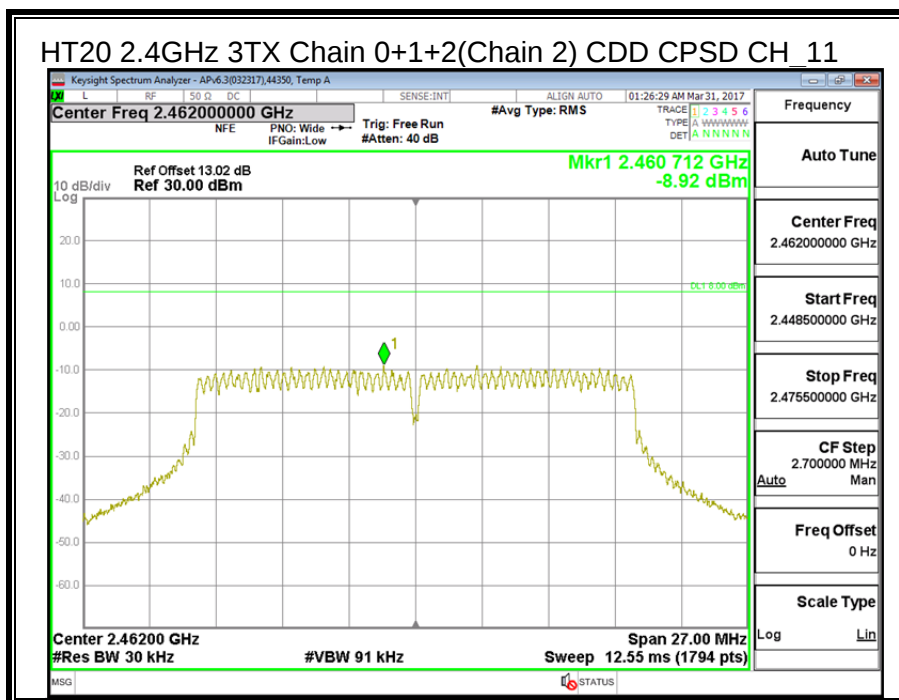












### 8.3.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

