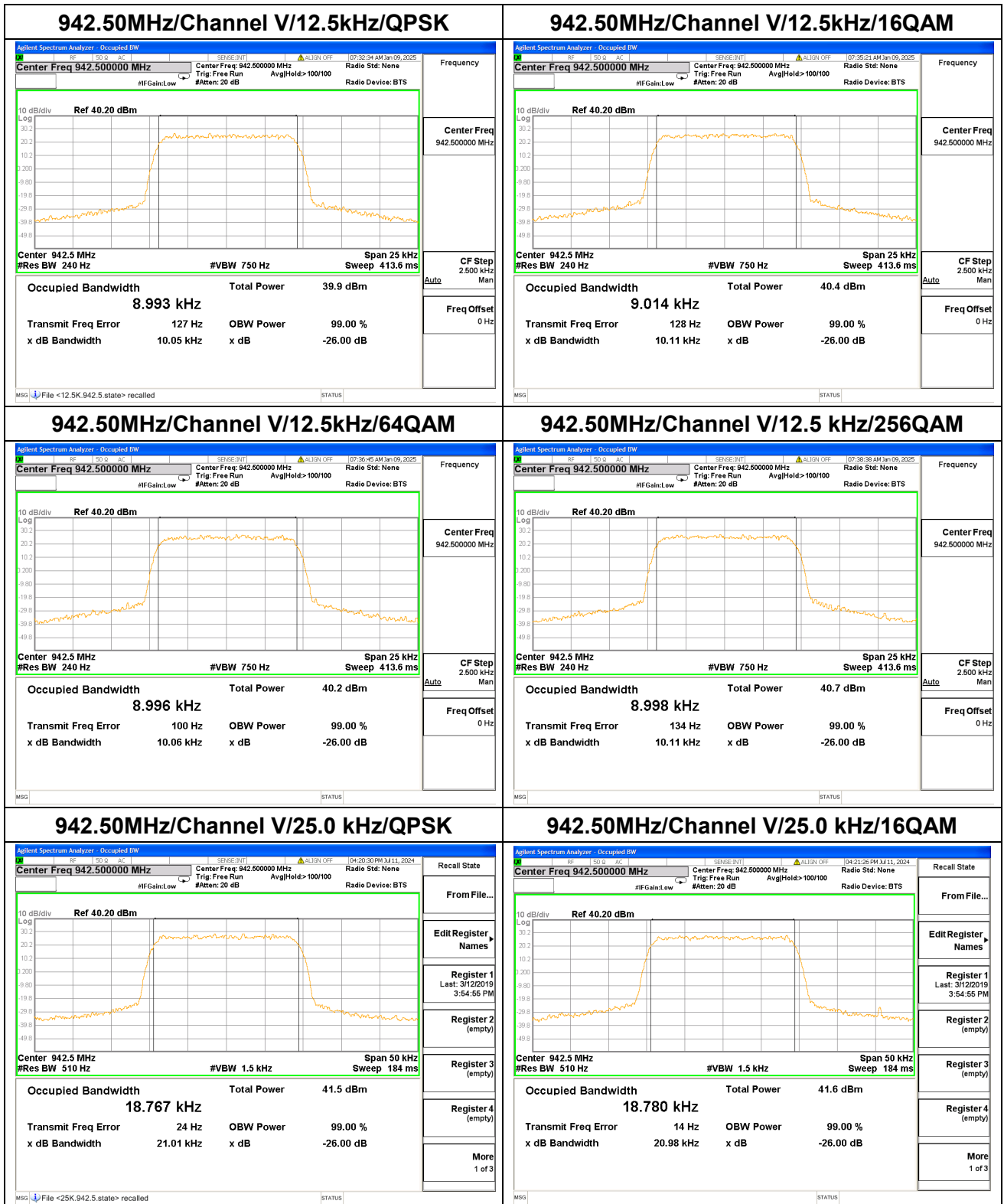
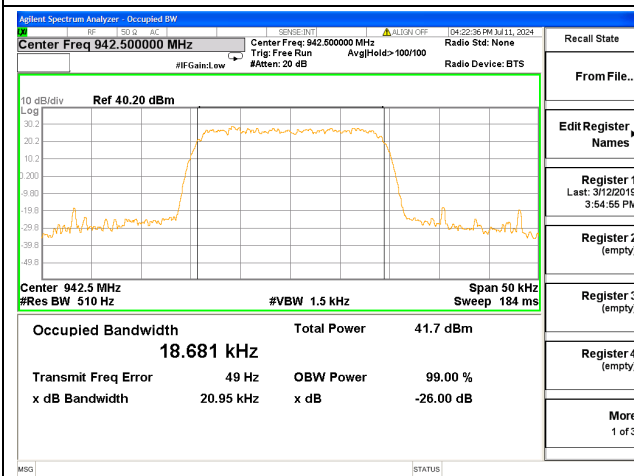
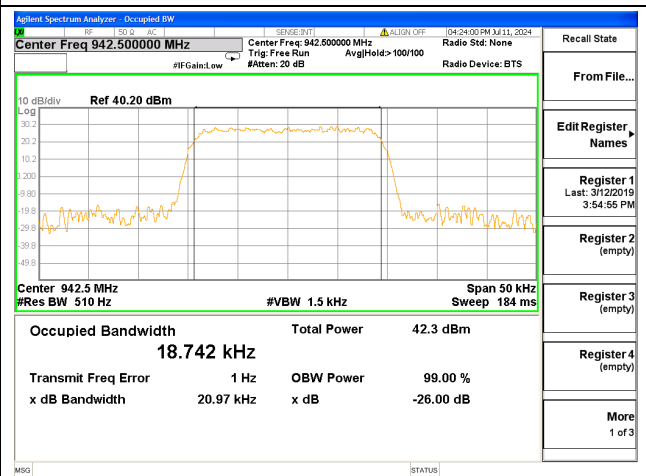
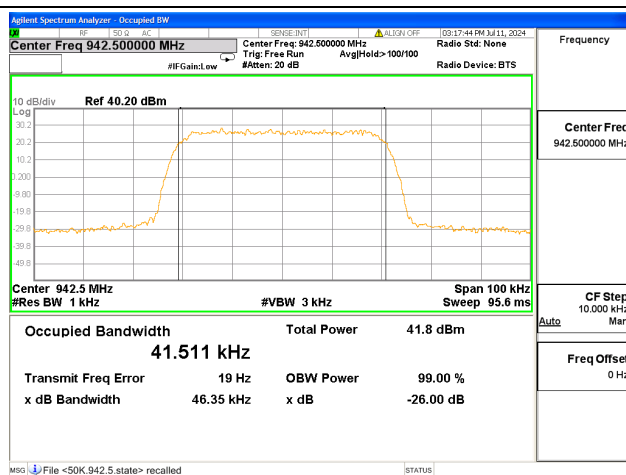
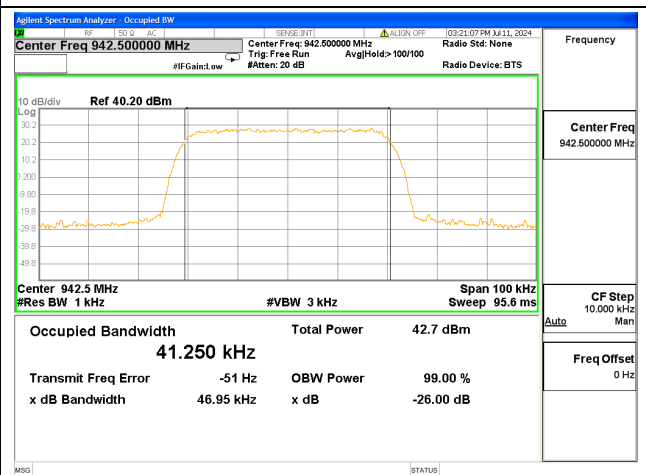
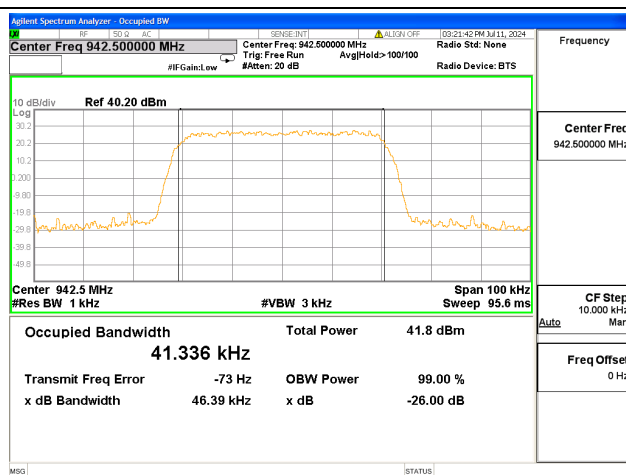
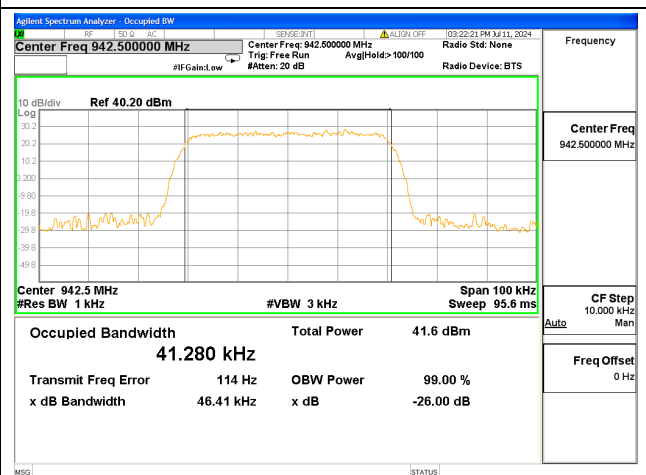
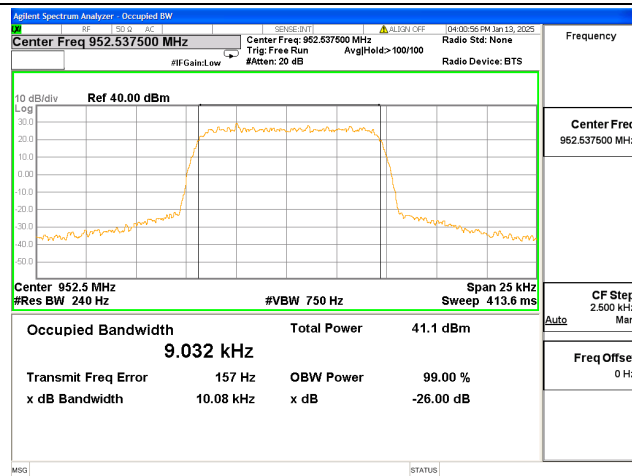
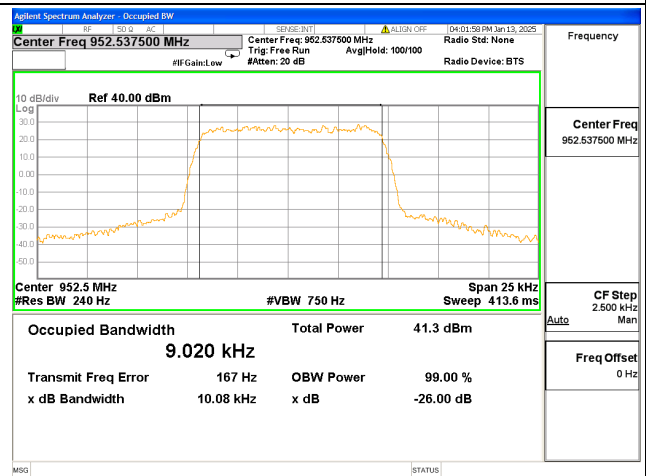
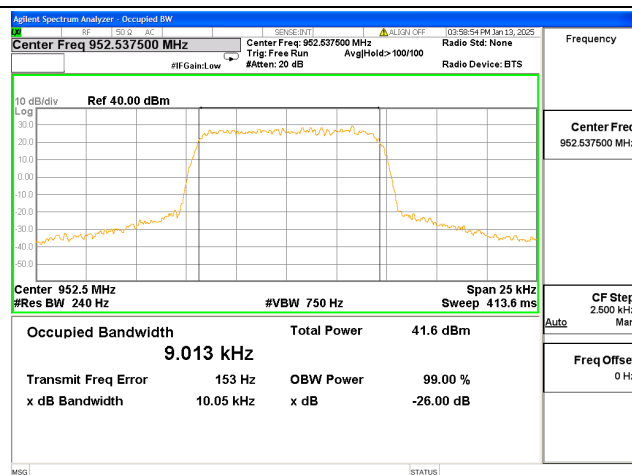
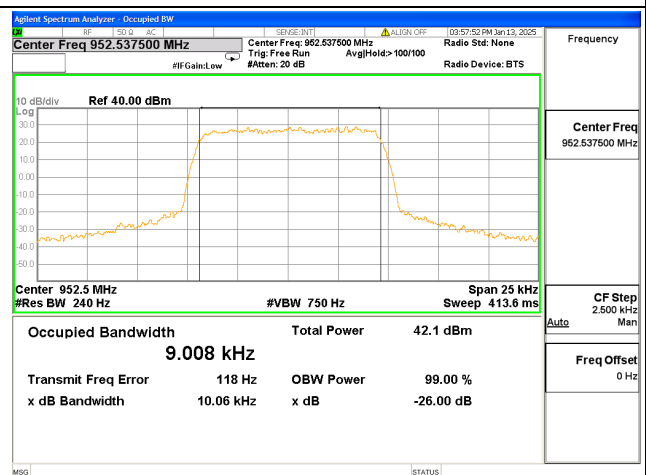
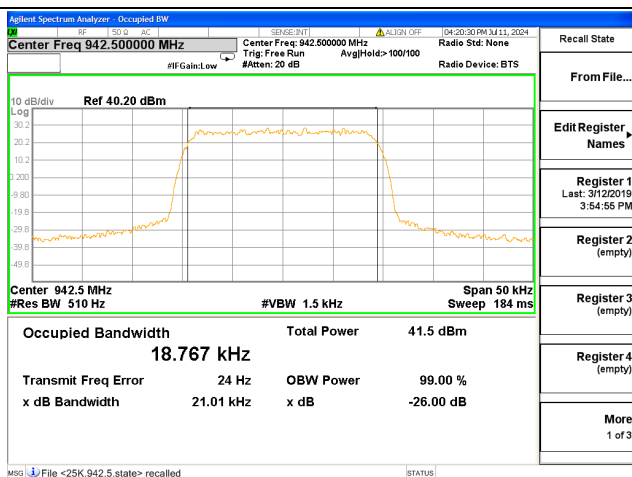
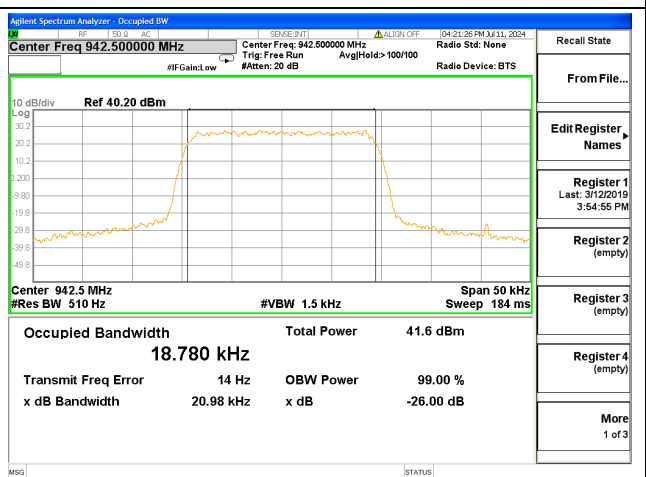


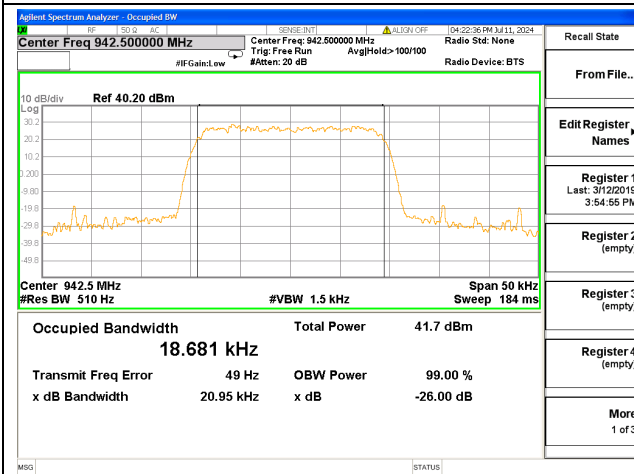
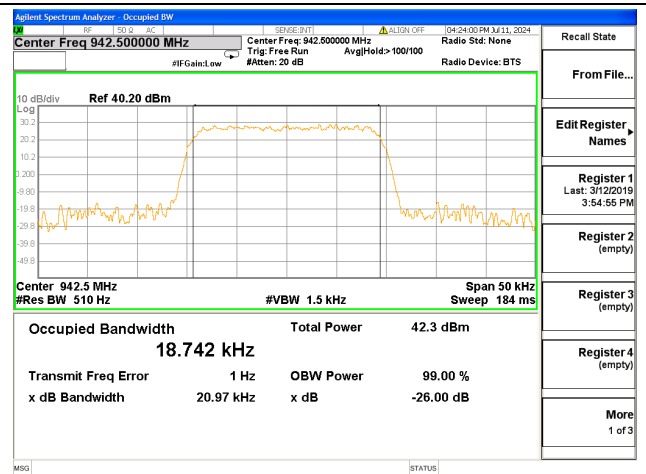
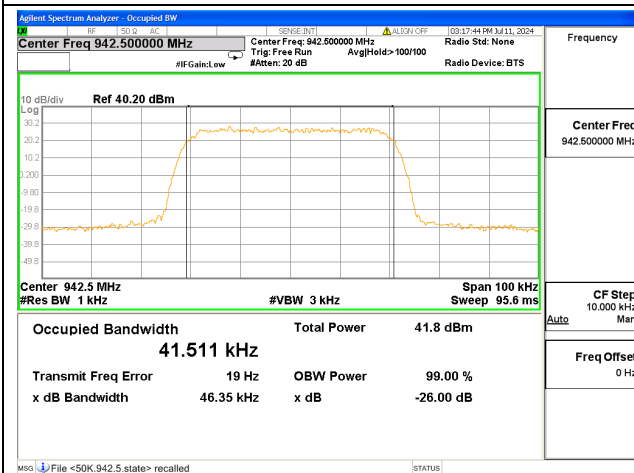
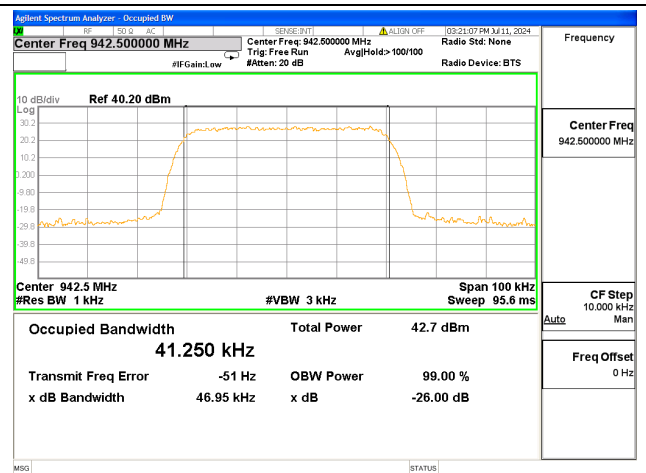
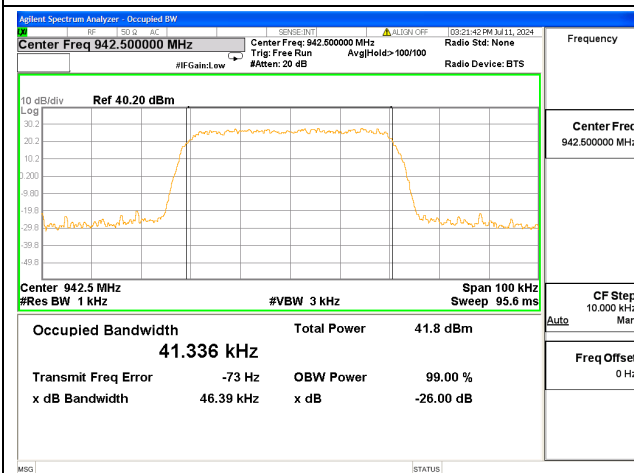
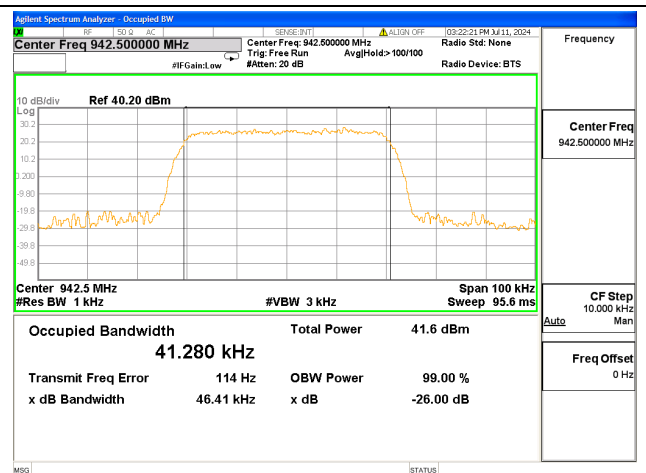


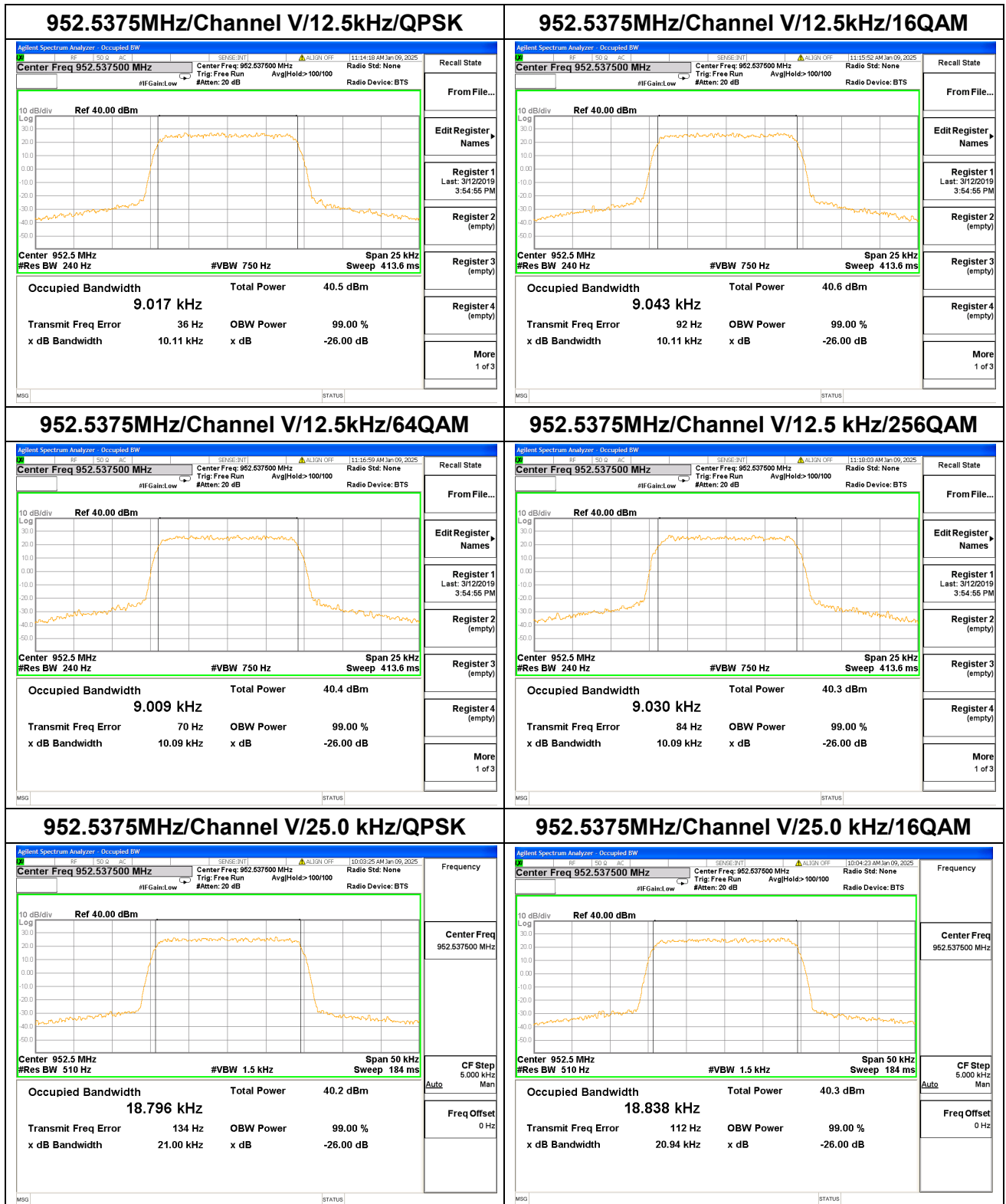
**942.50MHz/Channel V/25.0 kHz/64QAM****942.50MHz/Channel V/25.0 kHz/256QAM****942.50MHz/Channel V/50.0 kHz/QPSK****942.50MHz/Channel V/50.0 kHz/16QAM****942.50MHz/Channel V/50.0 kHz/64QAM****942.50MHz/Channel V/50.0 kHz/256QAM**

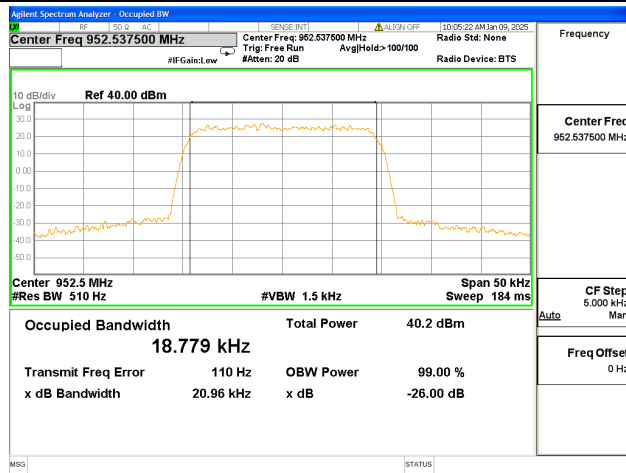
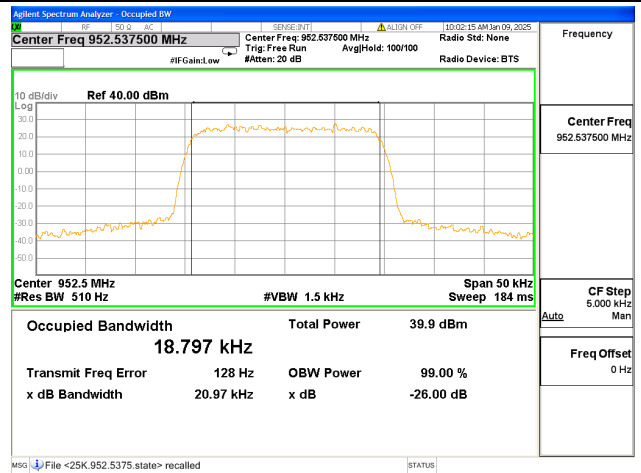
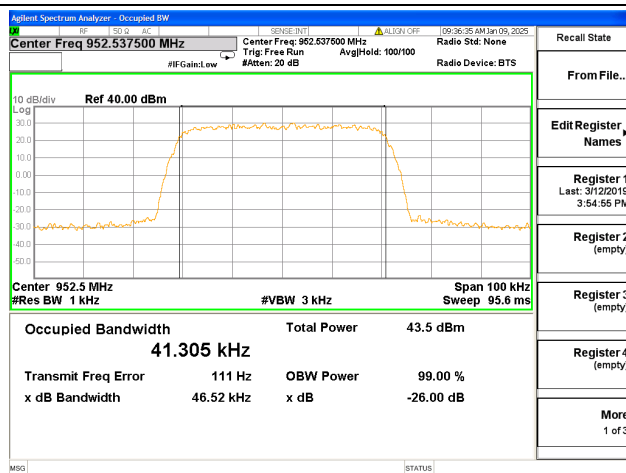
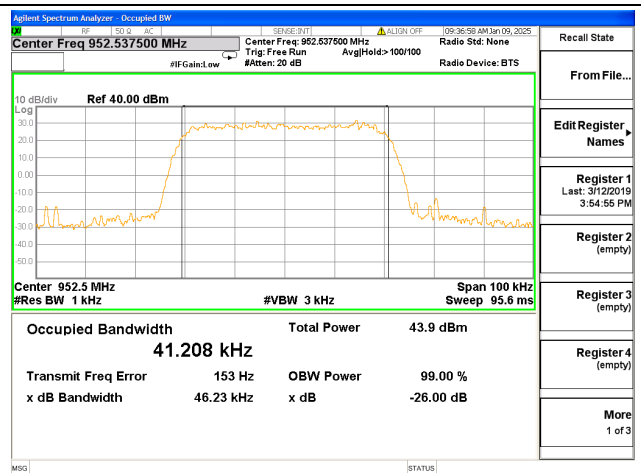
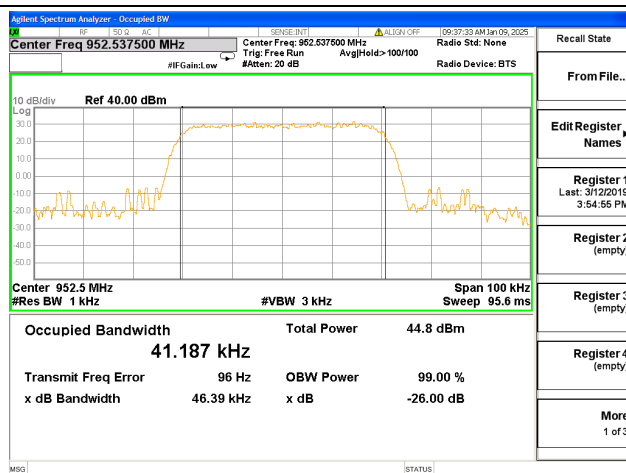
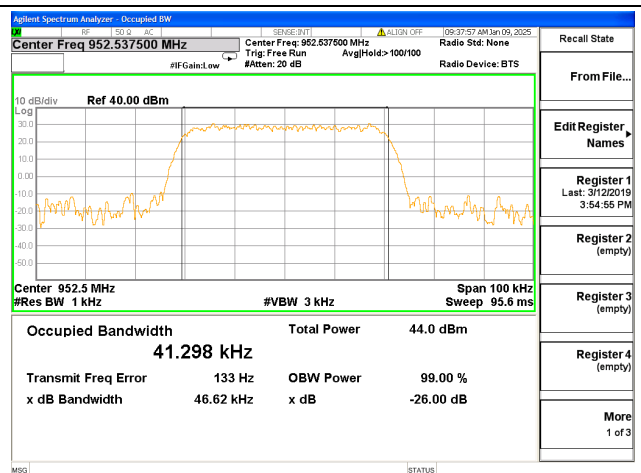


| 952.5375 MHz |                        |               |                         |
|--------------|------------------------|---------------|-------------------------|
| Tx Port      | Channel Bandwidth(kHz) | Emission Type | Occupied Bandwidth(kHz) |
| H            | 12.5                   | QPSK          | 9.032                   |
|              |                        | 16QAM         | 9.020                   |
|              |                        | 64QAM         | 9.013                   |
|              |                        | 256QAM        | 9.008                   |
|              | 25.0                   | QPSK          | 18.816                  |
|              |                        | 16QAM         | 18.811                  |
|              |                        | 64QAM         | 18.690                  |
|              |                        | 256QAM        | 18.772                  |
|              | 50.0                   | QPSK          | 41.236                  |
|              |                        | 16QAM         | 41.344                  |
|              |                        | 64QAM         | 41.730                  |
|              |                        | 256QAM        | 41.232                  |
|              |                        |               |                         |
| V            | 12.5                   | QPSK          | 9.017                   |
|              |                        | 16QAM         | 9.043                   |
|              |                        | 64QAM         | 9.009                   |
|              |                        | 256QAM        | 9.030                   |
|              | 25.0                   | QPSK          | 18.796                  |
|              |                        | 16QAM         | 18.838                  |
|              |                        | 64QAM         | 18.779                  |
|              |                        | 256QAM        | 18.797                  |
|              | 50.0                   | QPSK          | 41.305                  |
|              |                        | 16QAM         | 41.208                  |
|              |                        | 64QAM         | 41.187                  |
|              |                        | 256QAM        | 41.298                  |

**952.5375MHz/Channel H/12.5kHz/QPSK****952.5375MHz/Channel H/12.5kHz/16QAM****952.5375MHz/Channel H/12.5kHz/64QAM****952.5375MHz/Channel H/12.5 kHz/256QAM****952.5375MHz/Channel H/25.0 kHz/QPSK****952.5375MHz/Channel H/25.0 kHz/16QAM**

**952.5375MHz/Channel H/25.0 kHz/64QAM****952.5375MHz/Channel H/25.0 kHz/256QAM****952.5375MHz/Channel H/50.0 kHz/QPSK****952.5375MHz/Channel H/50.0 kHz/16QAM****952.5375MHz/Channel H/50.0 kHz/64QAM****952.5375MHz/Channel H/50.0 kHz/256QAM**



**952.5375MHz/Channel V/25.0 kHz/64QAM****952.5375MHz/Channel V/25.0 kHz/256QAM****952.5375MHz/Channel V/50.0 kHz/QPSK****952.5375MHz/Channel V/50.0 kHz/16QAM****952.5375MHz/Channel V/50.0 kHz/64QAM****952.5375MHz/Channel V/50.0 kHz/256QAM**

## 2.3. Spurious Emissions At Antenna Terminals

### 2.3.1. Test Requirement

According to FCC section 2.1051, 24.131 and 24.133(a) section

The authorized bandwidth of narrowband PCS channels will be 10 kHz for 12.5 kHz channels and 45 kHz for 50 kHz channels. For aggregated adjacent channels, a maximum authorized bandwidth of 5 kHz less than the total aggregated channel width is permitted.

For transmitters authorized a bandwidth greater than 10 kHz:

1. On any frequency outside the authorized bandwidth and removed from the edge of the authorized bandwidth by a displacement frequency ( $f_d$  in kHz) of up to and including 40 kHz: at least  $116 \log_{10} ((f_d + 10)/6.1)$  decibels or  $50 + 10 \log_{10} (P)$  decibels or 70 decibels, whichever is the lesser attenuation;
2. On any frequency outside the authorized bandwidth and removed from the edge of the authorized bandwidth by a displacement frequency ( $f_d$  in kHz) of more than 40 kHz: at least  $43 + 10 \log_{10} (P)$  decibels or 80 decibels, whichever is the lesser attenuation;

For transmitters authorized a bandwidth of 10 kHz:

1. On any frequency outside the authorized bandwidth and removed from the edge of the authorized bandwidth by a displacement frequency ( $f_d$  in kHz) of up to and including 20 kHz: at least  $116 \times \log_{10} ((f_d + 5)/3.05)$  decibels or  $50 + 10 \times \log_{10} (P)$  decibels or 70 decibels, whichever is the lesser attenuation;
2. On any frequency outside the authorized bandwidth and removed from the edge of the authorized bandwidth by a displacement frequency ( $f_d$  in kHz) of more than 20 kHz: at least  $43 + 10 \log_{10} (P)$  decibels or 80 decibels, whichever is the lesser attenuation.

According to FCC section 2.1051, 101.111 section

When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a 12.5 KHz bandwidth, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter ( $P$ ) in accordance with the following schedule:

- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency ( $f_d$  in KHz) of more than 2.5 KHz up to and including 6.25 KHz: At least  $53 \log_{10} (f_d/2.5)$  decibels;
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency ( $f_d$  in KHz) of more than 6.25 KHz up to and including 9.5 KHz: At least  $103 \log_{10} (f_d/3.9)$  decibels;
- (iii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency ( $f_d$  in KHz) of more than 9.5 KHz up to and including 15 KHz: At least  $157 \log_{10}$



( $f_d/5.3$ ) decibels; and

- (iv) On any frequency removed from the center of the authorized bandwidth by a displacement frequency greater than 15 KHz: At least 50 plus  $10 \log_{10}(P)$  or 70 decibels, whichever is the lesser attenuation.

When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a bandwidth greater than 12.5 KHz, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter (P) in accordance with the following schedule:

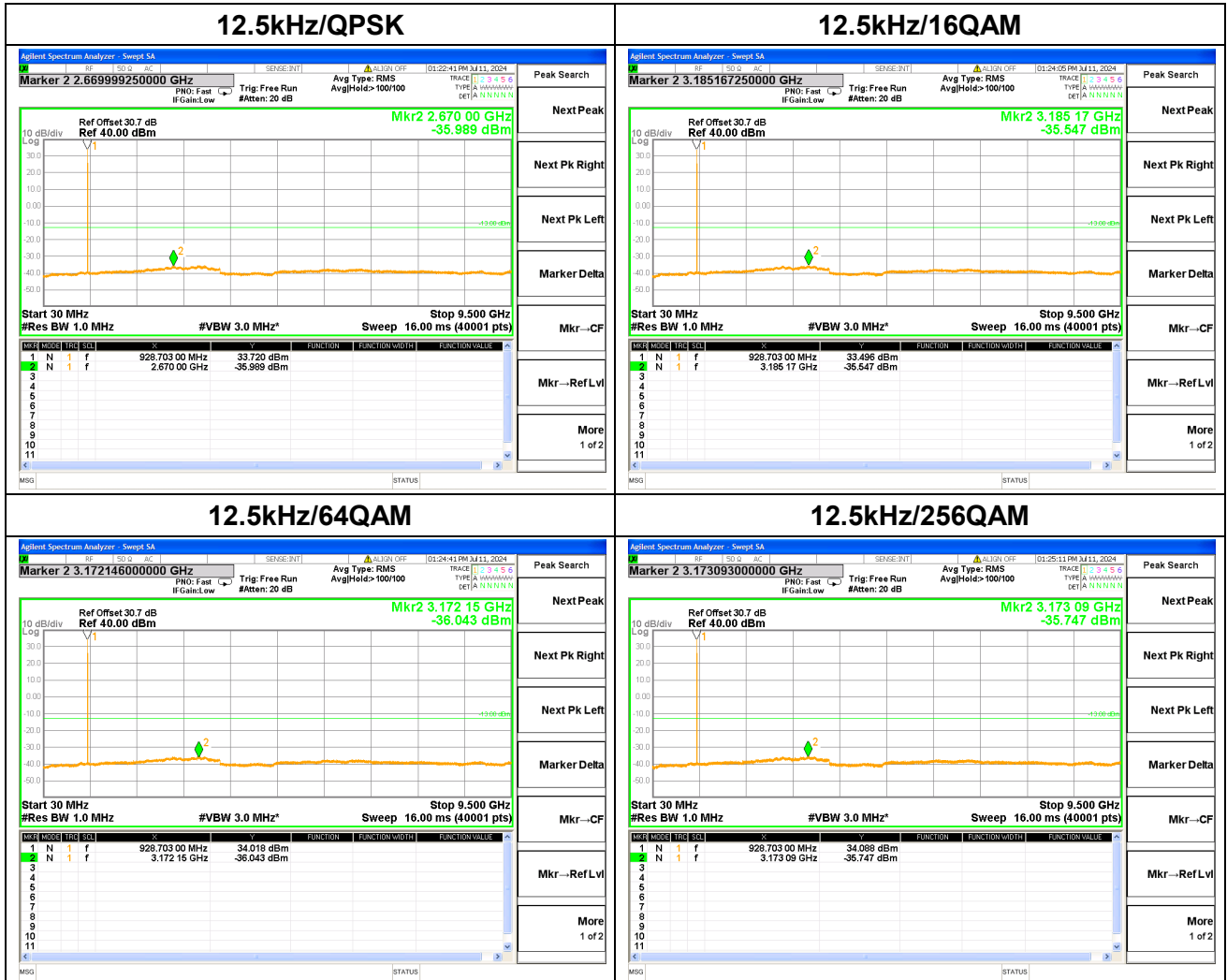
- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency ( $f_d$  in KHz) of more than 5 KHz up to and including 10 KHz: At least  $83 \log_{10} (f_d/5)$  decibels;
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency ( $f_d$  in KHz) of more than 10 KHz up to and including 250 percent of the authorized bandwidth: At least  $116 \log_{10} (f_d/6.1)$  decibels or 50 plus  $10 \log_{10} (P)$  or 70 decibels, whichever is the lesser attenuation; and
- (iii) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth: At least 43 plus  $10 \log_{10} (\text{output power in watts})$  decibels or 80 decibels, whichever is the lesser attenuation.

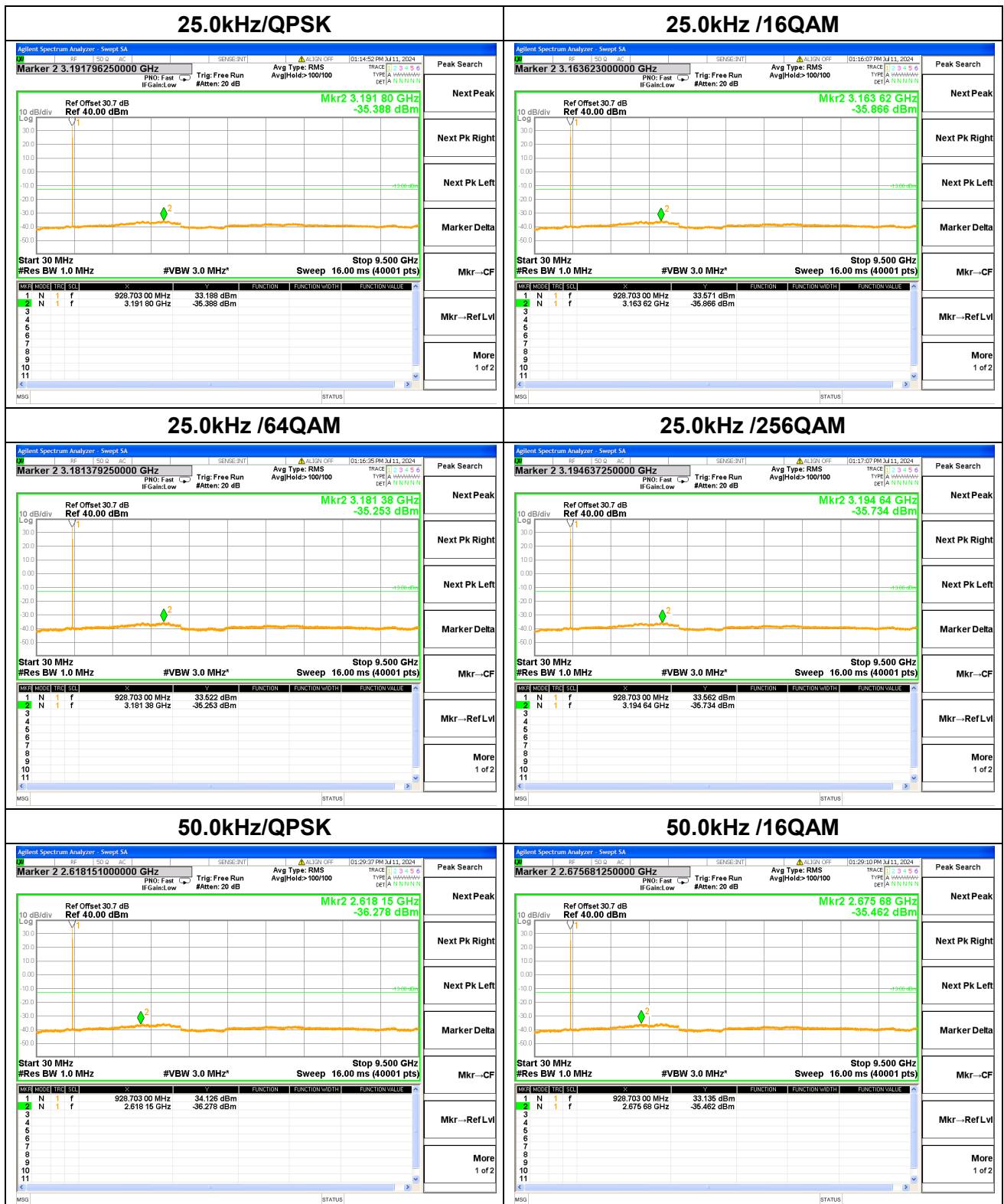


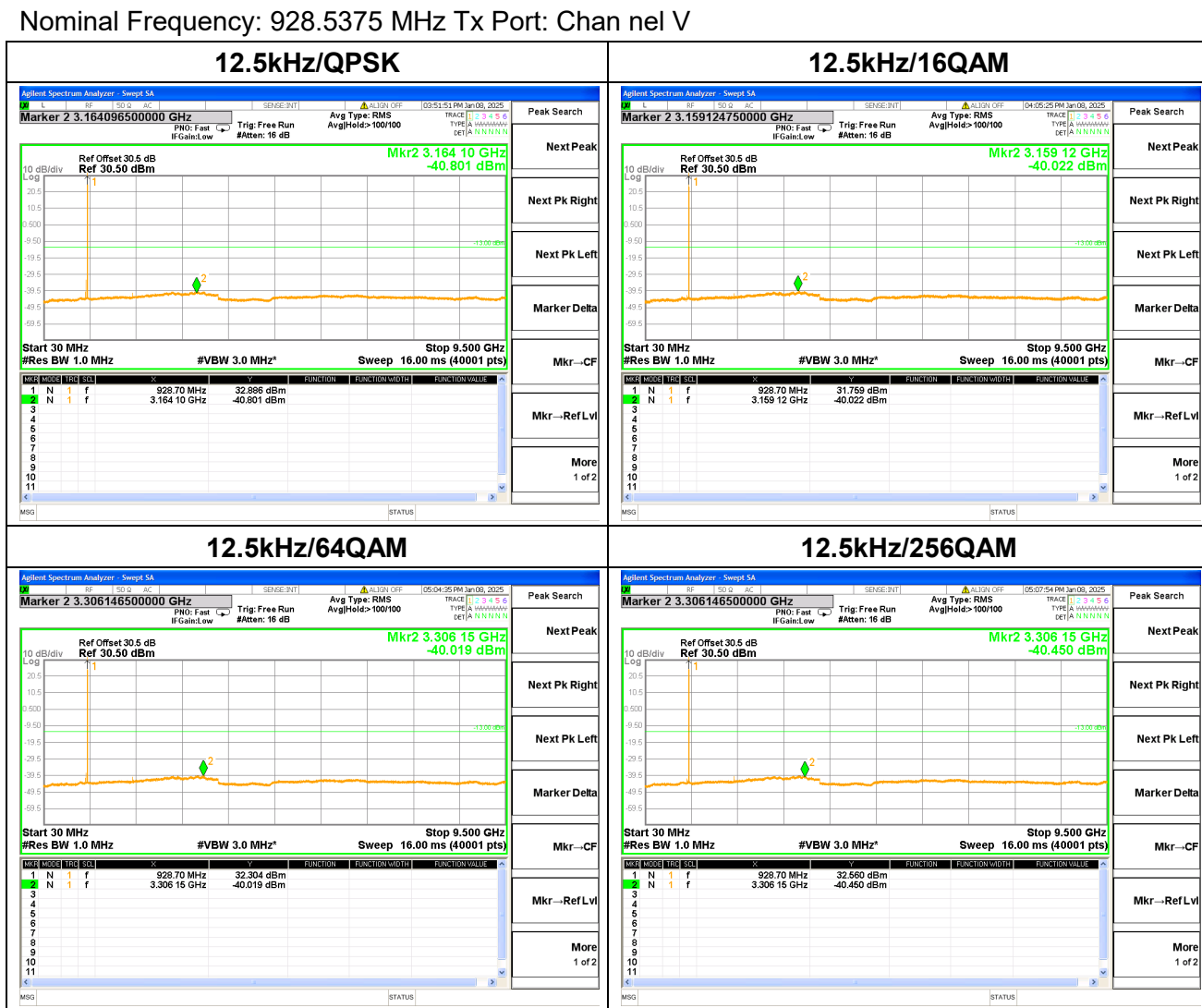


### 2.3.2. Test Result

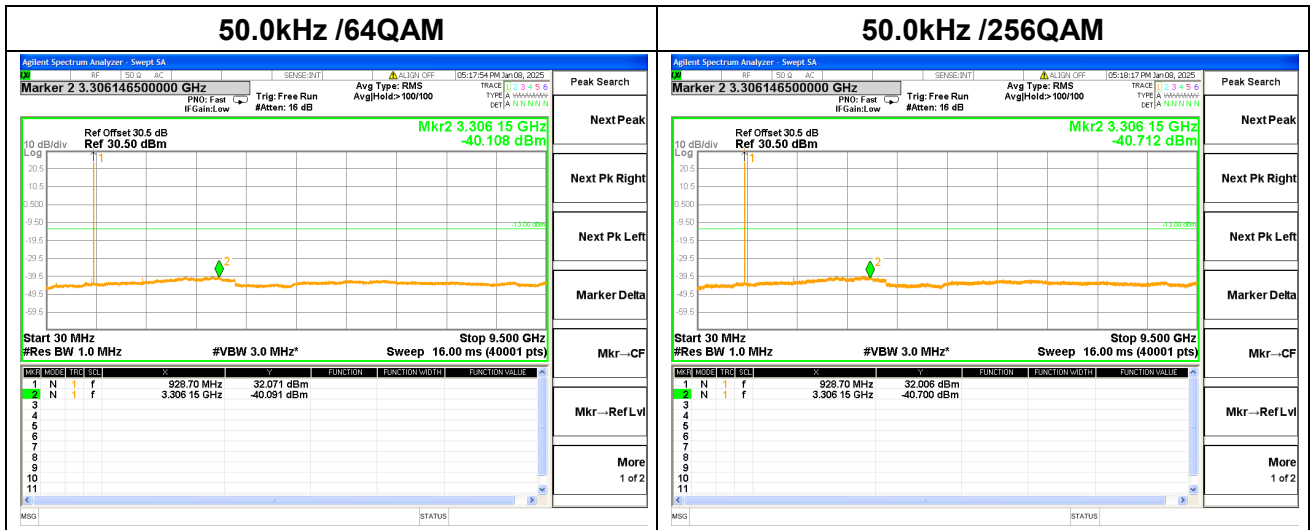
Nominal Frequency: 928.5375 MHz Tx Port: Channel H



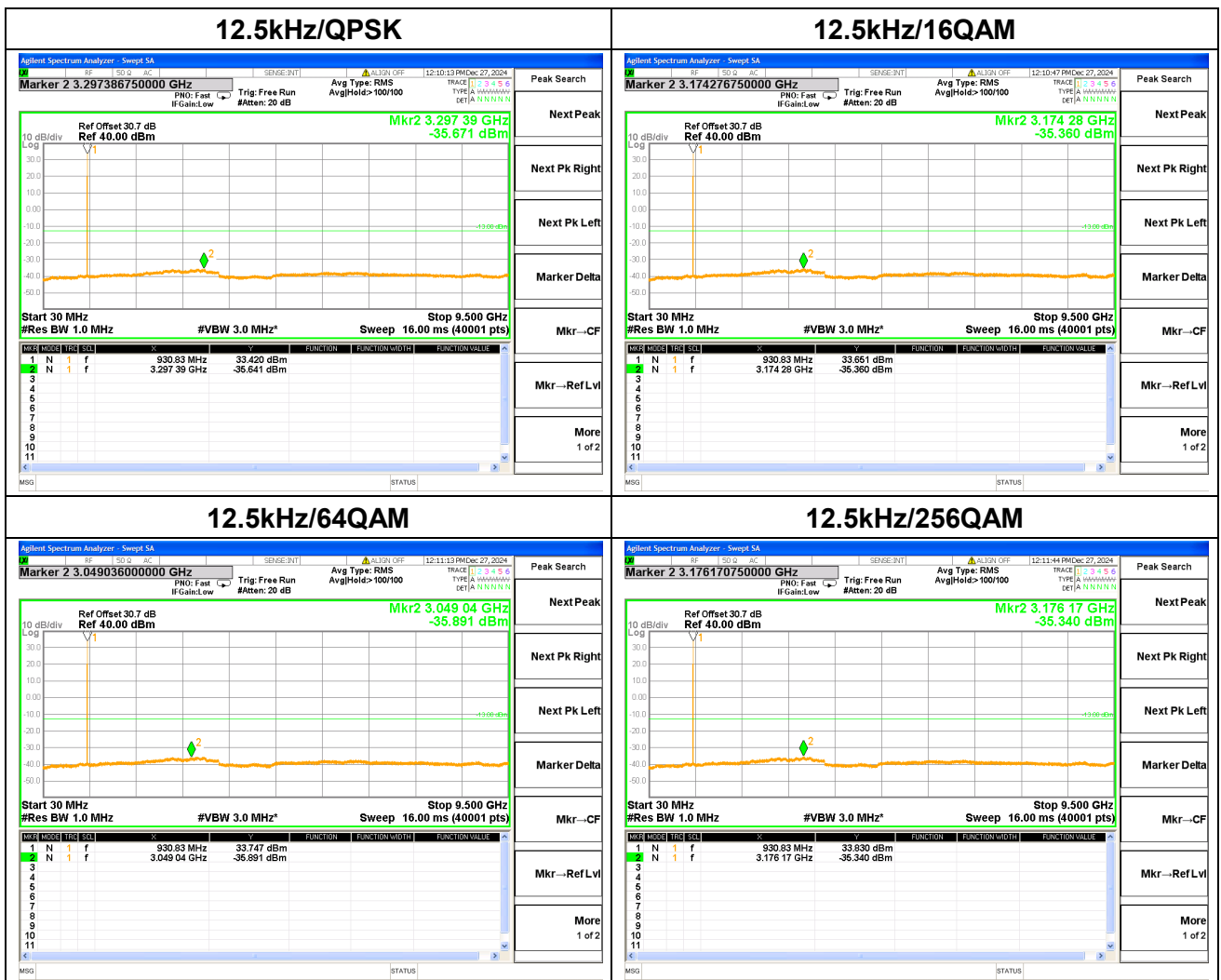






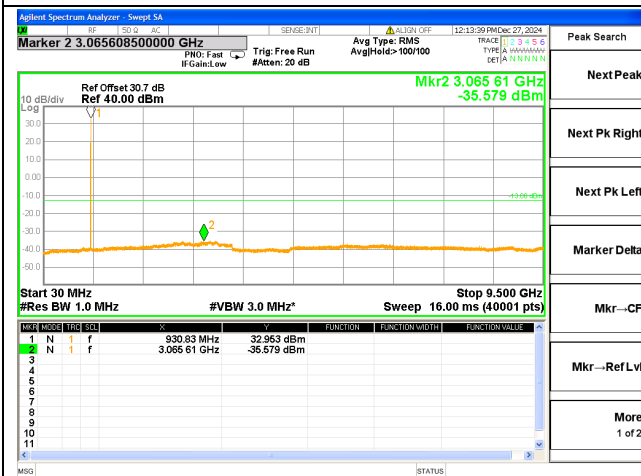


Nominal Frequency: 930.50 MHz Tx Port: Channel H

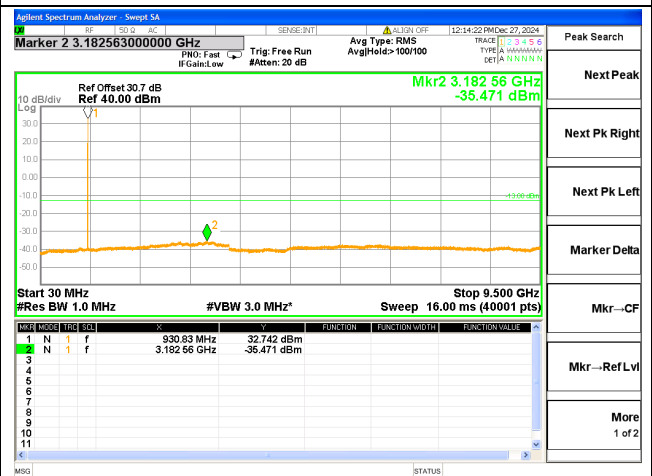




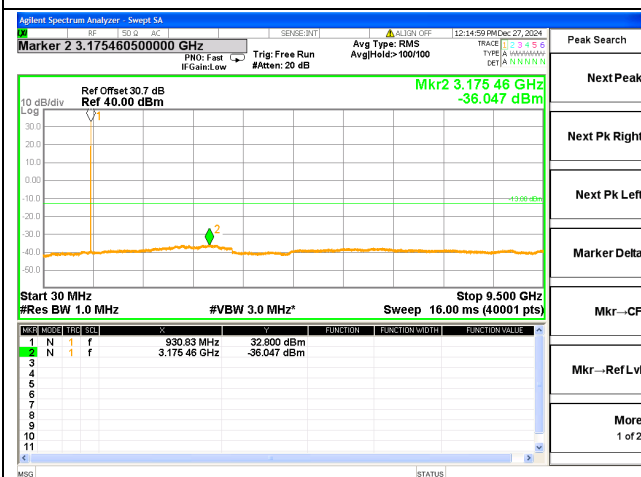
## 25.0kHz/QPSK



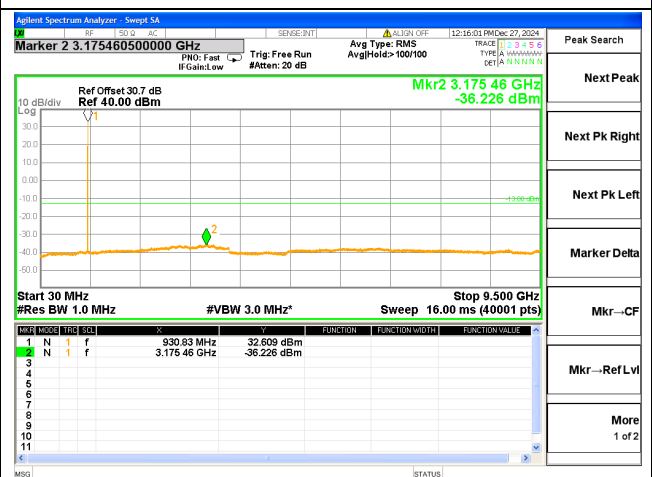
## 25.0kHz /16QAM



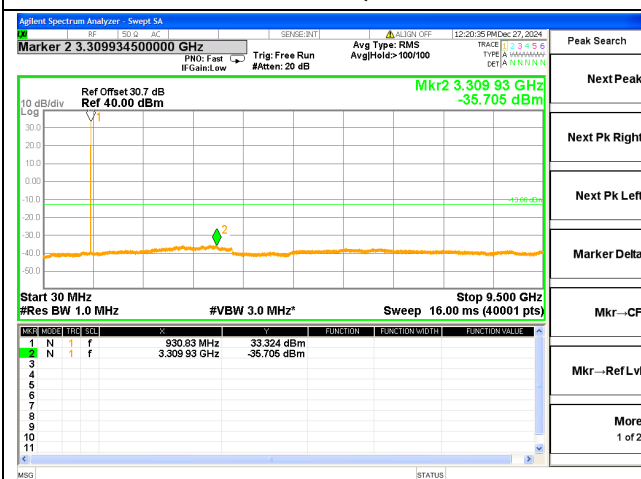
## 25.0kHz /64QAM



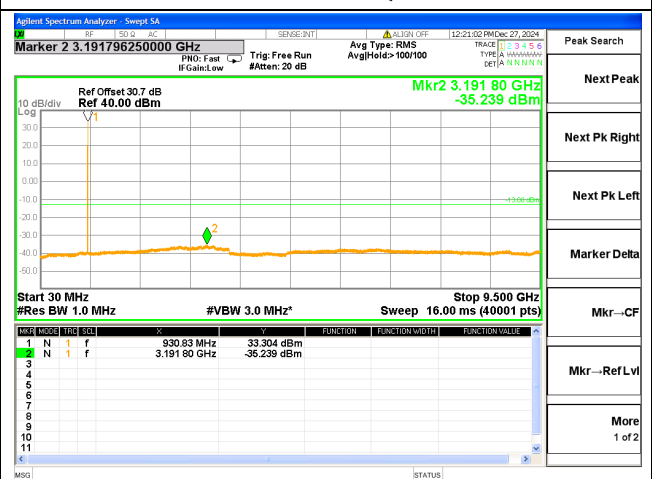
## 25.0kHz /256QAM

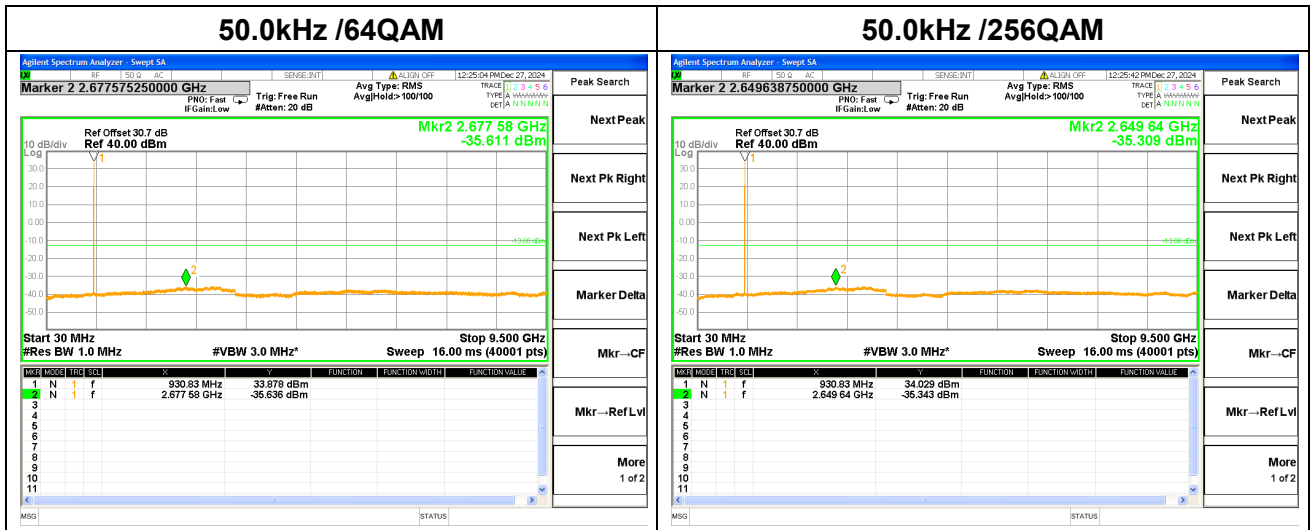


## 50.0kHz/QPSK

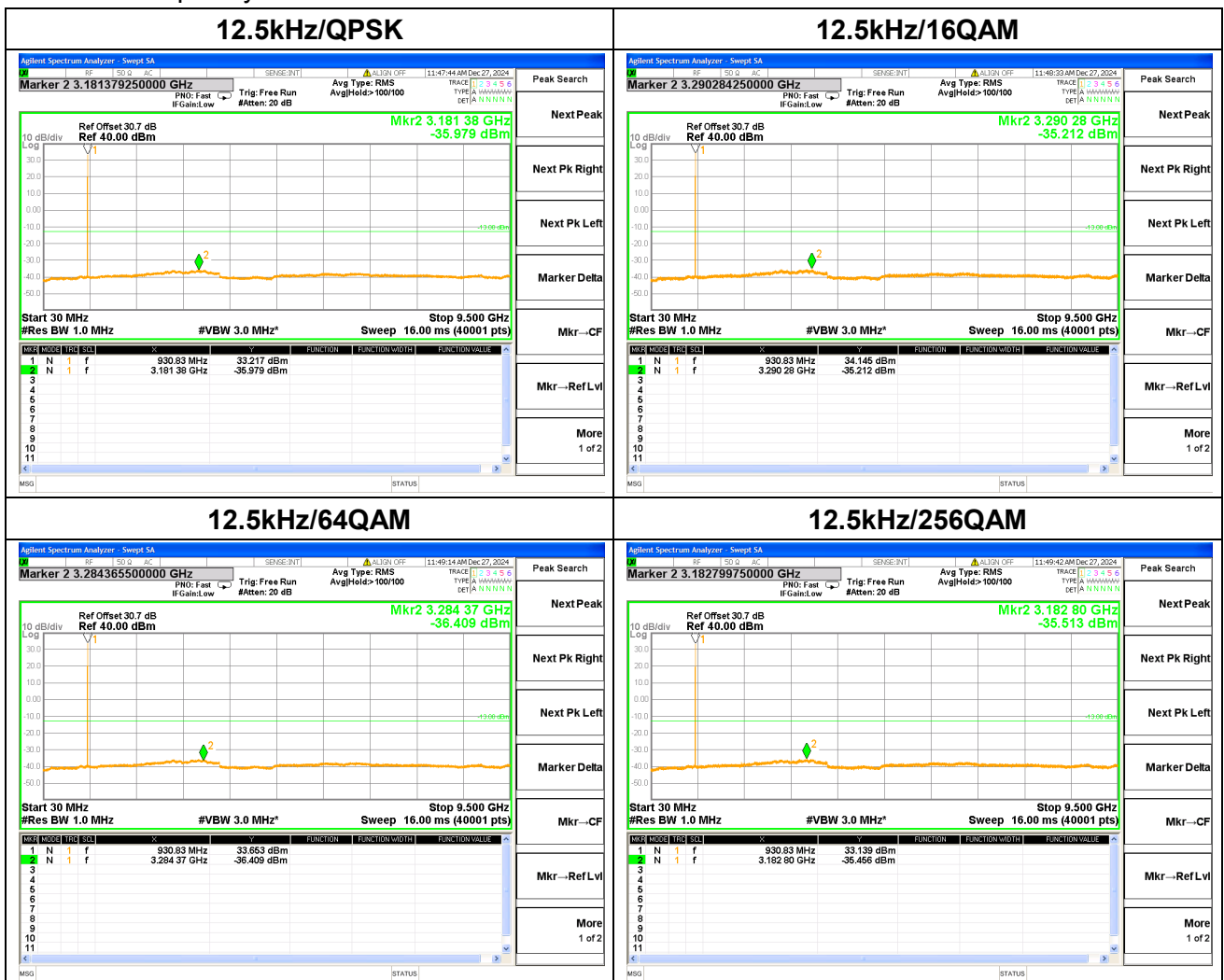


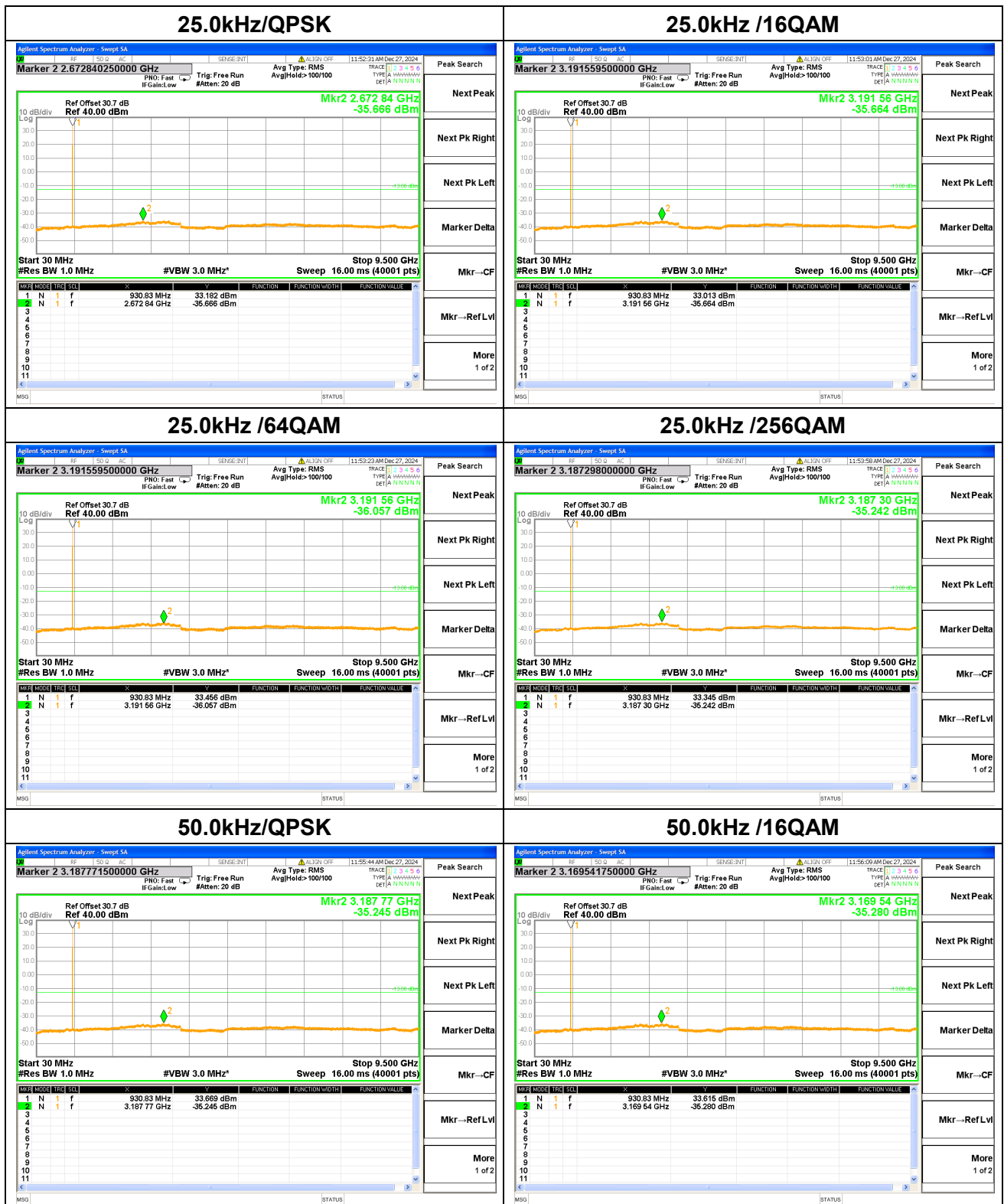
## 50.0kHz /16QAM

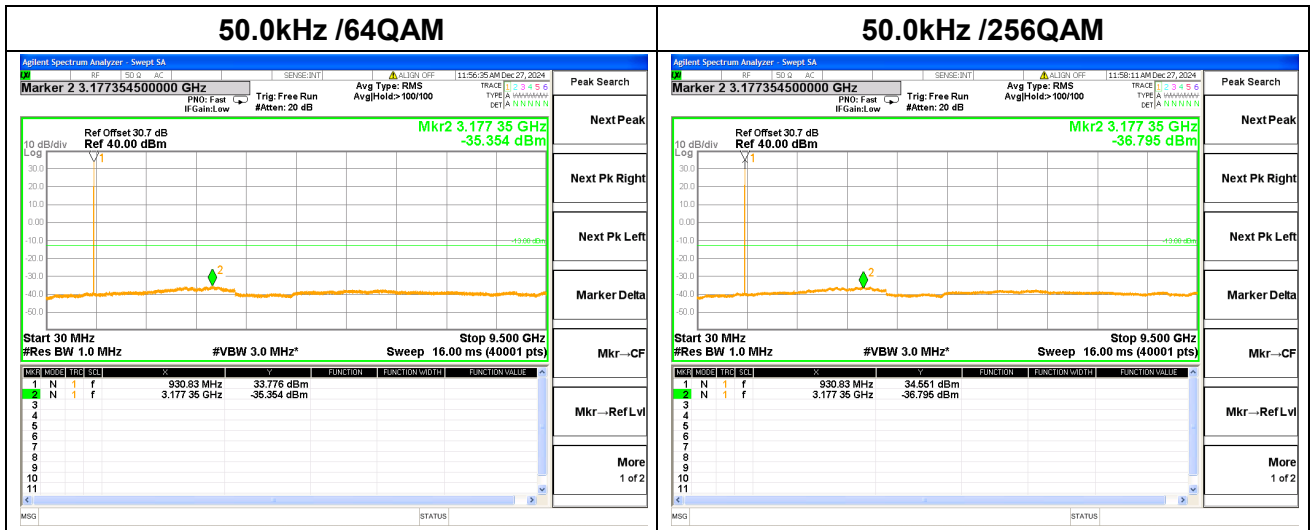




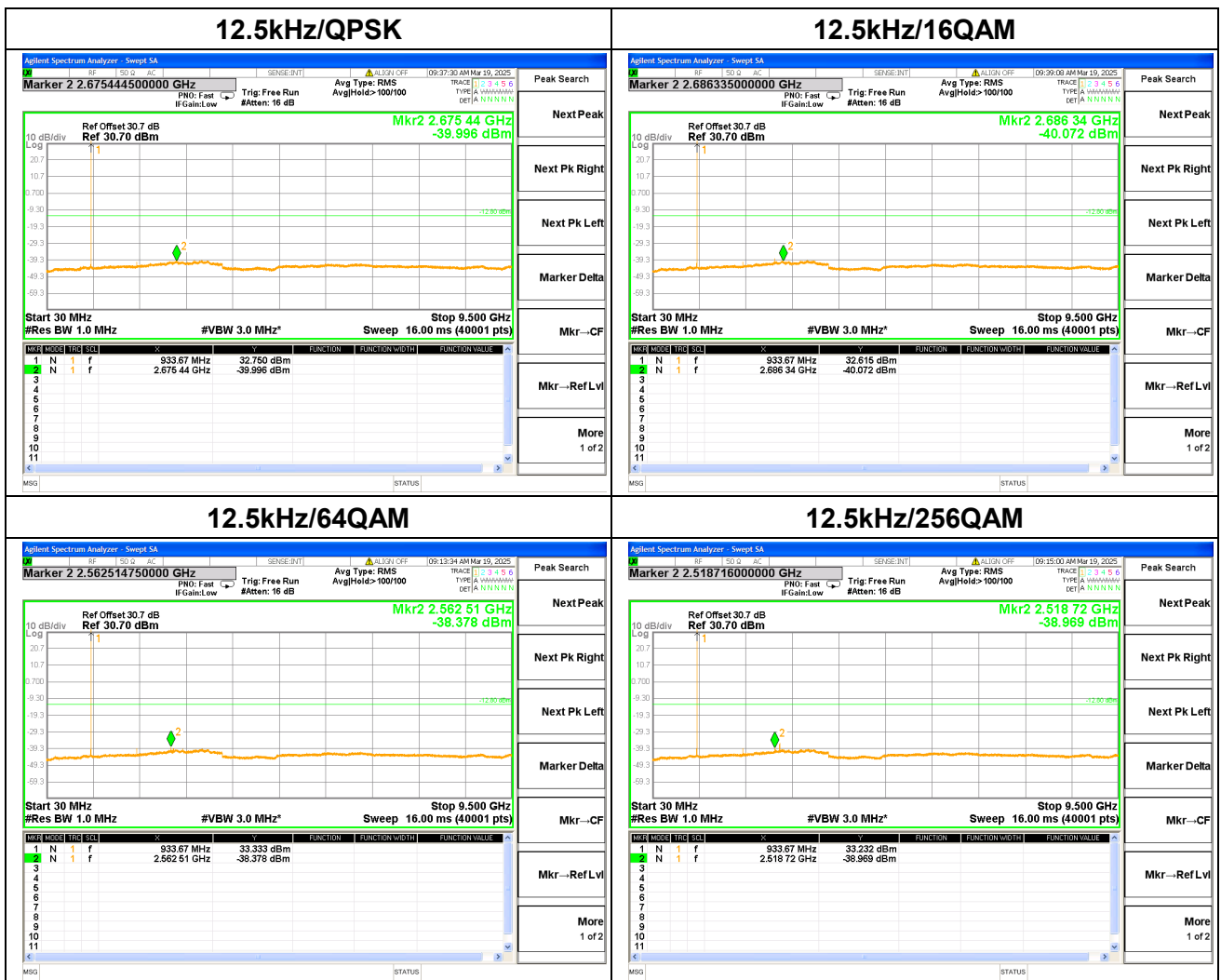
Nominal Frequency: 930.50 MHz Tx Port: Chan nel V



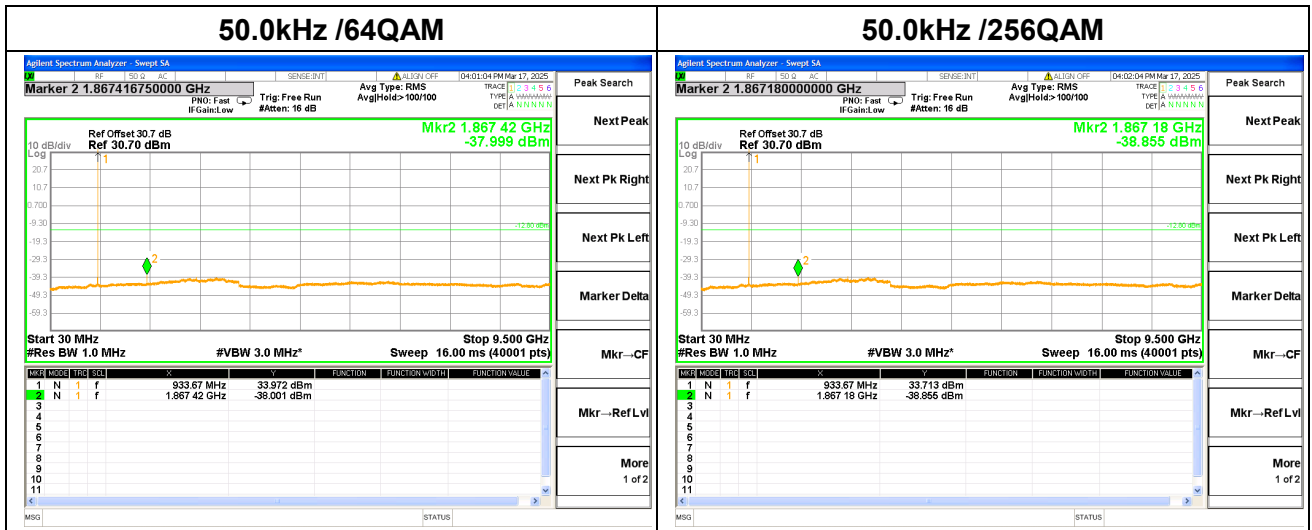




Nominal Frequency: 933.50 MHz Tx Port: Channel H







Nominal Frequency: 933.50 MHz Tx Port: Chan nel V

