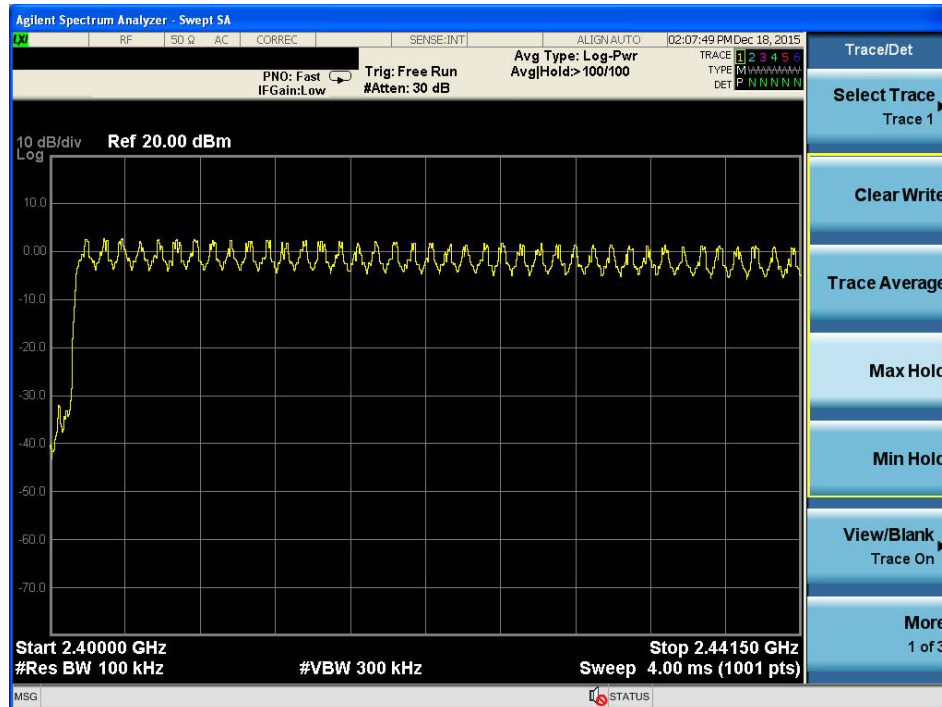




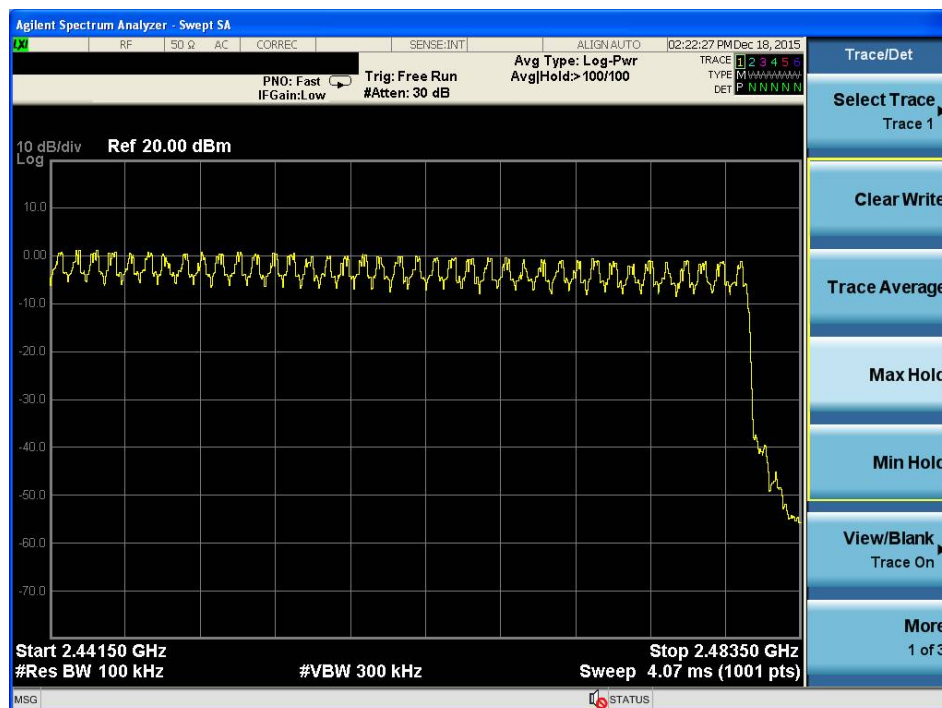
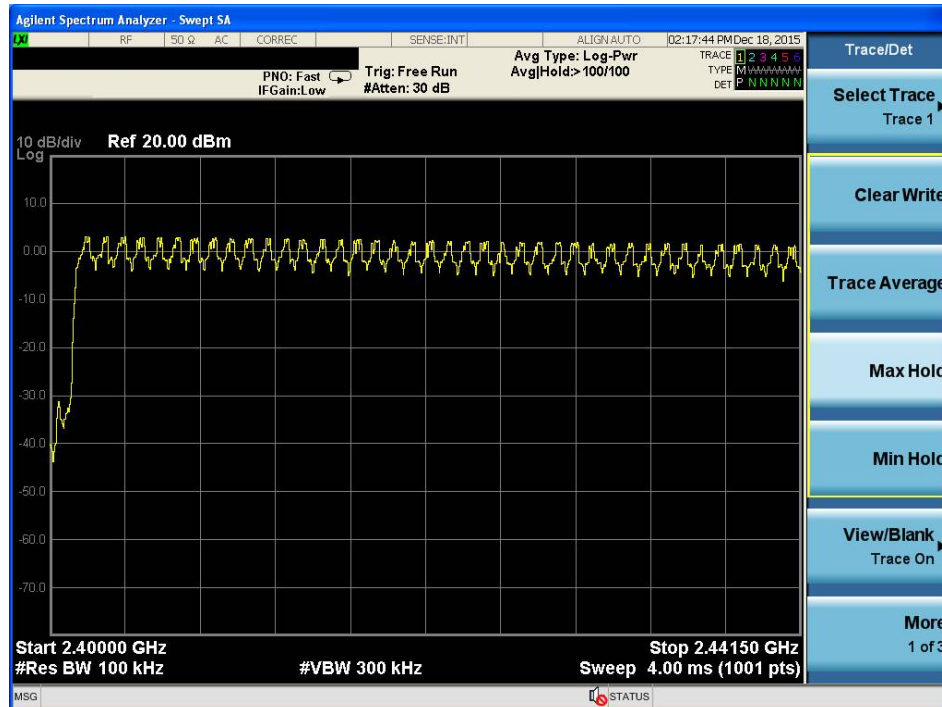


Modulation Standard:  $\pi/4$ -DQPSK (2Mbps)



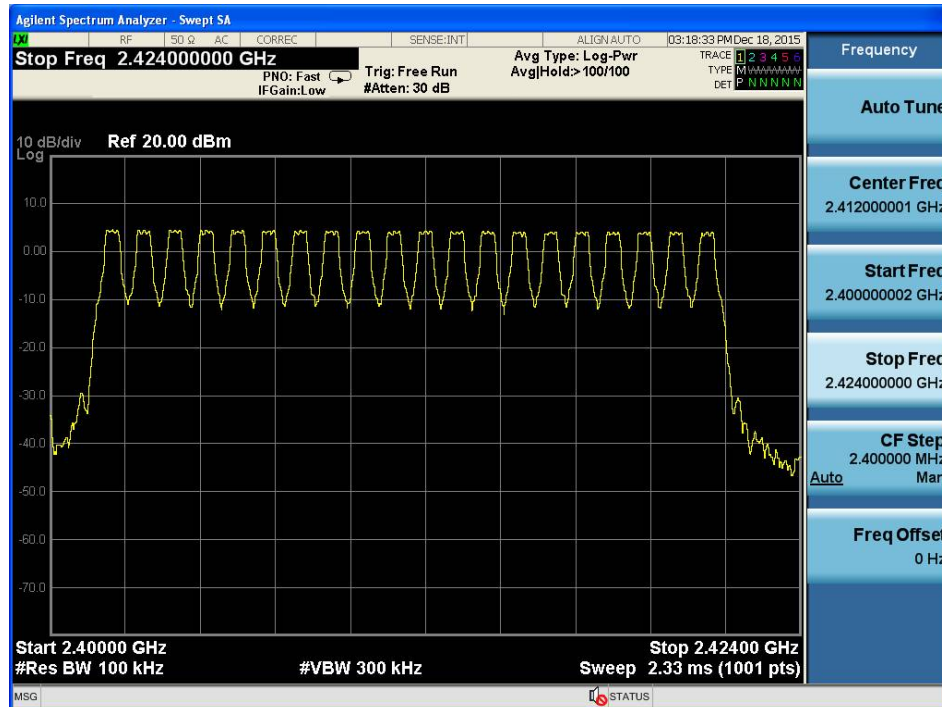


Modulation Standard: 8DPSK (3Mbps)

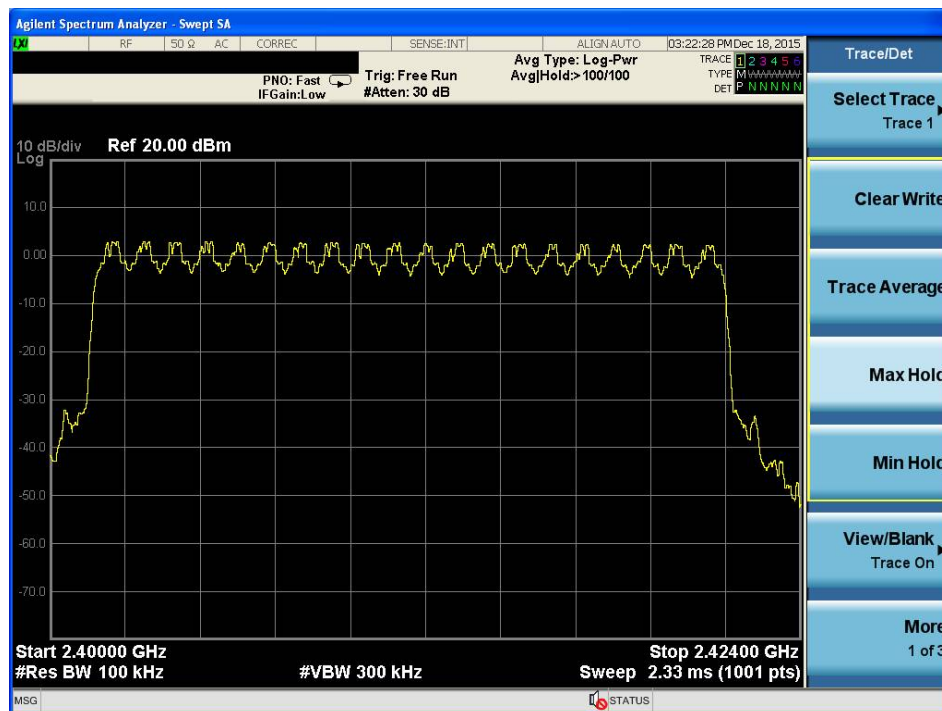




AFH Mode:  
Modulation Standard: GFSK (1Mbps)

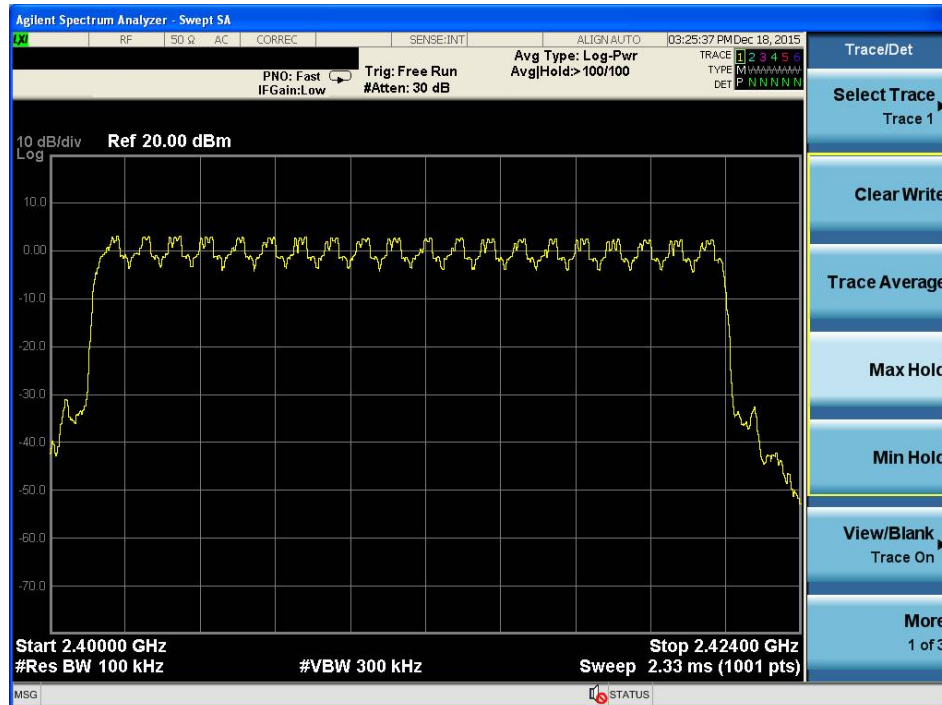


Modulation Standard:  $\pi/4$ -DQPSK (2Mbps)





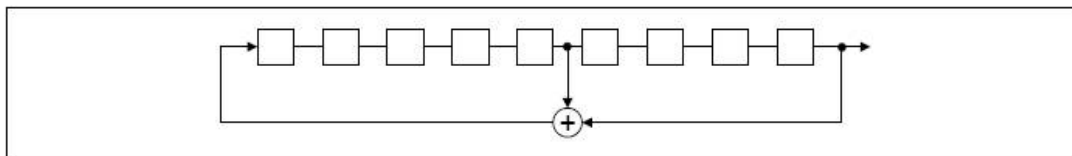
Modulation Standard: 8DPSK (3Mbps)



## 12. Pseudorandom Frequency Hopping Sequence

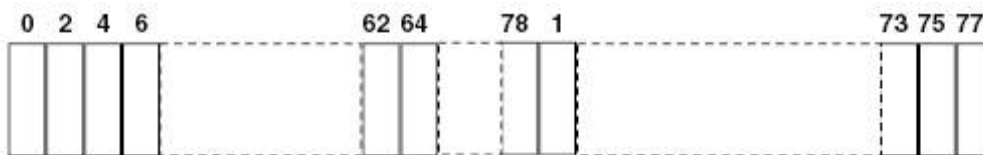
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONES; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence:  $2^9 - 1 = 511$  bits
- Longest sequence of zeros: 8 (non-inverted signal)



*Linear Feedback Shift Register for Generation of the PRBS sequence*

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

## 13. Maximum Peak Output Power

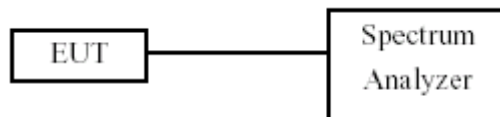
### 13.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

### 13.2 Test Procedures

- The transmitter output was connected to spectrum analyzer.
- Set RBW of spectrum analyzer to 3 MHz and VBW to 3 MHz.
- The peak output power was measured and recorded.

### 13.3 Test Setup Layout





### 13.4 Test Result and Data

Test Date: Dec. 17, 2015

Temperature: 20 °C

Atmospheric pressure: 1010 hPa

Humidity: 60 %

| Modulation Type        | Channel | Frequency (MHz) | Output Power (dBm) | Output Power (mW) |
|------------------------|---------|-----------------|--------------------|-------------------|
| GFSK (1Mbps)           | 00      | 2402            | 4.266              | 2.67              |
|                        | 39      | 2441            | 3.816              | 2.41              |
|                        | 78      | 2480            | 3.485              | 2.23              |
| $\pi/4$ -DQPSK (2Mbps) | 00      | 2402            | 3.500              | 2.24              |
|                        | 39      | 2441            | 3.201              | 2.09              |
|                        | 78      | 2480            | 2.927              | 1.96              |
| 8DPSK (3Mbps)          | 00      | 2402            | 3.414              | 2.19              |
|                        | 39      | 2441            | 2.837              | 1.92              |
|                        | 78      | 2480            | 2.650              | 1.84              |







Modulation Standard: GFSK (1Mbps)  
Channel: 78



Modulation Standard:  $\pi/4$ -DQPSK (2Mbps)  
Channel: 00

