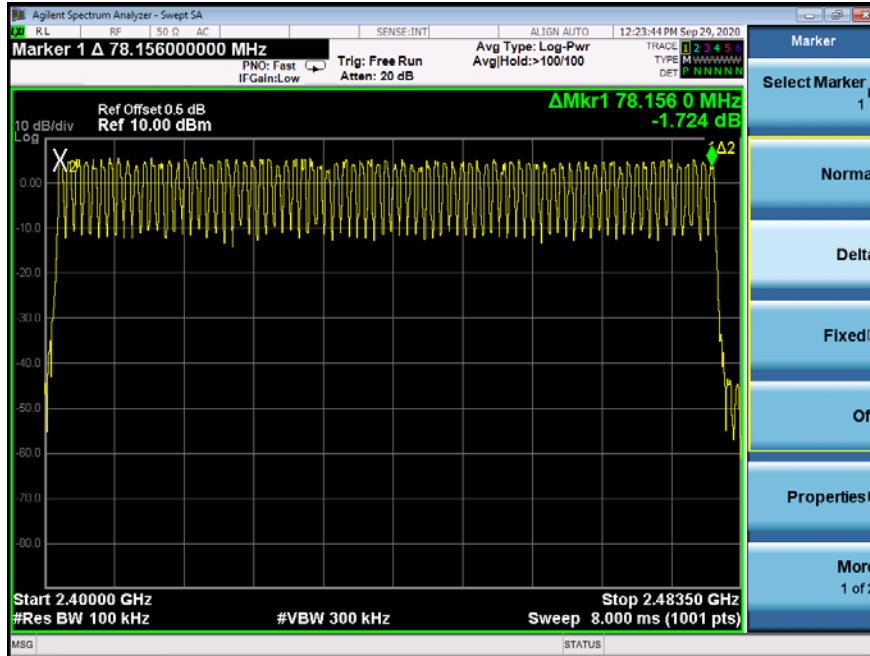


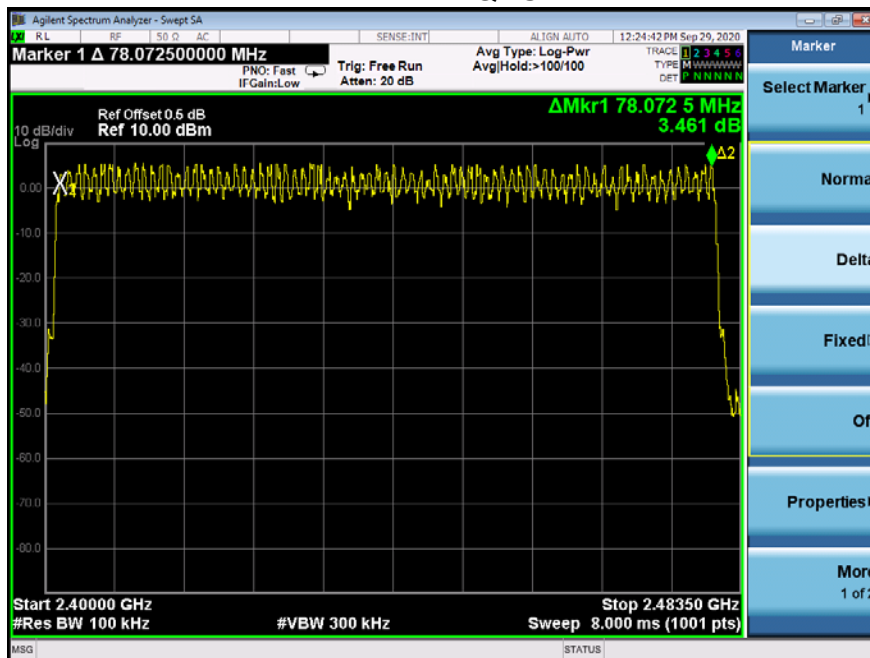
13.4 Test Result

Test Plots:

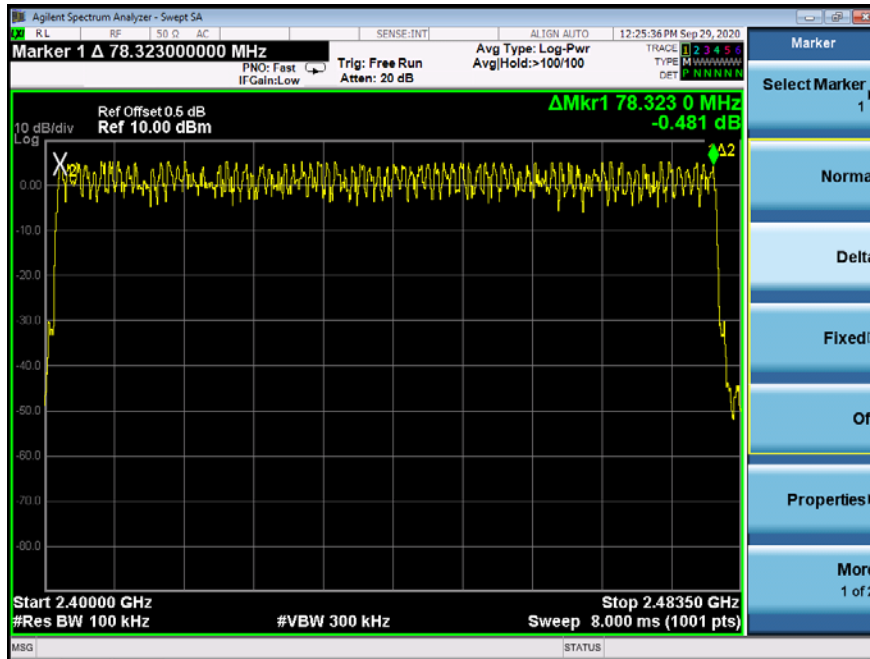
79 Channels in total
GFSK



Pi/4 DQPSK

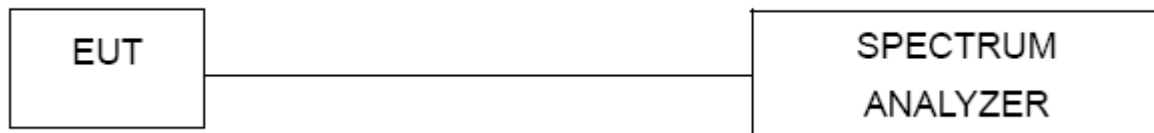


8DPSK



14. DWELL TIME

14.1 Block Diagram Of Test Setup



14.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

14.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set spectrum analyzer span = 0. Centred on a hopping channel;
3. Set RBW = 1MHz and VBW = 3MHz. Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.
4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g.. data rate. modulation format. etc.). repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

14.4 Test Result

DH5 Packet permit maximum 1600 / 79 / 6 hops per second in each channel (5 time slots RX, 1 time slot TX).

DH3 Packet permit maximum 1600 / 79 / 4 hops per second in each channel (3 time slots RX, 1 time slot TX).

DH1 Packet permit maximum 1600 / 79 / 2 hops per second in each channel (1 time slot RX, 1 time slot TX). So, the Dwell Time can be calculated as follows:

DH5: $1600/79/6*0.4*79*(MkrDelta)/1000$

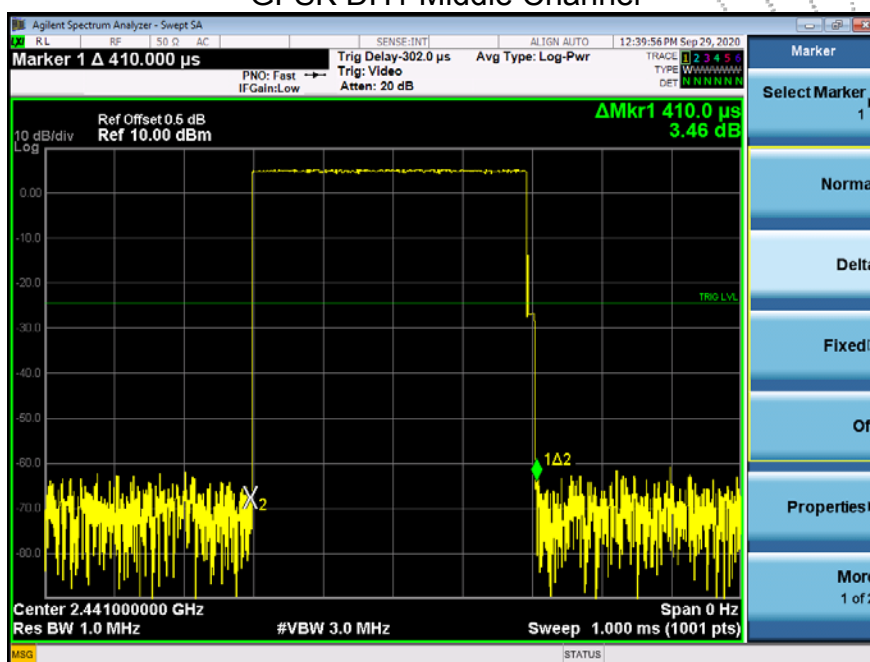
DH3: $1600/79/4*0.4*79*(MkrDelta)/1000$

DH1: $1600/79/2*0.4*79*(MkrDelta)/1000$

Remark: Mkr Delta is once pulse time.

Modulation	Channel Data	Packet	pulse time(ms)	Dwell Time(s)	Limits(s)
GFSK	Middle	DH1	0.410	0.131	0.4
		DH3	1.674	0.268	0.4
		DH5	2.940	0.314	0.4
Pi/4DQPSK	Middle	2DH1	0.422	0.135	0.4
		2DH3	1.692	0.271	0.4
		2DH5	2.940	0.314	0.4
8DPSK	Middle	3DH1	0.422	0.135	0.4
		3DH3	1.680	0.269	0.4
		3DH5	2.950	0.315	0.4

Test Plots
GFSK DH1 Middle Channel



Agilent Spectrum Analyzer - Sweet SA

RL RF SO Q AC SENSE:INT ALIGN AUTO 12:43:01 PM Sep 29, 2020

Marker 1 Δ 1.67400 ms

Trig Delay: 680.0 μ s Avg Type: Log-Pwr

PNO: Fast IF Gain: Low Trig: Video Atten: 20 dB

TRACE 1 2 3 4 5 6 TYPE W W W W W W W W DET N N N N N N N

Ref Offset 0.6 dB

Ref 10.00 dBm

10 dB/div

Log

Δ Mr1 1.674 ms

1.28 dB

TRIG LVL

X₂

1 Δ 2

Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Span 0 Hz

Sweep 3.000 ms (1001 pts)

MSO STATUS

Marker

Select Marker

Normal

Delta

Fixed

On

Properties

More

1 of 2

Agilent Spectrum Analyzer - Sweep SA

Marker 1 Δ 2.94000 ms

Ref Offset 0.6 dB
Ref 10.00 dBm

Trig Delay: 1.065 ms
Trig: Video
Atten: 20 dB

Avg Type: Log-Pwr

Span 0 Hz
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Sweep 5,000 ms (1001 pts)

10 dB/div
Log

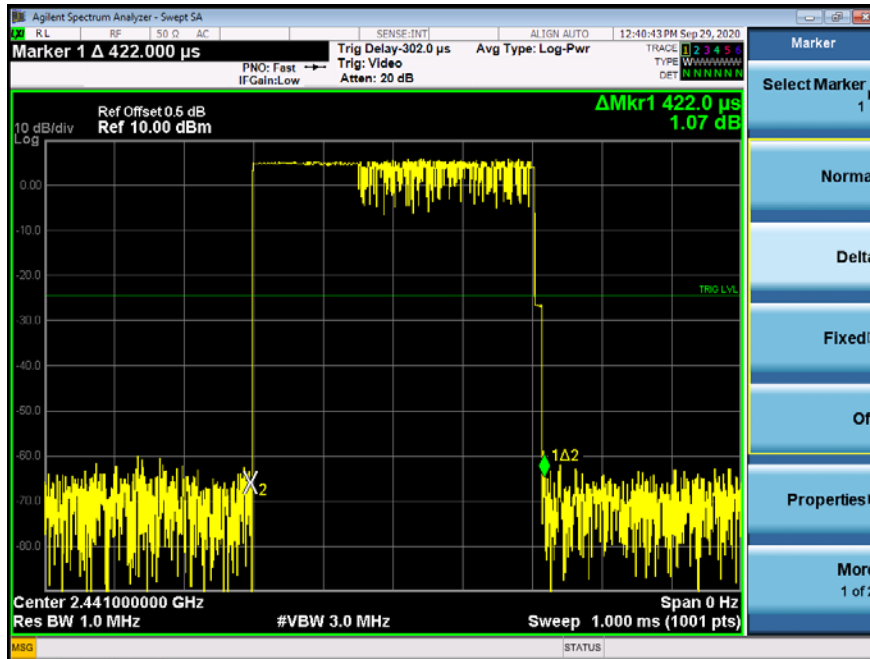
Δ Mkr1 2.940 ms
-0.52 dB

Trig LVL

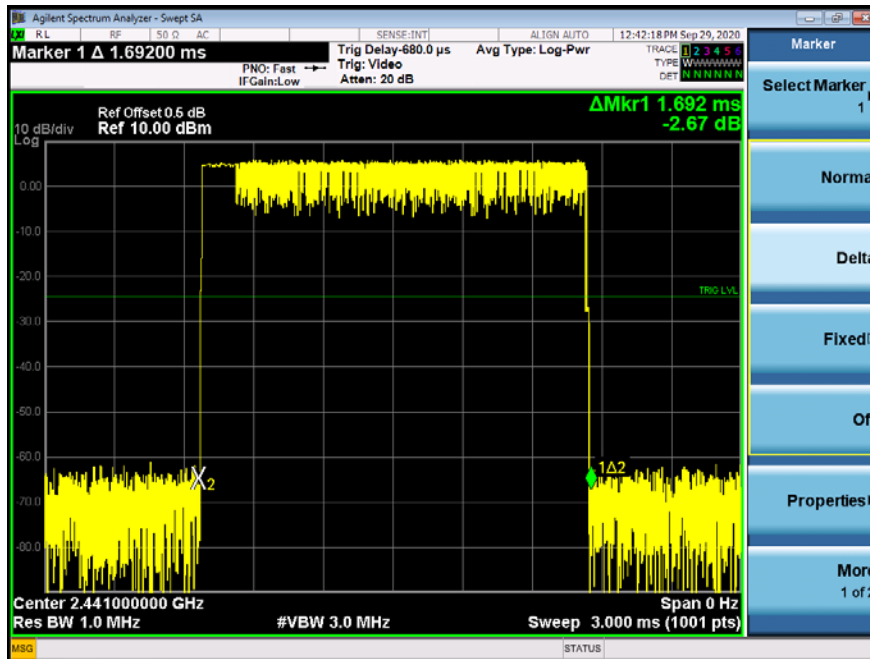
X₂

1 Δ 2

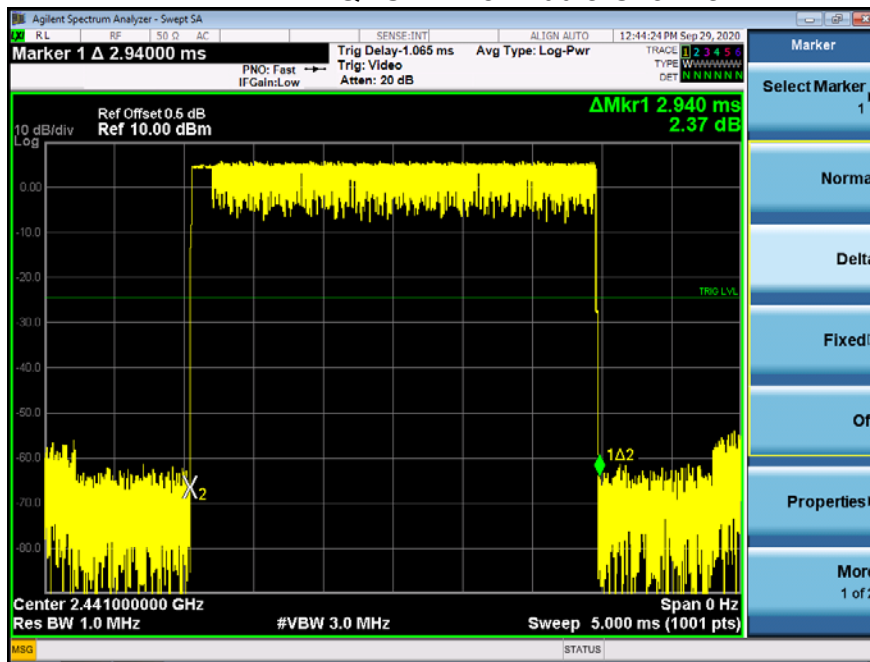
Pi/4DQPSK DH1 Middle Channel



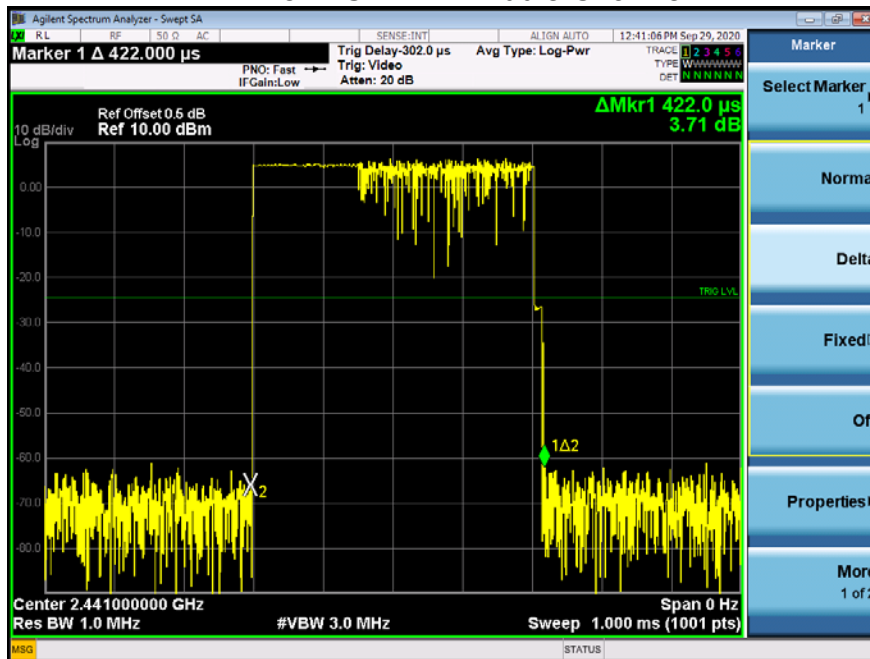
Pi/4DQPSK DH3 Middle Channel



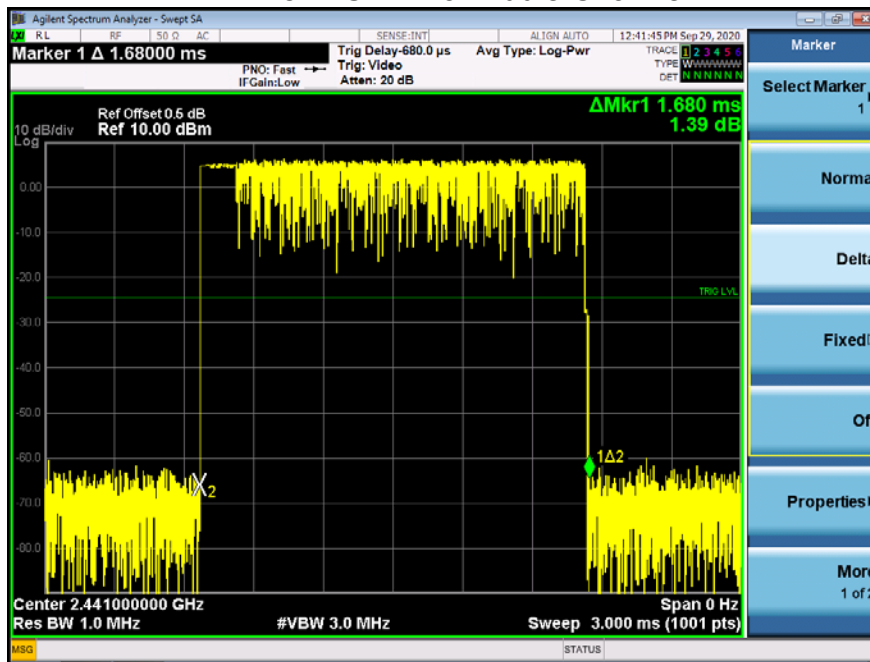
Pi/4DQPSK DH5 Middle Channel



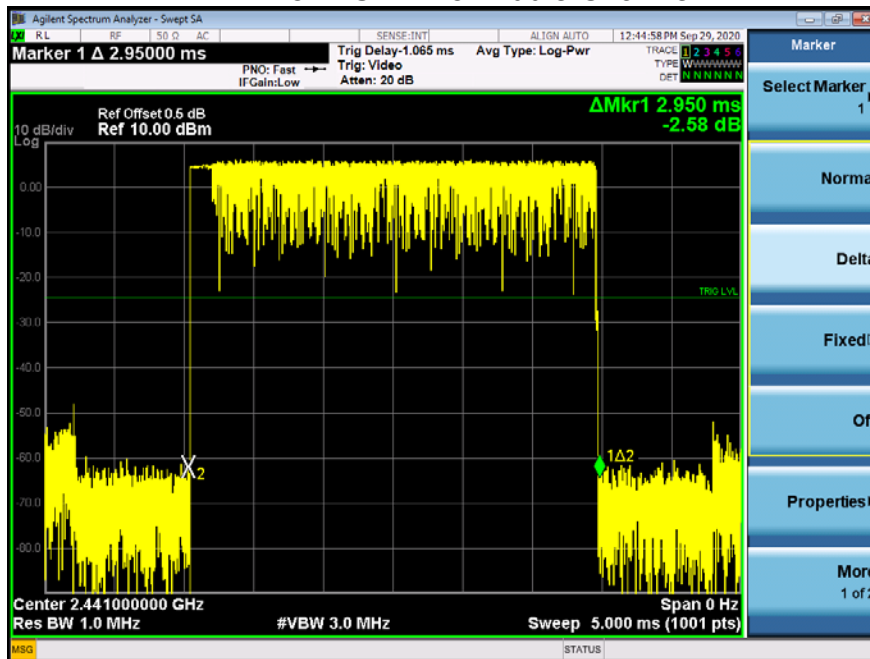
8DPSK DH1 Middle Channel



8DPSK DH3 Middle Channel



8DPSK DH5 Middle Channel



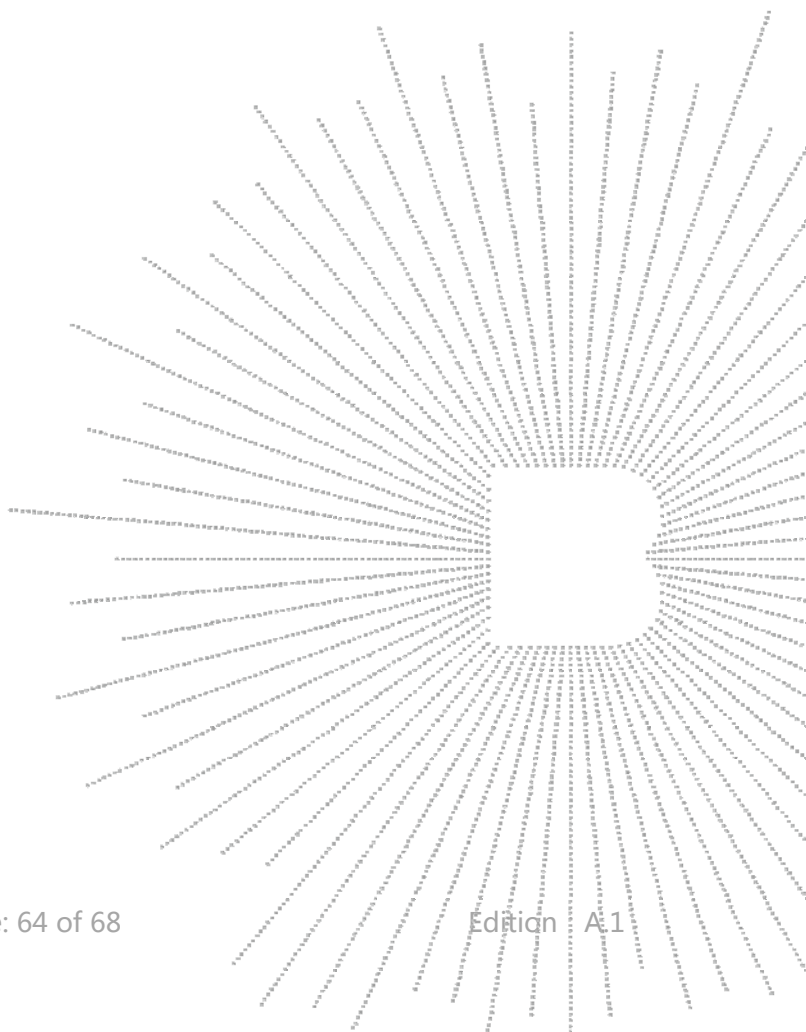
15. ANTENNA REQUIREMENT

15.1 Limit

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

15.2 Test Result

The EUT antenna is Internal antenna, fulfill the requirement of this section.



16. EUT PHOTOGRAPHS

EUT Photo 1



EUT Photo 2



17. EUT TEST SETUP PHOTOGRAPHS

Conducted emissions



Radiated Measurement Photos



STATEMENT

- 1.The equipment lists are traceable to the national reference standards.
- 2.The test report can not be partially copied unless prior written approval is issued from our lab.
- 3.The test report is invalid without stamp of laboratory.
- 4.The test report is invalid without signature of person(s) testing and authorizing.
- 5.The test process and test result is only related to the Unit Under Test.
- 6.The quality system of our laboratory is in accordance with ISO/IEC17025.
- 7.If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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***** END *****