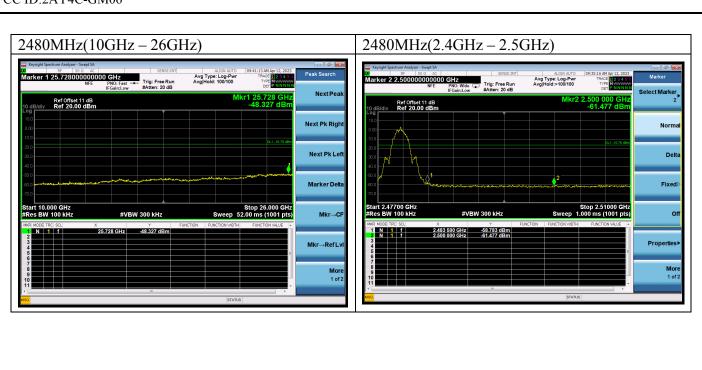


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6. 6DB & 99% BANDWIDTH TEST

6.1. Test Equipments

I	tem	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1		PXA Signal Analyzer	Agilent	N9030A	MY51380221	Apr.02,23	1 Year
2	<i>,</i> .	RF Cable	eastsheep	141-SMA-J J-1000	NO.1	Jul.01,22	1Year

6.2. Block Diagram of Test Setup

Please reference to section 2.4.

6.3. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

6.4. Test Procedure

Use the test method descried in ANSI C63.10 clause 11.8.2:

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times \text{RBW}$, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be $\geq 6 \text{ dB}$.

Use the test method descried in ANSI C63.10 clause 6.9.2:

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth



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- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

6.5. Test Results

EUT: Mini PC				
M/N: A Series	I/N: A Series			
Test date: 2023-04-07~12	Pressure: 102.1±1.0 kpa	Humidity: 52.2±3.0%		
Tested by: Nier	Test Site: RF site	Temperature:23.3±0.6℃		

1Mbps:

T. () ()	Frequency	-6dB Bandwidth	Limit
Test Mode	(MHz)	(KHz)	(KHz)
	2402	677.5	≥500
GFSK	2440	640.5	≥500
	2480	635.6	≥500

2Mbps:

Test Mode	Frequency (MHz)	-6dB Bandwidth (KHz)	Limit (KHz)
	2402	1235	≥500
GFSK	2440	1129	≥500
	2480	922.5	≥500
Conclusion: P.	ASS		

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