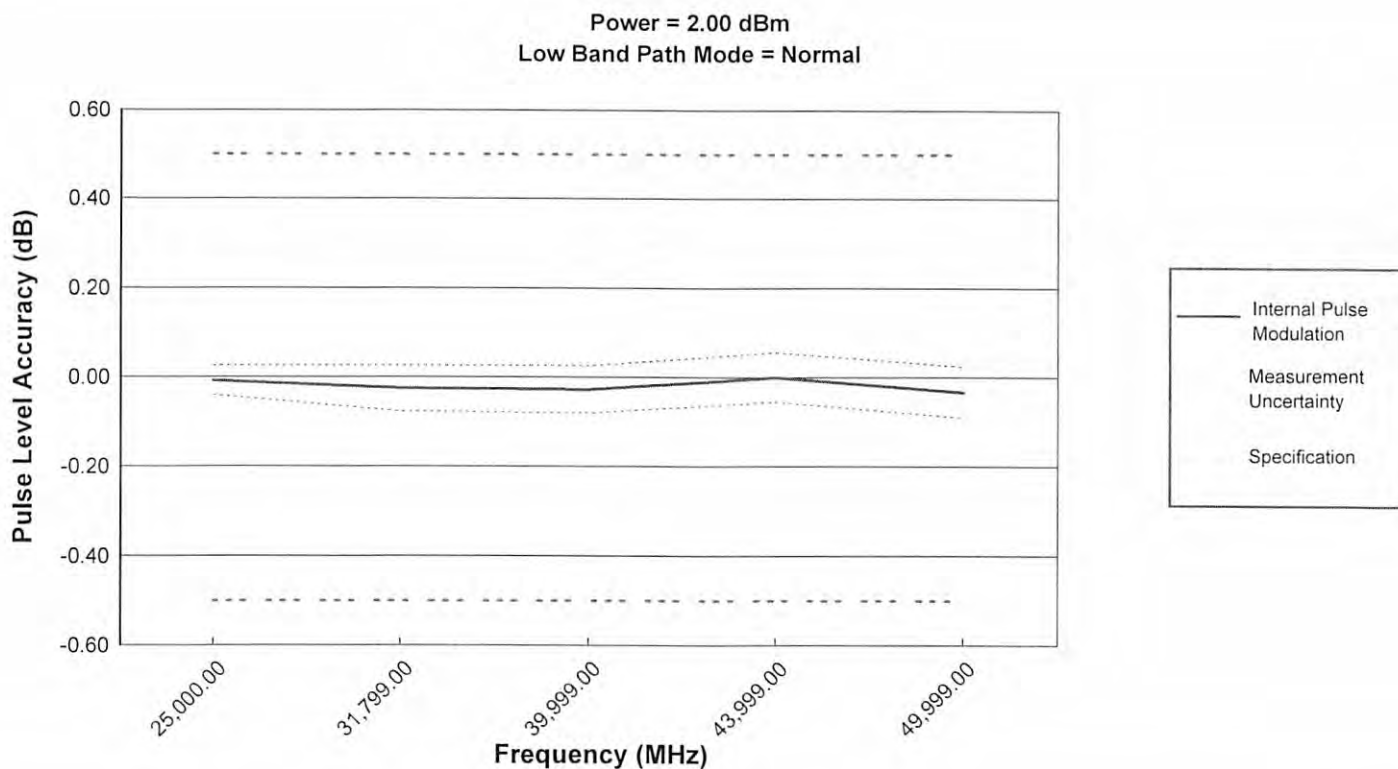


Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed



Frequency (MHz)	Pulse Width (us)	Pulse Level Accuracy (dB)	Measurement Uncertainty (+/- dB)	Specification (+/- dB)	Status
25,000.00001	1.00	-0.008	0.033	0.500	
31,799.00001	1.00	-0.025	0.052	0.500	
39,999.00001	1.00	-0.028	0.053	0.500	
43,999.00001	1.00	0.000	0.055	0.500	
49,999.00001	1.00	-0.033	0.057	0.500	

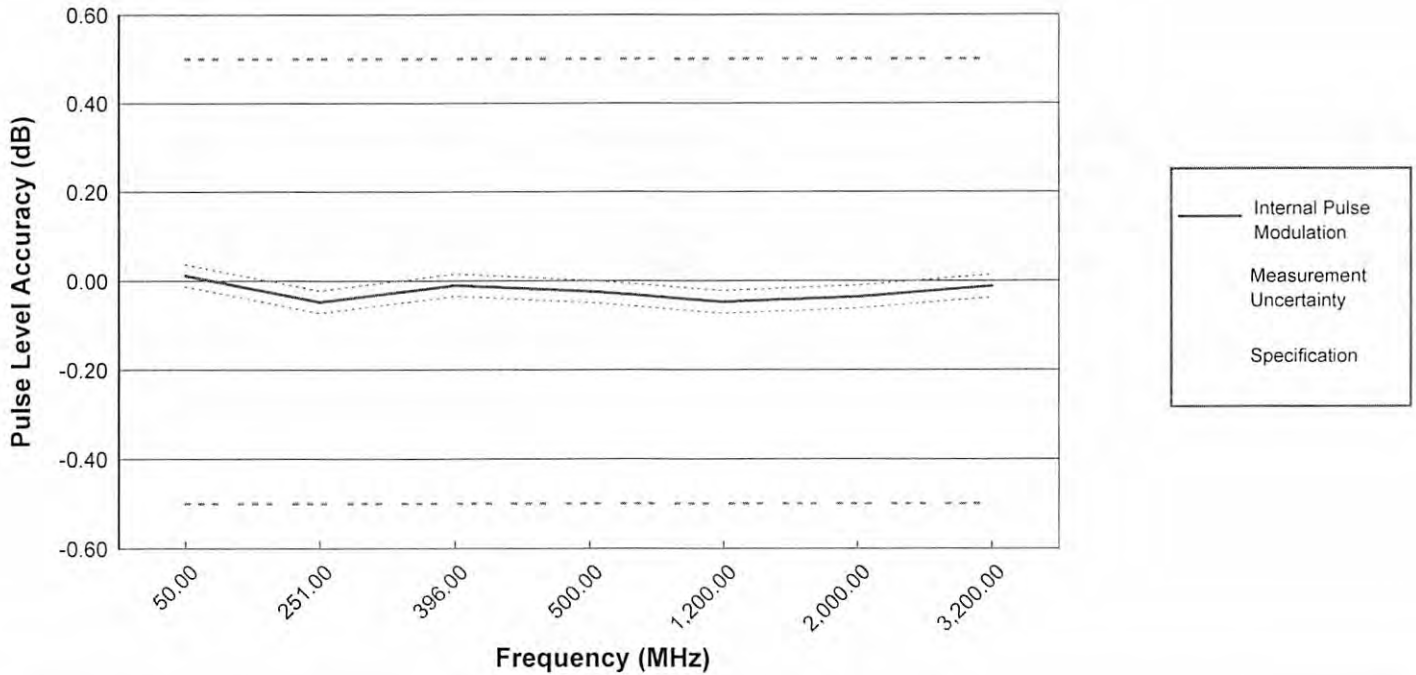
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Power = 5.00 dBm  
Low Band Path Mode = Normal



Frequency (MHz)	Pulse Width (us)	Pulse Level Accuracy (dB)	Measurement Uncertainty (+/- dB)	Specification (+/- dB)	Status
50.00001	2.00	0.012	0.025	0.500	Pass
251.00001	2.00	-0.048	0.025	0.500	Pass
396.00001	2.00	-0.010	0.025	0.500	Pass
500.00001	2.00	-0.024	0.025	0.500	Pass
1,200.00001	2.00	-0.048	0.025	0.500	Pass
2,000.00001	2.00	-0.036	0.026	0.500	Pass
3,199.99999	2.00	-0.012	0.026	0.500	Pass

Power = 9.00 dBm  
Low Band Path Mode = Normal

Frequency (MHz)	Pulse Width (us)	Pulse Level Accuracy (dB)	Measurement Uncertainty (+/- dB)	Specification (+/- dB)	Status
3,200.10001	1.00	-0.024	0.024	0.500	Pass
11,000.00001	1.00	-0.070	0.024	0.500	Pass
17,999.00001	1.00	-0.027	0.025	0.500	Pass
19,999.00001	1.00	-0.049	0.025	0.500	Pass

**Report Number**  
1233734-2021-06-21-63OL

# Internal Pulse Modulation Rise/Fall Time

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
83484A	Oscilloscope Plug-In	US40140325	967217	21-Aug-2022
8493C Opt 010	10dB Attenuator	82687	1183403	02-Oct-2021
8493C Opt 020	20dB Attenuator	82505	1183404	02-Oct-2021
86100A	Oscilloscope Mainframe	US40510291	988292	15-Apr-2022

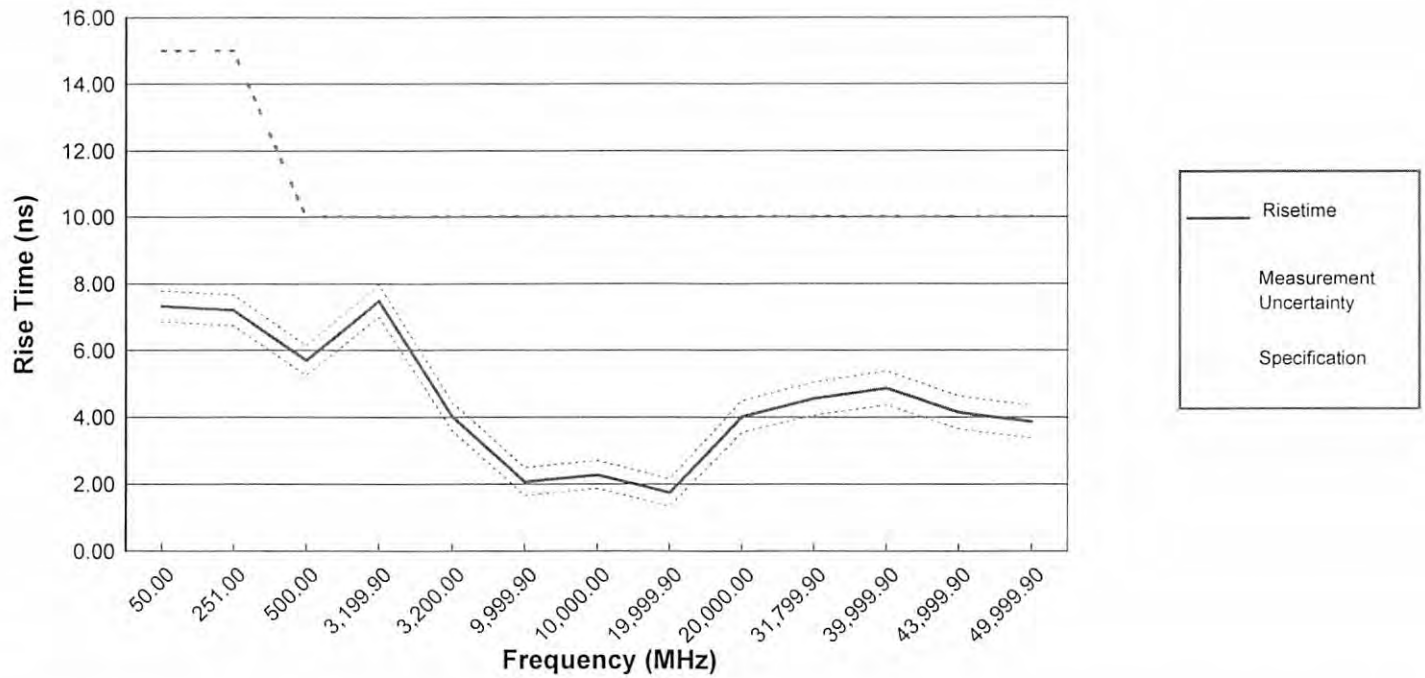
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Rise Time  
Power = 5.00 dBm Low Band Path = Normal



Frequency (MHz)	Rise Time (ns)	Measurement Uncertainty (+/- ns)	Specification (ns)	Status
50.003	7.32	0.46	15	
251.003	7.20	0.47	15	
500.003	5.69	0.45	10	
3,199.903	7.48	0.48	10	
3,200.003	4.01	0.42	10	
9,999.900	2.07	0.42	10	
10,000.003	2.28	0.42	10	
19,999.900	1.74	0.41	10	
20,000.003	4.01	0.47	10	
31,799.900	4.54	0.49	10	
39,999.900	4.86	0.51	10	
43,999.900	4.13	0.49	10	
49,999.900	3.85	0.48	10	

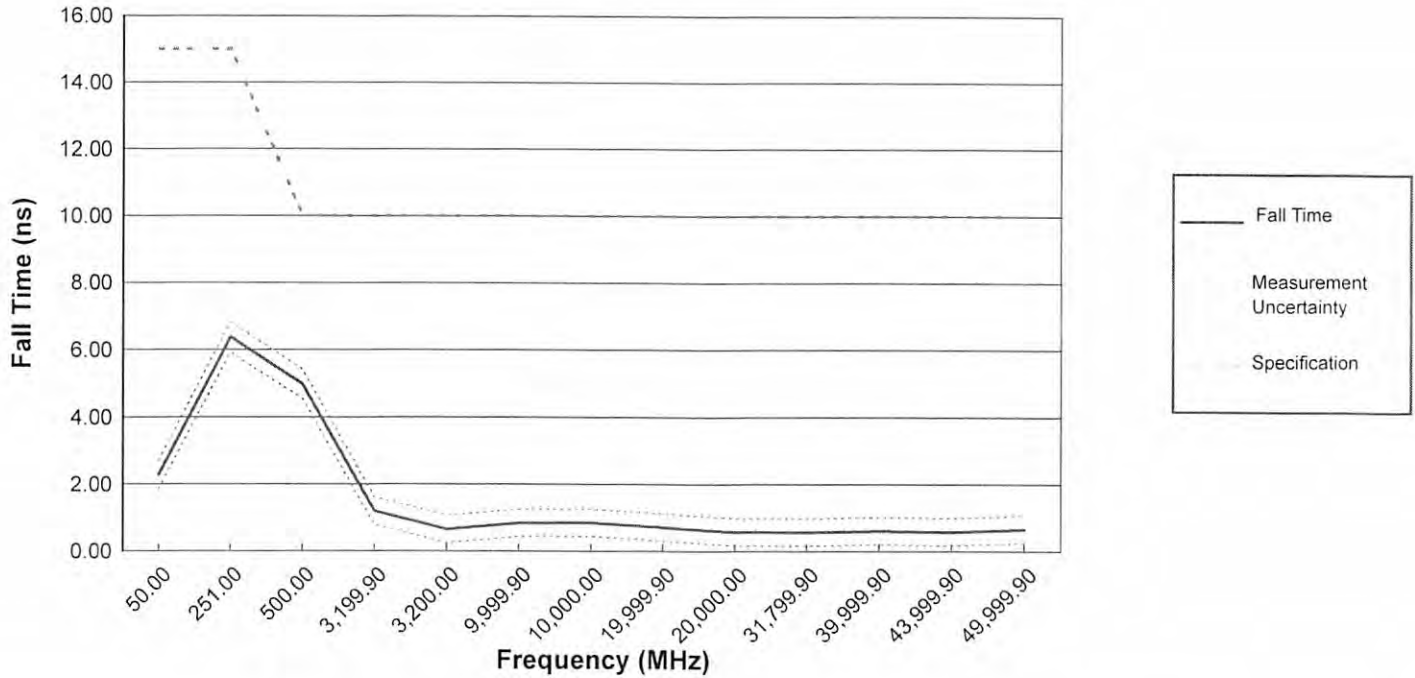
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Fall Time  
Power = 5.00 dBm Low Band Path = Normal



Frequency (MHz)	Measured Error (ns)	Measurement Uncertainty (+/- ns)	Specification (ns)	Status
50.003	2.29	0.42	15	
251.003	6.38	0.45	15	
500.003	4.99	0.44	10	
3,199.903	1.20	0.41	10	
3,200.003	0.66	0.41	10	
9,999.900	0.84	0.41	10	
10,000.003	0.85	0.41	10	
19,999.900	0.71	0.41	10	
20,000.003	0.58	0.41	10	
31,799.900	0.57	0.41	10	
39,999.900	0.61	0.41	10	
43,999.900	0.58	0.41	10	
49,999.900	0.66	0.41	10	

**Report Number**  
1233734-2021-06-21-63OL

# Harmonic Spurious

**Model** E8257D

**Serial** MY59140095

**Test Date** 21-Jun-2021

**Test Result** Passed

## Environmental Conditions

**Temperature** 21.00 Celsius

**Humidity** 50.00 %

**Line Frequency** 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
E4448A	Spectrum Analyzer	MY54190024	1198224	16-Oct-2021

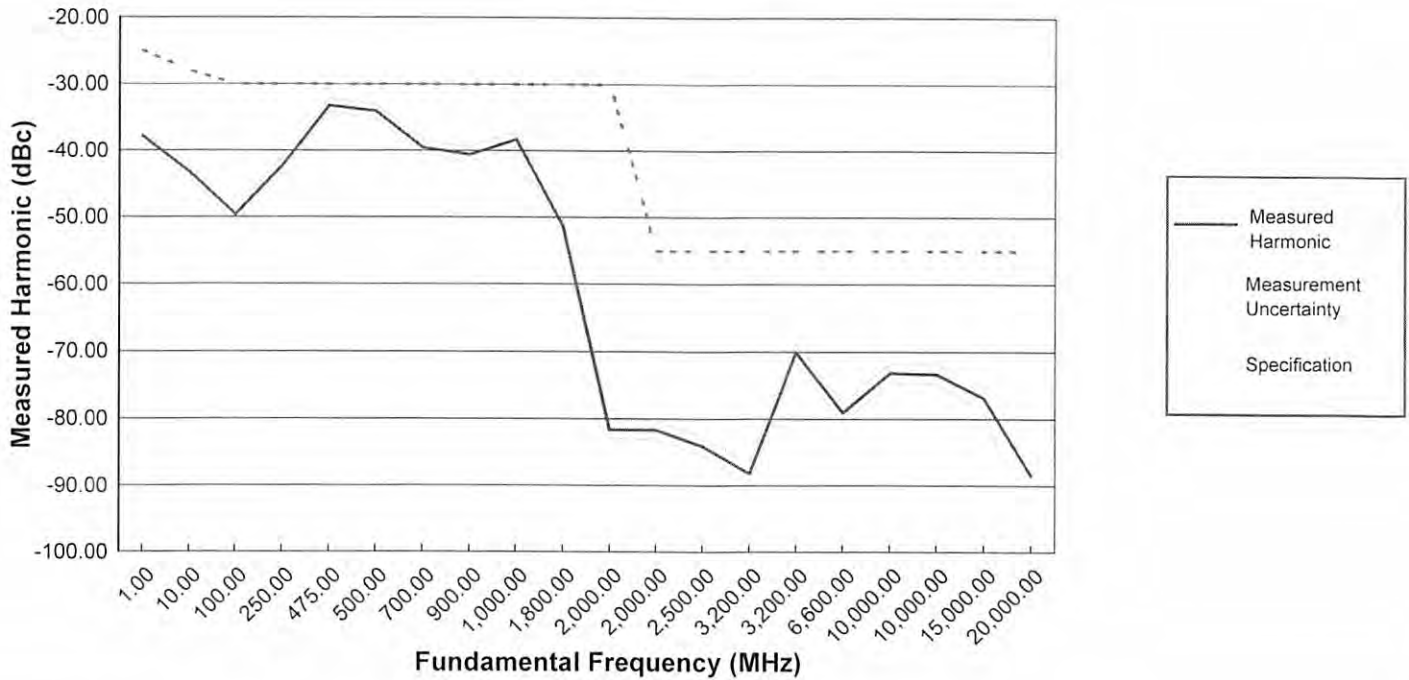
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

### 2nd Harmonic Harmonic Filter Off



Fundamental Frequency (MHz)	Harmonic Frequency (MHz)	Measured Harmonic (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
1.001	2.002	-37.8	1.0	-25	
10.001	20.002	-43.3	1.0	-28	
100.001	200.002	-49.7	1.0	-30	
250.001	500.002	-42.3	1.0	-30	
475.000	950.000	-33.2	1.0	-30	
500.001	1,000.002	-34.0	1.0	-30	
700.000	1,400.000	-39.5	1.0	-30	
900.000	1,800.000	-40.6	1.2	-30	
1,000.001	2,000.002	-38.3	1.2	-30	
1,800.000	3,600.000	-51.4	1.3	-30	
2,000.000	4,000.000	-81.7	1.4	-30	
2,000.001	4,000.002	-81.7	1.4	-55	
2,500.000	5,000.000	-84.1	1.4	-55	
3,200.000	6,400.000	-88.2	1.6	-55	
3,200.001	6,400.002	-70.1	1.3	-55	
6,600.000	13,200.000	-79.1	1.5	-55	
10,000.000	20,000.000	-73.2	1.4	-55	
10,000.001	20,000.002	-73.4	1.5	-55	
15,000.000	30,000.000	-76.9	1.6	-55	
20,000.000	40,000.000	-88.5	9.6	-55	

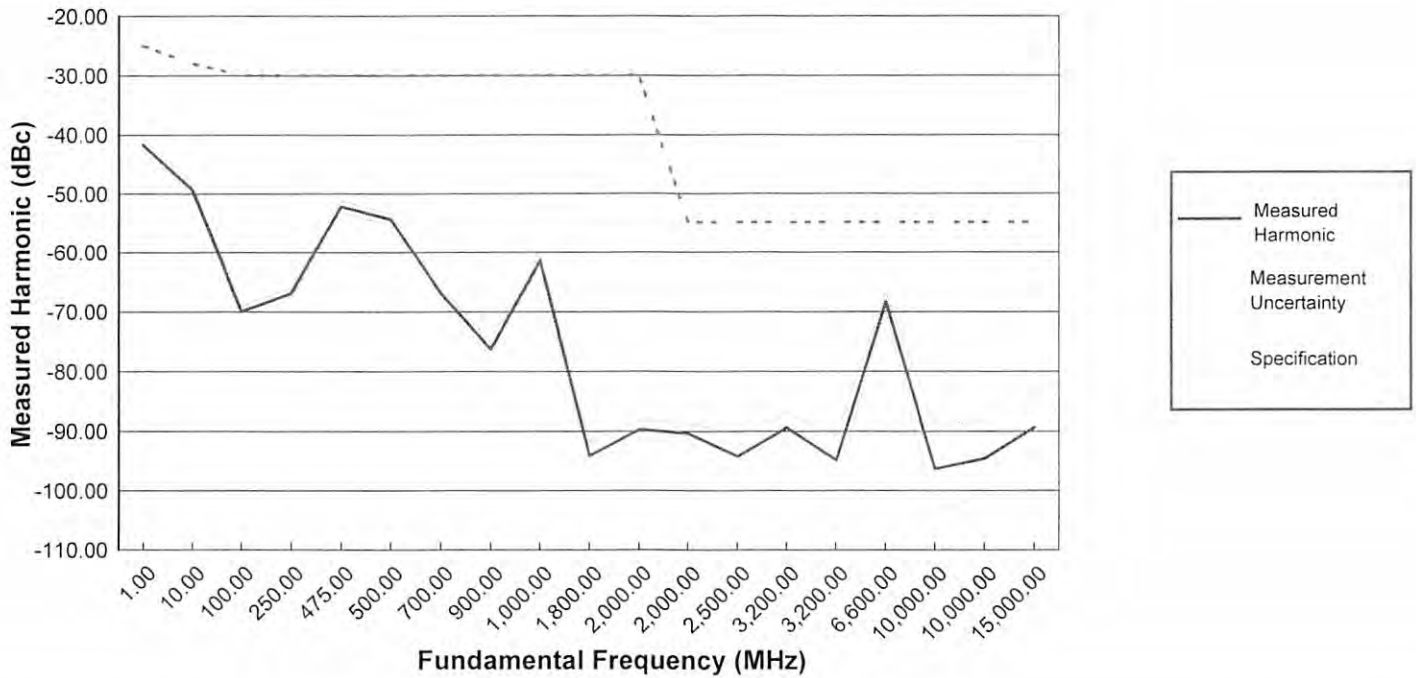
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

### 3rd Harmonic Harmonic Filter Off



Fundamental Frequency (MHz)	Harmonic Frequency (MHz)	Measured Harmonic (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
1.001	3.003	-41.7	1.0	-25	
10.001	30.003	-49.3	1.0	-28	
100.001	300.003	-69.9	1.0	-30	
250.001	750.003	-66.9	1.0	-30	
475.000	1,425.000	-52.2	1.0	-30	
500.001	1,500.003	-54.3	1.0	-30	
700.000	2,100.000	-66.8	1.2	-30	
900.000	2,700.000	-76.3	1.2	-30	
1,000.001	3,000.003	-61.3	1.2	-30	
1,800.000	5,400.000	-94.1	2.2	-30	
2,000.000	6,000.000	-89.7	1.6	-30	
2,000.001	6,000.003	-90.4	1.7	-55	
2,500.000	7,500.000	-94.2	3.7	-55	
3,200.000	9,600.000	-89.4	2.4	-55	
3,200.001	9,600.003	-94.9	4.1	-55	
6,600.000	19,800.000	-68.3	1.3	-55	
10,000.000	30,000.000	-96.3	7.5	-55	
10,000.001	30,000.003	-94.6	6.2	-55	
15,000.000	45,000.000	-89.3	10.9	-55	



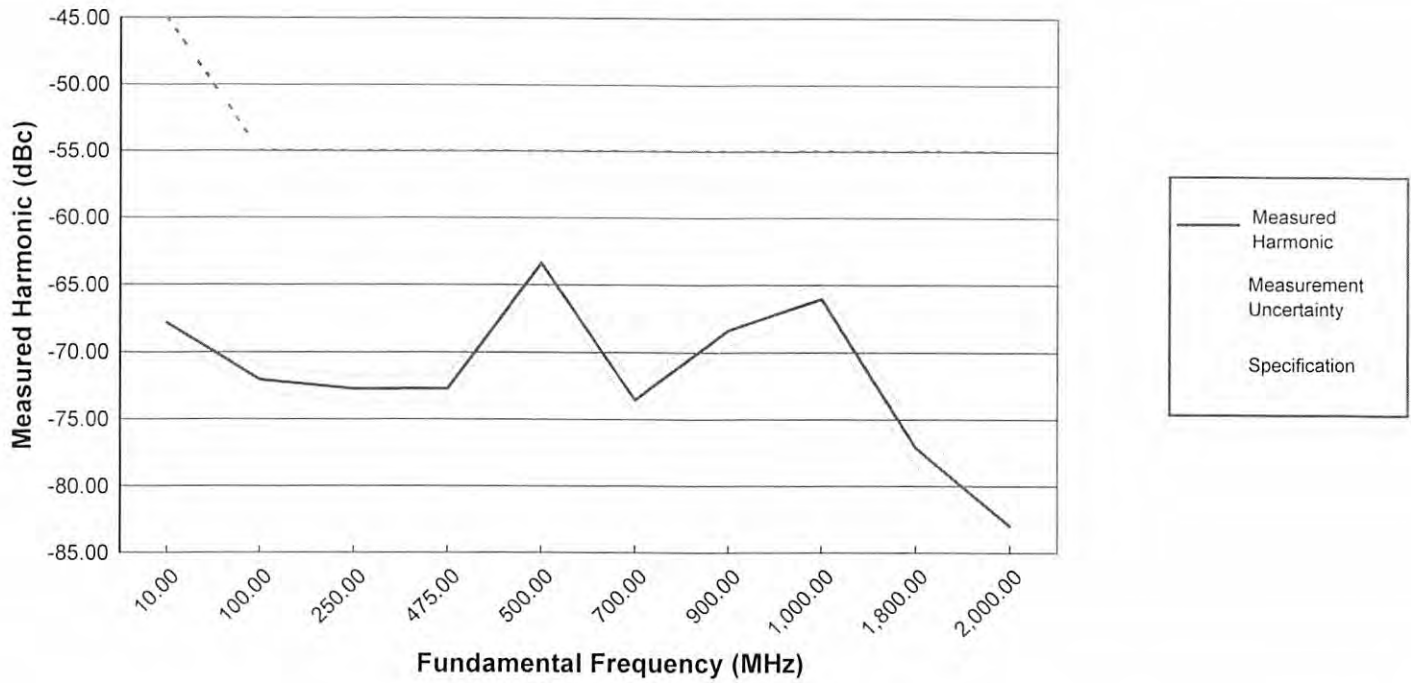
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

2nd Harmonic  
Harmonic Filter On



Fundamental Frequency (MHz)	Harmonic Frequency (MHz)	Measured Harmonic (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10.001	20.002	-67.8	1.0	-45	
100.001	200.002	-72.0	1.0	-55	
250.001	500.002	-72.7	1.0	-55	
475.000	950.000	-72.7	1.0	-55	
500.001	1,000.002	-63.4	1.0	-55	
700.000	1,400.000	-73.5	1.0	-55	
900.000	1,800.000	-68.4	1.2	-55	
1,000.001	2,000.002	-66.0	1.2	-55	
1,800.000	3,600.000	-77.1	1.3	-55	
2,000.000	4,000.000	-83.0	1.4	-55	

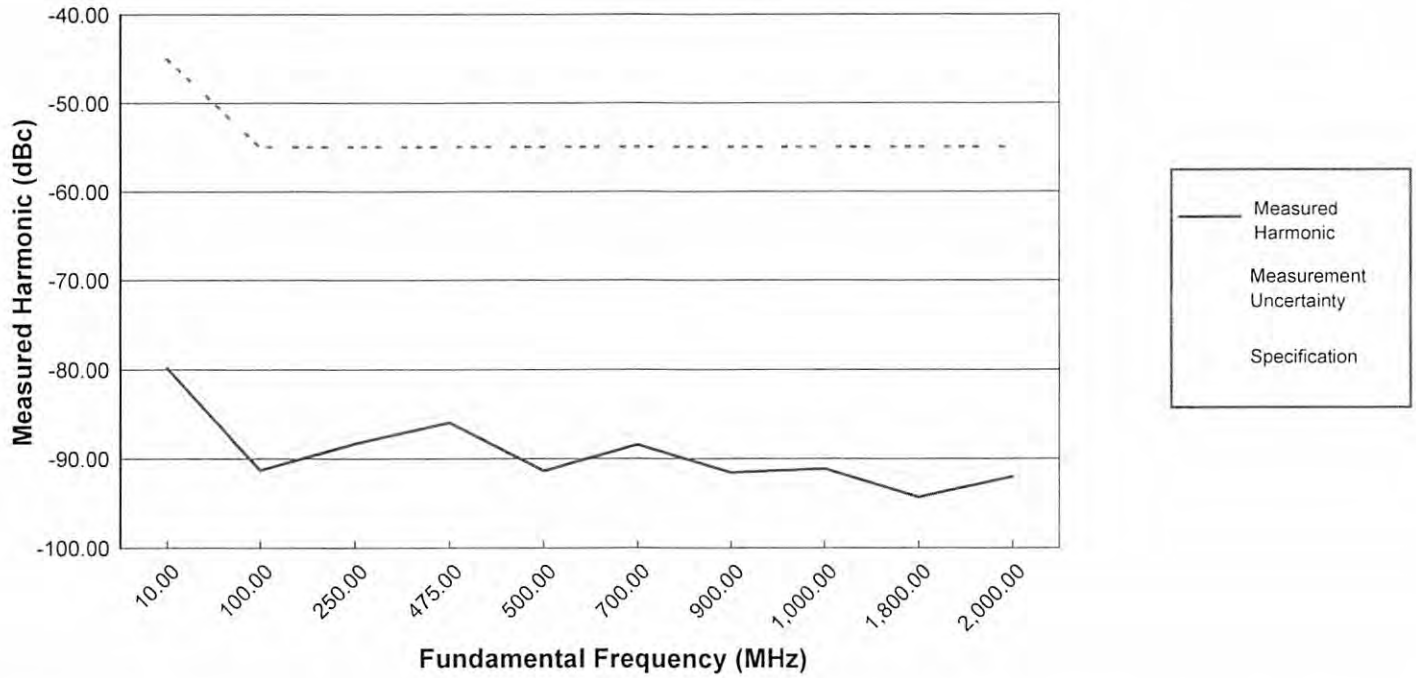
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

3rd Harmonic  
Harmonic Filter On



Fundamental Frequency (MHz)	Harmonic Frequency (MHz)	Measured Harmonic (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10.001	30.003	-79.8	1.0	-45	
100.001	300.003	-91.3	1.3	-55	
250.001	750.003	-88.3	1.2	-55	
475.000	1,425.000	-85.9	1.1	-55	
500.001	1,500.003	-91.4	1.5	-55	
700.000	2,100.000	-88.4	1.4	-55	
900.000	2,700.000	-91.5	1.7	-55	
1,000.001	3,000.003	-91.1	1.6	-55	
1,800.000	5,400.000	-94.3	2.2	-55	
2,000.000	6,000.000	-92.0	1.8	-55	

**Report Number**  
1233734-2021-06-21-63OL

# Sub-Harmonic Spurious

**Model** E8257D

**Serial** MY59140095

**Test Date** 21-Jun-2021

**Test Result** Passed

## Environmental Conditions

**Temperature** 21.00 Celsius

**Humidity** 50.00 %

**Line Frequency** 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
E4448A	Spectrum Analyzer	MY54190024	1198224	16-Oct-2021

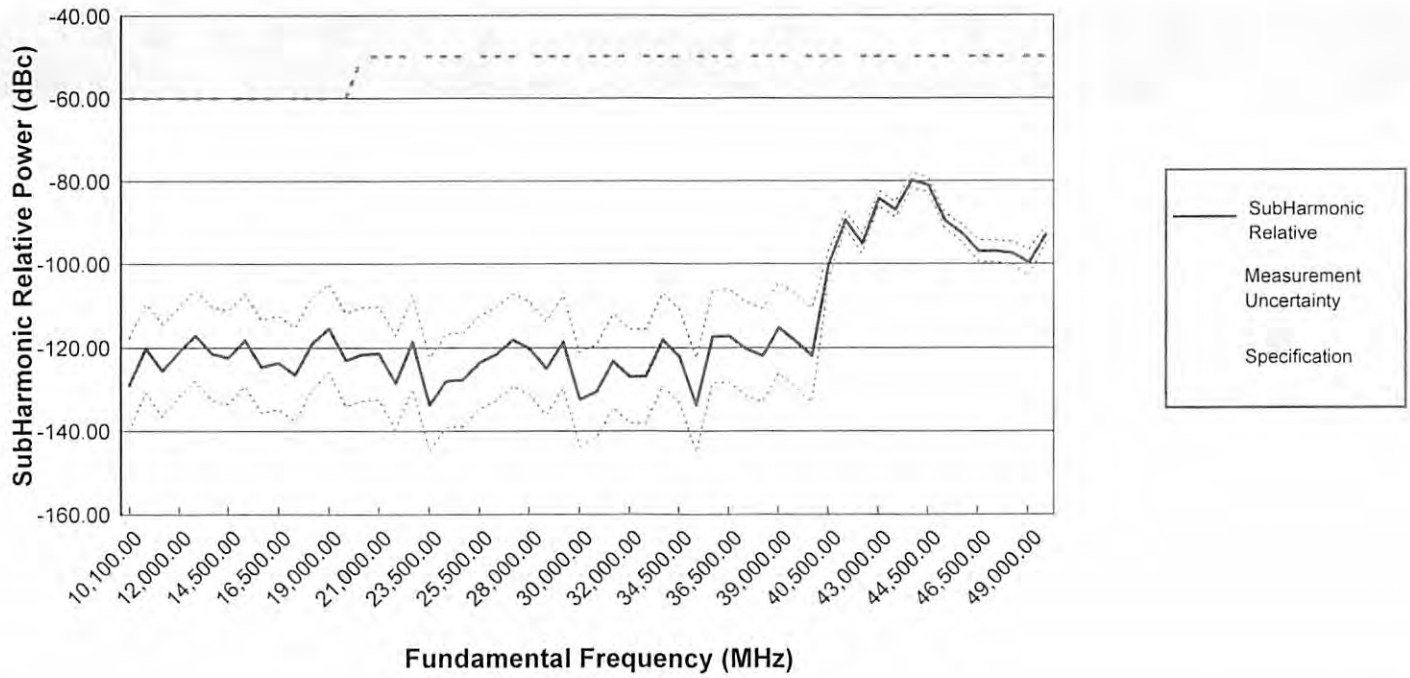
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 0.25



Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10,100.00	2,525.00	-129.0	11.2	-60	
10,500.00	2,625.00	-120.1	10.6	-60	
11,500.00	2,875.00	-125.5	11.2	-60	
12,000.00	3,000.00	-121.2	10.6	-60	
13,000.00	3,250.00	-117.1	10.9	-60	
13,500.00	3,375.00	-121.5	11.2	-60	
14,500.00	3,625.00	-122.4	11.2	-60	
15,000.00	3,750.00	-118.3	11.0	-60	
16,000.00	4,000.00	-124.6	11.2	-60	
16,500.00	4,125.00	-123.6	11.2	-60	
17,500.00	4,375.00	-126.5	11.2	-60	
18,000.00	4,500.00	-119.1	11.1	-60	
19,000.00	4,750.00	-115.4	10.6	-60	
19,500.00	4,875.00	-123.0	11.2	-60	
20,500.00	5,125.00	-121.6	11.2	-50	
21,000.00	5,250.00	-121.4	11.2	-50	
22,000.00	5,500.00	-128.4	11.2	-50	
22,500.00	5,625.00	-118.6	11.1	-50	
23,500.00	5,875.00	-133.7	11.2	-50	
24,000.00	6,000.00	-128.0	11.2	-50	
25,000.00	6,250.00	-127.7	11.2	-50	
25,500.00	6,375.00	-123.6	11.2	-50	
26,500.00	6,625.00	-121.6	11.2	-50	
27,000.00	6,750.00	-118.2	11.0	-50	
28,000.00	7,000.00	-120.2	11.1	-50	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 0.25

Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
28,500.00	7,125.00	-125.0	11.2	-50	
29,500.00	7,375.00	-118.7	11.1	-50	
30,000.00	7,500.00	-132.4	11.2	-50	
31,000.00	7,750.00	-130.6	11.2	-50	
31,500.00	7,875.00	-123.3	11.2	-50	
32,000.00	8,000.00	-127.0	11.2	-50	
33,000.00	8,250.00	-126.8	11.2	-50	
33,500.00	8,375.00	-118.1	11.1	-50	
34,500.00	8,625.00	-122.1	11.2	-50	
35,000.00	8,750.00	-133.8	11.2	-50	
36,000.00	9,000.00	-117.4	11.1	-50	
36,500.00	9,125.00	-117.2	11.1	-50	
37,500.00	9,375.00	-120.3	11.2	-50	
38,000.00	9,500.00	-121.9	11.2	-50	
39,000.00	9,750.00	-115.3	10.8	-50	
39,500.00	9,875.00	-118.4	11.1	-50	
40,000.00	10,000.00	-121.9	11.2	-50	
40,500.00	10,125.00	-100.3	3.3	-50	
41,500.00	10,375.00	-89.5	1.9	-50	
42,000.00	10,500.00	-95.2	2.3	-50	
43,000.00	10,750.00	-84.2	1.8	-50	
43,500.00	10,875.00	-86.9	1.9	-50	
44,000.00	11,000.00	-79.9	1.8	-50	
44,500.00	11,125.00	-81.0	1.8	-50	
45,000.00	11,250.00	-89.7	2.0	-50	
46,000.00	11,500.00	-92.7	2.1	-50	
46,500.00	11,625.00	-97.0	2.6	-50	
47,500.00	11,875.00	-97.0	2.6	-50	
48,000.00	12,000.00	-97.5	2.7	-50	
49,000.00	12,250.00	-99.8	3.2	-50	
50,000.00	12,500.00	-93.0	2.1	-50	

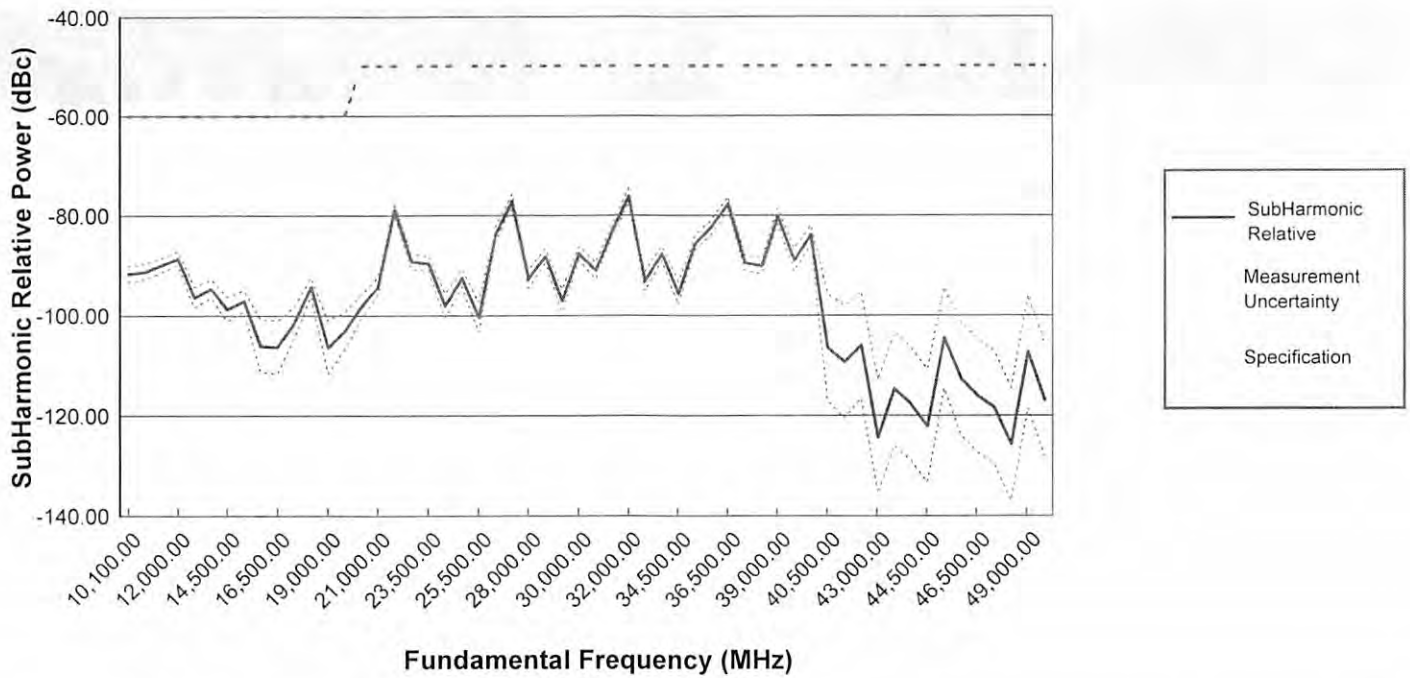
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 0.50



Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10,100.00	5,050.00	-91.7	1.6	-60	
10,500.00	5,250.00	-91.4	1.6	-60	
11,500.00	5,750.00	-90.0	1.5	-60	
12,000.00	6,000.00	-88.6	1.5	-60	
13,000.00	6,500.00	-96.4	2.0	-60	
13,500.00	6,750.00	-94.6	1.8	-60	
14,500.00	7,250.00	-98.7	2.4	-60	
15,000.00	7,500.00	-97.1	2.1	-60	
16,000.00	8,000.00	-106.1	5.3	-60	
16,500.00	8,250.00	-106.3	5.3	-60	
17,500.00	8,750.00	-101.5	3.1	-60	
18,000.00	9,000.00	-94.3	1.8	-60	
19,000.00	9,500.00	-106.3	5.2	-60	
19,500.00	9,750.00	-103.0	3.7	-60	
20,500.00	10,250.00	-98.3	2.4	-50	
21,000.00	10,500.00	-94.3	1.9	-50	
22,000.00	11,000.00	-78.8	1.4	-50	
22,500.00	11,250.00	-89.3	1.6	-50	
23,500.00	11,750.00	-89.7	1.6	-50	
24,000.00	12,000.00	-98.1	2.4	-50	
25,000.00	12,500.00	-92.6	1.7	-50	
25,500.00	12,750.00	-100.4	3.0	-50	
26,500.00	13,250.00	-83.9	1.5	-50	
27,000.00	13,500.00	-77.1	1.4	-50	
28,000.00	14,000.00	-92.8	1.8	-50	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 0.50

Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
28,500.00	14,250.00	-88.2	1.5	-50	
29,500.00	14,750.00	-97.1	2.3	-50	
30,000.00	15,000.00	-87.7	1.5	-50	
31,000.00	15,500.00	-91.2	1.7	-50	
31,500.00	15,750.00	-83.2	1.5	-50	
32,000.00	16,000.00	-76.2	1.4	-50	
33,000.00	16,500.00	-93.3	1.9	-50	
33,500.00	16,750.00	-87.7	1.6	-50	
34,500.00	17,250.00	-95.7	2.2	-50	
35,000.00	17,500.00	-85.6	1.5	-50	
36,000.00	18,000.00	-82.3	1.4	-50	
36,500.00	18,250.00	-77.7	1.4	-50	
37,500.00	18,750.00	-89.6	1.6	-50	
38,000.00	19,000.00	-90.2	1.6	-50	
39,000.00	19,500.00	-80.2	1.6	-50	
39,500.00	19,750.00	-89.1	2.4	-50	
40,000.00	20,000.00	-83.8	1.8	-50	
40,500.00	20,250.00	-106.5	10.7	-50	
41,500.00	20,750.00	-109.4	11.2	-50	
42,000.00	21,000.00	-106.0	10.6	-50	
43,000.00	21,500.00	-124.3	11.3	-50	
43,500.00	21,750.00	-114.7	11.3	-50	
44,000.00	22,000.00	-117.7	11.3	-50	
44,500.00	22,250.00	-122.2	11.3	-50	
45,000.00	22,500.00	-104.5	10.1	-50	
46,000.00	23,000.00	-112.7	11.3	-50	
46,500.00	23,250.00	-116.0	11.3	-50	
47,500.00	23,750.00	-118.4	11.3	-50	
48,000.00	24,000.00	-125.8	11.3	-50	
49,000.00	24,500.00	-107.4	11.2	-50	
50,000.00	25,000.00	-117.0	11.3	-50	

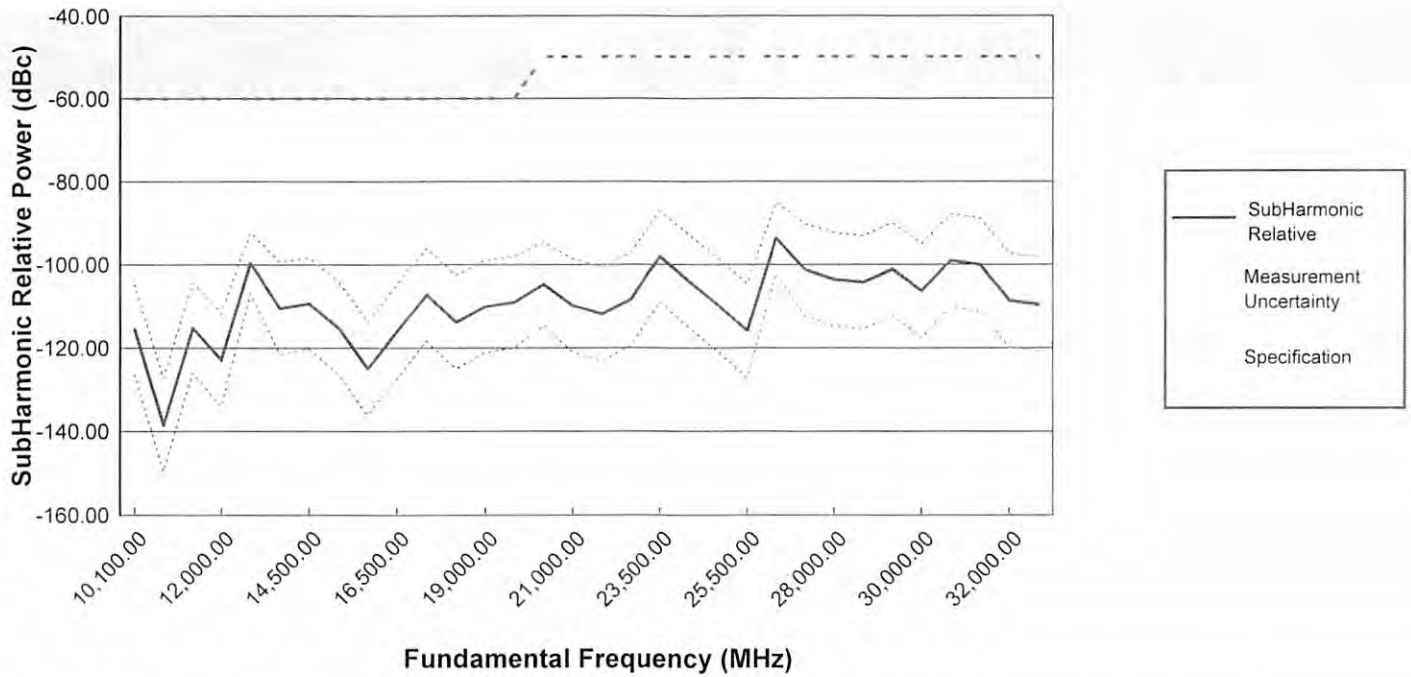
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 1.5



Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10,100.00	15,150.00	-115.6	10.8	-60	
10,500.00	15,750.00	-138.5	11.2	-60	
11,500.00	17,250.00	-115.2	10.8	-60	
12,000.00	18,000.00	-123.0	11.2	-60	
13,000.00	19,500.00	-99.6	7.4	-60	
13,500.00	20,250.00	-110.5	11.1	-60	
14,500.00	21,750.00	-109.3	11.0	-60	
15,000.00	22,500.00	-115.2	11.2	-60	
16,000.00	24,000.00	-125.0	11.2	-60	
16,500.00	24,750.00	-116.1	11.2	-60	
17,500.00	26,250.00	-107.2	11.1	-60	
18,000.00	27,000.00	-113.9	11.2	-60	
19,000.00	28,500.00	-110.1	11.1	-60	
19,500.00	29,250.00	-109.1	11.0	-60	
20,500.00	30,750.00	-104.7	10.0	-50	
21,000.00	31,500.00	-109.9	11.2	-50	
22,000.00	33,000.00	-111.9	11.2	-50	
22,500.00	33,750.00	-108.3	11.2	-50	
23,500.00	35,250.00	-98.1	10.9	-50	
24,000.00	36,000.00	-104.1	11.2	-50	
25,000.00	37,500.00	-109.8	11.2	-50	
25,500.00	38,250.00	-115.9	11.2	-50	
26,500.00	39,750.00	-93.6	8.6	-50	
27,000.00	40,500.00	-101.3	11.1	-50	
28,000.00	42,000.00	-103.6	11.2	-50	



Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 1.5

Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
28,500.00	42,750.00	-104.3	11.3	-50	
29,500.00	44,250.00	-101.2	11.2	-50	
30,000.00	45,000.00	-106.3	11.3	-50	
31,000.00	46,500.00	-99.1	11.2	-50	
31,500.00	47,250.00	-100.1	11.2	-50	
32,000.00	48,000.00	-108.7	11.3	-50	
33,000.00	49,500.00	-109.6	11.3	-50	

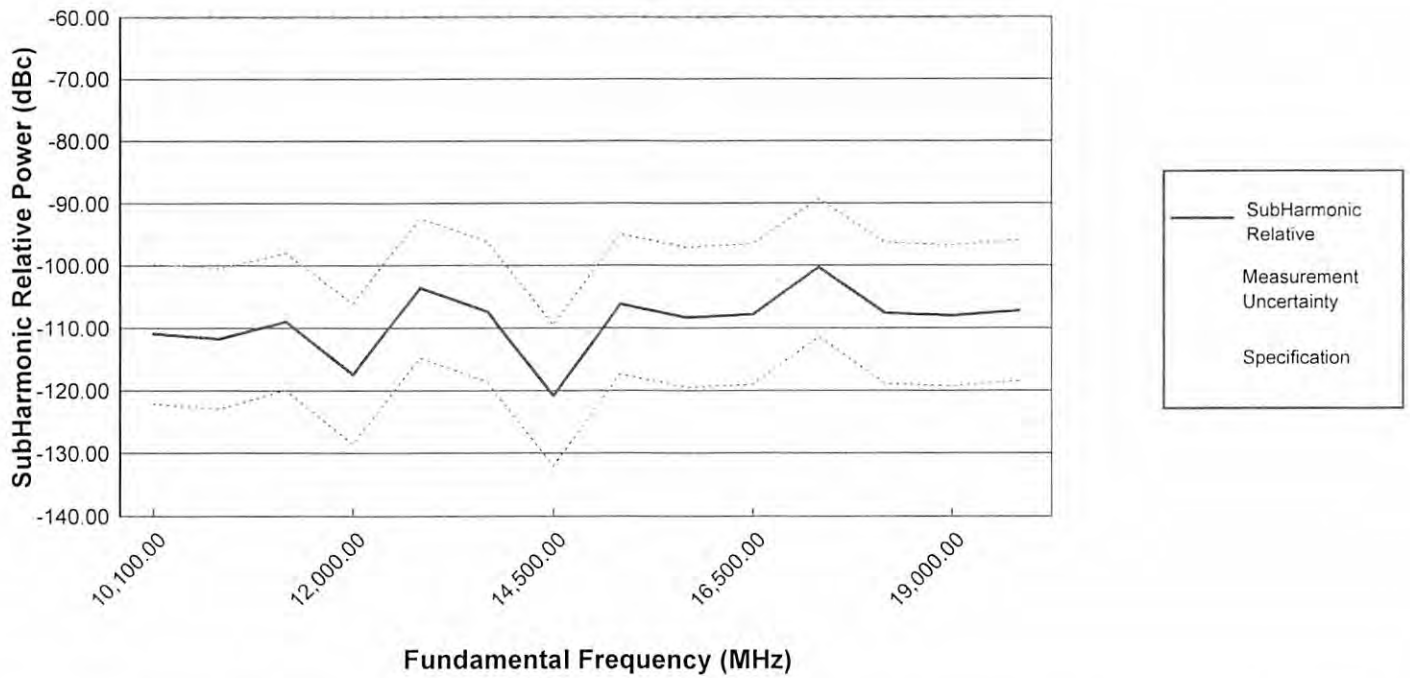
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Multiple of Fundamental Frequency = 2.5



Fundamental Frequency (MHz)	SubHarmonic Frequency (MHz)	SubHarmonic Relative Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
10,100.00	25,250.00	-111.0	11.2	-60	Pass
10,500.00	26,250.00	-111.8	11.2	-60	Pass
11,500.00	28,750.00	-109.0	11.0	-60	Pass
12,000.00	30,000.00	-117.4	11.2	-60	Pass
13,000.00	32,500.00	-103.6	11.2	-60	Pass
13,500.00	33,750.00	-107.4	11.2	-60	Pass
14,500.00	36,250.00	-120.8	11.2	-60	Pass
15,000.00	37,500.00	-106.2	11.2	-60	Pass
16,000.00	40,000.00	-108.4	11.2	-60	Pass
16,500.00	41,250.00	-107.8	11.3	-60	Pass
17,500.00	43,750.00	-100.4	11.1	-60	Pass
18,000.00	45,000.00	-107.7	11.3	-60	Pass
19,000.00	47,500.00	-108.1	11.3	-60	Pass
19,500.00	48,750.00	-107.3	11.3	-60	Pass

**Report Number**  
1233734-2021-06-21-63OL

# Non-Harmonic Spurious

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
E4448A	Spectrum Analyzer	MY54190024	1198224	16-Oct-2021

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

**Clock Spurs**  
**Low Phase Noise Mode Off**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
150.000	100.000	-111.7	2.5	-58	
200.000	233.554	-130.6	5.6	-58	
900.000	100.000	-126.9	5.6	-80	
950.000	983.554	-130.1	5.6	-80	
1,950.000	1,983.554	-127.3	5.7	-80	
3,150.000	3,183.554	-121.7	5.7	-80	
9,900.000	100.000	-126.7	5.7	-70	
9,950.000	9,983.554	-120.7	5.7	-70	
19,900.000	100.000	-127.0	5.7	-64	
19,950.000	19,983.554	-107.3	5.6	-64	
39,950.000	39,983.554	-111.4	5.8	-58	
49,900.000	100.000	-128.7	5.8	-52	
49,950.000	49,983.554	-99.5	5.9	-52	

**Frac N 250 MHz Crossing Spurs**  
**Low Phase Noise Mode Off**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
7,661.311	7,661.444	-102.7	5.4	-70	
7,661.787	7,661.920	-99.7	5.1	-70	
7,663.869	7,664.002	-107.5	5.6	-70	
7,665.431	7,665.564	-104.5	5.5	-70	
7,666.993	7,667.126	-102.3	5.4	-70	
7,672.201	7,672.334	-96.0	4.4	-70	
7,676.368	7,676.501	-96.6	4.7	-70	

**FracN Feedthru Spurs**  
**Low Phase Noise Mode Off**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
1,145.681	599.800	-131.0	5.6	-80	
1,145.869	614.800	-130.9	5.6	-80	
1,146.431	659.800	-126.8	5.6	-80	
1,146.994	704.800	-125.9	5.6	-80	
1,147.181	719.800	-124.0	5.4	-80	
1,147.369	734.800	-129.4	5.6	-80	
1,147.556	749.800	-123.2	5.4	-80	
2,292.112	629.800	-129.4	5.7	-80	
2,292.487	644.800	-128.0	5.7	-80	
2,293.237	674.800	-132.1	5.7	-80	
2,293.612	689.800	-125.6	5.6	-80	
2,293.987	704.800	-128.9	5.7	-80	
2,294.362	719.800	-129.5	5.7	-80	
2,294.737	734.800	-127.5	5.6	-80	
2,295.487	764.800	-132.6	5.7	-80	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

IF 250 MHz Crossing Spurs  
Low Phase Noise Mode Off

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
6,046.282	6,046.415	-105.1	5.4	-70	
6,066.794	6,066.927	-102.0	5.0	-70	
7,403.312	7,403.445	-102.5	5.5	-70	
7,429.683	7,429.816	-102.8	5.5	-70	
7,798.820	7,798.953	-98.0	5.0	-70	
7,825.191	7,825.324	-96.8	4.7	-70	
8,220.699	8,220.832	-103.6	5.5	-70	
8,376.559	8,376.692	-99.2	5.2	-70	
8,660.152	8,660.285	-100.3	5.4	-70	
8,816.012	8,816.145	-109.1	5.6	-70	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Offset Reference Spurs  
Low Phase Noise Mode Off

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
80.000	90.000	-105.4	1.5	-58	
80.000	100.000	-107.4	1.7	-58	
80.000	70.000	-98.7	1.1	-58	
80.000	60.000	-115.3	3.7	-58	
980.000	960.000	-125.2	5.5	-80	
980.000	970.000	-114.5	2.8	-80	
980.000	990.000	-125.4	5.5	-80	
980.000	1,000.000	-119.8	4.7	-80	
1,980.000	1,960.000	-124.0	5.6	-80	
1,980.000	1,990.000	-117.2	4.6	-80	
1,980.000	2,000.000	-123.0	5.6	-80	
1,980.000	1,970.000	-114.4	3.6	-80	
3,180.000	3,160.000	-118.9	5.6	-80	
3,180.000	3,170.000	-119.1	5.6	-80	
3,180.000	3,190.000	-111.3	4.4	-80	
3,180.000	3,200.000	-119.3	5.7	-80	
9,980.000	9,960.000	-121.8	5.7	-70	
9,980.000	9,970.000	-112.3	4.9	-70	
9,980.000	9,990.000	-104.0	2.4	-70	
9,980.000	10,000.000	-118.3	5.6	-70	
19,980.000	20,000.000	-112.3	5.7	-64	
19,980.000	19,970.000	-101.1	4.3	-64	
19,980.000	19,990.000	-97.0	2.9	-64	
19,980.000	19,960.000	-112.1	5.7	-64	
39,980.000	39,960.000	-109.2	5.8	-58	
39,980.000	39,970.000	-96.8	5.4	-58	
39,980.000	39,990.000	-96.9	5.5	-58	
39,980.000	40,000.000	-115.1	5.8	-58	
49,980.000	49,960.000	-99.2	5.9	-52	
49,980.000	49,970.000	-98.9	5.9	-52	
49,980.000	49,990.000	-92.5	5.2	-52	
49,980.000	50,000.000	-95.2	5.7	-52	

Power Supply Spurs  
Low Phase Noise Mode Off

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
100.000	100.103	-100.3	0.6	-58	
500.000	500.103	-103.3	0.7	-80	
2,000.000	2,000.103	-103.1	0.9	-80	
3,200.000	3,200.103	-104.7	2.0	-80	
10,000.000	10,000.103	-95.9	0.8	-70	
19,999.000	19,999.103	-93.5	1.7	-64	
31,999.000	31,999.103	-89.6	3.5	-58	
39,999.000	39,999.103	-87.5	2.5	-58	
49,999.000	49,999.103	-86.7	2.8	-52	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

**Sampler Spurs**  
**Low Phase Noise Mode Off**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
3,698.724	3,698.857	-105.8	5.1	-70	
4,585.247	4,585.380	-103.8	5.1	-70	
5,907.122	5,907.255	-103.4	4.8	-70	
5,989.739	5,989.872	-109.3	5.5	-70	
6,031.048	6,031.181	-113.3	5.6	-70	
7,231.286	7,231.419	-106.9	5.6	-70	
8,130.698	8,130.831	-103.9	5.5	-70	
8,142.342	8,142.474	-98.1	4.6	-70	
8,490.226	8,490.359	-96.7	4.7	-70	
9,359.239	9,359.372	-100.5	5.4	-70	
9,958.311	9,958.444	-102.1	5.5	-70	

**Clock Spurs**  
**Low Phase Noise Mode On**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
150.000	100.000	-129.2	5.6	-80	
200.000	233.554	-125.6	5.6	-80	

**Offset Reference Spurs**  
**Low Phase Noise Mode On**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
80.000	60.000	-125.9	5.6	-80	
80.000	70.000	-116.0	3.9	-80	
80.000	90.000	-117.3	4.4	-80	
80.000	100.000	-125.7	5.6	-80	

**Power Supply Spurs**  
**Low Phase Noise Mode On**

Fundamental Frequency (MHz)	Spurious Frequency (MHz)	Spurious Power (dBc)	Measurement Uncertainty (+/- dB)	Specification (dBc)	Status
100.000	100.103	-104.0	0.9	-80	

Report Number  
1233734-2021-06-21-63OL

# External Pulse Modulation ON/OFF Ratio

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
33120A	Function Generator	MY40027744	1052656	29-Mar-2022
E4448A	Spectrum Analyzer	MY54190024	1198224	16-Oct-2021



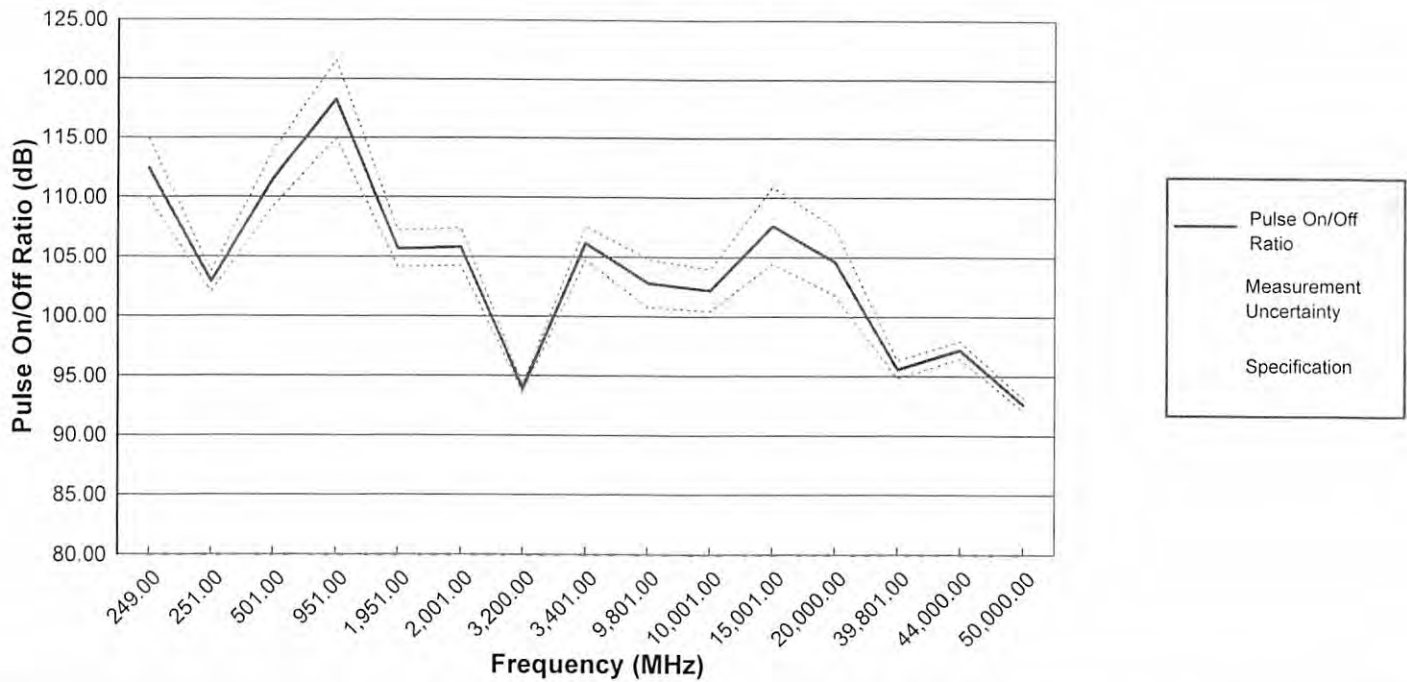
Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

Power = 5.00 dBm  
Low Band Path Mode = Normal



Frequency (MHz)	Pulse On/Off Ratio (dB)	Measurement Uncertainty (+/- dB)	Specification (dB)	Status
249.00	112.39	2.51	80	
251.00	102.88	0.84	80	
501.00	111.54	2.34	80	
951.00	118.25	3.32	80	
1,951.00	105.66	1.53	80	
2,001.00	105.82	1.57	80	
3,200.00	93.94	0.36	80	
3,401.00	106.16	1.41	80	
9,801.00	102.78	2.02	80	
10,001.00	102.21	1.75	80	
15,001.00	107.65	3.25	80	
20,000.00	104.63	2.84	80	
39,801.00	95.58	0.73	80	
44,000.00	97.19	0.75	80	
50,000.00	92.66	0.52	80	

Report Number  
1233734-2021-06-21-63OL

# Single-Sideband Phase Noise

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
E5505A	Phase Noise Measurement System	US44130248	1080824-AC	14-Jul-2021
PNRS_E8257D	Phase Noise Reference Source	MY49281138	1123566	07-Aug-2021

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

Offset Frequency = 1 Hz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-89.6	2.8	-64	
255.1	-80.7	2.8	-67	
600.0	-72.3	2.8	-62	
1,800.0	-63.4	2.8	-57	
3,199.0	-57.4	2.8	-52	
10,000.0	-45.4	2.8	-43	Passed ‡
20,000.0	-43.1	2.8	-37	

Offset Frequency = 10 Hz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-113.8	2.8	-92	
255.1	-105.2	2.8	-93	
600.0	-100.0	2.8	-91	
1,800.0	-92.0	2.8	-86	
3,199.0	-85.1	2.8	-81	
10,000.0	-76.7	2.8	-72	
20,000.0	-70.7	2.8	-66	

Offset Frequency = 100 Hz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-124.9	2.5	-115	
255.1	-121.9	2.5	-111	
600.0	-115.9	2.5	-105	
1,800.0	-106.0	2.5	-100	
3,199.0	-110.6	2.5	-96	
10,000.0	-92.3	2.5	-85	
20,000.0	-85.5	2.5	-79	

Offset Frequency = 1 kHz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-137.0	2.4	-123	
255.1	-130.4	2.4	-125	
600.0	-126.9	2.4	-121	
1,800.0	-118.8	2.4	-115	
3,199.0	-114.2	2.4	-111	
10,000.0	-103.2	2.4	-101	Passed ‡
20,000.0	-98.1	2.4	-95	

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

Offset Frequency = 10 kHz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-144.9	2.4	-138	
255.1	-141.7	2.4	-138	
600.0	-141.4	2.4	-138	
1,800.0	-135.0	2.4	-133	Passed ‡
3,199.0	-130.8	2.4	-128	
10,000.0	-122.8	2.4	-120	
20,000.0	-116.7	2.4	-114	

Offset Frequency = 100 kHz  
Low Phase Noise Mode = Off

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.0	-145.9	2.3	-141	
255.1	-145.0	2.3	-142	
600.0	-143.2	2.3	-138	
1,800.0	-137.2	2.3	-133	
3,199.0	-131.5	2.3	-128	
10,000.0	-124.9	2.3	-120	
20,000.0	-118.3	2.3	-114	

Offset Frequency = 1 Hz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-131.6	2.8	-116	
10.0	-106.8	2.8	-96	
100.0	-87.1	2.8	-80	
249.9	-79.5	2.8	-68	

Offset Frequency = 10 Hz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-147.6	2.8	-140	
10.0	-128.4	2.8	-126	Passed ‡
100.0	-112.3	2.8	-105	
249.9	-108.0	2.8	-100	

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

Offset Frequency = 100 Hz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-161.0	2.5	-153	
10.0	-145.8	2.5	-140	
100.0	-127.8	2.5	-120	
249.9	-118.8	2.5	-114	

Offset Frequency = 1 kHz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-160.1	2.4	-160	Passed ‡
10.0	-156.9	2.4	-155	Passed ‡
100.0	-145.4	2.4	-138	
249.9	-134.1	2.4	-133	Passed ‡

Offset Frequency = 10 kHz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-165.4	2.4	-160	
10.0	-162.7	2.4	-155	
100.0	-155.3	2.4	-150	
249.9	-149.5	2.4	-144	

Offset Frequency = 100 kHz  
Low Phase Noise Mode = On

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
1.0	-165.8	2.3	-160	
10.0	-163.2	2.3	-155	
100.0	-156.9	2.3	-150	
249.9	-151.3	2.3	-144	

Note: Phase noise performance in PSG series signal generators above 20 GHz can be predicted by adding 6.023 dB per octave of carrier frequency increase to the performance measured below 20 GHz. This relationship is established by the design of the PSG series products, which relies on a frequency doubler to generate signals above 20 GHz. Incremental phase noise added by the doublers is negligible compared to other contributors already included in measurements up to 20 GHz. For this reason, on-going performance verification does not require frequency test points above 20 GHz.

Report Number  
1233734-2021-06-21-63OL

# Residual Phase Noise

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
E5505A	Phase Noise Measurement System	US44130248	1080824-AC	14-Jul-2021
PNRS_E8257D	Phase Noise Reference Source	MY49281138	1123566	07-Aug-2021

Model E8257D

Serial MY59140095

Test Date 25-Jun-2021

Test Result Passed ‡

Offset Frequency = 10.00 Hz

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.00	-118.1	2.8	-100	
500.00	-112.4	2.8	-105	
1,000.00	-103.6	2.8	-100	
2,000.00	-96.7	2.8	-96	Passed ‡
3,200.00	-93.8	2.8	-92	Passed ‡

Offset Frequency = 100.00 Hz

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.00	-127.8	2.5	-110	
500.00	-118.1	2.5	-115	
1,000.00	-112.0	2.5	-110	Passed ‡
2,000.00	-107.3	2.5	-104	
3,200.00	-103.9	2.5	-100	

Offset Frequency = 1,000.00 Hz

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.00	-136.3	2.4	-123	
500.00	-125.2	2.4	-124	Passed ‡
1,000.00	-121.7	2.4	-120	Passed ‡
2,000.00	-115.7	2.4	-115	Passed ‡
3,200.00	-113.2	2.4	-111	Passed ‡

Offset Frequency = 10,000.00 Hz

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.00	-144.6	2.4	-138	
500.00	-141.0	2.4	-138	
1,000.00	-138.9	2.4	-135	
2,000.00	-134.4	2.4	-133	Passed ‡
3,200.00	-130.4	2.4	-128	

Offset Frequency = 100,000.00 Hz

Frequency (MHz)	Phase Noise (dBc/Hz)	Measurement Uncertainty (dB)	Specification (dBc/Hz)	Status
100.00	-146.1	2.3	-141	
500.00	-144.6	2.3	-140	
1,000.00	-142.3	2.3	-135	
2,000.00	-135.1	2.3	-133	Passed ‡
3,200.00	-131.9	2.3	-128	

Report Number  
1233734-2021-06-21-63OL

# Swept Frequency Accuracy

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed

## Environmental Conditions

Temperature 21.00 Celsius

Humidity 50.00 %

Line Frequency 60.00 Hz

## Test Standards and Required Equipment

<u>Model</u>	<u>Description</u>	<u>Equipment ID</u>	<u>Trace Number</u>	<u>Cal Due</u>
54820A	Oscilloscope	US38220109	987728	11-Dec-2021
E4448A	Spectrum Analyzer	MY54190024	1198224	16-Oct-2021

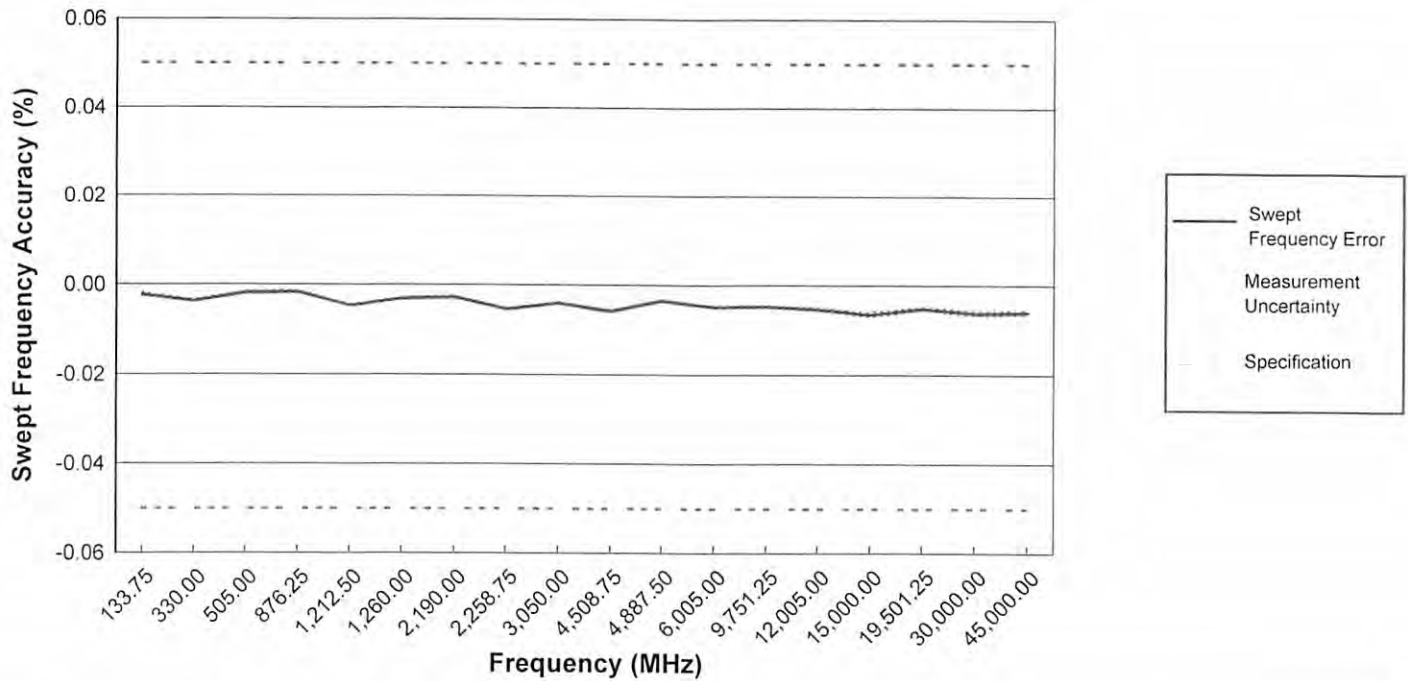


Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Passed



Start Frequency (MHz)	Stop Frequency (MHz)	Frequency (MHz)	Swept Frequency Error (%)	Measurement Uncertainty (+/- %)	Specification (+/- %)	Status
10	1,000	133.75	-0.00219	0.00044	0.05	
20	2,500	330.00	-0.00363	0.00035	0.05	
10	1,000	505.00	-0.00181	0.00044	0.05	
10	1,000	876.25	-0.00164	0.00044	0.05	
600	5,500	1,212.50	-0.00463	0.00034	0.05	
20	2,500	1,260.00	-0.00308	0.00035	0.05	
20	2,500	2,190.00	-0.00270	0.00035	0.05	
1,010	11,000	2,258.75	-0.00535	0.00035	0.05	
600	5,500	3,050.00	-0.00404	0.00034	0.05	
2,010	22,000	4,508.75	-0.00580	0.00040	0.05	
600	5,500	4,887.50	-0.00348	0.00034	0.05	
1,010	11,000	6,005.00	-0.00483	0.00035	0.05	
1,010	11,000	9,751.25	-0.00469	0.00035	0.05	
2,010	22,000	12,005.00	-0.00529	0.00040	0.05	
10,000	50,000	15,000.00	-0.00645	0.00060	0.05	
2,010	22,000	19,501.25	-0.00513	0.00040	0.05	
10,000	50,000	30,000.00	-0.00615	0.00060	0.05	
10,000	50,000	45,000.00	-0.00595	0.00060	0.05	

**Report Number**  
1233734-2021-06-21-63OL

**Self Check**

**Model** E8257D

**Serial** MY59140095

**Test Date** 21-Jun-2021

**Test Result** Completed

**Environmental Conditions**

**Temperature** 21.00 Celsius

**Humidity** 50.00 %

**Line Frequency** 60.00 Hz

No standards are used for this test.

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = ALC Board Tests

Test Name	Value	Min Limit	Max Limit	Status
+10V	10.00	9.50	10.50	
Integrator Railed Positive	10.00	8.00	11.00	
Integrator Railed Negative	-10.00	-11.00	-4.00	
Scalar Pulse Mod	-1.41	-2.50	-0.50	
ALC Mod 20 GHz Closed	0.95	0.00	6.00	
ALC Mod 20 GHz Open	0.00	-1.00	1.00	
ALC Mod 40 GHz Closed	0.67	-0.10	6.00	
ALC Mod 40 GHz Open	0.00	-1.00	1.00	
ALC Reference Part 2	-0.54	-0.84	-0.24	
Unlevel Indicator Part 1	1.00	1.00	1.00	
-10V	-10.00	-10.50	-9.50	
+9V PTAT	8.52	7.00	11.00	
HiBand/RF Off	0.00	-1.00	1.00	
LoBand/RF Off	0.00	-1.00	1.00	
Integrator/RF Off	-7.05	-7.40	-6.50	
HiBand/MaxOut	-0.22	-9.00	1.00	
LowBand/MaxOut	-0.17	-9.00	1.00	
Lowband-At Midpoint	0.01	-0.10	0.10	
ALC Current	0.04	-1.70	2.30	
Hiband-At Midpoint	0.01	-0.10	0.10	
ALC Reference Part 3	0.54	0.24	0.84	
Lowband Modulation	5.12	-10.00	10.00	
ALC Off	0.00	-0.10	0.10	
Mod Level Part 1	8.02	4.00	9.00	
Mod Level Part 2	8.74	4.00	9.25	
Mod Level Part 3	7.30	4.00	9.00	
Mod Level Part 4	6.52	4.00	9.00	
Mod Level Part 5	9.51	4.00	10.00	
ALC Reference Part 1	0.00	-0.30	0.30	
Hiband-Under Midpoint	0.01	-0.10	0.10	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = Analog ModGen Tests

Test Name	Value	Min Limit	Max Limit	Status
-5V node	-5.00	-5.10	-4.90	
+10V node	10.00	9.90	10.10	
+5V ref node	5.00	4.90	5.10	
IPG Locked	1.00	1.00	1.00	
IPG Tune	1.35	0.10	2.30	
Video Out On	2.69	0.50	3.00	
Sync Out On	2.69	0.50	3.00	
RED Vref DAC Minimum	0.78	0.70	0.90	
RED Vref DAC Maximum	3.36	3.00	3.80	
FED Vref DAC Minimum	0.78	0.70	0.90	
FED Vref DAC Maximum	3.36	3.00	3.80	
-10V node	-9.99	-10.10	-9.90	
Pulse20 FED Out Disable	0.00	-0.01	0.02	
AM2 Path Loss	1.10	1.00	1.20	
Pulse20 FED Maximum	2.67	1.60	3.20	
LF Out Max Positive	8.20	7.80	8.40	
LF Out Max Negative	-8.20	-8.40	-7.80	
AM Offset Maximum	0.23	0.15	0.25	
AM Offset Minimum	-2.21	-2.30	-2.10	
Ext1 Peak Maximum	0.75	0.67	0.90	
Ext1 Peak Mimimum	-1.10	-2.00	-0.70	
Ext2 Peak Maximum	0.73	0.67	0.90	
FM1 DC Gain	1.15	1.00	1.30	
AM1 Path Loss	1.10	1.00	1.20	
FM2 Max Negative Offset	-0.01	-0.02	0.00	
Ext2 Peak Minimum	-1.09	-2.00	-0.70	
FGEN1 Min Output	-2.16	-2.30	-2.00	
Std Pulse	2.58	2.00	2.90	
Std Pulse Output Disable	5.10	4.80	5.30	
1E6 Pulse	1.60	1.50	3.50	
Output Disable	0.00	-1.00	1.00	
Numeric Synth Clk Locked	1.00	1.00	1.00	
Numeric Synth Tune	1.23	0.10	2.30	
FGEN1 Offset Min	-0.07	-0.08	-0.06	
FM2 DC Gain	1.25	1.00	1.50	
FGEN1 Max Output	2.16	1.90	2.20	
Pulse20 FED Minimum	0.80	0.40	1.90	
FGEN1 Abus Zero	0.00	0.00	0.00	
FGEN2 Offset Min	-0.07	-0.08	-0.06	
FGEN2 Offset Max	2.46	2.20	2.60	
FGEN2 Max Output	2.15	1.90	2.20	
FGEN2 Min Output	-2.15	-2.30	-2.00	
FGEN2 Abus Zero	0.00	0.00	0.00	
FM1 Max Positive Offset	0.15	0.12	0.20	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

**Test Group = Analog ModGen Tests**

Test Name	Value	Min Limit	Max Limit	Status
FM1 Max Negative Offset	-0.13	-0.16	-0.08	
FM2 Max Positive Offset	0.01	0.00	0.02	
FGEN1 Offset Max	2.46	2.20	2.60	

**Test Group = CPU Bd Tests**

Test Name	Value	Min Limit	Max Limit	Status
+10V Ref	10.00	9.90	10.10	
-6V Ref	-5.98	-6.20	-5.80	
-5.2V Ref	-5.18	-5.30	-4.85	
+9V Ref	8.97	8.90	9.10	

**Test Group = FracN Tests**

Test Name	Value	Min Limit	Max Limit	Status
1-1.55 GHz	1.72	0.50	13.50	
1.5GHz Lock	0.00	0.00	0.00	
1GHz Input	0.13	0.05	2.00	
OL min Pretune	3.16	1.00	5.00	
OL mid Pretune	3.14	1.00	5.00	
OL max Pretune	2.34	1.00	5.00	
OL Higher Collector Bias	4.12	2.90	6.20	
OL Lower Collector Bias	3.25	2.00	5.40	
OL Delta Collector Bias	0.87	0.70	1.10	
1GHz Lock	0.00	0.00	0.00	
2.4-3.2 GHz	3.21	0.50	13.50	
1GHz VCO Out	3.19	1.00	5.00	
1.55-2.4 GHz	2.63	0.50	13.50	
1.5GHz Tune Voltage	10.44	9.00	12.00	
1.5GHz VCO Out	3.07	1.00	5.00	
2GHz Lock	0.00	0.00	0.00	
2GHz Tune Voltage	19.35	15.00	22.00	
2GHz VCO Out	2.45	1.00	5.00	
250-396 MHz	3.25	0.25	13.50	
396-628 MHz	4.66	0.50	13.50	
628-1000 MHz	4.26	1.00	13.50	
1GHz Tune Voltage	3.18	2.00	4.00	
3.3V FPGA	3.31	3.00	3.60	
28V INT	9.83	9.00	11.00	
-6V PD	-6.00	-6.50	-5.50	
-4.5V ESOT	-4.50	-5.00	-4.00	
3.3V ESOT	3.31	3.00	3.60	
3.3V REG	3.28	3.00	3.60	
-10V INT	-9.47	-11.00	-9.00	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = LBF Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
+3.3V Supply	3.50	2.00	4.00	
+3.3VDF Supply	3.06	1.00	5.00	
+10V Supply	9.99	8.00	12.00	
-10V Supply	-9.98	-12.00	-8.00	
+5V Supply	5.05	3.00	7.00	
+10VS Supply	9.99	8.00	12.00	
-5V Supply	-4.99	-7.00	-3.00	
-15V Supply	-14.86	-18.00	-11.00	
+15V Supply	14.85	11.00	18.00	
300 MHz Bypass Path	-1.48	-13.00	-0.10	
Switched +10V Supply Off	-0.50	-1.00	1.00	
Switched -5V Supply	-4.72	-8.00	-2.00	
Switched -5V Supply Off	-1.14	-2.00	-0.10	
Switched +9V Supply	9.09	6.00	12.00	
Switched +9V Supply Off	0.05	-1.00	1.00	
Analog Ground	0.00	-0.50	0.50	
Driver Amp Bias	-1.24	-4.00	-0.10	
Power Amp 1 Bias	-1.01	-4.00	-0.10	
Switched +10V Supply	9.90	8.00	12.00	
2.5 GHz Bypass Path	-1.73	-13.00	-0.10	
Pulse Modulator On	0.01	-0.50	0.50	
396-500MHz Filter @500MHz	-1.46	-13.00	-0.10	
396-500MHz Filter @792MHz	0.00	-0.50	0.50	
500-628MHz Filter @628MHz	-1.46	-13.00	-0.10	
500-628MHz Filter @1000MHz	0.00	-0.50	0.50	
628-1000MHz Filter @1000MHz	-1.46	-13.00	-0.10	
628-1000MHz Filter @1236MHz	0.00	-0.50	0.50	
1000-1500MHz Filter @1500MHz	-1.45	-13.00	-0.10	
1000-1500MHz Filter @2000MHz	0.00	-0.50	0.50	
Power Amp 2 Bias	-0.98	-4.00	-0.10	
Pulse Modulator Off	-1.48	-13.00	-0.10	
205-250MHz Filter @410MHz	0.00	-0.50	0.50	
Step Atten Reference @0	0.00	-2.00	2.00	
Step Atten 1	1.00	0.50	1.50	
Step Atten 2	2.00	1.00	3.00	
Step Atten 4	4.03	3.00	5.00	
Step Atten 8	8.12	5.00	10.00	
Step Atten 16	16.31	12.00	19.00	
Monotonicity Check	1.00	1.00	1.00	
Divider Test @10MHz	0.68	0.10	1.50	
1500-2000MHz Filter @2000MHz	-1.45	-13.00	-0.10	
53-75MHz Filter @75MHz	-1.47	-13.00	-0.10	
10-14MHz Filter @14 MHz	-1.46	-13.00	-0.10	
10-14MHz Filter @20 MHz	0.00	-0.50	0.50	

Report Number  
1233734-2021-06-21-630L

Self Check

Model E8257D Serial MY59140095 Test Date 21-Jun-2021 Test Result Completed

Test Group = LBF Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
14-19MHz Filter @ 19 MHz	-1.46	-13.00	-0.10	
14-19MHz Filter @ 28 MHz	0.00	-0.50	0.50	
19-27MHz Filter @ 27MHz	-1.46	-13.00	-0.10	
19-27MHz Filter @ 38MHz	0.00	-0.50	0.50	
27-38MHz Filter @ 38MHz	-1.46	-13.00	-0.10	
27-38MHz Filter @ 54MHz	0.00	-0.50	0.50	
250-396MHz Filter @ 500MHz	-0.02	-0.50	0.50	
38-53MHz Filter @ 76MHz	0.00	-0.50	0.50	
250-396MHz Filter @ 396MHz	-1.50	-13.00	-0.10	
53-75MHz Filter @ 106MHz	0.00	-0.50	0.50	
75-105MHz Filter @ 105MHz	-1.48	-13.00	-0.10	
75-105MHz Filter @ 150MHz	0.00	-0.50	0.50	
105-146MHz Filter @ 146MHz	-1.48	-13.00	-0.10	
105-146MHz Filter @ 210MHz	0.00	-0.50	0.50	
146-205MHz Filter @ 205MHz	-1.48	-13.00	-0.10	
146-205MHz Filter @ 292MHz	0.00	-0.50	0.50	
205-250MHz Filter @ 250MHz	-1.48	-13.00	-0.10	
38-53MHz Filter @ 53MHz	-1.47	-13.00	-0.10	
Test bad divide	-2.09	-5.00	-0.50	
Divider Test @ 20MHz	0.72	0.10	1.50	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = Lowband Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
Ground voltage	0.01	-0.50	0.50	
1500-2400MHz Filter @2399MHz	-1.72	-13.00	-0.50	
Nominal DAC settings	-2.44	-13.00	-0.50	
ALC Mod Offset DAC @Min	-3.13	-13.00	-0.50	
ALC Mod Offset DAC @Max	-0.01	-0.50	0.50	
ALC Mod Bias DAC @Min	-0.01	-0.50	0.50	
ALC Mod Bias DAC @Max	-3.11	-13.00	-0.50	
Power Limit DAC @Min	-0.04	-0.50	0.50	
Power Limit DAC @Max	-0.25	-15.00	15.00	
628-1000MHz Filter @999MHz	-1.92	-13.00	-0.10	
Het band	-2.21	-13.00	-0.50	
Max Current	-12.43	-13.00	-8.00	
+10VP	10.00	9.00	11.00	
-10VP	-10.00	-11.00	-9.00	
+8Vsw On	8.46	7.50	9.50	
+8Vsw Off	0.00	-0.50	0.50	
Temp Sense Voltage	7.67	6.00	11.00	
Min Scale Prelevel	-0.59	-2.50	-0.30	
Prelevel cond 2	-0.03	-0.50	0.50	
1000-1500MHz Filter @1499MHz	-1.84	-13.00	-0.50	
Min current	9.98	8.00	13.00	
628-1000MHz Filter @1256MHz	-0.02	-0.50	0.50	
Min Current	9.93	8.00	13.00	
Clamp Detector Test	-3.39	-4.00	-0.50	
Amp Bias Switch On	-3.13	-4.50	-0.50	
Amp Bias Switch Off	-0.02	-0.50	0.50	
250-396MHz Filter @395MHz	-2.69	-13.00	-0.50	
250-396MHz Filter @500MHz	-0.03	-0.50	0.50	
396-628MHz Filter @627MHz	-3.45	-13.00	-0.50	
396-628MHz Filter @792MHz	-0.05	-0.50	0.50	
Max current	-12.43	-13.00	-8.00	



Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = MID Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
U23 Drain Current	230.31	200.00	400.00	
U26 Drain Current	222.97	200.00	400.00	
U31 Drain Current	343.17	200.00	400.00	
U32 Drain Current	339.05	200.00	400.00	
U33 Drain Current	340.42	200.00	400.00	
U34 Drain Current	338.13	200.00	400.00	
20-40 Prelevel Voltage	-3.03	-5.00	0.00	
40-70 Prelevel Voltage	-2.02	-5.00	0.00	
HIBx10_ABUS @12.8GHz	-1.22	-9.00	0.00	
U18 Drain Current	216.32	200.00	400.00	
Prelevel DAC Voltage	9.96	9.50	10.00	
TC902 6.5V Supply	6.33	6.00	7.00	
RF pulse on	-1.13	-9.00	0.00	
RF pulse off	0.00	-1.00	1.00	
Lowband Pulse Off	0.00	-1.00	1.00	
Lowband Pulse On	-2.19	-3.00	0.00	
+15V Supply	15.04	14.50	15.50	
-15V Supply	-15.02	-15.50	-14.50	
-3V Supply	-3.14	-3.50	-2.70	
U25 Drain Current	226.64	200.00	400.00	
+10Vref Supply	10.00	9.80	10.20	
U24 Drain Current	240.18	200.00	400.00	
TC956 5.2V Supply	4.76	4.40	5.50	
TC956 3.5V Supply 1	3.30	3.00	3.70	
TC956 3.5V Supply 2	3.30	3.00	3.70	
U2 Drain Current	138.21	50.00	300.00	
U3 Drain Current	141.72	50.00	300.00	
U5 Drain Current	135.95	50.00	300.00	
U7 Drain Current	141.22	50.00	300.00	
U10 Drain Current	217.93	200.00	400.00	
-5.2V Supply	-5.29	-5.50	-4.80	
HIBx10_ABUS @12.8GHz	-1.22	-9.00	0.00	
8V Supply	7.96	7.50	8.50	
HIBx10_ABUS @20GHz	-1.50	-9.00	0.00	
12V Supply	11.95	11.50	12.50	
6.5V Supply	6.44	6.00	7.00	
3.5V Supply	3.41	3.00	3.70	
-3V Supply	-3.14	-3.30	-2.80	
MODF_9VSW_ABUS	8.96	8.00	9.50	
MODF_12VSW_ABUS	11.74	11.00	12.50	
MODF_VD1_ABUS	8.07	7.00	8.80	
MODF_VD2_ABUS	10.90	10.00	11.80	
MODF_VD3_ABUS	10.91	10.00	11.80	
U2 Drain Current(mA)	415.59	50.00	500.00	

**Self Check**

Model E8257D Serial MY59140095 Test Date 21-Jun-2021 Test Result Completed

Report Number  
1233734-2021-06-21-630L

**Test Group = MID Bd Tests**

Test Name	Value	Min Limit	Max Limit	Status
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VD1_ABUS @16GHz	-3.87	-10.00	-1.00	-1.00
MODF_VD4_ABUS	10.90	10.00	11.80	0.00
SW_FAULT_ABUS @9GHz	-7.48	-8.00	0.00	0.00
SW_FAULT_ABUS @12GHz	-7.48	-8.00	0.00	0.00
SW_FAULT_ABUS @15GHz	-7.48	-8.00	0.00	0.00
SW_FAULT_ABUS @18GHz	-7.48	-8.00	0.00	0.00
VD1_ABUS @3.21GHz	-4.88	-10.00	-1.00	-1.00
VD1_ABUS @5GHz	-4.48	-10.00	-1.00	-1.00
VD1_ABUS @8GHz	-4.85	-10.00	-1.00	-1.00
Ig4(mA) @16GHz	-0.53	-8.00	5.00	5.00
VD1_ABUS @12.8GHz	-3.32	-10.00	-1.00	-1.00
Ig4(mA) @12.8GHz	0.33	-8.00	5.00	5.00
VD1_ABUS @20GHz	-3.99	-10.00	-1.00	-1.00
LOBX10_ABUS @2GHz	-1.40	-9.00	0.00	0.00
HIBX10_ABUS @2GHz	-1.18	-9.00	0.00	0.00
HIBX10_ABUS @2.01GHz	-1.17	-9.00	0.00	0.00
HIBX10_ABUS @3.2GHz	-1.16	-9.00	0.00	0.00
HIBX10_ABUS @3.21GHz	-1.14	-9.00	0.00	0.00
HIBX10_ABUS @5GHz	-1.15	-9.00	0.00	0.00
HIBX10_ABUS @8GHz	-1.17	-9.00	0.00	0.00
HIBX10_ABUS @10GHz	-1.23	-9.00	0.00	0.00
VD1_ABUS @10GHz	-4.24	-10.00	-1.00	-1.00
DBL20_VD3_ABUS	7.03	6.00	7.80	7.80
U3 Drain Current(mA)	414.84	50.00	500.00	500.00
U4 Drain Current(mA)	416.16	50.00	500.00	500.00
SW_FAULT_ABUS @4GHz	-7.48	-8.00	0.00	0.00
SW_FAULT_ABUS @6GHz	-7.48	-8.00	0.00	0.00
SW_FAULT_ABUS @12GHz	-7.47	-8.00	0.00	0.00
SW_FAULT_ABUS @15GHz	-7.48	-8.00	0.00	0.00
DBL20_8VSW_ABUS	7.81	7.00	8.50	8.50
Ig4(mA) @20GHz	-0.33	-8.00	5.00	5.00
DBL20_VD2_ABUS	7.03	6.00	7.80	7.80
U1 Drain Current(mA)	294.17	50.00	350.00	350.00
DBL20_VD4_ABUS	7.04	6.00	7.80	7.80
U1 drain current(mA)	148.73	50.00	250.00	250.00
U2 drain current(mA)	149.81	50.00	250.00	250.00
U3 drain current(mA)	148.66	50.00	250.00	250.00
U4 drain current(mA)	132.55	50.00	250.00	250.00
Ig4(mA) @3.21GHz	4.31	-8.00	5.00	5.00
Ig4(mA) @5GHz	4.31	-8.00	5.00	5.00
Ig4(mA) @8GHz	4.31	-8.00	5.00	5.00
Ig4(mA) @10GHz	0.54	-8.00	5.00	5.00
DBL20_VD1_ABUS	7.03	6.00	7.80	7.80

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Test Result Completed

Test Group = Offset Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
VCO_DET	0.57	0.10	1.00	
FracN Signal	0.54	0.10	1.00	
3.0 GHz step	0.70	0.10	1.50	
3.5 GHz step	0.35	0.10	1.50	
4.0 GHz step	0.38	0.10	1.50	
4.5 GHz step	0.39	0.10	1.50	
5.0 GHz step	0.38	0.10	1.50	
5.5 GHz step	0.36	0.10	1.50	
6.0 GHz step	0.38	0.10	1.50	
6.5 GHz step	0.36	0.10	1.50	
8.0 GHz step	0.35	0.10	1.50	
7.0 GHz step	0.37	0.10	1.50	
8.5 GHz step	0.35	0.10	1.50	
9.0 GHz step	0.35	0.10	1.50	
9.5 GHz step	0.35	0.10	1.50	
10.0 GHz step	0.65	0.10	1.50	
OSL locked	0.00	0.00	0.00	
OSL unlocked	1.00	0.00	1.00	
YOL IF level	0.32	0.10	1.50	
YOL unlocked	1.00	1.00	1.00	
7.5 GHz step	0.37	0.10	1.50	
YOL locked	0.00	0.00	0.00	

Test Group = Reference Bd Tests

Test Name	Value	Min Limit	Max Limit	Status
100MHZ_TUNE0 3	0.81	-0.10	2.00	
100MHZ_TUNE0 4	0.80	-0.10	2.00	
100MHZ_TUNE0 5	0.80	-0.10	2.00	
100MHZ_TUNE0 6	0.80	-0.10	2.00	
100MHZ_TUNE0 7	0.80	-0.10	2.00	
100MHZ_TUNE0 1	0.81	-0.10	2.00	
100MHZ_TUNE0 0	0.81	-0.10	2.00	
+15V	1.37	1.30	1.50	
100MHZ_TUNE0 2	0.81	-0.10	2.00	
+9V	0.83	0.80	0.90	
100MHz Osc Tune Line	1.84	-10.00	10.00	
-15V	-1.38	-1.50	1.30	
100MHz Osc Unlock	0.00	0.00	0.00	
Internal 10MHz	0.30	0.14	0.34	
FracN Out 10MHz	1.32	0.00	1.50	
Sampler 1GHz	0.81	0.00	1.00	
Lowband(On) 1GHz Out	0.38	0.00	1.00	
Lowband(Off) 1GHz Out	0.00	-0.10	0.10	

Model E8257D

Serial MY59140095

Test Date 21-Jun-2021

Test Result Completed

Test Group = Yig Driver Tests

Test Name	Value	Min Limit	Max Limit	Status
+2.5V	2.52	2.40	2.60	
Ground	0.00	-0.10	0.10	
-5.2V	-5.19	-5.30	-5.10	
+9V	9.00	8.82	9.18	
Min Scale Sweep	0.00	-0.10	0.10	
Max Scale Sweep	-4.99	-5.10	-4.90	
Min Scale VGHz	0.00	-0.10	0.10	
Max scale VGHz	4.74	4.00	7.00	
Min Scale Pretune	0.00	-0.10	0.10	
Max Scale Pretune	10.99	10.78	11.22	
Analog Mod Not Present	0.00	0.00	0.00	
Min Scale Sweep Dac	3.09	2.50	3.50	
Max Scale Sweep Dac	9.60	9.00	10.00	
-6V	-6.00	-6.12	-5.88	
Full Scale Sweep Level Dac	9.11	4.20	15.00	