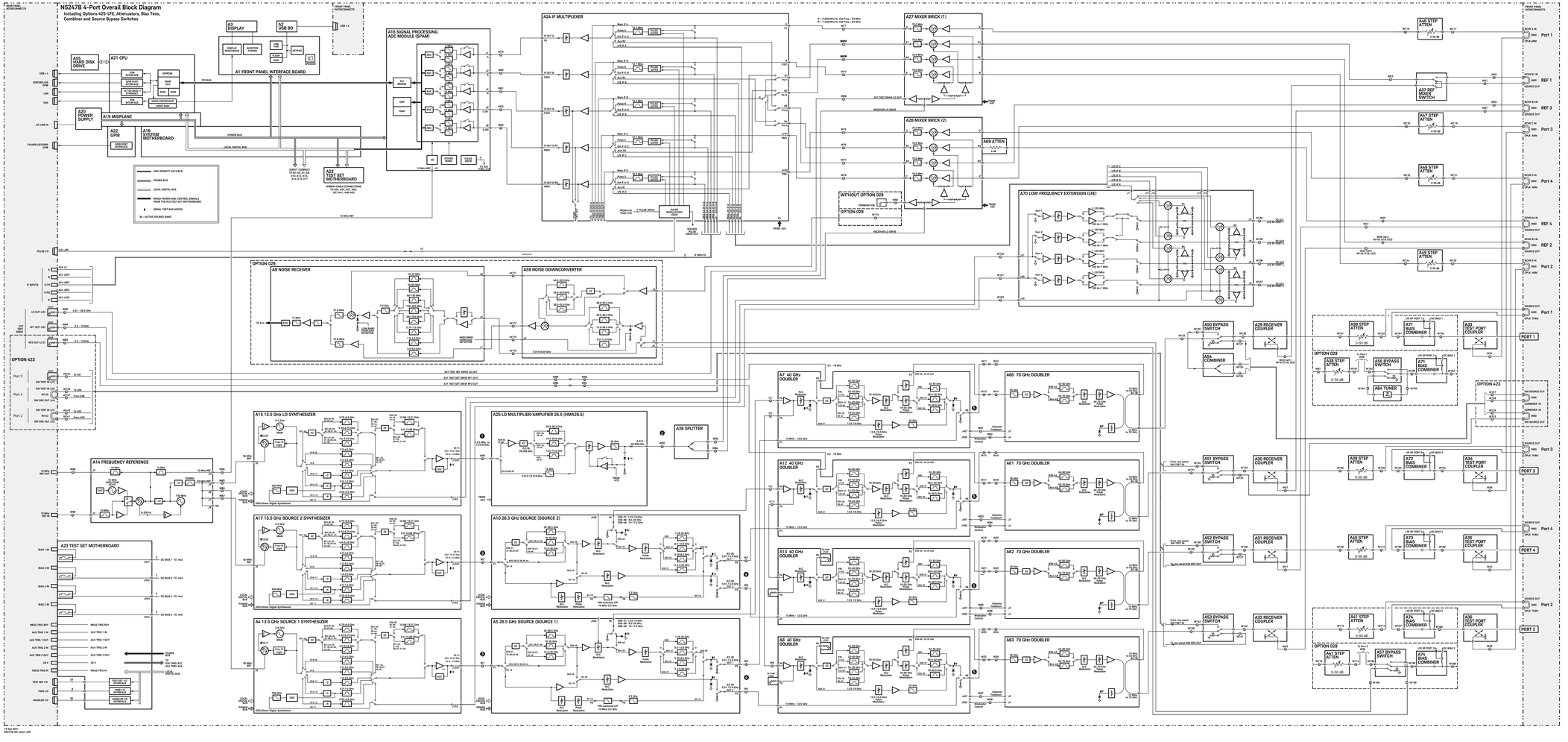
N5247B 4-Port Overall Block Diagram

Including Options 425-LFE, Attenuators, Bias Tees, Combiner and Source Bypass Switches

Band	Mixer Brick LO Harmonic Number	❶ LO Synthesizer Frequency (GHz)	❷ A25 HMA26.5 Frequency (GHz)	❸ RF Synthesizer Frequency (GHz)	❹ A5/A10 Source Frequency (GHz)	❺ A15/A17/A13 40 GHz Doubler Frequency (GHz)	❻ A60/A61/A62/A63 70 GHz Doubler Frequency (GHz)
0	1	---	---	---	---	---	---
1	1	---	---	---	---	---	---
2	1	0.01248 to 0.01668	0.01248 to 0.01668	0.015 to 0.014	0.015 to 0.014	0.015 to 0.014	0.015 to 0.014
3	1	0.01668 to 0.02148	0.01668 to 0.02148	0.014 to 0.019	0.014 to 0.019	0.014 to 0.019	0.014 to 0.019
4	1	0.02148 to 0.02968	0.02148 to 0.02968	0.019 to 0.027	0.019 to 0.027	0.019 to 0.027	0.019 to 0.027
5	1	0.02948 to 0.04048	0.02948 to 0.04048	0.027 to 0.038	0.027 to 0.038	0.027 to 0.038	0.027 to 0.038
6	1	0.04048 to 0.05548	0.04048 to 0.05548	0.038 to 0.053	0.038 to 0.053	0.038 to 0.053	0.038 to 0.053
7	1	0.06044 to 0.08244	0.06044 to 0.08244	0.053 to 0.075	0.053 to 0.075	0.053 to 0.075	0.053 to 0.075
8	1	0.08244 to 0.11344	0.08044 to 0.11344	0.075 to 0.105	0.075 to 0.105	0.075 to 0.105	0.075 to 0.105
9	1	0.11244 to 0.15344	0.11244 to 0.15344	0.105 to 0.148	0.105 to 0.148	0.105 to 0.148	0.105 to 0.148
10	1	0.15344 to 0.21244	0.15344 to 0.21244	0.148 to 0.205	0.148 to 0.205	0.148 to 0.205	0.148 to 0.205
11	1	0.21144 to 0.25744	0.21144 to 0.25744	0.205 to 0.250	0.205 to 0.250	0.205 to 0.250	0.205 to 0.250
12	1	0.25744 to 0.40244	0.25744 to 0.40244	0.250 to 0.396	0.250 to 0.396	0.250 to 0.396	0.250 to 0.396
13	1	0.40244 to 0.50744	0.40244 to 0.50744	0.396 to 0.500	0.396 to 0.500	0.396 to 0.500	0.396 to 0.500
14	1	0.50744 to 0.83544	0.50744 to 0.83544	0.500 to 0.828	0.500 to 0.828	0.500 to 0.828	0.500 to 0.828
15	1	0.83544 to 1.0074	0.83544 to 1.0074	0.828 to 1.000	0.828 to 1.000	0.828 to 1.000	0.828 to 1.000
16	1	1.0074 to 1.5074	1.0074 to 1.5074	1.000 to 1.500	1.000 to 1.500	1.000 to 1.500	1.000 to 1.500
17	1	1.5074 to 2.0074	1.5074 to 2.0074	1.500 to 2.000	1.500 to 2.000	1.500 to 2.000	1.500 to 2.000
18	2	2.0074 to 3.0074	2.0074 to 3.0074	2.000 to 3.000	2.000 to 3.000	2.000 to 3.000	2.000 to 3.000
19	3	3.0074 to 3.2074	3.0074 to 3.2074	3.000 to 3.200	3.000 to 3.200	3.000 to 3.200	3.000 to 3.200
20	3	3.2074 to 4.0074	3.2074 to 4.0074	3.200 to 4.000	3.200 to 4.000	3.200 to 4.000	3.200 to 4.000
21	3	4.0074 to 5.3394	4.0074 to 5.3394	4.000 to 5.332	4.000 to 5.332	4.000 to 5.332	4.000 to 5.332
22	3	5.3394 to 6.7194	5.3394 to 6.7194	5.332 to 6.752	5.332 to 6.752	5.332 to 6.752	5.332 to 6.752
23	4	6.7194 to 8.0074	6.7194 to 8.0074	6.752 to 8.000	6.752 to 8.000	6.752 to 8.000	6.752 to 8.000
24	4	8.0074 to 8.5074	8.0074 to 8.5074	8.000 to 8.500	8.000 to 8.500	8.000 to 8.500	8.000 to 8.500
25	4	8.5074 to 10.6714	8.5074 to 10.6714	8.500 to 10.664	8.500 to 10.664	8.500 to 10.664	8.500 to 10.664
26	1	10.6714 to 12.0074	10.6714 to 12.0074	10.664 to 12.000	10.664 to 12.000	10.664 to 12.000	10.664 to 12.000
27	1	12.0074 to 12.8074	12.0074 to 12.8074	12.000 to 12.800	12.000 to 12.800	12.000 to 12.800	12.000 to 12.800
28	1	12.8074 to 13.3174	12.8074 to 13.3174	12.800 to 13.510	12.800 to 13.510	12.800 to 13.510	12.800 to 13.510
29	1	6.7507 to 7.7037	13.5174 to 15.4074	6.755 to 7.700	13.510 to 15.400	13.510 to 15.400	13.510 to 15.400
30	1	7.7037 to 8.0037	15.4074 to 16.0074	7.700 to 8.000	15.400 to 16.000	15.400 to 16.000	15.400 to 16.000
31	1	8.0037 to 9.0037	16.0074 to 18.0074	8.000 to 9.000	16.000 to 18.000	16.000 to 18.000	16.000 to 18.000
32	1	9.0037 to 10.0037	18.0074 to 20.0074	9.000 to 10.000	18.000 to 20.000	18.000 to 20.000	18.000 to 20.000
33	1	10.0037 to 10.6677	20.0074 to 21.3394	10.000 to 10.664	20.000 to 21.328	20.000 to 21.328	20.000 to 21.328
34	1	10.6677 to 12.0037	21.3394 to 24.0074	10.664 to 12.000	21.328 to 24.000	21.328 to 24.000	21.328 to 24.000
35	1	12.0037 to 13.2537	24.0074 to 26.5074	12.000 to 13.250	24.000 to 26.500	24.000 to 26.500	24.000 to 26.500
36	2	8.8058 to 9.0051	8.8058 to 9.0051	13.250 to 13.504	13.250 to 13.504	26.500 to 27.008	26.500 to 27.008
37	2	9.0051 to 10.6691	9.0051 to 10.6691	8.752 to 8.000	13.504 to 16.000	27.008 to 32.000	27.008 to 32.000
38	2	10.6691 to 13.3358	10.6691 to 13.3358	8.000 to 10.000	16.000 to 20.000	32.000 to 40.000	32.000 to 40.000
39	3	13.3358 to 13.5025	13.3358 to 13.5025	10.000 to 10.126	20.000 to 20.250	40.000 to 40.500	40.000 to 40.500
40	3	8.7513 to 7.1106	13.5025 to 14.2211	10.126 to 10.664	20.250 to 21.328	40.500 to 42.656	40.500 to 42.656
41	3	7.1106 to 7.7012	14.2211 to 15.4025	10.664 to 11.550	21.328 to 23.100	42.656 to 46.200	42.656 to 46.200
42	3	7.7012 to 8.0012	15.4025 to 16.0025	11.550 to 12.000	23.100 to 24.000	46.200 to 48.000	46.200 to 48.000
43	3	8.0012 to 8.3346	16.0025 to 16.6691	12.000 to 12.500	24.000 to 25.000	48.000 to 50.000	48.000 to 50.000
44	3	8.3346 to 9.0038	16.6691 to 18.0076	12.500 to 13.504	25.000 to 27.008	50.000 to 54.016	50.000 to 54.016
45	3	9.0038 to 10.0012	18.0076 to 20.0025	8.752 to 7.500	13.504 to 15.000	27.008 to 30.000	54.016 to 60.000
46	3	10.0012 to 10.6679	20.0025 to 21.3358	7.500 to 8.000	15.000 to 16.000	30.000 to 32.000	60.000 to 64.000
47	3	10.6679 to 11.1679	21.3358 to 22.3358	8.000 to 8.375	16.000 to 16.750	32.000 to 33.500	64.000 to 67.000
48	3	11.1679 to 11.6679	22.3358 to 23.3358	8.375 to 8.750	16.750 to 17.500	33.500 to 35.000	67.000 to 70.000

Test Node	Error Description	Assembly	Frequency Band
8	Unleveled, Source 1, Out 1	A5	0.01 - 13.5 GHz
		A7	13.5 - 40 GHz
9	Unleveled, Source 1, Out 2	A29	40 - 70 GHz
		A5	0.01 - 13.5 GHz
10	Unleveled, Source 1 Synthesizer	A8	13.5 - 40 GHz
11	Unleveled, Source 2, Out 1	A32	40 - 70 GHz
		Aa	Full Range
12	Unleveled, Source 2, Out 2	A10	0.01 - 13.5 GHz
		A12	13.5 - 40 GHz
13	Unleveled, Source 2 Synthesizer	A30	40 - 70 GHz
14	Unleveled, LO Drive	A10	0.01 - 13.5 GHz
15	Unleveled, LO Synthesizer	A13	13.5 - 40 GHz
16	Unlocked, Source 1 Synthesizer, Integrator Line	A31	40 - 70 GHz
17	Unlocked, Source 1 Synthesizer, Integrator High	Aa	Full Range
18	Unlocked, Source 2 Synthesizer, Integrator Line	A17	Full Range
20	Unlocked, Source 2 Synthesizer, Integrator High	A17	Full Range
22	Unlocked, LO Synthesizer, Integrator Line	A15	Full Range
23	Unlocked, LO Synthesizer, Integrator High	A15	Full Range
25	Unleveled, Doubler 1, Prelevel	A7	13.5 - 70 GHz
26	Unleveled, Doubler 2, Prelevel	A8	13.5 - 70 GHz
27	Unleveled, Doubler 3, Prelevel	A12	13.5 - 70 GHz
28	Unleveled, Doubler 4, Prelevel	A13	13.5 - 70 GHz
29	Unleveled, Source 1, PA	A5	13.5 - 70 GHz
30	Unleveled, Source 2, PA	A10	13.5 - 70 GHz