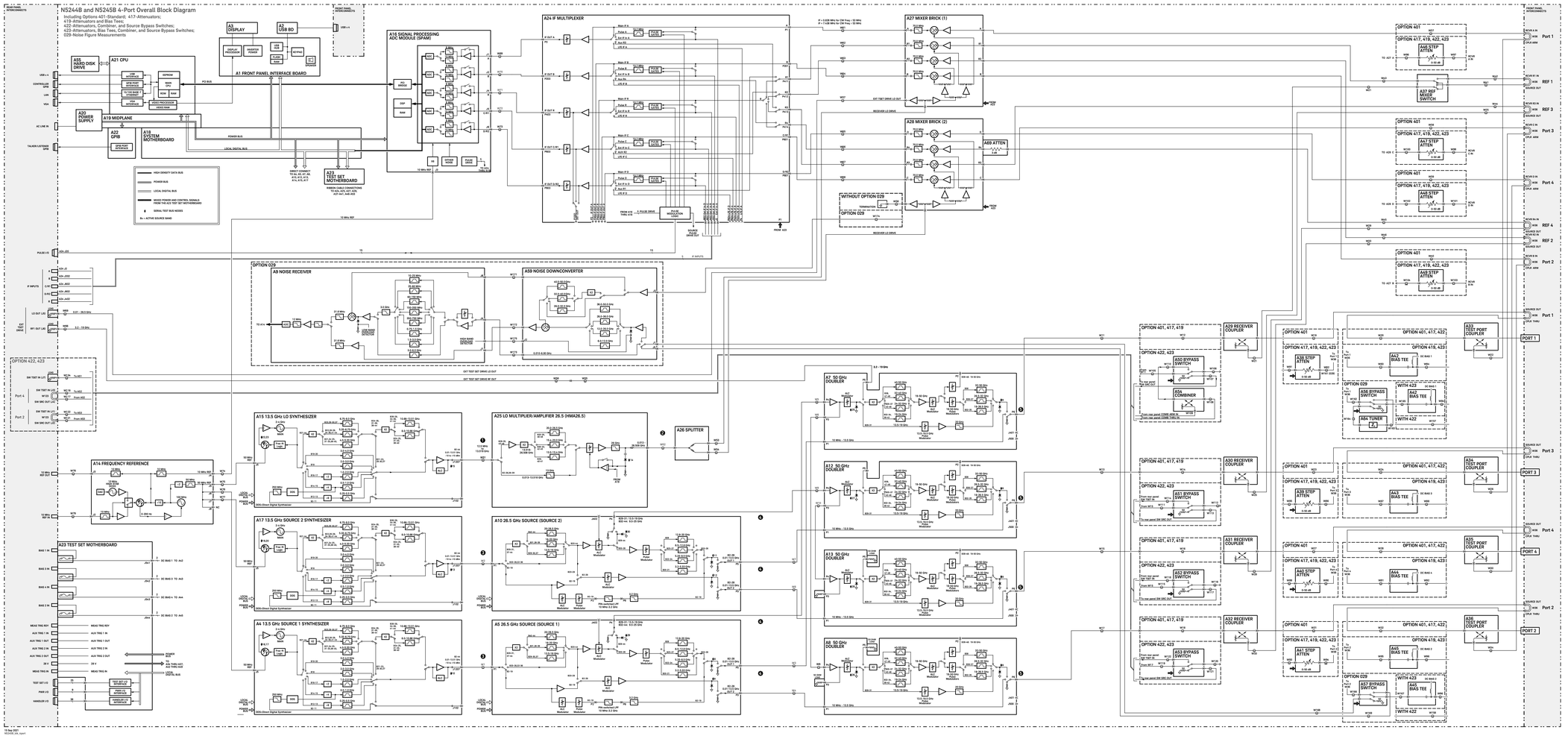
N5244B and N5245B 4-Port Overall Block Diagram

Including Options 401-Standard; 417-Attenuators; 419-Attenuators and Bias Tees; 422-Attenuators, Combiner, and Source Bypass Switches; 423-Attenuators, Bias Tees, Combiner, and Source Bypass Switches; 029-Noise Figure Measurements

Band	Mixer Brick LO Number	❶ LO Synthesizer Frequency (GHz)	❷ A25 HMA26.5 Frequency (GHz)	❸ RF Synthesizer Frequency (GHz)	❹ A5 A10 Source Frequency (GHz)	❺ A7 A8 A12 A13 40 GHz Doubler Frequency (GHz)
0	0	---	---	---	---	---
1	1	---	---	---	---	---
2	1	0.01248 to 0.01968	0.01248 to 0.01968	0.010 to 0.014	0.010 to 0.014	0.010 to 0.014
3	1	0.01948 to 0.02148	0.01948 to 0.02148	0.014 to 0.019	0.014 to 0.019	0.014 to 0.019
4	1	0.02148 to 0.03968	0.02148 to 0.03968	0.019 to 0.037	0.019 to 0.037	0.019 to 0.037
5	1	0.03948 to 0.04548	0.03948 to 0.04548	0.037 to 0.038	0.037 to 0.038	0.037 to 0.038
6	1	0.04548 to 0.05948	0.04548 to 0.05948	0.038 to 0.053	0.038 to 0.053	0.038 to 0.053
7	1	0.05948 to 0.08344	0.05948 to 0.08244	0.053 to 0.075	0.053 to 0.075	0.053 to 0.075
8	1	0.08244 to 0.13344	0.08244 to 0.13344	0.075 to 0.105	0.075 to 0.105	0.075 to 0.105
9	1	0.13144 to 0.15344	0.11244 to 0.15344	0.105 to 0.146	0.105 to 0.146	0.105 to 0.146
10	1	0.15344 to 0.21144	0.15344 to 0.21144	0.146 to 0.205	0.146 to 0.205	0.146 to 0.205
11	1	0.21244 to 0.25744	0.21244 to 0.25744	0.205 to 0.250	0.205 to 0.250	0.205 to 0.250
12	1	0.25744 to 0.40344	0.25744 to 0.40344	0.250 to 0.396	0.250 to 0.396	0.250 to 0.396
13	1	0.40344 to 0.50744	0.40344 to 0.50744	0.396 to 0.500	0.396 to 0.500	0.396 to 0.500
14	1	0.50744 to 0.63544	0.50744 to 0.63544	0.500 to 0.628	0.500 to 0.628	0.500 to 0.628
15	1	0.63544 to 1.0074	0.63544 to 1.0074	0.628 to 1.000	0.628 to 1.000	0.628 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
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
18	1	2.0074 to 3.0074	2.0074 to 3.0074	2.000 to 3.000	3.000 to 3.000	2.000 to 3.000
19	1	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
20	1	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
21	1	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
22	1	5.3394 to 8.7594	5.3394 to 8.7594	5.332 to 8.752	5.332 to 8.752	5.332 to 8.752
23	1	6.7594 to 8.0074	6.7594 to 8.0074	6.752 to 8.000	6.752 to 8.000	6.752 to 8.000
24	1	8.1874 to 8.5074	8.1874 to 8.5074	8.000 to 8.500	8.000 to 8.500	8.000 to 8.500
25	1	8.5074 to 12.8774	8.5074 to 10.6774	8.500 to 10.664	8.500 to 10.664	8.500 to 10.664
26	1	10.6774 to 12.0074	10.6774 to 12.0074	10.664 to 12.000	10.664 to 12.000	10.664 to 12.000
27	1	12.0074 to 13.8074	12.0074 to 13.8074	12.000 to 13.800	12.000 to 13.800	12.000 to 13.800
28	1	12.8074 to 13.9174	13.8074 to 13.9174	12.800 to 13.910	12.800 to 13.910	12.800 to 13.910
29	1	6.7587 to 7.7037	13.5174 to 15.4074	6.759 to 7.700	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
31	1	8.3037 to 9.5037	16.0074 to 19.0074	8.000 to 9.500	16.000 to 19.000	16.000 to 19.000
32	1	9.5037 to 10.0037	19.0074 to 20.0074	9.500 to 10.000	19.000 to 20.000	19.000 to 20.000
33	1	10.0037 to 10.6637	20.0074 to 21.3354	10.000 to 10.664	10.000 to 10.664	20.000 to 21.328
34	1	10.6677 to 12.0037	21.3354 to 24.0074	10.664 to 12.000	10.664 to 12.000	21.328 to 24.000
35	1	12.0037 to 13.2537	24.0074 to 26.5074	12.000 to 13.250	12.000 to 13.250	24.000 to 26.500
36	2	8.5289 to 9.0057	8.0578 to 9.0057	13.250 to 13.504	13.250 to 13.504	25.500 to 27.008
37	3	9.0057 to 13.9891	9.0057 to 10.4691	8.752 to 8.000	13.504 to 16.006	27.008 to 32.005
38	3	10.6691 to 12.1691	10.6691 to 12.1691	8.000 to 9.125	16.000 to 18.250	32.000 to 36.500
39	3	12.1691 to 13.5025	12.1691 to 13.5025	9.125 to 10.125	18.250 to 20.250	36.500 to 40.500
40	3	6.7512 to 7.1106	13.5025 to 14.2211	10.125 to 10.664	20.250 to 21.328	40.500 to 42.656
41	3	7.1106 to 7.2512	14.2211 to 14.5025	10.664 to 10.875	21.328 to 21.750	42.656 to 43.500
42	3	7.2512 to 7.7512	14.5025 to 15.4025	10.875 to 11.550	21.750 to 23.100	43.500 to 46.200
43	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
44	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

Test Node	Error Description	Assembly	Frequency Band
8	Unleveled, Source 1, Out 1	A5	0.01 - 13.5 GHz
9	Unleveled, Source 1, Out 2	A7	13.5 - 50 GHz
10	Unleveled, Source 1 Synthesizer	A8	0.01 - 13.5 GHz
11	Unleveled, Source 2, Out 1	A9	Full Range
12	Unleveled, Source 2, Out 2	A10	0.01 - 13.5 GHz
13	Unleveled, Source 2 Synthesizer	A12	13.5 - 50 GHz
14	Unleveled, LO Drive	A13	13.5 - 50 GHz
15	Unleveled, LO Synthesizer	A17	Full Range
16	Unlocked, Source 1 Synthesizer, Integrator Low	A25	Full Range
17	Unlocked, Source 1 Synthesizer, Integrator High	A4	Full Range
18	Unlocked, Source 2 Synthesizer, Integrator Low	A17	Full Range
20	Unlocked, Source 2 Synthesizer, Integrator High	A17	Full Range
22	Unlocked, LO Synthesizer, Integrator Low	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, PL	A5	13.5 - 70 GHz
30	Unleveled, Source 2, PL	A10	13.5 - 70 GHz