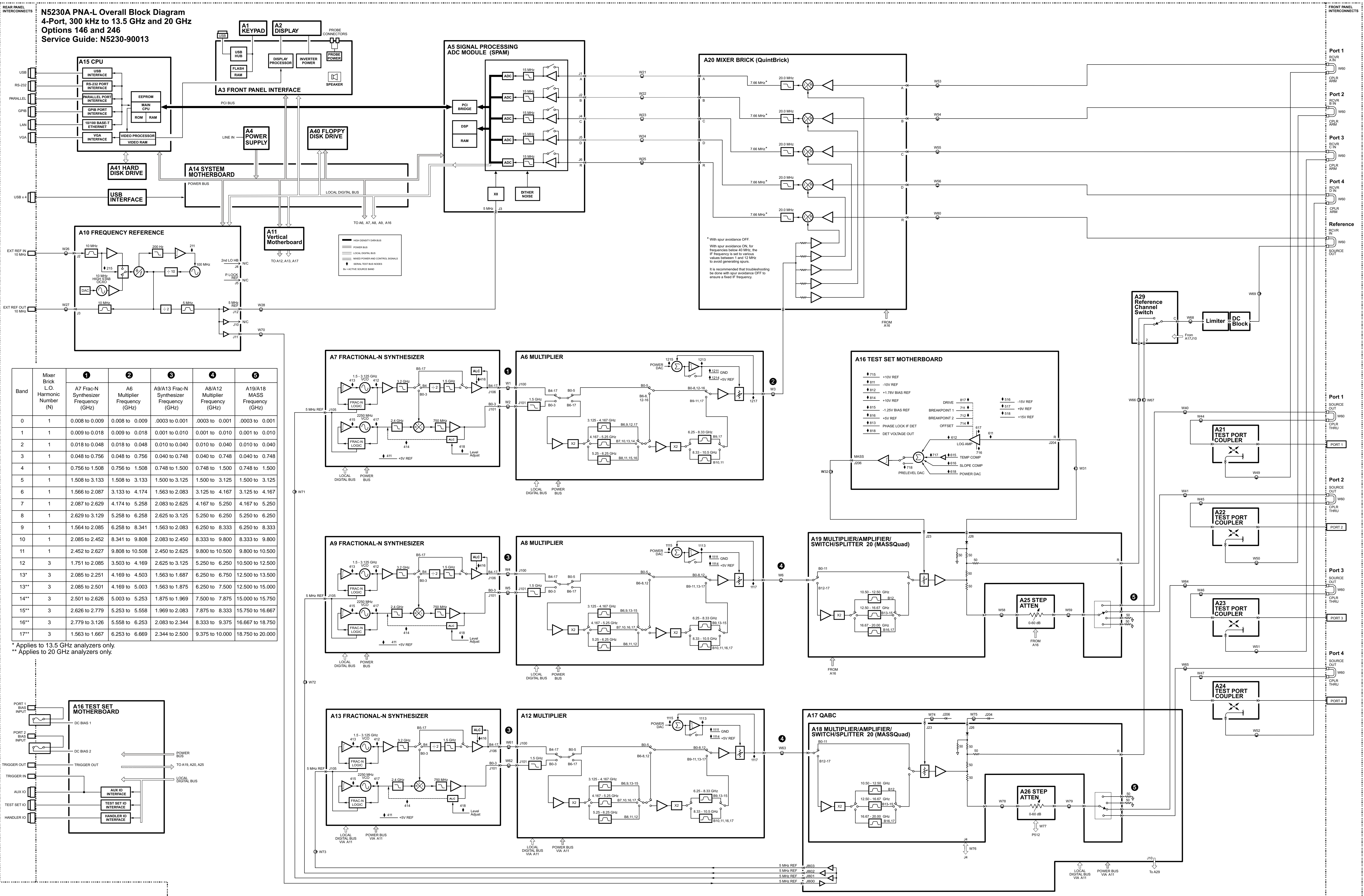


**N5230A PNA-L Overall Block Diagram**  
**4-Port, 300 kHz to 13.5 GHz and 20 GHz**  
**Options 146 and 246**  
**Service Guide: N5230-90013**



Band	Mixer Brick L.O. Harmonic Number (N)	1	2	3	4	5
		A7 Frac-N Synthesizer Frequency (GHz)	A6 Multiplier Frequency (GHz)	A9/A13 Frac-N Synthesizer Frequency (GHz)	A8/A12 Multiplier Frequency (GHz)	A19/A18 MASS Frequency (GHz)
0	1	0.008 to 0.009	0.008 to 0.009	.0003 to 0.001	.0003 to 0.001	.0003 to 0.001
1	1	0.009 to 0.018	0.009 to 0.018	0.001 to 0.010	0.001 to 0.010	0.001 to 0.010
2	1	0.018 to 0.048	0.018 to 0.048	0.010 to 0.040	0.010 to 0.040	0.010 to 0.040
3	1	0.048 to 0.756	0.048 to 0.756	0.040 to 0.748	0.040 to 0.748	0.040 to 0.748
4	1	0.756 to 1.508	0.756 to 1.508	0.748 to 1.500	0.748 to 1.500	0.748 to 1.500
5	1	1.508 to 3.133	1.508 to 3.133	1.500 to 3.125	1.500 to 3.125	1.500 to 3.125
6	1	1.566 to 2.087	1.333 to 4.174	1.563 to 2.083	3.125 to 4.167	3.125 to 4.167
7	1	2.087 to 2.629	4.174 to 5.258	2.083 to 2.625	4.167 to 5.250	4.167 to 5.250
8	1	2.629 to 3.129	5.258 to 6.258	2.625 to 3.125	5.250 to 6.250	5.250 to 6.250
9	1	1.564 to 2.085	6.258 to 8.341	1.563 to 2.083	6.250 to 8.333	6.250 to 8.333
10	1	2.085 to 2.452	8.341 to 9.808	2.083 to 2.450	8.333 to 9.800	8.333 to 9.800
11	1	2.452 to 2.627	9.808 to 10.508	2.450 to 2.625	9.800 to 10.500	9.800 to 10.500
12	3	1.751 to 2.085	3.503 to 4.169	2.625 to 3.125	5.250 to 6.250	10.500 to 12.500
13*	3	2.085 to 2.251	4.169 to 4.503	1.563 to 1.687	6.250 to 6.750	12.500 to 13.500
14**	3	2.501 to 2.626	5.003 to 5.253	1.875 to 1.969	7.500 to 7.875	15.000 to 15.750
15**	3	2.626 to 2.779	5.253 to 5.558	1.969 to 2.083	7.875 to 8.333	15.750 to 16.667
16**	3	2.779 to 3.126	5.558 to 6.253	2.083 to 2.344	8.333 to 9.375	16.667 to 18.750
17**	3	1.563 to 1.667	6.253 to 6.669	2.344 to 2.500	9.375 to 10.000	18.750 to 20.000

\* Applies to 13.5 GHz analyzers only  
 \*\* Applies to 20 GHz analyzers only

