



**Typical Characteristics
ON
P8T-20M6G-80-R-515-SFF**

PMI MODEL: P8T-20M6G-80-R-515-SFF IS A SINGLE POLE EIGHT THROW, REFLECTIVE SWITCH MODULE WITH LOW INSERTION LOSS, HIGH ISOLATION AND WITH INTEGRAL DECODED 3-BIT TTL DRIVER DESIGNED FOR 20 MHz TO 6 GHz OPERATION.



November 16, 2021

Designed By:
Engineering PMI

Tested and Reported By:
Alfredo Lopez



Typical Characteristics ON P8T-20M6G-80-R-515-SFF

Outline Drawing

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	1	ORIGINAL RELEASE	08/15/15
	A1	ECN #15-0014	10/27/15

DESCRIPTION

PMI MODEL: P8T-20M6G-80-R-515-SFF IS A SINGLE POLE EIGHT THROW, REFLECTIVE SWITCH MODULE WITH LOW INSERTION LOSS, HIGH ISOLATION AND WITH INTEGRAL DECODED 3-BIT TTL DRIVER DESIGNED FOR 20 MHz TO 6 GHz OPERATION.

SPECIFICATIONS

- FREQUENCY RANGE: 20 MHz TO 6 GHz
- INSERTION LOSS: 2.75 dB TYP, 3.25 dB MAX
- ISOLATION: 80 dB MIN, 100 dB TYP
- VSWR: 2.0:1 MAX
- SWITCHING SPEED: 250 ns MAX
- OPERATING POWER: 23 dBm CW MAX
- CONTROL: 3-BIT DECODED TTL LOGIC (SEE TABLE 1)
- POWER SUPPLY: +5 VDC @ 350 mA MAX
-15 VDC @ 100 mA MAX
- SIZE: (L) 3.0" X (W) 1.5" X (H) 0.5"
- FINISH: BLUE EPOXY POLIMIDE COATING
1AW MIL-C-22750, TYPE I OVER
EPOXY POLIMIDE PRIMER 1AW
MIL-P-23377,
TYPE I, CLASS 1 OR 3.
- SEALING: EPOXY SEALED

ENVIRONMENTAL RATINGS

- TEMPERATURE: -40 °C TO + 85 °C (OPERATING)
-65 °C TO +125 °C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107G COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE.
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

MECHANICAL OUTLINE

NON-ISO TAPPED HOLES
120° TEEZ (A PLACES)
SMA (F) REMOVABLE
9 PLACES

DC & CONTROL PIN
20, 22S,
9 PLACES

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: WWW.DTMI-RF.COM
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

APPROVALS		DATE		TITLE	
DRAWN	REV.	DATE	DATE	REV.	DATE
JKM		08/15/15		A	05XQ0
ISSUED					27025042
				SCALE: N/S	SHEET 1 OF 1

C1	C2	C3	PATH
0	0	0	J1-02
0	0	1	J1-03
0	1	0	J1-04
0	1	1	J1-05
1	0	0	J1-06
1	0	1	J1-07
1	1	0	J1-08
1	1	1	J1-09

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX ±0.020
XXX ±0.010



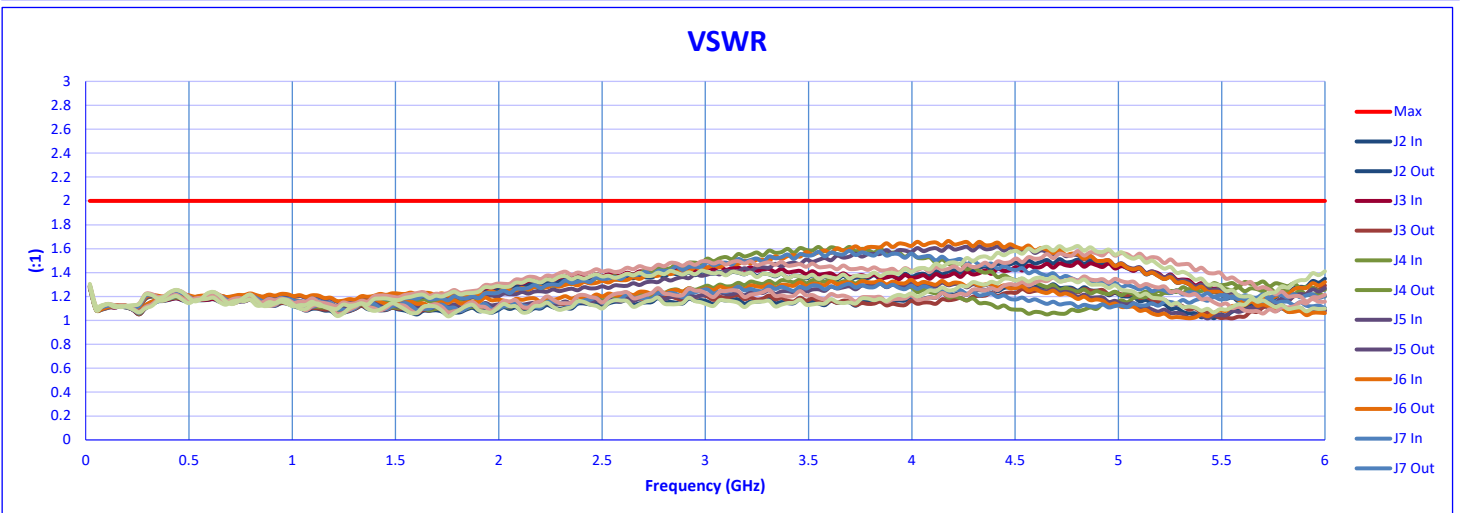
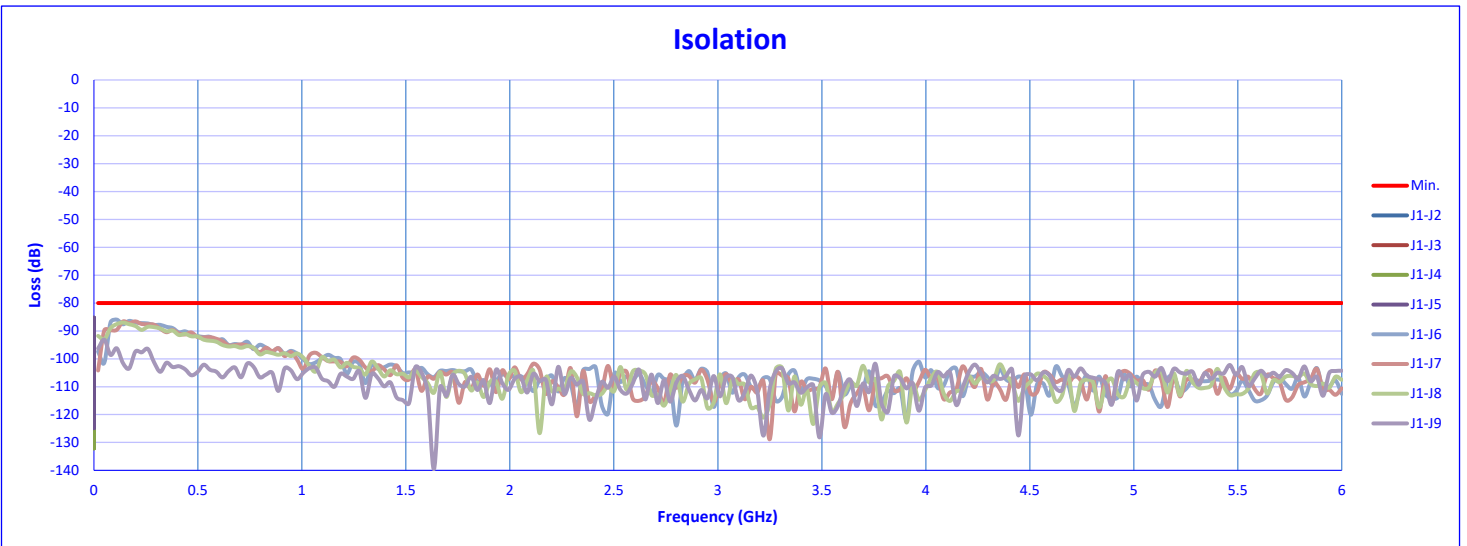
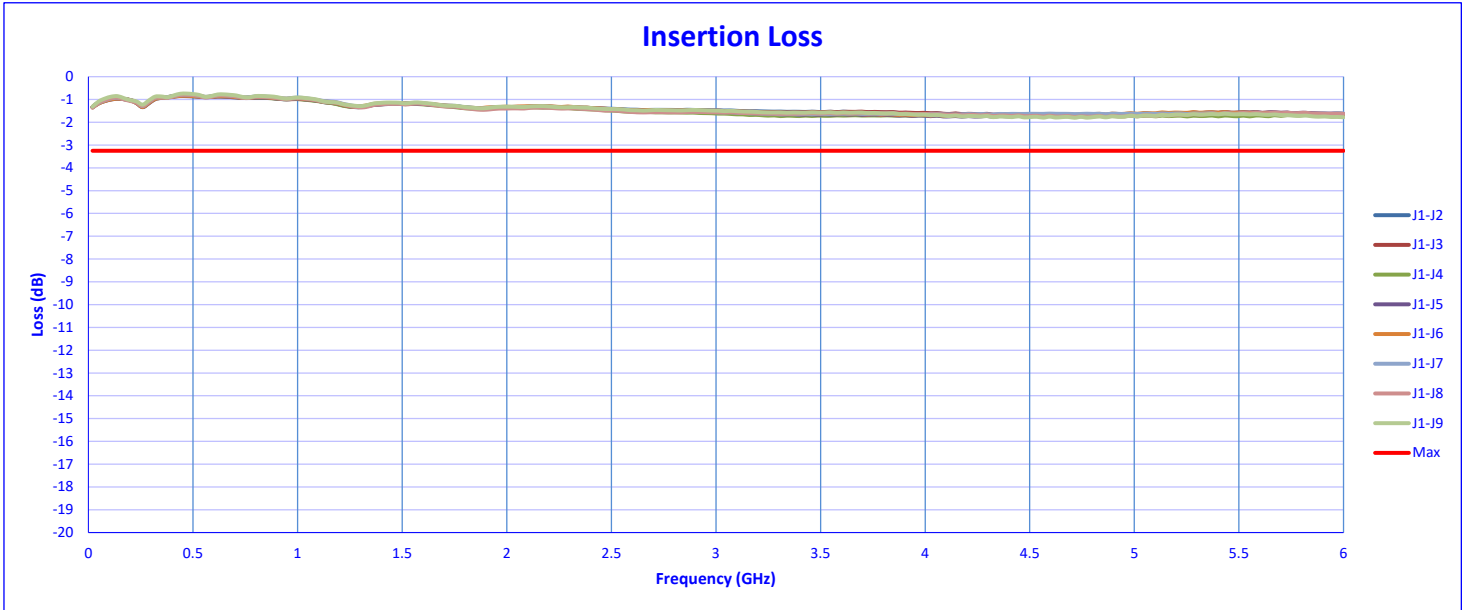
Typical Characteristics ON P8T-20M6G-80-R-515-SFF

Technical Specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA/QC
1	Frequency Range:	20 MHz - 6 GHz	20 MHz - 6 GHz	
2	Insertion Loss:	2.75 dB Typ. 3.25 dB Max.	1.8 dB See Graph	
3	Isolation:	80 dB Min. 100 dB Typ.	85.22 dB See Graph	
4	VSWR:	2.0:1 Max.	1.66 :1 See Graph	
5	Switching Speed:	250 ns Max.	233 ns See Plots	
6	Operating Power:	23 dBm CW Max.	Pass +23 dBm	
7	DC Supply:	+5 VDC @ 350 mA -15 VDC @ 100 mA	194 mA 34 mA	
8	Control Signal:	3 Bit Decoded TTL Logic	Pass	



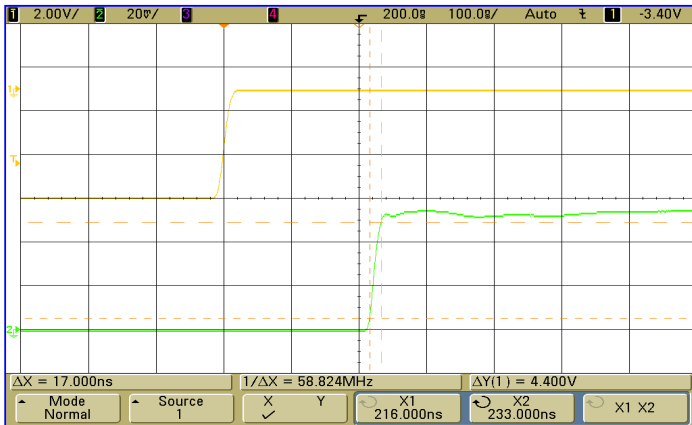
Typical Characteristics ON P8T-20M6G-80-R-515-SFF



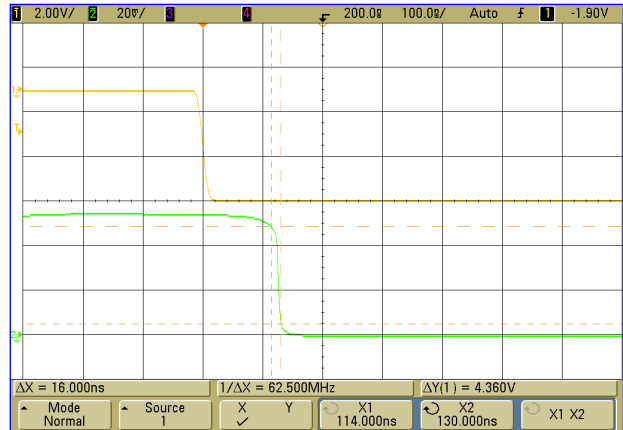


Typical Characteristics ON P8T-20M6G-80-R-515-SFF

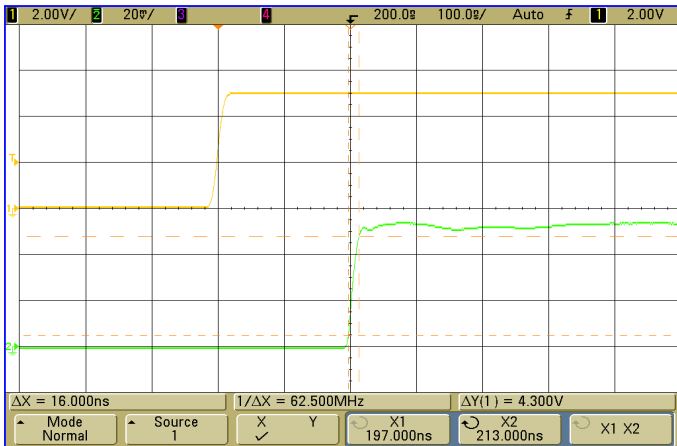
Switching Speed J2 ON



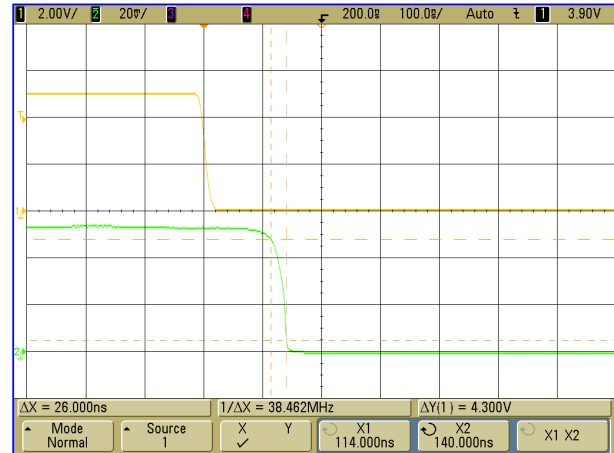
Switching Speed J2 OFF



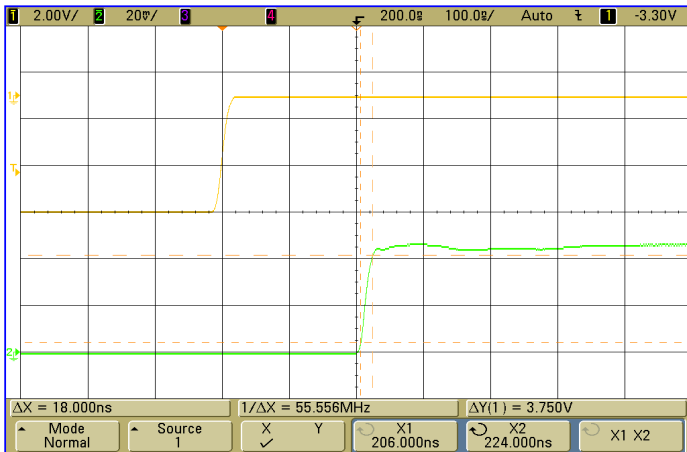
Switching Speed J3 ON



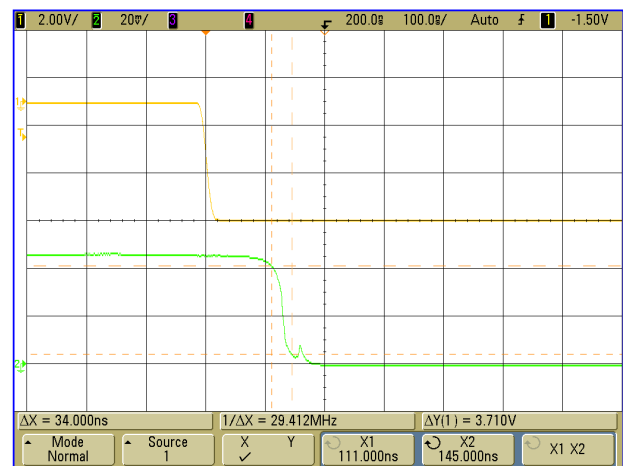
Switching Speed J3 OFF



Switching Speed J4 ON



Switching Speed J4 OFF

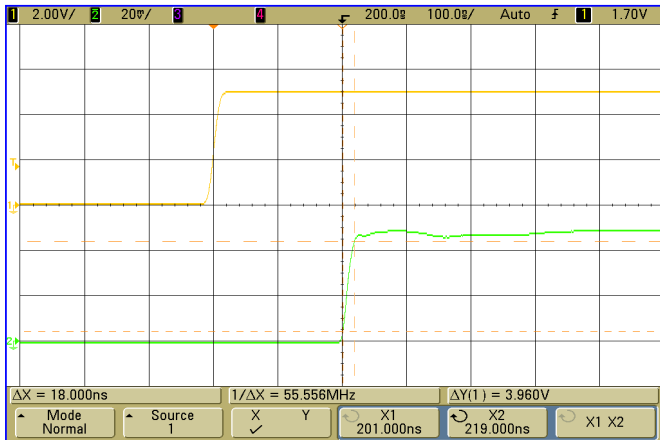


Yellow Trace - TTL Signal
Green Trace - RF Signal

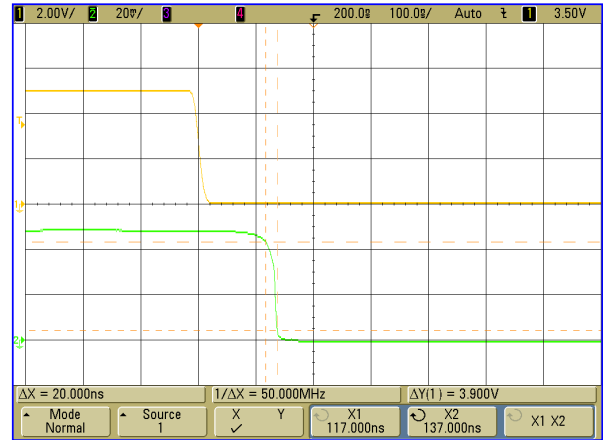


Typical Characteristics ON P8T-20M6G-80-R-515-SFF

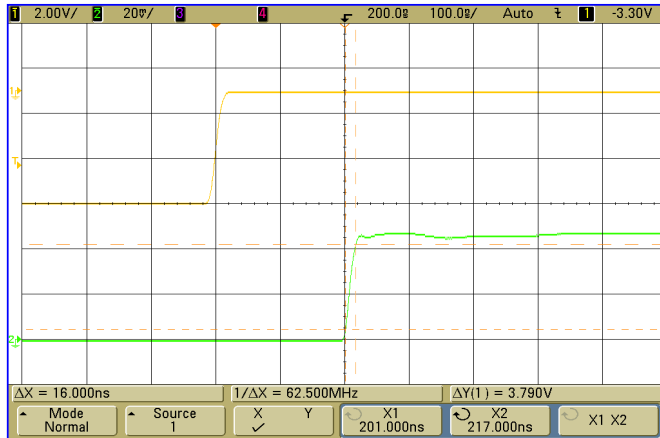
Switching Speed J5 ON



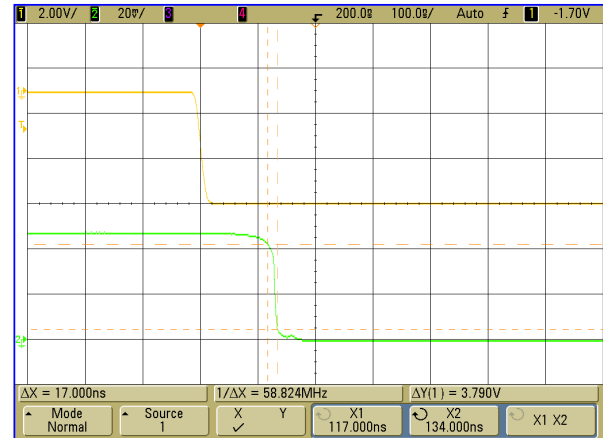
Switching Speed J5 OFF



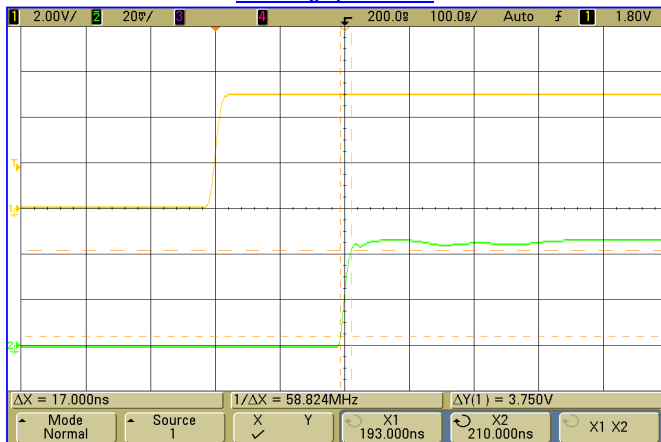
Switching Speed J6 ON



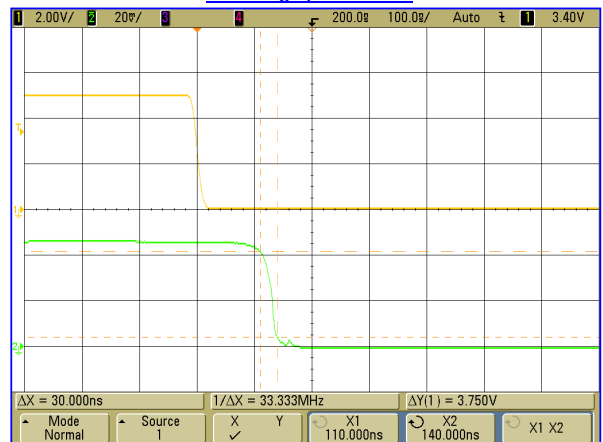
Switching Speed J6 OFF



Switching Speed J7 ON



Switching Speed J7 OFF

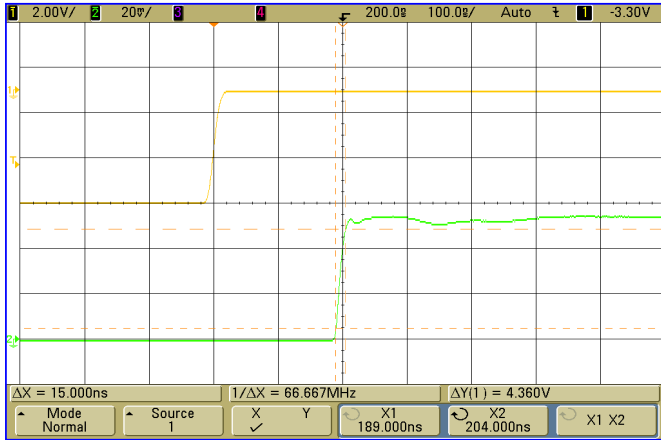


Yellow Trace - TTL Signal
Green Trace - RF Signal

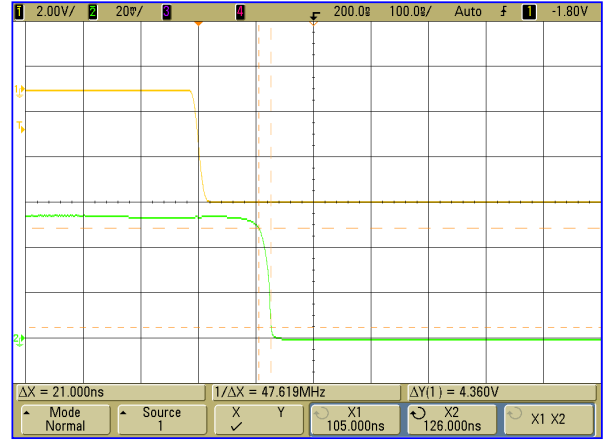


Typical Characteristics ON P8T-20M6G-80-R-515-SFF

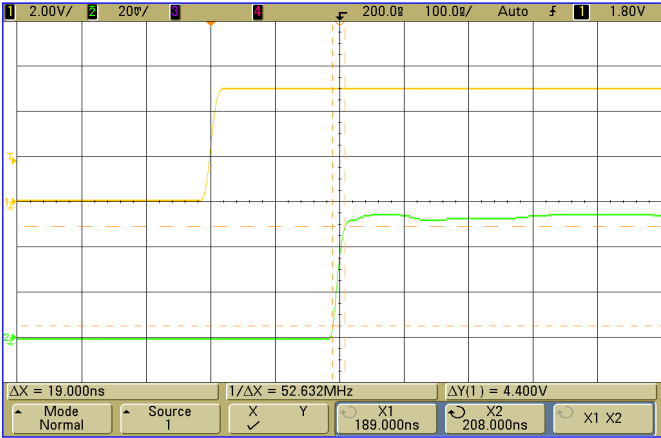
Switching Speed J8 ON



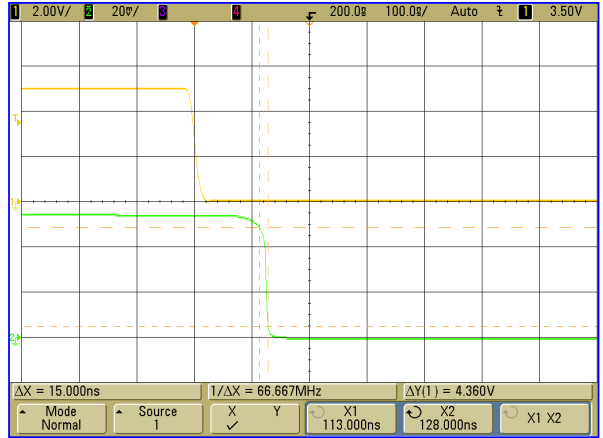
Switching Speed J8 ON



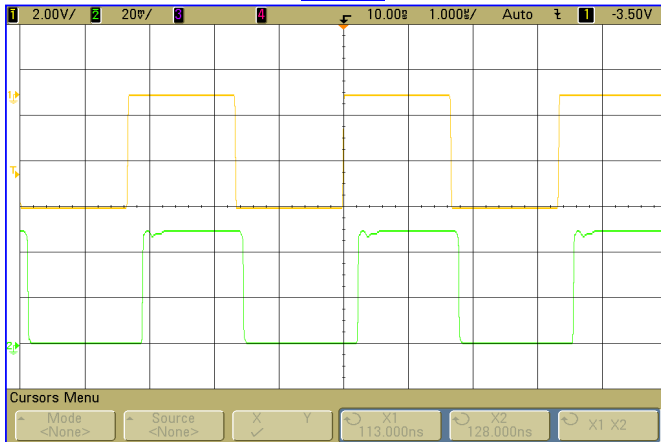
Switching Speed J9 ON



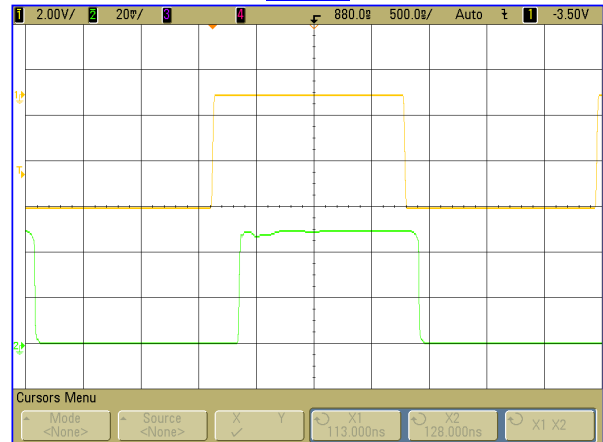
Switching Speed J9 OFF



Full Pulse



Full Pulse



Yellow Trace - TTL Signal
Green Trace - RF Signal

!Agilent Technologies,N5230A,US43500312,A.07.50.67
!Agilent N5230A: A.07.50.67
!Date: Thursday, January 2017 ###
!Correction: S11(Full 2
!S21(Full 2 Port(1,2))
!S12(Full 2 Port(1,2))
!S22(Full 2 Port(1,2))
!S2P File: Measurem S21, S12 S22:

Hz S R 50
J2 J3

Frequency				Frequency			
(Hz)	S11 (dB)	S21 (dB)	S22 (dB)	(Hz)	S11 (dB)	S21 (dB)	S22 (dB)
20000000	-18.0132	-1.33291	-17.8873	20000000	-18.1137	-1.326172	-18.0406
49900000	-26.785	-1.12424	-26.4491	49900000	-26.8431	-1.123191	-26.9041
79800000	-25.9673	-1.01228	-26.0204	79800000	-26.3704	-1.013752	-26.6645
109700000	-24.8964	-0.94243	-25.0014	109700000	-25.3551	-0.942469	-25.5681
139600000	-25.8218	-0.91401	-24.9475	139600000	-25.907	-0.920572	-25.2572
169500000	-25.058	-0.97894	-25.0575	169500000	-24.93	-0.973473	-25.2187
199400000	-25.5052	-1.03164	-25.2978	199400000	-25.4879	-1.020484	-25.5486
229300000	-27.5684	-1.12385	-25.8644	229300000	-27.6235	-1.120639	-26.4184
259200000	-31.8305	-1.28697	-25.1343	259200000	-32.1445	-1.288085	-25.6058
289100000	-26.4898	-1.11341	-21.189	289100000	-26.0405	-1.121558	-21.4415
319000000	-24.3089	-0.93839	-20.7246	319000000	-23.7211	-0.9472	-20.7315
348900000	-22.6921	-0.91152	-21.0892	348900000	-22.3594	-0.910971	-20.9573
378800000	-22.4638	-0.9036	-21.0547	378800000	-22.2498	-0.893672	-21.0048
408700000	-21.9211	-0.85815	-20.413	408700000	-21.8291	-0.858543	-20.5591
438600000	-21.424	-0.81668	-20.0766	438600000	-21.4278	-0.823552	-20.2821
468500000	-22.2419	-0.81175	-20.4307	468500000	-22.0007	-0.820711	-20.4599
498400000	-22.9313	-0.82675	-21.3126	498400000	-22.4299	-0.835394	-21.0537
528300000	-22.1969	-0.85453	-22.0449	528300000	-21.9257	-0.858452	-21.6119
558200000	-22.2014	-0.89554	-21.6885	558200000	-22.0474	-0.88917	-21.5104
588100000	-22.0794	-0.88152	-20.9708	588100000	-21.9968	-0.881606	-21.0593
618000000	-21.771	-0.84416	-20.7304	618000000	-21.722	-0.855112	-20.8339
647900000	-22.8179	-0.84871	-21.3406	647900000	-22.4736	-0.855725	-21.2171
677800000	-23.3535	-0.8652	-22.4984	677800000	-22.8846	-0.871426	-22.0064
707700000	-22.6422	-0.88447	-23.2714	707700000	-22.4861	-0.892586	-22.6391
737600000	-22.5282	-0.92841	-22.9069	737600000	-22.4745	-0.924894	-22.5428
767500000	-22.6494	-0.92939	-22.1372	767500000	-22.5724	-0.929735	-22.141
797400000	-22.0229	-0.91032	-21.5413	797400000	-21.9159	-0.918407	-21.5772
827300000	-23.8103	-0.91438	-22.9121	827300000	-23.4534	-0.914692	-22.6297
857200000	-23.4716	-0.91583	-24.243	857200000	-23.2	-0.921402	-23.4867
887100000	-22.6955	-0.93931	-24.4486	887100000	-22.6245	-0.944517	-23.7104
917000000	-23.4955	-0.9764	-24.7845	917000000	-23.4699	-0.968881	-24.4896
946900000	-22.5385	-0.99405	-23.4597	946900000	-22.4408	-0.988923	-23.3031
976800000	-23.2969	-0.97573	-23.7546	976800000	-23.1413	-0.9851	-23.6445
1006700000	-23.9247	-0.96911	-25.1223	1006700000	-23.6185	-0.981944	-24.5098
1036600000	-23.4911	-0.99073	-26.2023	1036600000	-23.2861	-0.997555	-25.1198
1066500000	-24.197	-1.02313	-28.148	1066500000	-24.1221	-1.025198	-27.2765
1096400000	-22.8378	-1.05681	-26.6762	1096400000	-22.7511	-1.055895	-26.0888
1126300000	-24.1648	-1.11848	-26.6958	1126300000	-23.945	-1.110554	-26.4332
1156200000	-24.6063	-1.14648	-28.0517	1156200000	-24.2505	-1.144878	-27.3098
1186100000	-25.2048	-1.18255	-28.3877	1186100000	-24.6677	-1.183608	-27.2826
1216000000	-27.4306	-1.2557	-33.2302	1216000000	-26.4682	-1.24961	-30.9277

1245900000	-25.5974	-1.30139	-30.3002	1245900000	-24.6191	-1.303501	-28.7158
1275800000	-26.3867	-1.33535	-28.641	1275800000	-24.9853	-1.327453	-28.2362
1305700000	-25.6147	-1.33022	-26.6753	1305700000	-24.1249	-1.32476	-26.5662
1335600000	-24.2726	-1.27876	-24.844	1335600000	-22.9459	-1.28024	-24.6664
1365500000	-24.6798	-1.22553	-26.9804	1365500000	-23.3934	-1.227366	-26.2699
1395400000	-22.6079	-1.20014	-27.1608	1395400000	-21.7091	-1.205836	-25.8444
1425300000	-22.5189	-1.18305	-27.8849	1425300000	-21.639	-1.18745	-26.9081
1455200000	-22.2707	-1.18195	-27.5807	1455200000	-21.4111	-1.17775	-27.1918
1485100000	-22.2845	-1.18281	-26.0425	1485100000	-21.364	-1.174967	-25.9037
1515000000	-22.4184	-1.20178	-27.18	1515000000	-21.5531	-1.19173	-26.6645
1544900000	-21.5484	-1.18647	-28.0522	1544900000	-20.783	-1.187718	-26.4369
1574800000	-21.5111	-1.17136	-30.0484	1574800000	-20.8108	-1.174494	-27.8513
1604700000	-21.164	-1.19443	-32.2374	1604700000	-20.545	-1.191823	-30.0641
1634600000	-20.707	-1.20973	-28.2598	1634600000	-20.0231	-1.216661	-27.4637
1664500000	-21.6321	-1.24277	-28.2569	1664500000	-20.8658	-1.242063	-27.9227
1694400000	-20.9338	-1.2684	-27.7913	1694400000	-20.2393	-1.275488	-26.6147
1724300000	-21.2362	-1.28597	-28.9461	1724300000	-20.4746	-1.297786	-26.9534
1754200000	-21.0112	-1.29102	-33.47	1754200000	-20.3534	-1.309211	-29.4472
1784100000	-20.246	-1.32531	-30.2635	1784100000	-19.5234	-1.341201	-27.5579
1814000000	-21.0013	-1.34784	-29.6238	1814000000	-20.0892	-1.36938	-28.569
1843900000	-20.5846	-1.37172	-27.1606	1843900000	-19.6294	-1.384727	-26.0601
1873800000	-20.554	-1.38111	-26.0424	1873800000	-19.5141	-1.396964	-24.8808
1903700000	-20.3871	-1.37464	-28.7273	1903700000	-19.4436	-1.381171	-26.3057
1933600000	-19.3289	-1.35277	-28.045	1933600000	-18.4401	-1.36498	-25.3032
1963500000	-19.4581	-1.34168	-30.0873	1963500000	-18.5412	-1.350615	-27.5525
1993400000	-18.8937	-1.33574	-27.9489	1993400000	-18.0229	-1.342024	-26.2032
2023300000	-18.9172	-1.33349	-25.5949	2023300000	-17.9613	-1.329522	-24.6615
2053200000	-18.9199	-1.33145	-26.8183	2053200000	-18.0956	-1.323136	-25.2487
2083100000	-18.0873	-1.33263	-25.736	2083100000	-17.3226	-1.330902	-23.7489
2113000000	-18.2395	-1.31614	-28.7785	2113000000	-17.4885	-1.314026	-25.7863
2142900000	-17.654	-1.31303	-28.8847	2142900000	-16.9761	-1.316299	-25.8336
2172800000	-17.6215	-1.31373	-26.3355	2172800000	-16.8399	-1.315755	-24.8355
2202700000	-17.8993	-1.31764	-26.4805	2202700000	-17.1595	-1.316392	-25.1263
2232600000	-17.3038	-1.33657	-24.3799	2232600000	-16.6105	-1.333672	-22.946
2262500000	-17.5016	-1.3447	-25.6512	2262500000	-16.815	-1.343932	-23.6275
2292400000	-16.9651	-1.34012	-26.6275	2292400000	-16.414	-1.346768	-23.9207
2322300000	-16.752	-1.34499	-26.0932	2322300000	-16.1072	-1.353107	-23.8553
2352200000	-17.1653	-1.36155	-26.4562	2352200000	-16.5055	-1.362984	-24.6835
2382100000	-16.6978	-1.36841	-23.7394	2382100000	-16.0776	-1.377824	-22.5286
2412000000	-17.0197	-1.37678	-23.5681	2412000000	-16.3533	-1.385372	-22.2951
2441900000	-16.7371	-1.39297	-24.0633	2441900000	-16.2174	-1.405272	-22.2774
2471800000	-16.3488	-1.40033	-23.8355	2471800000	-15.7819	-1.426386	-21.8973
2501700000	-16.7034	-1.40753	-25.7123	2501700000	-16.11	-1.430364	-23.4911
2531600000	-16.4079	-1.41841	-23.6059	2531600000	-15.803	-1.443239	-22.1623
2561500000	-16.7065	-1.43405	-22.8349	2561500000	-16.0105	-1.451119	-21.8298
2591400000	-16.5678	-1.4471	-22.7602	2591400000	-15.9964	-1.474189	-21.4596
2621300000	-16.2001	-1.44981	-22.0833	2621300000	-15.577	-1.477372	-20.5677
2651200000	-16.4949	-1.46368	-24.1459	2651200000	-15.8384	-1.476438	-21.9944
2681100000	-16.0168	-1.45915	-23.4928	2681100000	-15.376	-1.477522	-21.5687
2711000000	-16.3189	-1.45562	-23.1109	2711000000	-15.5352	-1.475819	-21.7816
2740900000	-16.3391	-1.45611	-22.935	2740900000	-15.6612	-1.475011	-21.6691
2770800000	-15.8842	-1.45743	-21.3816	2770800000	-15.1857	-1.481104	-20.1622
2800700000	-16.1827	-1.45969	-23.0269	2800700000	-15.4855	-1.474006	-21.1869
2830600000	-15.6506	-1.46488	-22.8612	2830600000	-15.0227	-1.486311	-20.8116
2860500000	-15.811	-1.45236	-23.2935	2860500000	-15.0405	-1.473618	-21.4933

2890400000	-15.9711	-1.45856	-23.6072	2890400000	-15.2635	-1.473536	-22.0781
2920300000	-15.5716	-1.46292	-21.594	2920300000	-14.8647	-1.476009	-20.5392
2950200000	-15.962	-1.46498	-22.3384	2950200000	-15.251	-1.482368	-21.0218
2980100000	-15.4519	-1.47491	-22.1064	2980100000	-14.8669	-1.490755	-20.4336
3010000000	-15.5537	-1.4764	-22.668	3010000000	-14.8287	-1.488839	-20.8405
3039900000	-15.7421	-1.48532	-23.9547	3039900000	-15.0735	-1.50769	-22.0407
3069800000	-15.4485	-1.48245	-22.1202	3069800000	-14.7426	-1.507506	-21.0009
3099700000	-15.889	-1.49806	-22.2517	3099700000	-15.1464	-1.512503	-21.3291
3129600000	-15.4735	-1.51012	-21.9413	3129600000	-14.9052	-1.522387	-20.7197
3159500000	-15.5805	-1.51687	-21.838	3159500000	-14.8579	-1.534735	-20.3942
3189400000	-15.8333	-1.51652	-23.7087	3189400000	-15.1515	-1.539532	-21.7683
3219300000	-15.4994	-1.52288	-22.6641	3219300000	-14.801	-1.553213	-21.1846
3249200000	-16.0994	-1.52992	-22.7169	3249200000	-15.279	-1.554282	-21.8815
3279100000	-15.7072	-1.53482	-22.4433	3279100000	-15.0785	-1.55644	-21.5368
3309000000	-15.8324	-1.53167	-21.4813	3309000000	-15.0413	-1.560944	-20.5081
3338900000	-16.1583	-1.54203	-23.433	3338900000	-15.4442	-1.563977	-21.8104
3368800000	-15.7483	-1.53789	-22.9137	3368800000	-15.0296	-1.56326	-21.2622
3398700000	-16.408	-1.54093	-23.4149	3398700000	-15.5058	-1.558777	-22.3269
3428600000	-16.0557	-1.5464	-23.4859	3428600000	-15.3977	-1.559974	-22.6431
3458500000	-16.1257	-1.53616	-21.7889	3458500000	-15.3109	-1.544765	-21.248
3488400000	-16.4925	-1.54725	-23.2986	3488400000	-15.8047	-1.550795	-22.338
3518300000	-16.0036	-1.54903	-22.8256	3518300000	-15.3636	-1.55239	-21.4812
3548200000	-16.6572	-1.5383	-23.5811	3548200000	-15.8555	-1.541562	-22.4869
3578100000	-16.2996	-1.55474	-24.4372	3578100000	-15.7618	-1.553026	-23.6305
3608000000	-16.3522	-1.53491	-22.4591	3608000000	-15.6695	-1.542096	-22.3359
3637900000	-16.6792	-1.55068	-23.2255	3637900000	-16.1834	-1.541052	-23.2665
3667800000	-16.0883	-1.54785	-22.8966	3667800000	-15.6762	-1.543547	-22.3466
3697700000	-16.7425	-1.547	-23.0871	3697700000	-16.2069	-1.533791	-22.6014
3727600000	-16.3834	-1.56441	-24.7461	3727600000	-16.1398	-1.555985	-24.4153
3757500000	-16.3623	-1.55522	-22.9389	3757500000	-15.9569	-1.544635	-23.3832
3787400000	-16.4505	-1.5691	-22.7998	3787400000	-16.2322	-1.55517	-23.7989
3817300000	-15.9769	-1.57329	-22.8269	3817300000	-15.8917	-1.558464	-23.6319
3847200000	-16.5881	-1.56966	-22.1017	3847200000	-16.4143	-1.55471	-22.756
3877100000	-16.2318	-1.59757	-23.7655	3877100000	-16.3487	-1.57895	-24.5837
3907000000	-16.1554	-1.58641	-22.6721	3907000000	-16.097	-1.574566	-23.7505
3936900000	-16.4977	-1.60773	-22.2763	3936900000	-16.6541	-1.585847	-24.3601
3966800000	-15.7228	-1.6096	-22.286	3966800000	-15.9425	-1.594133	-24.3815
3996700000	-16.268	-1.59948	-20.8401	3996700000	-16.4276	-1.585522	-22.4435
4026600000	-15.8655	-1.61846	-22.0593	4026600000	-16.2898	-1.606142	-23.7322
4056500000	-15.7328	-1.60769	-21.6066	4056500000	-15.978	-1.603127	-23.1579
4086400000	-16.1324	-1.63627	-21.0804	4086400000	-16.5665	-1.624145	-23.164
4116300000	-15.3507	-1.64999	-21.2667	4116300000	-15.7997	-1.635381	-23.721
4146200000	-15.8282	-1.6276	-19.7845	4146200000	-16.2256	-1.6135	-21.7832
4176100000	-15.401	-1.66307	-20.3088	4176100000	-16.0604	-1.641903	-22.1669
4206000000	-15.2308	-1.64458	-20.2081	4206000000	-15.6899	-1.629177	-21.8495
4235900000	-15.5988	-1.6572	-19.6955	4235900000	-16.2467	-1.637694	-21.3184
4265800000	-14.8566	-1.6683	-20.2506	4265800000	-15.4568	-1.647782	-22.2661
4295700000	-15.3121	-1.64316	-18.9998	4295700000	-15.8546	-1.628662	-20.8486
4325600000	-14.9003	-1.69166	-18.996	4325600000	-15.6639	-1.66547	-20.6548
4355500000	-14.6954	-1.67195	-19.0347	4355500000	-15.2529	-1.649707	-20.5288
4385400000	-15.012	-1.67406	-18.523	4385400000	-15.7579	-1.650383	-19.7306
4415300000	-14.3528	-1.69416	-19.2785	4415300000	-15.0282	-1.667774	-20.6524
4445200000	-14.7202	-1.66404	-18.4613	4445200000	-15.3127	-1.641391	-19.8902
4475100000	-14.4392	-1.70534	-18.2907	4475100000	-15.195	-1.679021	-19.6196
4505000000	-14.2195	-1.6921	-18.3802	4505000000	-14.7789	-1.667341	-19.6791

4534900000	-14.5722	-1.68123	-17.7653	4534900000	-15.2475	-1.660091	-18.7094
4564800000	-13.9678	-1.71168	-18.6262	4564800000	-14.5817	-1.687544	-19.484
4594700000	-14.3314	-1.67493	-18.2381	4594700000	-14.8383	-1.660094	-19.1803
4624600000	-14.1218	-1.71118	-18.1686	4624600000	-14.7674	-1.689055	-19.0528
4654500000	-13.9086	-1.69669	-18.3833	4654500000	-14.3562	-1.681726	-19.361
4684400000	-14.3257	-1.68636	-17.6288	4684400000	-14.8552	-1.665965	-18.3578
4714300000	-13.8024	-1.71902	-18.4358	4714300000	-14.3039	-1.702811	-18.9093
4744200000	-14.1722	-1.68437	-18.3623	4744200000	-14.5339	-1.676356	-18.8274
4774100000	-14.1089	-1.71211	-18.4205	4774100000	-14.6034	-1.69737	-18.7494
4804000000	-13.8776	-1.69338	-19.136	4804000000	-14.1594	-1.681548	-19.5978
4833900000	-14.412	-1.67216	-18.2814	4833900000	-14.7307	-1.661667	-18.6869
4863800000	-13.975	-1.7045	-19.0339	4863800000	-14.3112	-1.697291	-19.1156
4893700000	-14.361	-1.66471	-19.1146	4893700000	-14.528	-1.6619	-19.1814
4923600000	-14.4711	-1.68788	-19.215	4923600000	-14.7604	-1.679327	-18.9418
4953500000	-14.2162	-1.67638	-20.4223	4953500000	-14.3146	-1.6728	-20.1422
4983400000	-14.8825	-1.64093	-19.7282	4983400000	-14.972	-1.634862	-19.5555
5013300000	-14.5452	-1.67897	-20.609	5013300000	-14.6673	-1.6695	-20.1048
5043200000	-14.9554	-1.64064	-20.845	5043200000	-14.8716	-1.631498	-20.3779
5073100000	-15.238	-1.64465	-20.8445	5073100000	-15.3019	-1.635561	-19.8996
5103000000	-14.9956	-1.65362	-22.6271	5103000000	-14.8737	-1.648989	-21.3526
5132900000	-15.8394	-1.61114	-22.1136	5132900000	-15.6224	-1.602919	-21.0226
5162800000	-15.5722	-1.63384	-23.569	5162800000	-15.4293	-1.629725	-21.9624
5192700000	-16.0703	-1.61083	-24.1544	5192700000	-15.6647	-1.601834	-22.756
5222600000	-16.6145	-1.61541	-23.8931	5222600000	-16.3395	-1.599321	-22.0014
5252500000	-16.2693	-1.6283	-26.8792	5252500000	-15.8586	-1.611501	-23.9815
5282400000	-17.3058	-1.59164	-26.1906	5282400000	-16.7235	-1.575622	-23.7154
5312300000	-17.1894	-1.61214	-29.3154	5312300000	-16.706	-1.59997	-25.1416
5342200000	-17.6711	-1.59872	-30.9201	5342200000	-16.8684	-1.582345	-27.296
5372100000	-18.6473	-1.59143	-30.8807	5372100000	-17.8762	-1.569286	-26.4176
5402000000	-18.2324	-1.60931	-37.7737	5402000000	-17.4096	-1.587508	-30.0368
5431900000	-19.5719	-1.57775	-33.0728	5431900000	-18.4646	-1.552499	-29.4313
5461800000	-19.5844	-1.60788	-40.795	5461800000	-18.6145	-1.587295	-32.7122
5491700000	-19.9161	-1.61082	-32.1781	5491700000	-18.6037	-1.581272	-39.6278
5521600000	-21.5535	-1.5952	-34.08	5521600000	-20.0691	-1.564092	-39.0416
5551500000	-21.0774	-1.60935	-28.9627	5551500000	-19.6495	-1.580565	-41.5172
5581400000	-22.6964	-1.59797	-27.5733	5581400000	-20.8366	-1.563722	-36.1296
5611300000	-23.2104	-1.6237	-26.7827	5611300000	-21.4947	-1.587024	-35.9964
5641200000	-23.0211	-1.62942	-23.8149	5641200000	-21.1008	-1.569112	-28.9696
5671100000	-25.7798	-1.61976	-24.1165	5671100000	-23.3525	-1.56892	-29.2641
5701000000	-24.8709	-1.63529	-21.9835	5701000000	-22.7812	-1.587429	-25.7128
5730900000	-26.0439	-1.63353	-21.6398	5730900000	-23.7222	-1.581131	-24.8167
5760800000	-28.4625	-1.65628	-21.2275	5760800000	-25.8007	-1.606588	-24.591
5790700000	-26.3572	-1.65943	-19.5374	5790700000	-24.4297	-1.592314	-22.1608
5820600000	-28.9878	-1.65962	-19.8332	5820600000	-27.007	-1.590933	-22.4512
5850500000	-28.4898	-1.67268	-18.5072	5850500000	-26.8311	-1.617575	-20.6839
5880400000	-26.6871	-1.69312	-18.1899	5880400000	-26.026	-1.620447	-19.9373
5910300000	-29.5146	-1.69107	-18.1499	5910300000	-29.2696	-1.633348	-19.9644
5940200000	-26.9377	-1.70967	-16.9825	5940200000	-26.9498	-1.640275	-18.4805
5970100000	-26.4969	-1.70421	-17.3187	5970100000	-27.1195	-1.632449	-18.8095
6000000000	-26.3976	-1.71722	-16.5716	6000000000	-27.2316	-1.64647	-17.9006

J4

J5

Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)	Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)
20000000	-18.4807	-1.32765	-18.5284	20000000	-18.248	-1.34324	-18.2964
49900000	-26.5924	-1.16013	-27.6533	49900000	-26.0866	-1.16542	-27.542
79800000	-25.8919	-1.05544	-27.1526	79800000	-25.5797	-1.06682	-27.2173
109700000	-24.7041	-0.98603	-25.86	109700000	-24.4346	-1.00073	-25.9704
139600000	-24.97	-0.95666	-25.3726	139600000	-24.5677	-0.96861	-25.3973
169500000	-24.8919	-0.97761	-25.386	169500000	-24.5897	-0.9862	-25.3324
199400000	-25.1168	-1.02729	-25.9236	199400000	-24.8312	-1.03487	-25.9212
229300000	-27.0945	-1.1443	-27.0135	229300000	-26.8679	-1.15698	-27.0603
259200000	-31.5152	-1.32455	-25.9415	259200000	-30.6374	-1.33709	-25.9667
289100000	-25.6435	-1.15517	-21.6629	289100000	-24.7268	-1.1696	-21.6344
319000000	-23.6045	-0.97547	-20.8678	319000000	-22.8538	-0.98525	-20.731
348900000	-22.5026	-0.92565	-20.9929	348900000	-21.9552	-0.93078	-20.8154
378800000	-21.94	-0.89335	-21.1827	378800000	-21.3757	-0.90153	-21.0725
408700000	-21.5537	-0.86639	-20.9382	408700000	-21.01	-0.87106	-20.8699
438600000	-21.1856	-0.84563	-20.6538	438600000	-20.5438	-0.85258	-20.5567
468500000	-21.6525	-0.84808	-20.7036	468500000	-20.7742	-0.85425	-20.4796
498400000	-22.1898	-0.85812	-21.1098	498400000	-21.2544	-0.86087	-20.7344
528300000	-21.8096	-0.88054	-21.5477	528300000	-21.0261	-0.88046	-21.1257
558200000	-21.5185	-0.89161	-21.5037	558200000	-20.6955	-0.89414	-21.2485
588100000	-21.5054	-0.88036	-21.2592	588100000	-20.6377	-0.8825	-21.1368
618000000	-21.2925	-0.86634	-21.0746	618000000	-20.3152	-0.87132	-20.91
647900000	-21.8792	-0.87324	-21.2652	647900000	-20.6005	-0.87794	-20.9105
677800000	-22.3084	-0.89133	-21.8164	677800000	-21.0172	-0.8921	-21.2588
707700000	-21.9938	-0.90776	-22.3586	707700000	-20.901	-0.91169	-21.7502
737600000	-21.7051	-0.92931	-22.2913	737600000	-20.5637	-0.92998	-21.8592
767500000	-21.8499	-0.91833	-21.9047	767500000	-20.573	-0.92326	-21.7121
797400000	-21.3866	-0.91612	-21.3629	797400000	-20.1855	-0.91271	-21.1477
827300000	-22.4519	-0.9214	-22.118	827300000	-20.6163	-0.91288	-21.6627
857200000	-22.5245	-0.93576	-22.7262	857200000	-21.0085	-0.92638	-21.9695
887100000	-21.8811	-0.95515	-22.9449	887100000	-20.461	-0.94403	-22.1982
917000000	-22.6407	-0.97579	-23.8936	917000000	-20.8732	-0.96506	-23.3578
946900000	-21.8422	-0.98886	-22.7448	946900000	-20.3737	-0.97476	-22.4172
976800000	-22.4222	-0.97759	-22.7881	976800000	-20.4724	-0.96278	-22.5299
1006700000	-23.0319	-0.98588	-23.3415	1006700000	-20.9938	-0.97107	-22.7344
1036600000	-22.5787	-1.01231	-23.6249	1036600000	-20.6444	-0.99419	-22.713
1066500000	-23.7132	-1.04113	-25.6734	1066500000	-21.3035	-1.01872	-24.6174
1096400000	-22.6056	-1.07333	-25.1539	1096400000	-20.9279	-1.05158	-24.1903
1126300000	-23.4032	-1.11576	-25.5399	1126300000	-20.944	-1.08705	-24.8829
1156200000	-24.2963	-1.15022	-25.8364	1156200000	-21.8034	-1.11766	-24.8113
1186100000	-24.0778	-1.20195	-25.4728	1186100000	-21.6394	-1.16293	-24.1631
1216000000	-26.1168	-1.27019	-27.877	1216000000	-22.8158	-1.23155	-25.8547

1245900000	-24.8933	-1.31146	-26.552	1245900000	-23.1826	-1.28756	-24.8543
1275800000	-24.9127	-1.32924	-26.8226	1275800000	-22.7235	-1.31777	-25.7563
1305700000	-24.9376	-1.30993	-25.9472	1305700000	-22.962	-1.31106	-25.3464
1335600000	-23.3517	-1.27219	-23.9465	1335600000	-21.6645	-1.28424	-23.5675
1365500000	-24.2705	-1.23119	-24.8867	1365500000	-21.7532	-1.23933	-24.2321
1395400000	-22.9115	-1.21625	-24.3391	1395400000	-21.4737	-1.2198	-23.1797
1425300000	-22.7435	-1.19474	-25.2627	1425300000	-20.914	-1.2033	-23.8786
1455200000	-23.0352	-1.19131	-26.2844	1455200000	-21.3066	-1.19084	-24.8602
1485100000	-22.6017	-1.19454	-25.655	1485100000	-20.7661	-1.19706	-24.8035
1515000000	-23.0914	-1.19482	-26.0092	1515000000	-20.8068	-1.18154	-25.1712
1544900000	-22.3629	-1.19558	-25.2315	1544900000	-20.9962	-1.18589	-23.8621
1574800000	-22.2429	-1.19965	-25.7255	1574800000	-20.5492	-1.18634	-24.01
1604700000	-22.918	-1.21955	-27.7112	1604700000	-21.2731	-1.20123	-25.2528
1634600000	-21.709	-1.24229	-26.6152	1634600000	-20.8486	-1.22805	-24.6359
1664500000	-22.6674	-1.26659	-27.8078	1664500000	-20.7693	-1.23907	-26.3471
1694400000	-22.3894	-1.28617	-26.7492	1694400000	-21.367	-1.26847	-25.2697
1724300000	-22.0593	-1.31149	-26.1463	1724300000	-20.8705	-1.28984	-24.541
1754200000	-22.958	-1.33916	-27.6701	1754200000	-21.6246	-1.30475	-25.3994
1784100000	-21.5222	-1.37173	-26.1122	1784100000	-21.5437	-1.34797	-23.9857
1814000000	-22.0352	-1.39155	-27.662	1814000000	-21.3207	-1.37415	-25.6732
1843900000	-21.785	-1.40245	-26.4064	1843900000	-21.7758	-1.38579	-24.9675
1873800000	-21.0983	-1.40902	-25.286	1873800000	-20.9549	-1.40015	-24.6637
1903700000	-21.765	-1.38844	-26.2469	1903700000	-21.3161	-1.37981	-25.3176
1933600000	-20.3128	-1.38448	-24.5255	1933600000	-20.9774	-1.37825	-23.359
1963500000	-20.4606	-1.37416	-26.0272	1963500000	-20.474	-1.37016	-24.5294
1993400000	-20.2313	-1.36165	-25.7381	1993400000	-20.8888	-1.35149	-24.106
2023300000	-19.4138	-1.36016	-24.9159	2023300000	-19.9489	-1.35576	-24.1284
2053200000	-20.1163	-1.34976	-25.7616	2053200000	-20.0646	-1.3307	-25.3899
2083100000	-19.0309	-1.352	-24.0111	2083100000	-20.0852	-1.32829	-23.5567
2113000000	-19.0933	-1.34737	-24.9229	2113000000	-19.4753	-1.31838	-24.1895
2142900000	-18.9468	-1.34736	-24.8817	2142900000	-19.9248	-1.31355	-23.6756
2172800000	-18.1782	-1.35938	-24.2034	2172800000	-19.343	-1.32345	-23.341
2202700000	-18.7226	-1.35446	-25.2348	2202700000	-19.2739	-1.31636	-24.735
2232600000	-18.0309	-1.36623	-23.488	2232600000	-19.406	-1.32521	-23.4472
2262500000	-17.9479	-1.37456	-23.6187	2262500000	-18.8064	-1.33721	-23.9886
2292400000	-18.0439	-1.37372	-23.6922	2292400000	-19.2337	-1.32323	-23.5701
2322300000	-17.2331	-1.40153	-22.8622	2322300000	-18.9045	-1.34751	-22.6712
2352200000	-17.6095	-1.41755	-23.8711	2352200000	-18.6199	-1.36457	-23.6657
2382100000	-17.2	-1.42764	-22.5856	2382100000	-19.005	-1.36218	-22.6313
2412000000	-16.9646	-1.43903	-22.4045	2412000000	-18.2652	-1.38529	-23.1524
2441900000	-17.2801	-1.45295	-22.386	2441900000	-18.5464	-1.38946	-23.3082
2471800000	-16.4687	-1.47825	-21.2515	2471800000	-18.4935	-1.41056	-22.1146
2501700000	-16.7424	-1.48694	-22.2258	2501700000	-18.074	-1.43232	-22.9855
2531600000	-16.4867	-1.5033	-21.267	2531600000	-18.4502	-1.43582	-21.8554
2561500000	-16.1235	-1.52695	-21.2017	2561500000	-17.8564	-1.46122	-22.2535
2591400000	-16.4521	-1.53761	-21.2375	2591400000	-17.9418	-1.47536	-22.6371
2621300000	-15.7641	-1.55353	-20.0297	2621300000	-17.9545	-1.47735	-21.6612
2651200000	-15.8893	-1.54674	-20.655	2651200000	-17.4173	-1.48918	-22.559
2681100000	-15.6871	-1.54566	-20.0171	2681100000	-17.7844	-1.48008	-21.4888
2711000000	-15.2348	-1.56497	-19.9507	2711000000	-17.2555	-1.50916	-21.3602
2740900000	-15.6093	-1.56206	-20.3562	2740900000	-17.0917	-1.50209	-21.8772
2770800000	-14.9481	-1.5689	-19.1883	2770800000	-17.1902	-1.4924	-20.797
2800700000	-14.9902	-1.56707	-19.6843	2800700000	-16.5621	-1.50607	-21.823
2830600000	-14.9249	-1.56871	-19.0302	2830600000	-16.887	-1.49312	-21.0686
2860500000	-14.389	-1.57813	-18.8064	2860500000	-16.5196	-1.50271	-20.7589

2890400000	-14.7242	-1.57529	-19.3743	2890400000	-16.2754	-1.50193	-21.2169
2920300000	-14.2361	-1.59146	-18.5071	2920300000	-16.4659	-1.50101	-20.1346
2950200000	-14.2205	-1.59771	-18.8904	2950200000	-15.8255	-1.52648	-20.8655
2980100000	-14.284	-1.60372	-18.4061	2980100000	-16.0656	-1.51445	-20.5463
3010000000	-13.7457	-1.61868	-17.9363	3010000000	-15.8717	-1.52742	-20.1873
3039900000	-14.0394	-1.62006	-18.4244	3039900000	-15.5665	-1.54026	-20.7989
3069800000	-13.7047	-1.6337	-17.7032	3069800000	-15.8399	-1.53408	-19.6819
3099700000	-13.5744	-1.65178	-18.0827	3099700000	-15.2926	-1.57531	-20.0817
3129600000	-13.8108	-1.65368	-17.9769	3129600000	-15.365	-1.56453	-20.107
3159500000	-13.2544	-1.68064	-17.3428	3159500000	-15.3462	-1.58943	-19.5961
3189400000	-13.5124	-1.67439	-17.81	3189400000	-14.9347	-1.60487	-20.4318
3219300000	-13.3362	-1.68981	-17.0917	3219300000	-15.2589	-1.59405	-19.4814
3249200000	-13.0989	-1.70846	-17.3553	3249200000	-14.8104	-1.63679	-19.6263
3279100000	-13.4056	-1.69929	-17.5526	3279100000	-14.799	-1.6278	-19.7456
3309000000	-12.9123	-1.72852	-16.9717	3309000000	-14.8559	-1.64431	-19.0209
3338900000	-13.1283	-1.71012	-17.5594	3338900000	-14.3612	-1.64976	-20.015
3368800000	-13.0599	-1.71705	-16.8451	3368800000	-14.6743	-1.63883	-19.3179
3398700000	-12.7512	-1.72713	-16.954	3398700000	-14.3468	-1.66584	-19.2661
3428600000	-13.1366	-1.70767	-17.2232	3428600000	-14.2203	-1.65875	-19.4666
3458500000	-12.6785	-1.72478	-16.7128	3458500000	-14.3779	-1.65191	-18.5155
3488400000	-12.8501	-1.70896	-17.4393	3488400000	-13.8595	-1.66852	-19.3216
3518300000	-12.9063	-1.71715	-16.8306	3518300000	-14.1148	-1.64862	-18.8164
3548200000	-12.5767	-1.7165	-16.8226	3548200000	-13.8877	-1.66202	-18.7729
3578100000	-12.9891	-1.69949	-17.1466	3578100000	-13.679	-1.6569	-19.1702
3608000000	-12.6144	-1.70746	-16.6013	3608000000	-13.932	-1.64568	-18.1307
3637900000	-12.7291	-1.69984	-17.3506	3637900000	-13.4239	-1.66821	-18.5727
3667800000	-12.894	-1.69251	-17.0538	3667800000	-13.6358	-1.64487	-18.3046
3697700000	-12.5744	-1.70598	-16.9695	3697700000	-13.522	-1.67506	-18.0731
3727600000	-12.9833	-1.70241	-17.4671	3727600000	-13.2169	-1.67706	-18.7789
3757500000	-12.747	-1.7007	-16.8345	3757500000	-13.5251	-1.65419	-17.9062
3787400000	-12.8771	-1.70542	-17.3039	3787400000	-13.2741	-1.68503	-17.9769
3817300000	-13.1014	-1.69614	-17.5693	3817300000	-13.2403	-1.66916	-17.9672
3847200000	-12.7576	-1.70661	-17.4717	3847200000	-13.2429	-1.685	-17.4705
3877100000	-13.2184	-1.70297	-18.2286	3877100000	-12.8746	-1.70848	-18.2611
3907000000	-13.1051	-1.70476	-17.5577	3907000000	-13.21	-1.68971	-17.7267
3936900000	-13.1111	-1.71332	-18.1705	3936900000	-12.873	-1.72209	-17.889
3966800000	-13.5501	-1.69891	-18.4334	3966800000	-12.9136	-1.70487	-17.9796
3996700000	-13.1789	-1.70886	-18.2733	3996700000	-13.0625	-1.70655	-17.1632
4026600000	-13.6437	-1.70847	-19.5017	4026600000	-12.676	-1.7315	-17.9263
4056500000	-13.7088	-1.70527	-18.9093	4056500000	-12.966	-1.70512	-17.5891
4086400000	-13.6184	-1.71768	-19.4404	4086400000	-12.7619	-1.74442	-17.7601
4116300000	-14.2037	-1.70721	-19.8617	4116300000	-12.6884	-1.7422	-18.1314
4146200000	-13.8404	-1.7169	-19.5064	4146200000	-12.9412	-1.72803	-17.2994
4176100000	-14.3529	-1.70603	-21.1658	4176100000	-12.5194	-1.75345	-17.8408
4206000000	-14.4946	-1.69575	-20.7905	4206000000	-12.8141	-1.7288	-17.5781
4235900000	-14.3704	-1.70185	-21.3914	4235900000	-12.6961	-1.74955	-17.5807
4265800000	-15.1105	-1.69666	-22.2121	4265800000	-12.5588	-1.74202	-18.3038
4295700000	-14.7658	-1.70069	-21.4768	4295700000	-12.9114	-1.72367	-17.6155
4325600000	-15.2961	-1.70866	-23.4172	4325600000	-12.5064	-1.75888	-17.9956
4355500000	-15.5705	-1.68339	-23.3201	4355500000	-12.7785	-1.72327	-17.8154
4385400000	-15.4349	-1.69229	-24.0641	4385400000	-12.7361	-1.73849	-17.5361
4415300000	-16.2962	-1.68921	-25.9174	4415300000	-12.5241	-1.7387	-18.3906
4445200000	-15.9651	-1.68665	-24.6187	4445200000	-12.9184	-1.70949	-17.9605
4475100000	-16.4717	-1.69697	-26.7905	4475100000	-12.632	-1.74577	-18.3947
4505000000	-16.8394	-1.68476	-27.3278	4505000000	-12.848	-1.72063	-18.4197

4534900000	-16.5962	-1.68848	-27.5921	4534900000	-12.9889	-1.72034	-17.8781
4564800000	-17.6244	-1.69592	-31.3103	4564800000	-12.6898	-1.72724	-18.7917
4594700000	-17.248	-1.6847	-29.2836	4594700000	-13.144	-1.68933	-18.4959
4624600000	-17.7856	-1.70499	-29.7798	4624600000	-12.8974	-1.7322	-19.0038
4654500000	-18.2129	-1.69777	-32.2669	4654500000	-13.0373	-1.70083	-19.452
4684400000	-17.8253	-1.69203	-30.0751	4684400000	-13.3333	-1.70015	-18.7378
4714300000	-18.9112	-1.71707	-31.2181	4714300000	-12.9835	-1.71416	-19.6037
4744200000	-18.4607	-1.69923	-31.0202	4744200000	-13.4731	-1.68181	-19.446
4774100000	-18.9448	-1.70925	-27.3474	4774100000	-13.345	-1.70941	-19.8115
4804000000	-19.3557	-1.72029	-28.5083	4804000000	-13.3851	-1.68715	-21.0085
4833900000	-18.8401	-1.71105	-27.2938	4833900000	-13.8505	-1.6747	-20.2499
4863800000	-19.9107	-1.73455	-25.8321	4863800000	-13.5003	-1.69767	-21.1711
4893700000	-19.2645	-1.71007	-26.7482	4893700000	-13.9962	-1.66231	-21.1145
4923600000	-19.7665	-1.71754	-23.8746	4923600000	-14.0237	-1.67686	-21.1614
4953500000	-20.0464	-1.73066	-23.8469	4953500000	-13.942	-1.66491	-22.9217
4983400000	-19.3994	-1.70803	-23.6133	4983400000	-14.5866	-1.63585	-22.4168
5013300000	-20.3763	-1.7333	-22.1938	5013300000	-14.2808	-1.6645	-23.6462
5043200000	-19.5073	-1.71724	-23.0578	5043200000	-14.7567	-1.62934	-24.0327
5073100000	-20.0159	-1.71272	-21.3462	5073100000	-14.9739	-1.63429	-23.4587
5103000000	-20.0802	-1.73906	-20.9856	5103000000	-14.7981	-1.64265	-25.6537
5132900000	-19.3753	-1.70639	-21.0197	5132900000	-15.5998	-1.60086	-25.2858
5162800000	-20.208	-1.72879	-19.8725	5162800000	-15.3582	-1.61898	-27.188
5192700000	-19.1963	-1.71665	-20.6613	5192700000	-15.8433	-1.60294	-28.9845
5222600000	-19.6611	-1.7112	-19.6968	5222600000	-16.3442	-1.60355	-27.3173
5252500000	-19.7382	-1.74277	-19.1885	5252500000	-15.9893	-1.60603	-30.5186
5282400000	-19.0108	-1.71169	-19.4406	5282400000	-16.9176	-1.57562	-30.3203
5312300000	-19.7309	-1.72621	-18.2726	5312300000	-16.8295	-1.59518	-31.872
5342200000	-18.7397	-1.72083	-18.9537	5342200000	-17.2103	-1.58086	-39.5734
5372100000	-19.0933	-1.70379	-18.4642	5372100000	-18.1552	-1.57317	-34.2015
5402000000	-19.2345	-1.73984	-18.0698	5402000000	-17.6861	-1.58554	-34.5355
5431900000	-18.5631	-1.70473	-18.4867	5431900000	-18.7927	-1.55945	-41.5304
5461800000	-19.3641	-1.72089	-17.4028	5461800000	-18.8539	-1.57955	-33.8662
5491700000	-18.4698	-1.73618	-17.8178	5491700000	-18.9352	-1.577	-33.233
5521600000	-18.7054	-1.70829	-17.7006	5521600000	-20.4188	-1.56023	-33.4979
5551500000	-19.0057	-1.74096	-17.3777	5551500000	-19.9799	-1.57053	-28.1388
5581400000	-18.3075	-1.70275	-18.0997	5581400000	-21.1624	-1.55326	-29.2588
5611300000	-19.2587	-1.71189	-17.1704	5611300000	-21.7402	-1.58918	-27.6832
5641200000	-18.5459	-1.73448	-17.5516	5641200000	-21.2759	-1.57192	-25.8376
5671100000	-18.7361	-1.69138	-17.562	5671100000	-23.5112	-1.57091	-26.3019
5701000000	-19.2439	-1.71825	-17.082	5701000000	-23.0087	-1.58458	-23.4843
5730900000	-18.4889	-1.68591	-18.0901	5730900000	-23.8607	-1.57632	-23.4482
5760800000	-19.6016	-1.69498	-17.4229	5760800000	-25.979	-1.60238	-23.0509
5790700000	-19.1109	-1.70646	-17.7015	5790700000	-24.5046	-1.58777	-21.5596
5820600000	-19.2381	-1.67204	-18.0472	5820600000	-26.9263	-1.58637	-22.2624
5850500000	-20.0327	-1.70499	-17.452	5850500000	-26.9879	-1.60741	-20.5659
5880400000	-19.1186	-1.67636	-18.5043	5880400000	-26.2989	-1.60641	-20.0782
5910300000	-20.3	-1.66983	-18.1583	5910300000	-29.8735	-1.61999	-20.0651
5940200000	-20.2217	-1.69077	-18.4121	5940200000	-27.7054	-1.61737	-18.7759
5970100000	-20.0753	-1.64691	-19.1592	5970100000	-27.8124	-1.61306	-19.342
6000000000	-20.8012	-1.66001	-18.8738	6000000000	-28.1885	-1.63347	-18.4961

J6

J7

J6				J7			
Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)	Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)
20000000	-18.2117	-1.35147	-18.2029	20000000	-18.2142	-1.34231	-18.0134
49900000	-26.3089	-1.17367	-27.4215	49900000	-26.8886	-1.14677	-26.103
79800000	-25.5109	-1.06404	-26.7631	79800000	-25.3034	-1.03093	-25.5903
109700000	-24.2314	-0.99481	-25.4565	109700000	-24.0586	-0.95131	-24.6672
139600000	-24.5437	-0.96049	-25.0019	139600000	-25.1421	-0.9216	-24.8239
169500000	-24.5857	-0.98537	-25.0225	169500000	-25.0572	-0.98198	-25.2839
199400000	-24.8137	-1.03534	-25.5756	199400000	-25.3108	-1.03618	-25.6767
229300000	-26.8818	-1.15289	-26.4705	229300000	-27.3188	-1.12329	-25.852
259200000	-30.1372	-1.3285	-25.2507	259200000	-30.1602	-1.28583	-24.6574
289100000	-24.5643	-1.15325	-21.1128	289100000	-25.5972	-1.10538	-20.6285
319000000	-22.8719	-0.97568	-20.3441	319000000	-24.1663	-0.92813	-20.2782
348900000	-21.8793	-0.92635	-20.5535	348900000	-22.5758	-0.90584	-20.9488
378800000	-21.3006	-0.89824	-20.8719	378800000	-22.0094	-0.89347	-21.1561
408700000	-20.9043	-0.8704	-20.5857	408700000	-21.4186	-0.84448	-20.3698
438600000	-20.3405	-0.84247	-20.1712	438600000	-20.7173	-0.7968	-19.7254
468500000	-20.645	-0.83692	-20.0885	468500000	-21.5402	-0.78672	-19.8741
498400000	-21.269	-0.84854	-20.425	498400000	-22.714	-0.80512	-20.8277
528300000	-20.978	-0.87249	-20.9421	528300000	-21.9575	-0.84033	-21.8891
558200000	-20.5596	-0.89114	-21.0975	558200000	-21.4515	-0.88548	-21.6104
588100000	-20.4967	-0.8775	-20.8978	588100000	-21.3644	-0.85903	-20.7021
618000000	-20.0734	-0.85663	-20.5486	618000000	-20.8325	-0.81757	-20.1328
647900000	-20.4386	-0.85822	-20.5314	647900000	-21.8775	-0.8128	-20.5025
677800000	-20.9836	-0.8727	-20.9782	677800000	-22.8786	-0.83212	-21.7366
707700000	-20.7853	-0.89735	-21.6361	707700000	-22.0922	-0.86268	-23.0527
737600000	-20.3359	-0.92265	-21.7876	737600000	-21.4381	-0.91117	-22.7943
767500000	-20.3525	-0.91412	-21.5292	767500000	-21.6323	-0.90219	-21.4135
797400000	-19.8795	-0.89864	-20.799	797400000	-20.9791	-0.86896	-20.399
827300000	-20.4122	-0.89262	-21.3228	827300000	-22.4804	-0.86339	-21.3608
857200000	-20.8422	-0.91051	-21.6601	857200000	-22.825	-0.87855	-22.7032
887100000	-20.2345	-0.93559	-22.1423	887100000	-21.7125	-0.90431	-23.8279
917000000	-20.5416	-0.94885	-23.4395	917000000	-22.0745	-0.94091	-24.5032
946900000	-20.0072	-0.96844	-22.2768	946900000	-21.344	-0.9623	-22.2805
976800000	-20.1043	-0.94088	-22.251	976800000	-21.8292	-0.92946	-21.6461
1006700000	-20.6766	-0.95279	-22.3091	1006700000	-22.8206	-0.92115	-22.3025
1036600000	-20.3928	-0.98432	-22.4372	1036600000	-22.4384	-0.9458	-23.4965
1066500000	-20.9865	-1.003	-24.6783	1066500000	-22.9503	-0.98101	-26.5674
1096400000	-20.4269	-1.04473	-24.252	1096400000	-21.5489	-1.02688	-25.4074
1126300000	-20.517	-1.07884	-24.9844	1126300000	-22.4039	-1.06724	-24.4579
1156200000	-21.3439	-1.10598	-24.4536	1156200000	-23.1736	-1.08951	-23.7727
1186100000	-21.2363	-1.15575	-23.6353	1186100000	-23.3822	-1.11586	-23.5045
1216000000	-22.4591	-1.22718	-25.0738	1216000000	-25.3862	-1.18823	-26.8106

1245900000	-22.37	-1.28143	-23.7965	1245900000	-23.776	-1.24134	-27.2509
1275800000	-21.7392	-1.30998	-24.6307	1275800000	-23.7841	-1.29256	-27.771
1305700000	-21.8938	-1.29004	-23.9322	1305700000	-24.0698	-1.30609	-26.0929
1335600000	-20.6969	-1.24909	-22.1789	1335600000	-22.5422	-1.26629	-23.167
1365500000	-20.9131	-1.19142	-22.6364	1365500000	-23.4779	-1.20788	-23.7157
1395400000	-20.5977	-1.17658	-21.7572	1395400000	-21.9058	-1.19189	-23.7847
1425300000	-20.0142	-1.16973	-22.711	1425300000	-21.3746	-1.1789	-25.9864
1455200000	-20.2957	-1.15735	-23.82	1455200000	-21.6274	-1.17028	-26.9376
1485100000	-19.8225	-1.1657	-23.8934	1485100000	-21.5547	-1.17936	-24.9617
1515000000	-19.9315	-1.15818	-24.0518	1515000000	-22.0454	-1.17859	-24.4472
1544900000	-20.0513	-1.15326	-22.4979	1544900000	-21.5178	-1.15569	-23.3814
1574800000	-19.6416	-1.15562	-22.6627	1574800000	-21.2595	-1.14819	-24.5845
1604700000	-20.2457	-1.17234	-23.7958	1604700000	-21.5894	-1.17691	-27.6592
1634600000	-19.7427	-1.20588	-23.4979	1634600000	-20.6233	-1.19987	-26.7317
1664500000	-19.7686	-1.22662	-25.1642	1664500000	-21.7699	-1.23243	-26.4753
1694400000	-20.3175	-1.24895	-23.9068	1694400000	-21.6759	-1.26428	-24.7462
1724300000	-19.8499	-1.27391	-22.9707	1724300000	-21.3836	-1.26979	-24.1431
1754200000	-20.5776	-1.29158	-23.3477	1754200000	-22.1879	-1.2811	-25.9277
1784100000	-20.3043	-1.33671	-22.1174	1784100000	-20.7221	-1.32405	-25.8874
1814000000	-20.0942	-1.35824	-23.603	1814000000	-21.3647	-1.3555	-28.4644
1843900000	-20.4813	-1.36858	-23.0045	1843900000	-21.4597	-1.37988	-26.2079
1873800000	-19.7681	-1.38121	-22.7237	1873800000	-20.7938	-1.4021	-24.2278
1903700000	-20.1195	-1.34994	-22.9023	1903700000	-21.3798	-1.38185	-24.9669
1933600000	-19.7658	-1.34519	-21.167	1933600000	-19.857	-1.36159	-23.7741
1963500000	-19.3078	-1.33408	-22.1882	1963500000	-19.818	-1.35573	-26.6732
1993400000	-19.6616	-1.31658	-21.9986	1993400000	-19.7438	-1.35406	-26.7756
2023300000	-18.8421	-1.32768	-22.3083	2023300000	-19.0995	-1.35498	-25.1289
2053200000	-19.0278	-1.30976	-23.2925	2053200000	-19.7777	-1.35007	-24.8141
2083100000	-18.9777	-1.30026	-21.6568	2083100000	-18.6531	-1.35335	-22.9068
2113000000	-18.441	-1.29706	-22.0145	2113000000	-18.6477	-1.3241	-24.4546
2142900000	-18.7968	-1.29019	-21.5188	2142900000	-18.4324	-1.32475	-25.1743
2172800000	-18.2245	-1.30751	-21.4741	2172800000	-17.7954	-1.33786	-25.3388
2202700000	-18.213	-1.30168	-22.7068	2202700000	-18.478	-1.33753	-25.7288
2232600000	-18.312	-1.31594	-21.6593	2232600000	-17.8099	-1.35912	-22.9152
2262500000	-17.7644	-1.32869	-22.0233	2262500000	-17.6534	-1.37021	-22.7931
2292400000	-18.1549	-1.31114	-21.4353	2292400000	-17.7356	-1.35913	-23.2808
2322300000	-17.7578	-1.33471	-20.7194	2322300000	-16.8757	-1.36935	-23.5421
2352200000	-17.5207	-1.3573	-21.5702	2352200000	-17.3687	-1.38531	-25.274
2382100000	-17.8505	-1.35662	-20.838	2382100000	-17.1251	-1.39902	-23.2787
2412000000	-17.1945	-1.38162	-21.3588	2412000000	-16.885	-1.41515	-22.2438
2441900000	-17.4593	-1.39186	-21.2922	2441900000	-17.1737	-1.43067	-21.9757
2471800000	-17.3507	-1.4034	-20.2	2471800000	-16.3602	-1.45193	-21.328
2501700000	-16.9656	-1.42563	-20.7913	2501700000	-16.5947	-1.44912	-23.3216
2531600000	-17.259	-1.43408	-19.9099	2531600000	-16.5091	-1.46591	-22.7189
2561500000	-16.7256	-1.46149	-20.3915	2561500000	-16.2646	-1.48679	-22.2048
2591400000	-16.8338	-1.47496	-20.6353	2591400000	-16.6271	-1.50291	-21.6273
2621300000	-16.7846	-1.47787	-19.7781	2621300000	-15.8873	-1.52667	-20.1629
2651200000	-16.3046	-1.47875	-20.3586	2651200000	-16.0024	-1.52556	-21.2036
2681100000	-16.6043	-1.46473	-19.4279	2681100000	-15.8242	-1.51628	-21.2136
2711000000	-16.0983	-1.50008	-19.4415	2711000000	-15.4652	-1.52741	-21.5313
2740900000	-15.9974	-1.49026	-19.9177	2740900000	-15.9843	-1.52246	-21.6826
2770800000	-16.0642	-1.47845	-19.1171	2770800000	-15.2969	-1.53332	-19.7788
2800700000	-15.512	-1.50269	-19.9157	2800700000	-15.2907	-1.5356	-20.1031
2830600000	-15.8001	-1.48068	-19.1749	2830600000	-15.2345	-1.53132	-19.7331
2860500000	-15.4296	-1.49445	-18.9599	2860500000	-14.6958	-1.53471	-20.0453

2890400000	-15.2157	-1.49169	-19.3515	2890400000	-15.1642	-1.51716	-21.0298
2920300000	-15.3908	-1.49715	-18.5584	2920300000	-14.7632	-1.53713	-19.7041
2950200000	-14.8267	-1.52302	-19.2538	2950200000	-14.7323	-1.53917	-19.614
2980100000	-15.0553	-1.50719	-18.881	2980100000	-14.7535	-1.54427	-19.0307
3010000000	-14.8434	-1.52565	-18.5574	3010000000	-14.1774	-1.56172	-18.8043
3039900000	-14.5739	-1.5427	-18.9928	3039900000	-14.5399	-1.56272	-19.9064
3069800000	-14.7989	-1.53124	-18.1147	3069800000	-14.2828	-1.5585	-19.2819
3099700000	-14.3202	-1.57304	-18.5707	3099700000	-14.215	-1.57971	-19.4289
3129600000	-14.4112	-1.56418	-18.5586	3129600000	-14.4416	-1.586	-18.9772
3159500000	-14.3687	-1.58089	-18.1286	3159500000	-13.7888	-1.60756	-18.1454
3189400000	-13.9971	-1.59915	-18.725	3189400000	-14.0621	-1.60424	-19.0371
3219300000	-14.2859	-1.58467	-17.8713	3219300000	-13.8977	-1.61636	-18.6881
3249200000	-13.8695	-1.62958	-18.1096	3249200000	-13.7363	-1.62417	-19.1206
3279100000	-13.8831	-1.61757	-18.1874	3279100000	-14.1033	-1.6218	-19.1924
3309000000	-13.9339	-1.63203	-17.6422	3309000000	-13.5065	-1.65128	-18.0779
3338900000	-13.4926	-1.64066	-18.4531	3338900000	-13.7027	-1.64086	-18.6865
3368800000	-13.7728	-1.62327	-17.7535	3368800000	-13.5815	-1.64266	-18.2006
3398700000	-13.4675	-1.64067	-17.7956	3398700000	-13.3023	-1.65077	-18.6472
3428600000	-13.3672	-1.6363	-17.9614	3428600000	-13.7744	-1.63196	-19.1519
3458500000	-13.5269	-1.62132	-17.2533	3458500000	-13.264	-1.6454	-18.1646
3488400000	-13.0615	-1.64366	-18.0404	3488400000	-13.4059	-1.63214	-18.5934
3518300000	-13.3054	-1.62825	-17.524	3518300000	-13.3745	-1.64098	-17.8842
3548200000	-13.0869	-1.63667	-17.5692	3548200000	-13.0347	-1.63617	-18.0029
3578100000	-12.9067	-1.63591	-17.8706	3578100000	-13.4967	-1.6264	-18.773
3608000000	-13.1462	-1.61862	-17.048	3608000000	-13.1021	-1.62581	-18.1058
3637900000	-12.7014	-1.64951	-17.6131	3637900000	-13.2487	-1.62388	-18.5133
3667800000	-12.9081	-1.62405	-17.3226	3667800000	-13.3085	-1.61865	-17.8968
3697700000	-12.7959	-1.64173	-17.23	3697700000	-12.936	-1.63162	-17.5414
3727600000	-12.521	-1.65568	-17.8096	3727600000	-13.3596	-1.63034	-18.3372
3757500000	-12.8184	-1.63382	-17.04	3757500000	-13.0871	-1.62481	-17.8436
3787400000	-12.5935	-1.66779	-17.2099	3787400000	-13.2501	-1.63244	-18.2784
3817300000	-12.5797	-1.64248	-17.2422	3817300000	-13.4133	-1.61905	-18.2583
3847200000	-12.5973	-1.65999	-16.9122	3847200000	-12.9831	-1.62707	-17.5411
3877100000	-12.2508	-1.67706	-17.6647	3877100000	-13.4217	-1.63693	-18.2143
3907000000	-12.5786	-1.66443	-17.0821	3907000000	-13.2281	-1.63496	-17.7292
3936900000	-12.273	-1.69349	-17.3816	3936900000	-13.2746	-1.63924	-18.4055
3966800000	-12.3304	-1.67684	-17.4196	3966800000	-13.65	-1.63851	-18.7326
3996700000	-12.4836	-1.68014	-16.7658	3996700000	-13.2116	-1.64164	-17.9578
4026600000	-12.1298	-1.70134	-17.561	4026600000	-13.6045	-1.64008	-18.6714
4056500000	-12.4133	-1.6772	-17.1629	4056500000	-13.5301	-1.63984	-18.0733
4086400000	-12.2297	-1.70888	-17.4324	4086400000	-13.4681	-1.65296	-18.522
4116300000	-12.1846	-1.70547	-17.7142	4116300000	-13.9578	-1.6534	-19.2163
4146200000	-12.4441	-1.6923	-16.9812	4146200000	-13.5382	-1.65842	-18.6145
4176100000	-12.0587	-1.71482	-17.6453	4176100000	-13.9887	-1.65124	-19.4996
4206000000	-12.3595	-1.69113	-17.2813	4206000000	-13.932	-1.64122	-18.9385
4235900000	-12.2554	-1.70448	-17.4247	4235900000	-13.7999	-1.64719	-18.9981
4265800000	-12.1441	-1.69955	-18.0467	4265800000	-14.3901	-1.6379	-19.948
4295700000	-12.5047	-1.68011	-17.3633	4295700000	-13.9948	-1.64501	-19.4383
4325600000	-12.1329	-1.7153	-17.9433	4325600000	-14.4489	-1.65645	-20.4911
4355500000	-12.4188	-1.68462	-17.6652	4355500000	-14.4991	-1.63447	-20.159
4385400000	-12.3921	-1.69111	-17.5628	4385400000	-14.3363	-1.63933	-19.885
4415300000	-12.1942	-1.69556	-18.3887	4415300000	-14.9868	-1.63121	-21.0064
4445200000	-12.6039	-1.66604	-17.884	4445200000	-14.6141	-1.63435	-20.4558
4475100000	-12.341	-1.69405	-18.5199	4475100000	-15.031	-1.63397	-21.6361
4505000000	-12.5749	-1.67088	-18.4422	4505000000	-15.1796	-1.62847	-21.8476

4534900000	-12.7241	-1.67144	-18.0808	4534900000	-14.9248	-1.62995	-21.2043
4564800000	-12.4494	-1.67955	-19.0897	4564800000	-15.6585	-1.63119	-22.457
4594700000	-12.9047	-1.64533	-18.6634	4594700000	-15.298	-1.62016	-21.8156
4624600000	-12.6772	-1.67961	-19.3841	4624600000	-15.7392	-1.6281	-22.7811
4654500000	-12.847	-1.66045	-19.7328	4654500000	-15.9947	-1.62934	-23.7681
4684400000	-13.1569	-1.65409	-19.1182	4684400000	-15.6572	-1.63075	-22.8054
4714300000	-12.8359	-1.67908	-20.2004	4714300000	-16.4574	-1.63899	-24.0651
4744200000	-13.3329	-1.64277	-19.8951	4744200000	-16.0955	-1.63484	-23.5915
4774100000	-13.2156	-1.67009	-20.5305	4774100000	-16.4832	-1.62522	-23.5467
4804000000	-13.2783	-1.64561	-21.683	4804000000	-16.8825	-1.63328	-25.4981
4833900000	-13.7711	-1.62962	-20.8875	4833900000	-16.4659	-1.62722	-24.2509
4863800000	-13.4493	-1.65664	-22.1703	4863800000	-17.3224	-1.64497	-25.0197
4893700000	-13.9745	-1.61924	-21.8734	4893700000	-16.9416	-1.62524	-25.2393
4923600000	-14.0048	-1.63626	-22.3052	4923600000	-17.3267	-1.63088	-24.0234
4953500000	-13.9508	-1.62816	-24.2185	4953500000	-17.8437	-1.63707	-25.7835
4983400000	-14.6245	-1.598	-23.549	4983400000	-17.3549	-1.6204	-24.9498
5013300000	-14.3452	-1.62777	-25.3951	5013300000	-18.2697	-1.63472	-24.6194
5043200000	-14.8733	-1.59437	-25.4888	5043200000	-17.851	-1.62686	-25.5564
5073100000	-15.0889	-1.60081	-25.3597	5073100000	-18.2319	-1.62464	-23.5962
5103000000	-14.9403	-1.60395	-28.2552	5103000000	-18.8167	-1.63518	-24.5462
5132900000	-15.7854	-1.5673	-27.5602	5132900000	-18.2489	-1.61376	-24.4697
5162800000	-15.5501	-1.58999	-30.9182	5162800000	-19.2484	-1.628	-23.5436
5192700000	-16.1041	-1.57401	-33.013	5192700000	-18.7038	-1.61762	-24.7182
5222600000	-16.6217	-1.57973	-31.1949	5222600000	-19.0598	-1.61289	-22.9093
5252500000	-16.2877	-1.58563	-37.9665	5252500000	-19.7772	-1.63929	-22.9047
5282400000	-17.2711	-1.55752	-37.0904	5282400000	-19.1119	-1.61526	-23.4449
5312300000	-17.1658	-1.57988	-38.7342	5312300000	-20.1459	-1.62212	-22.0948
5342200000	-17.6288	-1.56888	-40.9035	5342200000	-19.5316	-1.61461	-23.3307
5372100000	-18.6107	-1.56552	-38.0822	5372100000	-19.7599	-1.60749	-22.165
5402000000	-18.1548	-1.58065	-32.085	5402000000	-20.543	-1.63997	-21.6199
5431900000	-19.364	-1.55544	-35.1906	5431900000	-19.8034	-1.60978	-22.3656
5461800000	-19.3781	-1.5825	-30.3126	5461800000	-21	-1.6229	-21.0017
5491700000	-19.5519	-1.58107	-27.8646	5491700000	-20.3902	-1.63376	-21.8475
5521600000	-21.1442	-1.56953	-28.2768	5521600000	-20.4832	-1.60714	-21.5316
5551500000	-20.6904	-1.58672	-24.9022	5551500000	-21.3482	-1.63981	-20.7348
5581400000	-22.0682	-1.57592	-25.4083	5581400000	-20.487	-1.60191	-21.7108
5611300000	-22.6065	-1.60631	-24.4681	5611300000	-21.88	-1.63109	-20.4071
5641200000	-22.1985	-1.59535	-22.8018	5641200000	-21.3763	-1.64155	-21.0591
5671100000	-24.74	-1.59834	-23.0535	5671100000	-21.4473	-1.61054	-21.1871
5701000000	-24.1201	-1.61672	-21.0735	5701000000	-22.5566	-1.63691	-20.13
5730900000	-25.3184	-1.60888	-21.0893	5730900000	-21.4812	-1.60534	-21.2559
5760800000	-27.6658	-1.63864	-20.84	5760800000	-23.0664	-1.62068	-20.2234
5790700000	-26.0523	-1.6243	-19.6115	5790700000	-22.8195	-1.63856	-20.4011
5820600000	-29.1637	-1.62458	-20.1149	5820600000	-22.8202	-1.5989	-21.156
5850500000	-29.1072	-1.6484	-18.7457	5850500000	-24.437	-1.64313	-20.0916
5880400000	-28.4106	-1.64797	-18.3856	5880400000	-23.0183	-1.61273	-21.0838
5910300000	-33.2922	-1.6646	-18.4454	5910300000	-24.7554	-1.60564	-20.4669
5940200000	-30.2529	-1.66213	-17.4097	5940200000	-25.0537	-1.63717	-20.1215
5970100000	-30.0575	-1.66993	-17.8933	5970100000	-24.6413	-1.59419	-21.2617
6000000000	-30.5394	-1.68559	-17.1858	6000000000	-26.1843	-1.62093	-20.673

J8

J9

J8				J9			
Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)	Frequency (Hz)	S11 (dB)	S21 (dB)	S22 (dB)
20000000	-18.0371	-1.36072	-17.6882	20000000	-18.0501	-1.31345	-17.5493
49900000	-26.9057	-1.13469	-25.0919	49900000	-27.6572	-1.08211	-24.9288
79800000	-24.9035	-1.02027	-24.6443	79800000	-25.1037	-0.95775	-24.4272
109700000	-23.7716	-0.9405	-23.8963	109700000	-23.8913	-0.87562	-23.8621
139600000	-25.1979	-0.91345	-24.4385	139600000	-25.5598	-0.85387	-24.6356
169500000	-24.5804	-0.99303	-25.1312	169500000	-24.9515	-0.94162	-25.5674
199400000	-25.0272	-1.06614	-24.8855	199400000	-25.4425	-1.02839	-24.7703
229300000	-26.7154	-1.13035	-24.6995	229300000	-27.204	-1.08079	-24.4317
259200000	-29.0555	-1.28112	-23.6047	259200000	-29.7094	-1.22697	-23.7334
289100000	-25.5246	-1.09522	-20.0455	289100000	-26.3506	-1.04269	-20.1873
319000000	-24.1023	-0.92306	-20.0461	319000000	-24.9596	-0.87568	-20.3394
348900000	-22.0456	-0.913	-20.9482	348900000	-22.5648	-0.86794	-21.4419
378800000	-21.7534	-0.93148	-20.7024	378800000	-22.3348	-0.9022	-20.8789
408700000	-20.9281	-0.8584	-19.5556	408700000	-21.3485	-0.82084	-19.4663
438600000	-20.3158	-0.79536	-18.9925	438600000	-20.6716	-0.74925	-18.9131
468500000	-21.4742	-0.78554	-19.4891	468500000	-21.9767	-0.74104	-19.5582
498400000	-22.6739	-0.80474	-20.9102	498400000	-23.443	-0.76153	-21.2178
528300000	-21.5338	-0.8419	-22.2329	528300000	-22.1814	-0.79824	-22.6311
558200000	-21.2737	-0.91432	-21.5313	558200000	-21.8972	-0.8838	-21.7121
588100000	-21.0475	-0.88267	-20.0257	588100000	-21.6508	-0.84887	-19.8896
618000000	-20.6733	-0.81899	-19.5344	618000000	-21.2112	-0.78042	-19.4517
647900000	-22.1761	-0.81856	-20.3694	647900000	-22.9469	-0.77645	-20.5057
677800000	-23.0867	-0.83673	-22.2329	677800000	-24.1955	-0.7969	-22.6472
707700000	-21.8296	-0.86593	-23.6501	707700000	-22.7692	-0.82493	-23.8975
737600000	-21.3841	-0.92568	-22.8457	737600000	-22.2484	-0.89037	-22.742
767500000	-21.6047	-0.93545	-21.1526	767500000	-22.5466	-0.90989	-21.0913
797400000	-21.0918	-0.88213	-20.1904	797400000	-21.9874	-0.85143	-20.2378
827300000	-23.2306	-0.87862	-21.8668	827300000	-24.5893	-0.84779	-22.2202
857200000	-22.9887	-0.89343	-23.9745	857200000	-24.4722	-0.86016	-24.6992
887100000	-21.725	-0.91681	-24.8109	887100000	-22.9604	-0.8763	-24.7663
917000000	-22.1926	-0.95875	-24.1936	917000000	-23.4823	-0.92482	-23.4913
946900000	-21.5428	-0.993	-22.1074	946900000	-22.7735	-0.9647	-21.9377
976800000	-22.3697	-0.95776	-21.9843	976800000	-23.7867	-0.92986	-22.1608
1006700000	-23.3786	-0.94247	-23.4225	1006700000	-25.1662	-0.9128	-24.1753
1036600000	-22.7176	-0.96781	-25.6232	1036600000	-24.4157	-0.93546	-26.4983
1066500000	-22.7338	-0.9928	-27.8215	1066500000	-24.2713	-0.96581	-26.765
1096400000	-21.4848	-1.03999	-24.9478	1096400000	-22.8294	-1.0112	-24.1325
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1245900000	-23.1027	-1.27394	-30.405	1245900000	-24.1212	-1.24684	-31.0773
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1305700000	-23.4433	-1.35137	-25.3665	1305700000	-24.3301	-1.29116	-24.6764
1335600000	-22.3696	-1.31324	-23.453	1335600000	-23.5347	-1.24157	-23.629
1365500000	-22.7445	-1.23982	-25.2688	1365500000	-24.0378	-1.17265	-26.5968
1395400000	-20.7412	-1.216	-26.3073	1395400000	-21.7563	-1.15187	-28.2898
1425300000	-20.486	-1.19056	-27.9129	1425300000	-21.5163	-1.13429	-27.195
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1485100000	-20.883	-1.19068	-23.5996	1485100000	-21.9577	-1.14214	-23.3422
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1574800000	-20.0644	-1.17692	-27.9298	1574800000	-20.9205	-1.13046	-30.4637
1604700000	-19.7468	-1.19552	-30.464	1604700000	-20.3823	-1.15572	-29.9506
1634600000	-19.5026	-1.22483	-25.7425	1634600000	-20.2697	-1.17774	-25.3581
1664500000	-20.5786	-1.26424	-24.6544	1664500000	-21.3358	-1.21754	-24.8426
1694400000	-19.9593	-1.30136	-23.9218	1694400000	-20.5761	-1.26129	-25.2362
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1754200000	-19.7163	-1.31596	-29.6146	1754200000	-20.1043	-1.27729	-35.4427
1784100000	-18.9404	-1.36244	-28.5946	1784100000	-19.3974	-1.31336	-30.4566
1814000000	-19.6966	-1.394	-27.1698	1814000000	-20.1719	-1.34365	-27.0847
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1903700000	-18.9165	-1.44797	-25.0067	1903700000	-19.3544	-1.37649	-27.9128
1933600000	-17.7932	-1.41966	-25.5094	1933600000	-18.2679	-1.34317	-29.0904
1963500000	-17.8403	-1.39888	-28.2348	1963500000	-18.3616	-1.31897	-29.9479
1993400000	-17.4995	-1.3981	-25.2421	1993400000	-18.012	-1.31704	-26.4029
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2053200000	-17.5148	-1.39125	-22.6432	2053200000	-18.089	-1.32691	-25.0471
2083100000	-16.694	-1.39611	-22.1277	2083100000	-17.3057	-1.3316	-25.0752
2113000000	-16.7394	-1.36518	-25.2177	2113000000	-17.3279	-1.30829	-29.6526
2142900000	-16.2522	-1.35621	-25.7517	2142900000	-16.7944	-1.29727	-29.1866
2172800000	-16.2804	-1.35723	-23.3555	2172800000	-16.974	-1.2921	-25.0582
2202700000	-16.6154	-1.365	-22.533	2202700000	-17.2746	-1.30799	-24.6921
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2322300000	-15.4223	-1.39132	-23.4693	2322300000	-16.1147	-1.33247	-26.4621
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2412000000	-15.7359	-1.44137	-20.3271	2412000000	-16.5421	-1.38348	-22.8679
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2651200000	-15.0682	-1.56869	-21.4381	2651200000	-15.9888	-1.48923	-25.3806
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2740900000	-15.0056	-1.55743	-19.7183	2740900000	-16.0454	-1.46587	-22.2298
2770800000	-14.4777	-1.56266	-18.4959	2770800000	-15.5679	-1.47166	-21.1666
2800700000	-14.6629	-1.56296	-19.855	2800700000	-15.8018	-1.4752	-23.6409
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2860500000	-14.2944	-1.54839	-20.5423	2860500000	-15.5793	-1.46957	-23.9236

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3010000000	-14.0574	-1.56121	-20.055	3010000000	-15.473	-1.49142	-24.1058
3039900000	-14.318	-1.57252	-21.0065	3039900000	-15.6908	-1.50988	-24.8321
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3099700000	-14.4495	-1.57412	-19.2121	3099700000	-15.9853	-1.51313	-22.3264
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3219300000	-14.0445	-1.61537	-20.2141	3219300000	-15.576	-1.55959	-23.3395
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3279100000	-14.3074	-1.61772	-19.5001	3279100000	-15.7466	-1.56947	-22.715
3309000000	-14.1785	-1.62782	-18.9288	3309000000	-15.8336	-1.56687	-22.4028
3338900000	-14.4789	-1.62784	-20.623	3338900000	-16.0647	-1.58086	-25.173
3368800000	-14.1295	-1.62623	-20.4759	3368800000	-15.7314	-1.57149	-24.1405
3398700000	-14.5944	-1.62024	-20.877	3398700000	-16.4594	-1.5761	-23.3957
3428600000	-14.5294	-1.61368	-20.5549	3428600000	-16.06	-1.57757	-23.2009
3458500000	-14.4002	-1.60646	-19.2268	3458500000	-16.1492	-1.56168	-21.9375
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3578100000	-14.7605	-1.61271	-21.7021	3578100000	-16.1728	-1.58373	-23.6297
3608000000	-14.6835	-1.59538	-20.0539	3608000000	-16.3282	-1.56693	-21.7504
3637900000	-15.0827	-1.59236	-20.7175	3637900000	-16.4674	-1.57954	-22.9617
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3727600000	-15.0324	-1.60388	-22.6678	3727600000	-16.0629	-1.59539	-23.6123
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3877100000	-15.2217	-1.62497	-22.8665	3877100000	-15.6428	-1.64205	-22.4641
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4086400000	-15.456	-1.66341	-21.1909	4086400000	-15.0702	-1.70742	-19.0248
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4146200000	-15.1259	-1.66484	-19.772	4146200000	-14.7285	-1.70319	-18.3451
4176100000	-15.0149	-1.69603	-20.5558	4176100000	-14.2664	-1.74505	-19.0374
4206000000	-14.6522	-1.6833	-20.5318	4206000000	-14.1805	-1.72522	-18.863
4235900000	-15.1702	-1.68031	-19.9282	4235900000	-14.3902	-1.72931	-17.9455
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4295700000	-14.7688	-1.68364	-18.8461	4295700000	-14.0278	-1.72591	-17.1983
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4355500000	-14.221	-1.70504	-19.0262	4355500000	-13.5066	-1.74932	-17.6998
4385400000	-14.6961	-1.7035	-18.4834	4385400000	-13.7228	-1.75578	-17.128
4415300000	-14.0626	-1.72154	-18.9723	4415300000	-13.1318	-1.77355	-17.4039
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4475100000	-14.1543	-1.73089	-17.5982	4475100000	-13.0628	-1.78662	-16.585
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4534900000	-14.1567	-1.71662	-17.1934	4534900000	-13.2198	-1.76055	-16.5061
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4624600000	-13.687	-1.74637	-16.886	4624600000	-12.7153	-1.79128	-16.3834
4654500000	-13.2601	-1.741	-16.9927	4654500000	-12.5657	-1.77347	-16.6725
4684400000	-13.6893	-1.72721	-16.357	4684400000	-12.9192	-1.76531	-16.2872
4714300000	-13.2196	-1.76775	-16.9985	4714300000	-12.5062	-1.80172	-17.1048
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5013300000	-13.1698	-1.73781	-16.9905	5013300000	-13.0685	-1.7413	-18.8456
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5132900000	-13.7558	-1.66602	-17.5799	5132900000	-14.2223	-1.675	-19.9251
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5252500000	-13.836	-1.67893	-19.4812	5252500000	-14.7591	-1.6779	-24.1118
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5312300000	-14.4103	-1.65995	-19.8672	5312300000	-15.4523	-1.66365	-25.5299
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5372100000	-15.2067	-1.61209	-20.0442	5372100000	-16.7477	-1.6355	-25.9091
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5431900000	-15.5647	-1.60056	-21.5948	5431900000	-17.683	-1.62132	-26.7103
5461800000	-15.6856	-1.62121	-23.0069	5461800000	-17.6285	-1.64778	-29.9192
5491700000	-15.5633	-1.62397	-24.2574	5491700000	-17.9321	-1.65139	-26.9368
5521600000	-16.5683	-1.59126	-23.5736	5521600000	-19.2185	-1.64031	-27.3152
5551500000	-16.3464	-1.61324	-26.1815	5551500000	-19.0254	-1.65711	-25.4004
5581400000	-17.0847	-1.57774	-25.3572	5581400000	-20.516	-1.64169	-23.9429
5611300000	-17.55	-1.60631	-27.8719	5611300000	-20.8509	-1.66413	-24.1527
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5701000000	-18.2523	-1.60346	-31.0213	5701000000	-22.267	-1.68402	-20.4529
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5760800000	-20.0883	-1.60275	-28.9322	5760800000	-25.4995	-1.70025	-19.4892
5790700000	-19.3554	-1.59519	-25.7562	5790700000	-24.3496	-1.71544	-18.0686
5820600000	-20.8038	-1.58552	-25.7282	5820600000	-26.7987	-1.70747	-18.3566
5850500000	-20.6932	-1.62061	-24.9754	5850500000	-26.1707	-1.73887	-17.2981
5880400000	-20.7964	-1.61576	-23.0267	5880400000	-25.7959	-1.75519	-16.8456
5910300000	-22.6482	-1.6212	-23.508	5910300000	-28.6788	-1.74616	-16.7268
5940200000	-21.7297	-1.63085	-21.1567	5940200000	-26.4284	-1.76889	-15.6505
5970100000	-22.7811	-1.61938	-21.1005	5970100000	-26.8116	-1.76685	-15.9565
6000000000	-22.7577	-1.62952	-20.2706	6000000000	-26.5639	-1.77972	-15.3636

J1-J2		J1-J3		J1-J4		J1-J5	
S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)
-98.8851	-0.39413	-93.292	-0.38713	-93.9596	-0.40684	-92.3484	-0.40394
-100.173	-0.38359	-92.9622	-0.39338	-90.1528	-0.46006	-90.5226	-0.44677
-104.177	-0.51343	-93.5768	-0.50776	-90.0591	-0.53683	-89.1493	-0.51284
-100.16	-0.51415	-89.7288	-0.51716	-88.7704	-0.57655	-86.2251	-0.55263
-102.089	-0.40104	-89.4522	-0.4267	-89.1206	-0.55381	-87.7053	-0.53928
-114.17	-0.60647	-89.5582	-0.58979	-89.6981	-0.57913	-87.0913	-0.57236
-115.508	-0.69261	-89.7448	-0.65489	-87.6896	-0.62693	-87.2515	-0.61968
-109.873	-0.69824	-90.3973	-0.66484	-87.6289	-0.67928	-87.7705	-0.66164
-102.092	-0.78914	-91.1948	-0.7446	-88.431	-0.74104	-87.3234	-0.71922
-103.093	-0.72973	-90.2879	-0.70338	-89.6838	-0.74849	-89.7391	-0.73755
-110.112	-0.5869	-91.4147	-0.58429	-90.4505	-0.70464	-89.1263	-0.70462
-104.002	-0.69558	-91.5274	-0.67043	-89.7101	-0.72067	-89.8834	-0.72131
-102.465	-0.83947	-90.978	-0.77914	-90.5626	-0.74827	-90.4583	-0.74098
-105.087	-0.85954	-92.0959	-0.79702	-91.6228	-0.78001	-89.7117	-0.76925
-104.855	-0.90763	-92.209	-0.84296	-91.3121	-0.82786	-91.0553	-0.82054
-104.015	-0.80565	-92.5885	-0.76789	-91.392	-0.81494	-91.2956	-0.82677
-107.59	-0.64017	-93.4478	-0.62876	-93.3661	-0.75977	-91.5601	-0.78373
-103.6	-0.69276	-92.7417	-0.66794	-93.1997	-0.77482	-92.6908	-0.79402
-102.643	-0.87354	-94.3609	-0.81087	-93.2731	-0.81774	-93.2533	-0.82517
-103.073	-0.9124	-95.3981	-0.8381	-93.7495	-0.82338	-92.8154	-0.82587
-107.241	-0.9315	-94.6142	-0.86199	-94.4655	-0.85244	-93.1088	-0.86614
-108.713	-0.79692	-96.2616	-0.76355	-95.5661	-0.82698	-94.3663	-0.86943
-106.363	-0.62774	-96.8365	-0.62095	-95.0952	-0.77302	-94.8734	-0.82797
-107.966	-0.6442	-97.2751	-0.6235	-95.8022	-0.77931	-94.1248	-0.82614
-104.36	-0.81707	-96.6019	-0.7628	-96.5683	-0.8341	-95.0282	-0.86821
-107.765	-0.88407	-99.2493	-0.8136	-96.2592	-0.83647	-96.5702	-0.86029
-108.498	-0.89732	-98.3247	-0.83188	-95.492	-0.83414	-97.1822	-0.84901
-102.816	-0.74625	-99.0064	-0.72199	-97.9558	-0.81271	-97.7726	-0.86941
-108.686	-0.60361	-99.3079	-0.60144	-96.3161	-0.77539	-98.9335	-0.83836
-106.547	-0.6232	-100.261	-0.60057	-97.4284	-0.77325	-96.293	-0.81642
-113.39	-0.73432	-101.309	-0.68663	-99.639	-0.82127	-97.4675	-0.87716
-106.66	-0.85813	-98.8814	-0.78959	-98.009	-0.84506	-96.5411	-0.87108
-103.992	-0.85011	-101.474	-0.79476	-99.5357	-0.84303	-98.4327	-0.87451
-109.254	-0.69576	-99.5429	-0.682	-99.585	-0.81341	-99.177	-0.88207
-106.254	-0.58395	-100.17	-0.58114	-102.153	-0.78699	-98.5587	-0.8515
-108.537	-0.56539	-101.065	-0.54628	-105.042	-0.79643	-98.7877	-0.88651
-108.947	-0.71907	-99.3513	-0.66112	-102.228	-0.82318	-100.006	-0.87304
-106.435	-0.83517	-102.647	-0.76541	-104.957	-0.86694	-100.598	-0.91016
-107.633	-0.80988	-101.487	-0.75763	-103.042	-0.85646	-100.137	-0.92403
-104.379	-0.67741	-104.73	-0.6601	-99.4772	-0.82104	-101.54	-0.88918
-107.019	-0.53849	-102.744	-0.53602	-106.588	-0.82238	-102.503	-0.92315

-109.282	-0.56538	-102.24	-0.53046	-105.028	-0.80956	-101.014	-0.89372
-108.944	-0.70755	-102.612	-0.63998	-106.129	-0.84488	-106.706	-0.91347
-107.599	-0.79481	-106.534	-0.71762	-110.79	-0.872	-99.3446	-0.96999
-107.978	-0.79951	-105.284	-0.7325	-106.384	-0.84787	-105.352	-0.93552
-106.44	-0.62236	-102.096	-0.60374	-105.667	-0.84357	-102.36	-0.97068
-114.352	-0.5178	-115.184	-0.49639	-116.487	-0.81744	-104.595	-0.93433
-110.13	-0.56242	-107.192	-0.5057	-111.235	-0.81555	-105.699	-0.93166
-105.402	-0.68125	-106.976	-0.59611	-110.473	-0.84918	-106.079	-0.98405
-111.392	-0.78229	-110.701	-0.68912	-119.318	-0.86511	-105.864	-1.01233
-109.273	-0.77626	-103.19	-0.69148	-117.132	-0.83595	-111.991	-0.99351
-107.959	-0.62568	-104.119	-0.58	-109.114	-0.80442	-104.713	-0.97405
-107.393	-0.51308	-104.333	-0.46601	-112.593	-0.78841	-104.377	-0.95225
-108.048	-0.53143	-107.329	-0.45613	-112.893	-0.80892	-109.136	-1.00659
-106.229	-0.68021	-108.099	-0.56555	-111.197	-0.79428	-108.742	-0.97409
-109.33	-0.78175	-107.413	-0.66329	-106.501	-0.81399	-108.953	-0.99912
-111.669	-0.77545	-108.721	-0.67216	-108.564	-0.80127	-104.072	-1.00769
-109.562	-0.66928	-109.111	-0.58835	-105.46	-0.74351	-110.191	-0.95947
-114.534	-0.49303	-105.836	-0.42784	-110.542	-0.75929	-106.005	-1.00607
-117.251	-0.57654	-106.566	-0.46712	-104.909	-0.74545	-103.943	-0.96829
-109.871	-0.71684	-107.867	-0.57958	-110.127	-0.74693	-105.511	-0.96892
-107.437	-0.79411	-121.714	-0.65855	-109.655	-0.75776	-107.712	-0.99952
-109.325	-0.82804	-110.346	-0.70003	-105.961	-0.73053	-106.726	-0.95569
-108.763	-0.69548	-106.077	-0.60221	-111.131	-0.72491	-105.925	-0.98219
-105.706	-0.60284	-107.957	-0.50603	-101.958	-0.69463	-109.483	-0.93081
-107.529	-0.66323	-110.004	-0.52989	-102.648	-0.69692	-104.198	-0.93008
-119.63	-0.76595	-109.084	-0.61073	-104.845	-0.70726	-108.393	-0.96837
-104.607	-0.90389	-111.692	-0.7427	-104.801	-0.69315	-117.339	-0.9254
-110.402	-0.86338	-106.283	-0.73481	-104.758	-0.7205	-110.273	-0.94826
-108.412	-0.81915	-115.345	-0.70171	-106.574	-0.68587	-108.758	-0.8983
-109.324	-0.73733	-106.625	-0.6184	-104.128	-0.66772	-111.255	-0.86969
-108.648	-0.76867	-106.93	-0.62149	-122.846	-0.689	-110.165	-0.89494
-110.608	-0.91978	-106.526	-0.74294	-106.182	-0.67863	-104.66	-0.86644
-112.744	-0.97723	-124.201	-0.81258	-102.946	-0.69751	-106.736	-0.88381
-109.085	-0.98211	-106.737	-0.84447	-105.678	-0.71046	-103.956	-0.86657
-110.879	-0.92407	-109.593	-0.80194	-107.074	-0.7056	-109.151	-0.83712
-107.281	-0.83565	-106.66	-0.70948	-108.807	-0.70227	-109.326	-0.84338
-114.242	-0.90781	-106.046	-0.74515	-109.742	-0.70037	-111.698	-0.81259
-112.431	-1.01435	-115.618	-0.83571	-115.289	-0.71987	-111.643	-0.82244
-113.31	-1.07368	-105.208	-0.90733	-110.513	-0.73446	-101.988	-0.82549
-114.592	-1.07879	-116.977	-0.9393	-107.351	-0.74793	-114.515	-0.80137
-104.226	-0.98066	-116.706	-0.86449	-115.774	-0.77767	-107.619	-0.81535
-112.766	-0.95079	-121.284	-0.81697	-107.82	-0.76202	-106.693	-0.78018
-109.376	-1.00917	-106.016	-0.84355	-106.743	-0.77158	-109.814	-0.77837
-106.754	-1.08227	-106.827	-0.90839	-120.519	-0.80558	-106.839	-0.79255
-109.743	-1.16101	-108.498	-0.9923	-110.968	-0.7976	-107.913	-0.78101
-107.194	-1.10938	-108.027	-0.97669	-105.852	-0.83811	-125.731	-0.80019
-112.144	-1.05755	-108.078	-0.93957	-110.335	-0.84886	-110.078	-0.77537
-109.307	-1.02415	-117.913	-0.89131	-103.626	-0.85186	-108.587	-0.77007
-111.243	-1.05641	-110.596	-0.89496	-108.835	-0.86304	-110.886	-0.77805
-106.903	-1.1586	-121.9	-0.97666	-107.352	-0.86252	-108.485	-0.77845
-105.925	-1.18221	-111.805	-1.01921	-106.025	-0.90003	-114.831	-0.79965
-107.072	-1.17099	-113.878	-1.03685	-107.269	-0.9053	-115.484	-0.78664
-113.581	-1.1064	-111.246	-0.98823	-103.33	-0.92358	-107.318	-0.78611
-110.267	-1.06559	-110.621	-0.93682	-105.794	-0.93496	-126.377	-0.79447
-115.097	-1.12909	-118.374	-0.96238	-111.869	-0.91193	-108.062	-0.77511

-110.817	-1.18984	-118.454	-1.01116	-114.655	-0.94133	-105.193	-0.79471
-109.546	-1.23419	-119.186	-1.07187	-116.197	-0.95333	-102.594	-0.79782
-107.5	-1.21008	-114.247	-1.07934	-116.929	-0.96672	-112.212	-0.79939
-106.383	-1.14353	-111.766	-1.03222	-133.741	-0.98558	-115.828	-0.80969
-110.674	-1.14628	-110.494	-1.01582	-116.569	-0.98039	-104.648	-0.79342
-113.412	-1.18035	-113.67	-1.01729	-112.055	-0.97796	-104.924	-0.78967
-105.448	-1.24294	-107.52	-1.06947	-104.587	-0.99159	-105.562	-0.7949
-107.012	-1.2905	-115.142	-1.13201	-110.273	-0.99698	-115.41	-0.80229
-112.205	-1.24578	-107.999	-1.12903	-105.256	-1.042	-112.729	-0.81439
-107.387	-1.22214	-113.261	-1.11394	-104.487	-1.03593	-109.94	-0.80403
-113.506	-1.20023	-111.279	-1.08272	-106.21	-1.03573	-109.49	-0.80033
-114.037	-1.22999	-107.9	-1.08317	-104.778	-1.04919	-111.324	-0.78867
-113.947	-1.31241	-110.495	-1.14894	-103.154	-1.04362	-109.166	-0.78289
-111.602	-1.3171	-105.675	-1.17673	-104.913	-1.0759	-108.408	-0.79632
-106.992	-1.31428	-114.925	-1.2077	-102.244	-1.09707	-106.086	-0.79533
-110.4	-1.26608	-108.995	-1.17932	-104.346	-1.10788	-109.591	-0.79911
-108.255	-1.22747	-107.138	-1.13325	-102.939	-1.12635	-107.309	-0.79457
-107.058	-1.29144	-108.607	-1.1612	-104.3	-1.11027	-109.968	-0.78123
-113.302	-1.31008	-113.542	-1.17192	-104.05	-1.14319	-104.336	-0.77312
-114.094	-1.34709	-110.587	-1.2235	-103.604	-1.1561	-110.981	-0.77303
-106.96	-1.32134	-110.756	-1.23454	-106.862	-1.19262	-109.048	-0.78372
-116.225	-1.25527	-105.52	-1.1933	-110.943	-1.22041	-110.886	-0.78811
-123.102	-1.2583	-109.513	-1.17922	-107.986	-1.21097	-103.96	-0.78363
-116.375	-1.25487	-107.128	-1.15107	-113.231	-1.22974	-108.156	-0.76827
-108.253	-1.3099	-105.91	-1.1864	-122.95	-1.23678	-108.402	-0.75604
-110.387	-1.31072	-111.918	-1.20712	-103.856	-1.26321	-106.714	-0.75493
-117.809	-1.27305	-116.469	-1.20392	-110.342	-1.30515	-109.572	-0.76658
-111.602	-1.23852	-108.525	-1.18798	-103.92	-1.31881	-112.72	-0.77315
-111.851	-1.21348	-110.51	-1.15358	-108.615	-1.3388	-104.779	-0.76636
-110.379	-1.22552	-114.667	-1.1327	-103.774	-1.34136	-107.529	-0.76213
-118.962	-1.25709	-106.705	-1.15215	-102.319	-1.35143	-105.521	-0.7727
-107.683	-1.25845	-107.856	-1.16046	-102.162	-1.36492	-106.532	-0.75262
-113.942	-1.2417	-115.989	-1.17182	-101.15	-1.39281	-112.119	-0.76459
-106.273	-1.20411	-116.771	-1.15768	-101.027	-1.42253	-113.338	-0.77329
-116.334	-1.17441	-113.199	-1.11348	-102.315	-1.43611	-113.64	-0.77748
-106.067	-1.20448	-108.895	-1.11009	-103.713	-1.4242	-107.253	-0.77511
-109.055	-1.21465	-110.232	-1.10021	-118.531	-1.43811	-108.107	-0.76975
-111.847	-1.24604	-108.258	-1.13981	-100.615	-1.42473	-110.263	-0.77799
-115.647	-1.2248	-109.353	-1.14608	-106.447	-1.44985	-106.659	-0.78895
-109.402	-1.16731	-107.117	-1.10953	-103.849	-1.47675	-125.769	-0.79127
-108.558	-1.17692	-107.169	-1.10367	-103.51	-1.46494	-109.26	-0.81181
-112.6	-1.16798	-117.784	-1.06679	-103.074	-1.48405	-108.435	-0.79799
-107.749	-1.22319	-115.777	-1.0935	-102.184	-1.46056	-105.887	-0.81167
-105.82	-1.23703	-122.688	-1.12026	-107.381	-1.45614	-121.592	-0.80987
-104.905	-1.21195	-112.292	-1.12193	-105.818	-1.47646	-108.387	-0.81294
-108.25	-1.20131	-105.948	-1.12698	-104.301	-1.46621	-113.774	-0.83667
-108.159	-1.16692	-106.604	-1.08288	-103.526	-1.48666	-104.464	-0.84009
-106.152	-1.20312	-105.712	-1.08158	-108.319	-1.45866	-109.532	-0.85926
-113.045	-1.2328	-115.113	-1.09391	-113.324	-1.46304	-106.035	-0.85001
-111.766	-1.2421	-106.661	-1.10893	-107.499	-1.45252	-109.848	-0.84437
-110.511	-1.25424	-126.976	-1.15281	-109.76	-1.44725	-115.486	-0.8567
-111.463	-1.2079	-124.387	-1.128	-106.708	-1.46441	-107.464	-0.86071
-108.871	-1.20569	-121.095	-1.10983	-103.733	-1.45119	-107.318	-0.88353
-110.214	-1.2254	-109.668	-1.09462	-110.804	-1.43255	-107.961	-0.89389
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-113.282	-1.28908	-120.26	-1.14284	-104.874	-1.40796	-111.701	-0.89649
-108.385	-1.26473	-108.994	-1.14056	-104.471	-1.41308	-104.638	-0.88364
-108.381	-1.2403	-115.663	-1.14104	-105.204	-1.40665	-107.777	-0.89465
-106.924	-1.22748	-125.197	-1.11732	-101.803	-1.39868	-106.192	-0.91352
-110.848	-1.23366	-106.847	-1.08895	-106.956	-1.40195	-107.282	-0.9121
-109.902	-1.28734	-126.644	-1.1184	-103.659	-1.3769	-106.296	-0.92527
-110.573	-1.3081	-109.206	-1.14382	-106.617	-1.38316	-107.276	-0.91927
-112.878	-1.29718	-110.743	-1.16029	-106.215	-1.37402	-113.227	-0.90869
-108.15	-1.28177	-120.46	-1.1603	-108.88	-1.36522	-113.978	-0.9205
-105.608	-1.24243	-113.648	-1.1078	-107.331	-1.3682	-107.272	-0.91698
-106.514	-1.27416	-108.588	-1.10217	-111.441	-1.34682	-108.962	-0.93706
-113.135	-1.32257	-113.558	-1.13166	-118.296	-1.32648	-110.5	-0.94635
-104.825	-1.32715	-110.571	-1.14672	-110.246	-1.342	-107.737	-0.92557
-110.346	-1.34549	-111.117	-1.17798	-115.73	-1.32235	-112.216	-0.94016
-116.617	-1.3146	-108.251	-1.15901	-112.775	-1.33317	-110.606	-0.92378
-113.611	-1.30717	-113.629	-1.13278	-118.174	-1.31557	-110.322	-0.94325
-110.345	-1.34257	-106.331	-1.13986	-111.555	-1.29472	-106.651	-0.96616
-110.36	-1.36363	-110.625	-1.1407	-117.176	-1.3097	-109.136	-0.95327
-113.975	-1.39607	-108.415	-1.18594	-108.579	-1.29444	-111.112	-0.96384
-109.408	-1.38586	-117.24	-1.19178	-107.102	-1.30546	-111.687	-0.95067
-109.478	-1.387	-116.928	-1.19649	-128.675	-1.28486	-109.541	-0.95792
-104.445	-1.38985	-107.699	-1.18417	-118.071	-1.2656	-110.048	-0.97346
-108.372	-1.39758	-112.673	-1.16601	-114.594	-1.27086	-109.805	-0.97026
-112.079	-1.4473	-116.213	-1.21037	-114.373	-1.26094	-110.13	-0.99505
-103.507	-1.44156	-106.451	-1.21823	-117.222	-1.26902	-111.999	-0.97514
-105.865	-1.44031	-111.665	-1.2381	-128.996	-1.27024	-107.961	-0.97331
-109.259	-1.45295	-110.25	-1.25127	-117.56	-1.24214	-110.559	-0.9879
-107.347	-1.4459	-109.906	-1.23618	-108.588	-1.23017	-110.235	-0.98855
-106.584	-1.4704	-116.674	-1.24589	-119.612	-1.22089	-109.536	-1.00979
-109.409	-1.48584	-108.272	-1.25463	-113.772	-1.23178	-116.468	-1.00234
-104.001	-1.48937	-109.453	-1.2822	-111.672	-1.22506	-106.732	-1.00605
-114.438	-1.48229	-110.201	-1.29692	-106.245	-1.2196	-111.89	-1.00698
-110.139	-1.47018	-111.605	-1.29617	-109.561	-1.22005	-109.089	-1.00359
-108.139	-1.48505	-110.427	-1.30568	-110.992	-1.19218	-112.555	-1.02606
-107.988	-1.49439	-110.806	-1.30166	-113.061	-1.19047	-114.717	-1.02903
-111.872	-1.48613	-111.252	-1.2985	-108.146	-1.20523	-110.961	-1.01777
-112.442	-1.48909	-109.969	-1.32339	-108.934	-1.20038	-121.188	-1.02959
-113.99	-1.47296	-109.921	-1.32591	-113.345	-1.20485	-116.951	-1.0218
-110.576	-1.47612	-107.743	-1.34868	-109.32	-1.16295	-113.202	-1.05074
-107.137	-1.46419	-116.003	-1.33351	-110.243	-1.14683	-111.759	-1.04826
-111.358	-1.45229	-107.637	-1.30936	-111.982	-1.17848	-118.146	-1.02902
-107.965	-1.47271	-113.327	-1.34264	-112.808	-1.16106	-117.634	-1.05973
-111.453	-1.44585	-107.302	-1.3253	-111.674	-1.18143	-113.718	-1.03568
-106.825	-1.44582	-107.716	-1.35187	-109.663	-1.15315	-110.048	-1.06346
-105.279	-1.42765	-105.939	-1.34582	-111.706	-1.14359	-117.245	-1.06845
-106.695	-1.41082	-107.952	-1.31773	-111.74	-1.15236	-115.429	-1.05056
-107.519	-1.42109	-109.243	-1.32712	-112.77	-1.1454	-124.175	-1.06476
-105.17	-1.41351	-107.932	-1.31426	-110.767	-1.15532	-119.393	-1.05128
-107.314	-1.41119	-107.437	-1.32958	-114.428	-1.1617	-115.91	-1.06833
-110.864	-1.38031	-110.203	-1.32061	-110.612	-1.15678	-108.444	-1.09094

J1-J6		J1-J7		J1-J8		J1-J9	
S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)	S21 (dB)	S22 (dB)
-98.7216	-0.40218	-105.532	-0.4147	-93.1372	-0.34763	-97.6264	-0.35821
-102.575	-0.40869	-90.9336	-0.52583	-94.1661	-0.33613	-94.2289	-0.35288
-88.0112	-0.48614	-90.793	-0.58541	-90.031	-0.46768	-99.556	-0.48028
-86.9391	-0.51717	-90.5691	-0.65863	-88.4902	-0.46265	-97.0931	-0.47789
-88.5761	-0.47686	-87.5227	-0.69315	-87.9032	-0.32867	-102.379	-0.35454
-87.3837	-0.57573	-88.205	-0.58532	-88.6056	-0.53381	-104.396	-0.55302
-88.0212	-0.63011	-87.6108	-0.64034	-89.2884	-0.64984	-98.4356	-0.65964
-88.3435	-0.64249	-88.6302	-0.72454	-90.7503	-0.63838	-98.756	-0.66402
-88.6454	-0.70689	-88.8876	-0.76028	-89.792	-0.72449	-97.6691	-0.74442
-89.0152	-0.71139	-88.8727	-0.80121	-89.7412	-0.64723	-102.281	-0.66039
-88.8031	-0.65096	-90.156	-0.81152	-90.0771	-0.47589	-105.535	-0.49737
-89.4561	-0.70345	-91.3668	-0.73718	-91.0582	-0.59619	-102.272	-0.62449
-89.8862	-0.74908	-90.5688	-0.75605	-90.7989	-0.77255	-103.852	-0.78694
-91.3765	-0.76452	-91.7789	-0.7951	-92.3194	-0.79544	-103.474	-0.81821
-90.9837	-0.81929	-92.0578	-0.82121	-91.8678	-0.83917	-104.509	-0.84995
-92.0844	-0.81546	-91.3277	-0.84476	-92.7182	-0.70738	-106.64	-0.70705
-92.6675	-0.73803	-93.0284	-0.8539	-92.758	-0.50768	-105.465	-0.51931
-93.049	-0.75544	-93.1784	-0.82327	-94.0079	-0.57305	-102.906	-0.60392
-93.0226	-0.8276	-93.1006	-0.82575	-94.4254	-0.8017	-104.819	-0.82583
-94.5915	-0.82756	-93.661	-0.83134	-94.7178	-0.84576	-105.441	-0.86784
-93.8394	-0.87073	-94.4804	-0.83916	-95.8507	-0.85467	-107.452	-0.8593
-95.891	-0.8635	-95.9999	-0.85184	-96.4006	-0.67887	-105.147	-0.66923
-95.5608	-0.78472	-95.9288	-0.87045	-96.2823	-0.47189	-103.878	-0.47977
-95.8323	-0.76933	-95.6964	-0.86513	-96.9052	-0.50413	-107.449	-0.54108
-94.8039	-0.85147	-96.1267	-0.86327	-96.3734	-0.7321	-102.57	-0.77064
-97.4385	-0.85123	-97.0701	-0.8588	-96.9563	-0.80369	-103.772	-0.83378
-95.8581	-0.84969	-98.515	-0.83551	-99.2942	-0.79582	-107.487	-0.8066
-96.8722	-0.8598	-96.8905	-0.84632	-98.4524	-0.60083	-106.519	-0.59292
-98.3325	-0.79387	-98.1173	-0.87531	-98.8593	-0.42427	-105.869	-0.44085
-97.1172	-0.74886	-97.1195	-0.89063	-99.4548	-0.45821	-112.395	-0.51524
-99.1805	-0.82643	-99.9628	-0.90091	-98.9573	-0.62401	-104.371	-0.68615
-98.1225	-0.8412	-98.4948	-0.89426	-100.001	-0.76077	-105.091	-0.81168
-99.0752	-0.85991	-101.208	-0.86527	-99.0512	-0.73045	-108.232	-0.747
-101.168	-0.86058	-104.63	-0.86382	-100.531	-0.52745	-105.936	-0.52662
-102.866	-0.79529	-99.7046	-0.89768	-103.514	-0.38311	-104.271	-0.41625
-102.281	-0.80307	-98.8134	-0.92775	-105.571	-0.39796	-104.125	-0.46544
-100.857	-0.79861	-100.426	-0.92615	-100.465	-0.59424	-108.145	-0.68169
-99.6487	-0.85704	-101.907	-0.93586	-101.857	-0.73263	-109.127	-0.79626
-100.757	-0.88636	-102.017	-0.89805	-101.415	-0.6839	-111.139	-0.70724
-101.306	-0.8508	-102.218	-0.88654	-104.214	-0.4958	-106.518	-0.50933
-106.611	-0.85117	-103.884	-0.94298	-102.642	-0.34584	-107.561	-0.38339

-102.419	-0.79203	-100.813	-0.95079	-104.125	-0.40128	-108.462	-0.48938
-103.113	-0.8123	-101.613	-0.96158	-104.732	-0.5973	-105.727	-0.69563
-110.002	-0.89072	-104.451	-0.95023	-106.97	-0.70802	-115.327	-0.77574
-103.35	-0.87498	-105.778	-0.89378	-102.306	-0.68084	-106.732	-0.71283
-104.779	-0.91301	-103.5	-0.90853	-104.592	-0.46394	-108.111	-0.46969
-104.205	-0.84898	-104.95	-0.93208	-107.545	-0.34321	-111.018	-0.39111
-103.227	-0.81388	-107.037	-0.94723	-105.282	-0.42281	-109.575	-0.52181
-103.863	-0.8631	-103.499	-0.96307	-106.722	-0.59692	-114.977	-0.69951
-106.253	-0.91332	-107.959	-0.93868	-106.548	-0.71939	-115.939	-0.78634
-106.015	-0.9178	-108.63	-0.87785	-107.9	-0.68053	-117.12	-0.7101
-106.14	-0.90719	-104.989	-0.85927	-105.359	-0.47981	-104.224	-0.49331
-104.393	-0.86348	-112.629	-0.89226	-107.644	-0.35219	-106.009	-0.41152
-106.7	-0.88986	-107.567	-0.92652	-109.83	-0.41546	-113.11	-0.51634
-107.791	-0.85256	-108.349	-0.89718	-113.406	-0.60212	-140.736	-0.72037
-105.536	-0.89761	-105.954	-0.8838	-105.979	-0.72117	-111.339	-0.79858
-105.626	-0.93519	-106.927	-0.83413	-114.993	-0.68724	-114.608	-0.7195
-105.304	-0.90352	-106.204	-0.78228	-107.102	-0.51547	-107.02	-0.54786
-105.766	-0.93276	-117.052	-0.85085	-105.614	-0.33209	-110.298	-0.39539
-105.787	-0.86986	-109.68	-0.84864	-106.835	-0.43978	-111.234	-0.56601
-105.193	-0.86455	-112.199	-0.8398	-112.739	-0.62257	-107.783	-0.75646
-109.567	-0.91329	-106.991	-0.8221	-109.925	-0.71478	-112.546	-0.80301
-109.024	-0.89817	-111.027	-0.75867	-115.152	-0.70816	-109.283	-0.76288
-110.627	-0.94571	-105.123	-0.74977	-109.745	-0.53024	-117.233	-0.56897
-109.134	-0.88128	-113.343	-0.77004	-109.601	-0.39856	-105.259	-0.49525
-106.936	-0.85638	-105.493	-0.78406	-115.732	-0.48564	-110.017	-0.6382
-107.834	-0.88668	-108.736	-0.78776	-107.172	-0.63289	-112.448	-0.78643
-107.49	-0.85558	-104.403	-0.75371	-105.644	-0.77067	-108.512	-0.89244
-107.548	-0.90496	-108.719	-0.74301	-113.314	-0.71394	-107.903	-0.77332
-109.541	-0.87683	-106.904	-0.68763	-109.182	-0.6248	-113.419	-0.69095
-112.867	-0.84265	-103.065	-0.71215	-105.736	-0.50458	-106.666	-0.62459
-108.985	-0.84182	-105.143	-0.7567	-128.021	-0.5573	-109.295	-0.72747
-108.819	-0.80221	-113.892	-0.74431	-108.193	-0.74204	-108.784	-0.92694
-107.332	-0.82758	-109.378	-0.74669	-113.043	-0.81975	-117.591	-0.94865
-113.025	-0.83067	-111.494	-0.72476	-112.071	-0.80184	-104.216	-0.87981
-108.238	-0.82391	-114.151	-0.68928	-112.357	-0.7096	-113.955	-0.78835
-110.338	-0.83142	-104.727	-0.71023	-105.981	-0.60168	-108.226	-0.72601
-118.362	-0.77588	-122.016	-0.73753	-108.032	-0.68065	-110.595	-0.86912
-105.471	-0.77262	-105.757	-0.7596	-113.966	-0.83851	-109.479	-1.02135
-105.031	-0.7795	-116.567	-0.76321	-113.754	-0.92077	-123.171	-1.05158
-104.348	-0.77013	-114.551	-0.74243	-114.507	-0.90153	-116.202	-0.98324
-118.039	-0.80612	-112.602	-0.73808	-114.023	-0.77939	-109.661	-0.85054
-121.096	-0.77854	-103.979	-0.72953	-111.357	-0.72839	-111.806	-0.85623
-106.709	-0.7541	-112.124	-0.76377	-113.032	-0.80513	-107.779	-0.98379
-109.736	-0.75541	-106.807	-0.8056	-104.413	-0.93765	-112.518	-1.10377
-107.737	-0.74379	-106.161	-0.79354	-112.629	-1.03028	-113.889	-1.15389
-108.94	-0.77578	-115.814	-0.80421	-106.029	-0.9616	-110.211	-1.03049
-106.945	-0.768	-116.564	-0.77901	-105.735	-0.87299	-105.398	-0.94498
-110.75	-0.77484	-114.987	-0.77576	-107.111	-0.82744	-116.057	-0.94304
-113.84	-0.76818	-109.534	-0.80878	-114.588	-0.8872	-107.122	-1.04367
-107.298	-0.75112	-112.057	-0.823	-114.422	-1.03438	-117.334	-1.19649
-108.686	-0.77129	-117.314	-0.86124	-118.363	-1.08588	-109.118	-1.1926
-109.824	-0.76322	-107.181	-0.84192	-113.058	-1.04591	-116.829	-1.11163
-125.467	-0.77715	-111.932	-0.82487	-107.39	-0.93954	-109.933	-1.00823
-109.626	-0.79819	-107.767	-0.82482	-116.888	-0.88857	-107.63	-0.99325
-105.877	-0.77308	-107.635	-0.81846	-110.621	-0.96622	-112.432	-1.11412

-109.042	-0.77507	-110.064	-0.86717	-108.934	-1.0813	-116.396	-1.22328
-105.07	-0.77227	-105.47	-0.88355	-108.499	-1.14594	-112.655	-1.24614
-106.461	-0.77643	-109.092	-0.87594	-119.184	-1.09222	-115.604	-1.15118
-118.757	-0.79722	-117.077	-0.8638	-117.263	-0.9846	-107.645	-1.04484
-109.12	-0.79202	-110.703	-0.84482	-107.127	-0.96576	-114.965	-1.06954
-106.775	-0.78825	-107.035	-0.85656	-117.483	-1.0198	-108.205	-1.15298
-113.694	-0.77959	-110.683	-0.88937	-109.103	-1.13211	-108.083	-1.2564
-108.222	-0.77708	-108.983	-0.90052	-110.604	-1.19805	-116.36	-1.28606
-107.229	-0.79213	-116.079	-0.92858	-110.884	-1.13013	-113.523	-1.17303
-111.655	-0.78756	-111.671	-0.89071	-119.052	-1.0531	-107.535	-1.1107
-112.4	-0.79326	-113.747	-0.87711	-118.868	-1.02102	-113.037	-1.10832
-108.489	-0.78699	-109.715	-0.90249	-122.705	-1.07415	-129.121	-1.18493
-108.87	-0.76929	-130.505	-0.91186	-117.94	-1.19516	-112.444	-1.29956
-116.691	-0.77542	-106.814	-0.95287	-105.151	-1.22573	-106.044	-1.28905
-115.264	-0.77024	-107.719	-0.95379	-104.916	-1.19408	-104.992	-1.22668
-107.299	-0.77832	-108.642	-0.93513	-120.163	-1.10547	-110.316	-1.14157
-105.876	-0.78506	-120.508	-0.94112	-107.924	-1.06084	-110.045	-1.12441
-112.785	-0.77509	-109.987	-0.93282	-118.041	-1.14283	-113.728	-1.23577
-108.937	-0.76471	-112.89	-0.98193	-112.647	-1.20591	-111.812	-1.27827
-108.763	-0.75371	-112.444	-0.99998	-125.006	-1.25888	-110.994	-1.30278
-109.399	-0.76022	-111.856	-1.01634	-111.805	-1.21056	-129.757	-1.22554
-111.383	-0.76791	-105.096	-1.01657	-110.274	-1.11487	-114.324	-1.12712
-115.193	-0.7706	-116.131	-0.9931	-120.369	-1.10678	-120.893	-1.15524
-106.397	-0.76343	-106.398	-1.02132	-117.554	-1.13509	-118.378	-1.20154
-114.341	-0.74931	-125.913	-1.04166	-114.178	-1.22062	-111.539	-1.28075
-111.448	-0.74068	-117.684	-1.07002	-109.855	-1.24215	-109.197	-1.26561
-111.024	-0.7486	-114.082	-1.09601	-111.214	-1.1836	-118.511	-1.18328
-112.282	-0.75378	-111.727	-1.08283	-104.096	-1.11645	-110.474	-1.1232
-106.21	-0.75554	-120.115	-1.0937	-110.11	-1.09011	-113.449	-1.12228
-118.313	-0.75949	-109.675	-1.10611	-108.992	-1.12754	-103.355	-1.18576
-117.278	-0.77004	-108.596	-1.12848	-123.369	-1.19667	-117.659	-1.24006
-113.149	-0.7465	-107.872	-1.14694	-111.659	-1.20071	-120.616	-1.22386
-113.981	-0.74948	-112.891	-1.16035	-109.474	-1.1608	-107.898	-1.16726
-112.429	-0.75762	-112.499	-1.16898	-106.488	-1.09728	-108.644	-1.10591
-123.271	-0.76826	-108.608	-1.17786	-124.45	-1.06205	-112.237	-1.10032
-106.208	-0.77362	-113.408	-1.1768	-110.917	-1.11595	-110.401	-1.17971
-102.682	-0.77275	-109.921	-1.20815	-116.322	-1.15622	-120.297	-1.21629
-108.361	-0.77631	-105.59	-1.19781	-112.899	-1.19057	-111.972	-1.2297
-105.808	-0.77904	-108.819	-1.21351	-108.408	-1.14653	-111.247	-1.16927
-112.063	-0.77862	-108.422	-1.2295	-106.416	-1.06248	-106.45	-1.08896
-111.227	-0.80078	-116.141	-1.21565	-114.146	-1.06176	-108.068	-1.12155
-105.846	-0.79793	-113.695	-1.25277	-116.791	-1.08135	-106.576	-1.15668
-105.216	-0.8137	-112.725	-1.24578	-113.335	-1.15655	-118.238	-1.23669
-115.089	-0.80866	-104.417	-1.24635	-112.868	-1.17884	-112.217	-1.23302
-108.582	-0.80508	-108.113	-1.26161	-107.895	-1.13123	-106.658	-1.16848
-108.076	-0.81967	-111.749	-1.24382	-110.51	-1.09017	-103.798	-1.13702
-106.497	-0.82738	-105.252	-1.2725	-108.466	-1.04905	-106.989	-1.12188
-108.167	-0.8522	-116.243	-1.26393	-109.565	-1.09895	-110.153	-1.19924
-111.174	-0.84928	-110.27	-1.28639	-109.364	-1.15926	-107.862	-1.25025
-105.405	-0.84315	-112.41	-1.28225	-103.678	-1.17152	-108.967	-1.24433
-109.067	-0.84482	-116.319	-1.27068	-107.416	-1.16682	-108.043	-1.22032
-109.804	-0.83936	-108.424	-1.287	-110.644	-1.0964	-105.671	-1.15553
-108.035	-0.86107	-111.737	-1.28383	-116.76	-1.08138	-129.229	-1.17068
-109.052	-0.87871	-107.235	-1.28842	-112.027	-1.11226	-107.989	-1.22668
-121.742	-0.87769	-114.103	-1.30551	-109.845	-1.15328	-107.369	-1.26306

-110.813	-0.88779	-113.538	-1.2861	-107.051	-1.2024	-109.522	-1.29376
-110.505	-0.87189	-106.554	-1.2864	-107.878	-1.1567	-106.665	-1.23858
-114.78	-0.87017	-107.263	-1.27881	-110.146	-1.11447	-107.711	-1.19731
-104.498	-0.88465	-109.941	-1.28217	-117.071	-1.09128	-112.258	-1.20311
-107.817	-0.8906	-109.093	-1.3082	-115.041	-1.10686	-112.993	-1.24381
-110.823	-0.91042	-110.437	-1.30103	-107.323	-1.17512	-105.817	-1.31201
-118.493	-0.9077	-107.898	-1.31293	-120.486	-1.19917	-108.191	-1.31795
-112.543	-0.89401	-109.376	-1.29698	-110.586	-1.17685	-105.203	-1.27714
-107.522	-0.89476	-116.233	-1.28659	-109.238	-1.13803	-107.837	-1.24678
-113.04	-0.88598	-108.487	-1.30241	-110.154	-1.08484	-108.563	-1.2292
-108.007	-0.91226	-120.572	-1.30214	-119.131	-1.11826	-109.086	-1.29124
-114.425	-0.92836	-107.856	-1.29858	-111.298	-1.1827	-110.471	-1.34733
-115.744	-0.91081	-117.624	-1.31816	-108.831	-1.19545	-118.233	-1.33446
-115.385	-0.92289	-108	-1.29369	-114.445	-1.19006	-106.453	-1.32771
-107.281	-0.90301	-105.977	-1.30149	-115.268	-1.13831	-109.137	-1.28632
-111.474	-0.91638	-107.01	-1.29509	-109.374	-1.11359	-107.676	-1.29822
-108.032	-0.94041	-109.44	-1.29288	-110.41	-1.15562	-116.737	-1.358
-110.707	-0.93731	-109.29	-1.32343	-112.243	-1.1868	-107.484	-1.38312
-110.979	-0.9507	-112.681	-1.31073	-111.952	-1.22868	-106.382	-1.39557
-116.406	-0.93615	-105.823	-1.31639	-106.655	-1.20171	-108.115	-1.36474
-118.505	-0.93945	-109.198	-1.29324	-106.218	-1.18002	-104.957	-1.36032
-108.607	-0.94998	-118.93	-1.2833	-113.797	-1.17313	-109.72	-1.3785
-107.828	-0.94983	-108.022	-1.30538	-106.839	-1.18649	-105.217	-1.40536
-113.094	-0.98088	-115.135	-1.30741	-114.748	-1.25418	-106.548	-1.45048
-112.258	-0.9656	-109.265	-1.31753	-106.087	-1.25722	-107.014	-1.42685
-108.999	-0.96035	-109.185	-1.31238	-109.962	-1.24836	-106.261	-1.40983
-109.461	-0.97142	-110.22	-1.28118	-112.092	-1.24126	-111.03	-1.42107
-109.615	-0.96855	-106.705	-1.27733	-112.047	-1.23602	-106.716	-1.42701
-109.376	-0.9896	-106.029	-1.28384	-111.095	-1.27559	-108.828	-1.46186
-109.016	-0.99001	-114.189	-1.3035	-105.243	-1.30466	-106.657	-1.47104
-109.913	-0.99522	-108.368	-1.29661	-111.3	-1.3243	-106.887	-1.45567
-114.296	-0.99278	-112.392	-1.28303	-114.616	-1.31401	-103.858	-1.43672
-113.242	-0.98363	-106.925	-1.2787	-114.374	-1.30011	-107.427	-1.42917
-109.421	-1.00257	-108.8	-1.25624	-114.184	-1.32172	-104.62	-1.45549
-112.765	-1.00722	-108.13	-1.26596	-112.183	-1.34488	-111.334	-1.47074
-116.56	-0.99914	-112.426	-1.28841	-106.812	-1.356	-108.705	-1.45409
-116.489	-1.01267	-114.137	-1.28073	-106.89	-1.37035	-105.949	-1.44086
-114.745	-1.00183	-107.461	-1.27574	-114.007	-1.35284	-107.944	-1.42006
-109.992	-1.02407	-108.55	-1.22975	-109.311	-1.36792	-106.642	-1.42829
-108.376	-1.01558	-109.907	-1.21644	-109.934	-1.36747	-108.046	-1.42723
-110.655	-0.99664	-116.299	-1.25647	-107.961	-1.36658	-105.736	-1.41851
-112.393	-1.03238	-115.507	-1.24393	-107.742	-1.40781	-106.722	-1.42543
-108.441	-1.01076	-111.042	-1.25954	-108.185	-1.37915	-108.734	-1.38855
-115.149	-1.03469	-110.009	-1.22156	-106.879	-1.38935	-104.432	-1.38372
-109.946	-1.03164	-108.831	-1.20622	-110.601	-1.3795	-109.748	-1.37333
-104.954	-1.00861	-105.186	-1.21686	-111.367	-1.36491	-108.165	-1.36747
-112.756	-1.02462	-112.597	-1.21464	-110.494	-1.39152	-115.008	-1.37375
-111.612	-1.01596	-112.734	-1.22532	-111.996	-1.38073	-106.781	-1.35708
-109.445	-1.03548	-114.494	-1.22712	-108.042	-1.38418	-106.139	-1.34165
-114.238	-1.05375	-112.215	-1.21123	-109.167	-1.36033	-106.058	-1.30964

J2-J3

J2-J4

J2-J5

J2-J6

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J2-J7

J2-J8

J2-J9

J3-J4

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J3-J5

J3-J6

J3-J7

J3-J8

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J3-J9

J4-J5

J4-J6

J4-J7

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J4-J8

J4-J9

J5-J6

J5-J7

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J5-J8

J5-J9

J6-J7

J6-J8

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

J6-J9

J7-J8

J7-J9

J8-J9

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

S21 (dB) S22 (dB)

1.664879

Frequency (GHz)	J2 In	J2 Out	J3 In	J3 Out	J4 In	J4 Out	J5 In	J5 Out
0.02	1.287547	1.29236	1.283773	1.286513	1.270444	1.268765	1.278809	1.277046
0.0499	1.09597	1.099943	1.095299	1.094602	1.098227	1.086446	1.104424	1.087609
0.0798	1.105945	1.105266	1.100899	1.097376	1.106918	1.09181	1.111048	1.091098
0.1097	1.120687	1.11915	1.114124	1.111206	1.123555	1.107333	1.127697	1.105905
0.1396	1.107832	1.119935	1.106722	1.115491	1.119606	1.113881	1.125632	1.11354
0.1695	1.11833	1.118337	1.120192	1.116034	1.120752	1.113696	1.125295	1.114439
0.1994	1.112059	1.114922	1.112294	1.11147	1.117485	1.106509	1.121651	1.10654
0.2293	1.087332	1.107276	1.086755	1.100314	1.092455	1.093362	1.095015	1.092837
0.2592	1.052575	1.117234	1.05066	1.110697	1.054571	1.106278	1.06055	1.105954
0.2891	1.099453	1.191076	1.10501	1.185094	1.110191	1.180018	1.123213	1.180662
0.319	1.129679	1.202633	1.139391	1.202458	1.141408	1.198991	1.155165	1.202469
0.3489	1.15831	1.193499	1.165001	1.19675	1.162086	1.195867	1.173543	1.200317
0.3788	1.16287	1.194342	1.167272	1.195572	1.173875	1.191228	1.186634	1.193906
0.4087	1.174285	1.210815	1.176304	1.206935	1.182503	1.197227	1.195443	1.198939
0.4386	1.185504	1.220055	1.185414	1.214361	1.19116	1.204463	1.207338	1.206999
0.4685	1.167438	1.21034	1.172559	1.209561	1.180252	1.203173	1.201365	1.209038
0.4984	1.153679	1.188122	1.163559	1.194369	1.168528	1.192997	1.189508	1.202383
0.5283	1.168381	1.171608	1.174185	1.181175	1.176737	1.182641	1.195047	1.192608
0.5582	1.168285	1.179441	1.171555	1.183498	1.183311	1.183654	1.203383	1.189648
0.5881	1.170869	1.196415	1.172643	1.194231	1.183613	1.189394	1.204879	1.19234
0.618	1.177592	1.202485	1.178688	1.199848	1.1886	1.193855	1.213457	1.197931
0.6479	1.155856	1.187461	1.162672	1.1904	1.175203	1.18925	1.20585	1.197919
0.6778	1.145857	1.162169	1.154572	1.172435	1.166054	1.176587	1.195267	1.189402
0.7077	1.159294	1.147344	1.162419	1.159356	1.172707	1.165019	1.198156	1.178058
0.7376	1.16157	1.154145	1.162654	1.161276	1.179066	1.166408	1.206814	1.175642
0.7675	1.159153	1.169639	1.160684	1.16956	1.175846	1.174644	1.206571	1.178909
0.7974	1.172081	1.182788	1.174399	1.181965	1.186379	1.186935	1.217017	1.192074
0.8273	1.137868	1.154047	1.144069	1.159542	1.163112	1.170046	1.205438	1.180022
0.8572	1.143745	1.130731	1.14865	1.143477	1.161645	1.157641	1.195482	1.173233
0.8871	1.158244	1.127478	1.159647	1.139575	1.175161	1.15342	1.209532	1.168353
0.917	1.143322	1.122347	1.143776	1.126839	1.159324	1.136463	1.198856	1.145778
0.9469	1.161362	1.143957	1.163337	1.146767	1.176015	1.157277	1.211873	1.163818
0.9768	1.14688	1.138818	1.149733	1.140713	1.163717	1.156434	1.209229	1.161535
1.0067	1.135942	1.117406	1.141165	1.126526	1.151776	1.146072	1.195846	1.157481
1.0366	1.1434	1.102972	1.147075	1.117441	1.160558	1.141053	1.204705	1.1579
1.0665	1.131471	1.081464	1.132686	1.090451	1.139526	1.109792	1.188339	1.124871
1.0964	1.155472	1.097239	1.157155	1.104397	1.160022	1.116955	1.197484	1.131579
1.1263	1.131992	1.097008	1.135604	1.100135	1.144964	1.111587	1.197082	1.120885
1.1562	1.125041	1.082411	1.130611	1.09009	1.129879	1.107641	1.176874	1.121946
1.1861	1.116231	1.079159	1.124106	1.090386	1.133409	1.112501	1.180549	1.132018
1.216	1.08879	1.044575	1.099712	1.058501	1.104044	1.084155	1.155897	1.107402
1.2459	1.11081	1.063022	1.124845	1.076114	1.120732	1.098708	1.148971	1.121307
1.2758	1.1007	1.076797	1.119384	1.080609	1.120446	1.095536	1.157694	1.108692

1.3057	1.110577	1.097249	1.13264	1.098539	1.12008	1.106205	1.153096	1.114245
1.3356	1.130257	1.121461	1.153402	1.124125	1.145888	1.135579	1.179982	1.142055
1.3655	1.123922	1.093735	1.14514	1.102133	1.130291	1.120829	1.177991	1.130906
1.3954	1.159975	1.091719	1.178976	1.107536	1.154057	1.129199	1.184348	1.149023
1.4253	1.161756	1.084075	1.180559	1.094555	1.157304	1.115415	1.19783	1.136715
1.4552	1.166837	1.087203	1.185805	1.091378	1.151714	1.101953	1.188266	1.12122
1.4851	1.166549	1.104985	1.18691	1.106766	1.160099	1.110038	1.20157	1.122063
1.515	1.163794	1.091508	1.182516	1.097376	1.150661	1.105409	1.200535	1.116708
1.5449	1.182624	1.082405	1.201139	1.100091	1.16493	1.115854	1.195785	1.136993
1.5748	1.183483	1.064936	1.200433	1.084415	1.167415	1.1091	1.207195	1.134525
1.6047	1.191679	1.050108	1.207307	1.064815	1.153933	1.085847	1.189061	1.115554
1.6346	1.203086	1.080381	1.221567	1.088437	1.17898	1.097958	1.199476	1.124589
1.6645	1.180714	1.080409	1.19904	1.083695	1.158797	1.084857	1.20149	1.101184
1.6944	1.197335	1.085025	1.215534	1.097963	1.164387	1.096385	1.186838	1.115316
1.7243	1.189943	1.074048	1.20917	1.09404	1.171298	1.103672	1.198923	1.126045
1.7542	1.195413	1.043335	1.21242	1.069752	1.153173	1.086272	1.180885	1.11351
1.7841	1.215349	1.063298	1.236238	1.087441	1.183227	1.104101	1.182732	1.134926
1.814	1.19566	1.0683	1.219703	1.077461	1.171816	1.086355	1.187931	1.109795
1.8439	1.206267	1.091722	1.233037	1.10476	1.177281	1.100461	1.177486	1.119643
1.8738	1.207069	1.104985	1.236519	1.120915	1.193277	1.115087	1.196811	1.124166
1.9037	1.211511	1.076009	1.238677	1.101691	1.177727	1.102418	1.188039	1.114646
1.9336	1.242235	1.082477	1.271881	1.114846	1.213523	1.126283	1.196252	1.145757
1.9635	1.238232	1.064637	1.268314	1.087498	1.209542	1.105179	1.209185	1.126223
1.9934	1.256276	1.083433	1.287183	1.10296	1.215753	1.108932	1.198463	1.132948
2.0233	1.255494	1.110844	1.289521	1.124199	1.239596	1.120399	1.223681	1.132583
2.0532	1.255404	1.095585	1.284447	1.115612	1.218943	1.108622	1.220395	1.113641
2.0831	1.284757	1.10896	1.315094	1.138914	1.251754	1.134507	1.219816	1.142245
2.113	1.279119	1.075545	1.308215	1.108297	1.249728	1.120296	1.237704	1.131591
2.1429	1.301518	1.074593	1.330034	1.107677	1.254515	1.120903	1.22437	1.140175
2.1728	1.302821	1.101326	1.336126	1.121587	1.281375	1.131368	1.241794	1.146083
2.2027	1.291897	1.099565	1.322026	1.117348	1.262044	1.115808	1.243962	1.123089
2.2326	1.315885	1.128555	1.346682	1.153399	1.286877	1.143454	1.239839	1.144179
2.2625	1.307677	1.110089	1.337252	1.141008	1.290032	1.141161	1.2592	1.134878
2.2924	1.330521	1.097812	1.356023	1.136009	1.286388	1.139888	1.245232	1.142009
2.3223	1.340125	1.104342	1.371202	1.137107	1.318877	1.155003	1.255917	1.158722
2.3522	1.321778	1.099857	1.35164	1.123865	1.303303	1.136842	1.265573	1.140345
2.3821	1.342622	1.139078	1.372706	1.161561	1.32029	1.16042	1.2526	1.159512
2.412	1.328107	1.142044	1.358971	1.166329	1.330541	1.164076	1.27818	1.149528
2.4419	1.340811	1.133646	1.365666	1.166697	1.316883	1.164456	1.268133	1.146675
2.4718	1.359187	1.137442	1.388116	1.174806	1.353397	1.189576	1.269991	1.170118
2.5017	1.34236	1.109274	1.371059	1.143399	1.340566	1.167775	1.285257	1.152651
2.5316	1.356319	1.141385	1.386994	1.169109	1.352532	1.189208	1.271524	1.175725
2.5615	1.342218	1.155529	1.376139	1.176289	1.370378	1.190771	1.293555	1.167195
2.5914	1.348686	1.156977	1.376866	1.184674	1.35419	1.189912	1.290267	1.159396
2.6213	1.366528	1.170785	1.399229	1.20671	1.389064	1.221379	1.289781	1.180057
2.6512	1.352142	1.132298	1.385112	1.172694	1.382435	1.204431	1.311145	1.160951
2.6811	1.375816	1.143369	1.410492	1.18216	1.393212	1.221738	1.296361	1.183997
2.711	1.36065	1.150299	1.401541	1.177358	1.418628	1.22363	1.317926	1.186998
2.7409	1.35966	1.15361	1.394615	1.179877	1.397451	1.212345	1.32496	1.175246
2.7708	1.382701	1.186495	1.421505	1.217664	1.43574	1.246676	1.320708	1.200784
2.8007	1.367397	1.15187	1.404309	1.191127	1.433176	1.231399	1.348957	1.17644
2.8306	1.395192	1.155022	1.431207	1.200411	1.437156	1.251777	1.334006	1.194003
2.8605	1.386564	1.146943	1.430137	1.183895	1.471541	1.259199	1.350969	1.201755
2.8904	1.378172	1.141361	1.416962	1.170898	1.449672	1.24082	1.362792	1.190405
2.9203	1.399528	1.181582	1.440866	1.207458	1.48193	1.269513	1.353528	1.218431

2.9502	1.37864	1.165435	1.417688	1.195153	1.483006	1.256384	1.385795	1.199049
2.9801	1.406199	1.170293	1.440736	1.210263	1.47865	1.273096	1.373313	1.207271
3.01	1.400514	1.158785	1.443107	1.19968	1.51716	1.290477	1.38336	1.216967
3.0399	1.390245	1.135442	1.428154	1.171697	1.495708	1.272443	1.399809	1.200734
3.0698	1.40639	1.169999	1.448507	1.195668	1.520246	1.299562	1.385036	1.231472
3.0997	1.382447	1.167232	1.423816	1.187732	1.530196	1.284932	1.415274	1.219914
3.1296	1.404984	1.173846	1.438372	1.202759	1.512311	1.288926	1.411119	1.219202
3.1595	1.399037	1.176109	1.441288	1.211321	1.555617	1.314246	1.412197	1.234037
3.1894	1.385386	1.139605	1.423518	1.177653	1.535004	1.295361	1.436558	1.210312
3.2193	1.403534	1.158862	1.444837	1.191184	1.548981	1.32496	1.417227	1.237518
3.2492	1.371596	1.157823	1.416061	1.175153	1.568509	1.313724	1.444251	1.233131
3.2791	1.392123	1.163286	1.427857	1.182891	1.543426	1.305602	1.444963	1.229584
3.309	1.38543	1.184172	1.430086	1.208282	1.584464	1.330229	1.441418	1.252082
3.3389	1.368624	1.144431	1.40663	1.176719	1.566045	1.305326	1.473411	1.221797
3.3688	1.389914	1.154016	1.43079	1.189322	1.571794	1.335891	1.45285	1.24258
3.3987	1.356312	1.144754	1.403177	1.165672	1.598675	1.331015	1.474377	1.244207
3.4286	1.373818	1.143492	1.409257	1.159277	1.565353	1.319298	1.483018	1.237973
3.4585	1.370266	1.177196	1.41422	1.18966	1.605234	1.341927	1.472283	1.269217
3.4884	1.352258	1.146849	1.386902	1.165443	1.589898	1.310237	1.50872	1.242464
3.5183	1.376494	1.155707	1.411202	1.184174	1.584979	1.336546	1.490368	1.258864
3.5482	1.3445	1.141818	1.384212	1.162402	1.614557	1.336909	1.506648	1.260331
3.5781	1.361598	1.127656	1.38919	1.140955	1.577825	1.322582	1.522187	1.247255
3.608	1.359023	1.162965	1.394167	1.165485	1.611083	1.34711	1.503426	1.283138
3.6379	1.343479	1.148183	1.367362	1.147433	1.60066	1.313921	1.54197	1.267213
3.6678	1.372158	1.154343	1.393803	1.165264	1.586053	1.326613	1.525474	1.276749
3.6977	1.34056	1.150741	1.366186	1.160105	1.614771	1.330325	1.534255	1.285289
3.7276	1.357508	1.122922	1.369553	1.127999	1.578324	1.30909	1.55869	1.26013
3.7575	1.35853	1.153536	1.378906	1.145323	1.599051	1.336369	1.534017	1.291631
3.7874	1.354267	1.156207	1.364927	1.138062	1.58753	1.315879	1.554012	1.288926
3.8173	1.377873	1.155683	1.382306	1.140931	1.568295	1.304924	1.556772	1.289294
3.8472	1.34773	1.170393	1.356012	1.157059	1.598108	1.308901	1.556555	1.30895
3.8771	1.364948	1.138631	1.359193	1.125388	1.558566	1.279522	1.587751	1.27833
3.907	1.368766	1.158703	1.371718	1.138888	1.567989	1.305393	1.55926	1.298629
3.9369	1.352012	1.166719	1.344645	1.128868	1.567485	1.28166	1.587886	1.292293
3.9668	1.391286	1.16652	1.379656	1.128531	1.532072	1.272122	1.584348	1.288823
3.9967	1.363156	1.199691	1.355368	1.163281	1.561835	1.277885	1.571575	1.321868
4.0266	1.383684	1.171299	1.362081	1.139201	1.524873	1.236898	1.605461	1.29086
4.0565	1.390746	1.181294	1.377816	1.149427	1.519938	1.255759	1.57981	1.304125
4.0864	1.369927	1.193713	1.348748	1.149314	1.526806	1.238778	1.597724	1.297314
4.1163	1.41194	1.189213	1.387169	1.139393	1.484169	1.226192	1.604334	1.283113
4.1462	1.385653	1.228441	1.365259	1.177322	1.51012	1.236755	1.581952	1.316067
4.1761	1.409071	1.213632	1.37358	1.169011	1.473969	1.191638	1.619884	1.29416
4.206	1.418862	1.216393	1.393058	1.175854	1.464517	1.200949	1.59308	1.304569
4.2359	1.398027	1.231066	1.364207	1.187986	1.472789	1.186266	1.603641	1.304465
4.2658	1.441369	1.215223	1.405921	1.166933	1.425946	1.168061	1.616219	1.276779
4.2957	1.414153	1.252771	1.384257	1.199475	1.447048	1.184274	1.584538	1.303061
4.3256	1.438668	1.252895	1.39447	1.204437	1.415074	1.144713	1.621101	1.288216
4.3555	1.451506	1.25163	1.417574	1.207735	1.399588	1.146459	1.596238	1.295147
4.3854	1.431854	1.268953	1.389398	1.230028	1.407154	1.133633	1.600031	1.306271
4.4153	1.473975	1.243816	1.430879	1.204498	1.361767	1.106588	1.619447	1.273647
4.4452	1.449929	1.271129	1.414118	1.225367	1.378484	1.124852	1.583932	1.289551
4.4751	1.468188	1.277254	1.420956	1.23333	1.35325	1.095906	1.609472	1.273501
4.505	1.483077	1.274021	1.446224	1.231555	1.336146	1.089895	1.590088	1.27261
4.5349	1.459434	1.297111	1.417891	1.262494	1.347352	1.087083	1.577845	1.292715
4.5648	1.500836	1.265354	1.458822	1.237438	1.302706	1.05591	1.60421	1.259698

4.5947	1.475423	1.279174	1.442511	1.246929	1.318243	1.071125	1.56473	1.269905
4.6246	1.489877	1.281731	1.446948	1.251041	1.296312	1.067044	1.585755	1.252638
4.6545	1.505124	1.273909	1.473744	1.241235	1.280096	1.049934	1.573716	1.23842
4.6844	1.475811	1.302526	1.441458	1.274826	1.294762	1.06473	1.54921	1.261523
4.7143	1.512933	1.272035	1.477293	1.255756	1.255693	1.056523	1.57831	1.233808
4.7442	1.486358	1.274663	1.461933	1.258494	1.271152	1.057864	1.538089	1.238604
4.7741	1.490787	1.27258	1.457411	1.261131	1.25458	1.089683	1.548275	1.227654
4.804	1.507389	1.248351	1.48725	1.233988	1.241397	1.078026	1.54506	1.195482
4.8339	1.470001	1.277593	1.449261	1.263263	1.258068	1.090264	1.509377	1.215242
4.8638	1.50032	1.251656	1.476792	1.249007	1.224778	1.107697	1.53595	1.19151
4.8937	1.473422	1.24904	1.462324	1.246896	1.244258	1.096397	1.498796	1.192881
4.9236	1.466069	1.245824	1.447384	1.254681	1.228972	1.136782	1.496823	1.191743
4.9535	1.483303	1.210567	1.47656	1.218219	1.220907	1.13725	1.502698	1.153863
4.9834	1.439766	1.2301	1.43428	1.235262	1.24004	1.141256	1.458503	1.163827
5.0133	1.461196	1.205628	1.453302	1.219265	1.211802	1.168446	1.478866	1.140683
5.0432	1.435294	1.199566	1.440444	1.211759	1.236726	1.151289	1.447622	1.13415
5.0731	1.418445	1.199578	1.414738	1.225098	1.22177	1.187328	1.434167	1.143974
5.103	1.432846	1.159595	1.440311	1.187177	1.219957	1.196047	1.445018	1.110055
5.1329	1.38506	1.170141	1.396732	1.195132	1.240789	1.195206	1.397973	1.11509
5.1628	1.399493	1.142028	1.407473	1.173386	1.216395	1.22588	1.411511	1.09142
5.1927	1.373075	1.132159	1.394429	1.157059	1.24642	1.204267	1.384857	1.073709
5.2226	1.346493	1.136471	1.359643	1.172545	1.232092	1.231028	1.359412	1.090008
5.2525	1.363089	1.094886	1.384046	1.134997	1.229804	1.246668	1.377228	1.061409
5.2824	1.315801	1.103118	1.341433	1.139489	1.252409	1.238771	1.332635	1.062872
5.3123	1.320745	1.070857	1.342241	1.117129	1.23002	1.277911	1.336598	1.052317
5.3422	1.300836	1.058554	1.334839	1.09024	1.26146	1.254287	1.319848	1.02123
5.3721	1.264625	1.058828	1.292787	1.100325	1.249726	1.271028	1.282226	1.039766
5.402	1.279381	1.026181	1.311462	1.065026	1.245207	1.285414	1.300238	1.038237
5.4319	1.234767	1.045409	1.271013	1.069885	1.267547	1.27023	1.259661	1.016911
5.4618	1.23439	1.018419	1.265758	1.047379	1.241135	1.311744	1.257604	1.041363
5.4917	1.224623	1.05046	1.266135	1.021096	1.27083	1.295054	1.2549	1.044561
5.5216	1.182508	1.040337	1.220268	1.022585	1.262631	1.299665	1.21066	1.043193
5.5515	1.193788	1.073901	1.232438	1.016937	1.252579	1.31279	1.222794	1.081555
5.5814	1.158226	1.08728	1.199779	1.031724	1.276644	1.284295	1.191719	1.071337
5.6113	1.148459	1.095997	1.18386	1.032222	1.24444	1.321557	1.178281	1.086135
5.6412	1.15198	1.137791	1.193214	1.07384	1.268148	1.30564	1.188995	1.107626
5.6711	1.108382	1.132777	1.145875	1.071291	1.261582	1.30522	1.143045	1.101738
5.701	1.121062	1.17293	1.156567	1.109268	1.244908	1.325382	1.152213	1.143521
5.7309	1.104966	1.18054	1.139372	1.121866	1.270153	1.284652	1.137016	1.144161
5.7608	1.078454	1.190152	1.108108	1.125276	1.233872	1.310914	1.105795	1.151419
5.7907	1.10106	1.235811	1.127774	1.169142	1.249157	1.29963	1.126607	1.182367
5.8206	1.07368	1.227019	1.093436	1.163126	1.245092	1.286263	1.094348	1.16701
5.8505	1.078199	1.269507	1.095438	1.203683	1.221295	1.309711	1.09365	1.206757
5.8804	1.09711	1.280945	1.105195	1.224012	1.24891	1.26961	1.101775	1.220011
5.9103	1.069195	1.282422	1.071245	1.223237	1.213871	1.282114	1.066301	1.220381
5.9402	1.094219	1.32975	1.094081	1.270449	1.216018	1.27288	1.085906	1.260232
5.9701	1.099367	1.315258	1.092177	1.259096	1.220094	1.247605	1.08481	1.241824
6	1.100568	1.348506	1.090941	1.291848	1.200677	1.256939	1.08107	1.269898

VSWR

J6 In	J6 Out	J7 In	J7 Out	J8 In	J8 Out	J9 In	J9 Out	J2 Term	J3 Term
1.280141	1.280464	1.280049	1.28754	1.286646	1.300155	1.286156	1.305736		
1.101652	1.088887	1.094778	1.104218	1.094583	1.117842	1.086405	1.12021		
1.111981	1.096224	1.114844	1.110906	1.120582	1.124461	1.117672	1.127813		
1.130917	1.112725	1.133724	1.124113	1.138528	1.136419	1.136502	1.136993		
1.126003	1.119142	1.117123	1.121759	1.11633	1.127636	1.111318	1.124593		
1.125356	1.118843	1.118342	1.115117	1.125437	1.117278	1.119877	1.111215		
1.121911	1.111104	1.114741	1.109748	1.118775	1.120846	1.112916	1.122559		
1.094856	1.099684	1.089992	1.107437	1.09678	1.123623	1.091244	1.127742		
1.064254	1.115583	1.064079	1.124261	1.073088	1.141405	1.067608	1.13918		
1.125685	1.192923	1.110813	1.205119	1.111795	1.220934	1.101141	1.216967		
1.154815	1.212674	1.131967	1.214466	1.133007	1.220915	1.119759	1.212799		
1.1752	1.207082	1.160616	1.196963	1.171594	1.196977	1.160836	1.185085		
1.188408	1.198888	1.172372	1.191872	1.177985	1.203206	1.165508	1.198711		
1.198075	1.206237	1.18563	1.211979	1.19748	1.235259	1.187276	1.23798		
1.21277	1.217413	1.202822	1.230181	1.213442	1.253012	1.204	1.255632		
1.20469	1.219723	1.182813	1.225834	1.184336	1.237283	1.173078	1.235181		
1.189159	1.210495	1.15788	1.200005	1.158668	1.197926	1.144253	1.190383		
1.196237	1.197128	1.173494	1.174986	1.182961	1.167626	1.168707	1.159516		
1.206922	1.193296	1.184863	1.181209	1.189046	1.183017	1.174808	1.17891		
1.208584	1.198238	1.1869	1.203212	1.19452	1.221494	1.180291	1.225385		
1.220147	1.207213	1.199881	1.218481	1.203958	1.235902	1.190542	1.238427		
1.210131	1.207665	1.175239	1.20843	1.168819	1.211989	1.153383	1.208344		
1.196098	1.196232	1.154688	1.178362	1.150749	1.167624	1.131496	1.159195		
1.20108	1.180625	1.170595	1.151385	1.176293	1.140616	1.156801	1.136398		
1.212895	1.177224	1.185174	1.156313	1.186436	1.155321	1.1673	1.157333		
1.212444	1.183065	1.180711	1.185748	1.181338	1.191957	1.1612	1.193447		
1.225678	1.200734	1.196208	1.211191	1.193434	1.216883	1.172847	1.215574		
1.210837	1.187883	1.162533	1.186985	1.148089	1.175475	1.125301	1.167891		
1.199636	1.180081	1.155718	1.158092	1.15259	1.135113	1.127111	1.123629		
1.215664	1.169532	1.178902	1.13757	1.17862	1.121953	1.153126	1.12262		
1.207397	1.144316	1.170975	1.126628	1.16847	1.131526	1.143556	1.143396		
1.222017	1.166711	1.18738	1.166633	1.182753	1.170272	1.156718	1.173923		
1.219279	1.167247	1.176303	1.180399	1.16479	1.172913	1.138269	1.16914		
1.203872	1.166039	1.155803	1.166177	1.145405	1.144619	1.11678	1.131821		
1.211359	1.163411	1.163385	1.143305	1.15781	1.110464	1.127993	1.099351		
1.196026	1.123945	1.153317	1.098524	1.157492	1.084718	1.130279	1.096202		
1.210442	1.130587	1.182614	1.113399	1.184089	1.119931	1.155634	1.132516		
1.208046	1.119396	1.164089	1.127333	1.154478	1.132284	1.125343	1.140969		
1.187383	1.127399	1.149137	1.138508	1.145471	1.125027	1.117326	1.113079		
1.189942	1.140872	1.145341	1.143163	1.133509	1.112999	1.103616	1.090797		
1.162965	1.118101	1.113692	1.095675	1.117449	1.055509	1.096072	1.037534		
1.164784	1.138104	1.138452	1.090731	1.150452	1.062243	1.132699	1.057473		
1.178303	1.124668	1.138315	1.085232	1.139494	1.089541	1.123195	1.101476		

1.174883	1.135818	1.133539	1.104345	1.144248	1.113965	1.129342	1.123974
1.203347	1.168759	1.161288	1.149258	1.164791	1.144075	1.142631	1.140982
1.197853	1.15941	1.143633	1.139484	1.157284	1.115329	1.134066	1.098176
1.205922	1.1779	1.174621	1.138304	1.202209	1.101671	1.177922	1.080093
1.22182	1.157939	1.18666	1.105701	1.208867	1.083794	1.183362	1.091343
1.213988	1.137704	1.180821	1.09422	1.207348	1.105832	1.183868	1.119624
1.227333	1.136466	1.18248	1.119729	1.19861	1.141494	1.173489	1.14606
1.22418	1.133836	1.171596	1.1275	1.193852	1.130471	1.170798	1.12244
1.220769	1.162179	1.183329	1.145354	1.212979	1.121703	1.188974	1.093013
1.232673	1.158889	1.189385	1.125375	1.220399	1.083624	1.197669	1.06181
1.215358	1.138115	1.181685	1.086384	1.22955	1.061808	1.21164	1.065696
1.229671	1.143279	1.205255	1.096589	1.23687	1.108874	1.2147	1.114082
1.228908	1.116808	1.177617	1.099627	1.206424	1.124308	1.187574	1.121482
1.213395	1.136241	1.179724	1.12292	1.223383	1.135991	1.206488	1.115788
1.226535	1.15293	1.186449	1.132344	1.219247	1.113624	1.200274	1.08244
1.20645	1.145961	1.16857	1.106455	1.23045	1.068376	1.21928	1.034379
1.213755	1.17006	1.202698	1.106976	1.254727	1.077224	1.240104	1.061863
1.219563	1.141435	1.186894	1.078436	1.231036	1.091621	1.217395	1.092565
1.208992	1.152292	1.184673	1.102902	1.239777	1.133434	1.227618	1.120674
1.228925	1.157691	1.200864	1.130975	1.246111	1.153562	1.229872	1.130173
1.218852	1.154234	1.186539	1.119651	1.25552	1.119072	1.24144	1.083794
1.228991	1.191608	1.226329	1.138484	1.296017	1.112002	1.278085	1.072783
1.242894	1.168562	1.227463	1.097273	1.294178	1.080622	1.274688	1.065717
1.232077	1.172605	1.229639	1.096079	1.307763	1.115704	1.287595	1.100503
1.258001	1.166056	1.249527	1.117312	1.306204	1.162448	1.280219	1.138131
1.251856	1.14696	1.228643	1.121905	1.30714	1.159275	1.284692	1.118487
1.253498	1.180155	1.264427	1.154148	1.342794	1.169842	1.315803	1.118081
1.271851	1.172261	1.264611	1.127384	1.340703	1.116049	1.314872	1.068067
1.259525	1.183306	1.272156	1.116665	1.363939	1.108753	1.338189	1.071953
1.27967	1.184337	1.295929	1.11435	1.362542	1.145821	1.330127	1.118327
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1.28224	1.185241	1.29828	1.147173	1.394222	1.14632	1.364053	1.088557
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1.402832	1.224633	1.415383	1.219313	1.453579	1.226387	1.387055	1.140775
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-85.2244

J4 Term	J5 Term	J6 Term	J7 Term	J8 Term	J9 Term	J1-J2	J1-J3	J1-J4
						-97.5521	-91.9658	-92.632
						-99.0492	-91.839	-88.9927
						-103.165	-92.563	-89.0037
						-99.2178	-88.7863	-87.7843
						-101.175	-88.5317	-88.1639
						-113.191	-88.5847	-88.7205
						-114.476	-88.7243	-86.6623
						-108.749	-89.2766	-86.4845
						-100.805	-89.9067	-87.1064
						-101.98	-89.1664	-88.5286
						-109.174	-90.4675	-89.4751
						-103.091	-90.6164	-88.7845
						-101.561	-90.0844	-89.6693
						-104.229	-91.2374	-90.7564
						-104.038	-91.3855	-90.4665
						-103.203	-91.7677	-90.5439
						-106.763	-92.6124	-92.508
						-102.745	-91.8833	-92.3191
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						-102.192	-94.5165	-92.8691
						-106.397	-93.7591	-93.5991
						-107.864	-95.4059	-94.6929
						-105.497	-95.9651	-94.2039
						-107.081	-96.3825	-94.8945
						-103.432	-95.677	-95.639
						-106.835	-98.3196	-95.3409
						-107.587	-97.4063	-94.5758
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						-105.608	-99.3168	-96.4733
						-112.414	-100.34	-98.6632
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-114.028	-107.747	-104.739
-107.794	-105.514	-102.144
-106.922	-105.545	-101.792
-110.95	-116.149	-101.367
-106.121	-114.164	-100.467
-104.157	-121.046	-105.675
-103.261	-110.663	-104.122
-106.593	-104.31	-102.599
-106.49	-104.956	-101.83
-104.509	-104.083	-106.618
-111.353	-113.448	-111.616
-110.094	-105.012	-105.815
-108.837	-125.326	-108.067
-109.769	-122.719	-105.018
-107.207	-119.454	-102.046
-108.509	-107.988	-109.107
-105.24	-106.907	-107.312
-111.6	-118.6	-103.185
-106.673	-107.306	-102.775

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-105.213	-123.508	-100.098
-109.151	-105.165	-105.258
-108.215	-124.978	-101.967
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-106.438	-118.762	-107.17
-103.915	-111.967	-105.611
-104.841	-106.926	-109.729
-111.431	-111.86	-116.562
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-108.658	-109.438	-114.013
-114.94	-106.578	-111.044
-111.97	-111.994	-116.466
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-112.331	-106.78	-106.867
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-105.002	-106.331	-110.063
-105.828	-107.61	-111.1
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J1-J5	J1-J6	J1-J7	J1-J8	J1-J9	J2-J3	J2-J4	J2-J5	J2-J6	J2-J7
-91.0051	-97.3701	-104.19	-91.7765	-96.3129	0	0	0	0	0
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-88.0825	-86.9472	-89.7621	-89.0108	-98.5983	0	0	0	0	0
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-88.141	-87.8275	-89.2279	-89.154	-104.66	0	0	0	0	0
-88.9526	-88.5297	-90.461	-90.1452	-101.404	0	0	0	0	0
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-92.2375	-92.9828	-93.6628	-95.0317	-106.672	0	0	0	0	0
-93.4884	-95.0328	-95.1871	-95.5821	-104.371	0	0	0	0	0
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-93.2131	-94.935	-94.8338	-96.0393	-106.624	0	0	0	0	0
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-95.6469	-96.5244	-96.1679	-96.0209	-102.862	0	0	0	0	0
-96.2695	-94.9594	-97.646	-98.4121	-106.636	0	0	0	0	0
-96.8597	-95.9795	-96.0271	-97.5738	-105.671	0	0	0	0	0
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-95.349	-96.1816	-96.2152	-98.538	-111.519	0	0	0	0	0
-96.5024	-98.2317	-99.0219	-97.9985	-103.446	0	0	0	0	0
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-99.0196	-99.6511	-100.927	-100.294	-110.025	0	0	0	0	0
-100.377	-100.15	-101.102	-103.07	-105.385	0	0	0	0	0
-101.272	-105.383	-102.696	-101.434	-106.355	0	0	0	0	0
-99.7262	-101.137	-99.5712	-102.851	-107.215	0	0	0	0	0
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-98.0335	-108.712	-103.145	-105.618	-114.035	0	0	0	0	0
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-101.12	-103.587	-102.292	-103.352	-106.939	0	0	0	0	0
-103.375	-103.029	-103.758	-106.329	-109.866	0	0	0	0	0
-104.496	-102.057	-105.858	-104.091	-108.441	0	0	0	0	0
-104.888	-102.706	-102.329	-105.527	-113.841	0	0	0	0	0
-104.666	-105.088	-106.779	-105.358	-114.797	0	0	0	0	0
-110.809	-104.857	-107.451	-106.678	-115.944	0	0	0	0	0
-103.527	-104.987	-103.833	-104.166	-103.079	0	0	0	0	0
-103.19	-103.238	-111.481	-106.467	-104.878	0	0	0	0	0
-107.935	-105.528	-106.39	-108.634	-111.954	0	0	0	0	0
-107.514	-106.585	-107.149	-112.181	-139.558	0	0	0	0	0
-107.714	-104.309	-104.721	-104.715	-110.121	0	0	0	0	0
-102.804	-104.377	-105.662	-113.691	-113.347	0	0	0	0	0
-108.901	-104.03	-104.934	-105.783	-105.743	0	0	0	0	0
-104.7	-104.474	-115.77	-104.298	-109.02	0	0	0	0	0
-102.595	-104.451	-108.356	-105.472	-109.92	0	0	0	0	0
-104.137	-103.834	-110.844	-111.345	-106.439	0	0	0	0	0
-106.326	-108.199	-105.611	-108.498	-111.179	0	0	0	0	0
-105.326	-107.643	-109.625	-113.7	-107.895	0	0	0	0	0
-104.546	-109.277	-103.741	-108.297	-115.857	0	0	0	0	0
-108.105	-107.789	-111.981	-108.182	-103.916	0	0	0	0	0
-102.827	-105.602	-104.138	-114.333	-108.698	0	0	0	0	0
-107.042	-106.517	-107.382	-105.774	-111.131	0	0	0	0	0
-115.983	-106.163	-103.048	-104.254	-107.196	0	0	0	0	0
-108.943	-106.238	-107.369	-111.923	-106.576	0	0	0	0	0
-107.429	-108.241	-105.55	-107.786	-112.087	0	0	0	0	0
-109.937	-111.57	-101.741	-104.371	-105.357	0	0	0	0	0
-108.851	-107.695	-103.818	-126.665	-107.997	0	0	0	0	0
-103.336	-107.511	-112.554	-106.836	-107.492	0	0	0	0	0
-105.419	-106.03	-108.041	-111.678	-116.283	0	0	0	0	0
-102.631	-111.709	-110.135	-110.686	-102.884	0	0	0	0	0
-107.813	-106.909	-112.781	-110.957	-112.612	0	0	0	0	0
-108.002	-109.026	-103.368	-104.589	-106.882	0	0	0	0	0
-110.35	-117.027	-120.647	-106.641	-109.262	0	0	0	0	0
-110.278	-104.114	-104.371	-112.558	-108.127	0	0	0	0	0
-100.626	-103.675	-115.168	-112.331	-121.813	0	0	0	0	0
-113.129	-102.966	-113.136	-113.066	-114.818	0	0	0	0	0
-106.229	-116.648	-111.171	-112.556	-108.257	0	0	0	0	0
-105.282	-119.692	-102.527	-109.87	-110.387	0	0	0	0	0
-108.381	-105.283	-110.675	-111.551	-106.36	0	0	0	0	0
-105.403	-108.302	-105.341	-102.916	-111.093	0	0	0	0	0
-106.452	-106.276	-104.674	-111.108	-112.447	0	0	0	0	0
-124.256	-107.465	-114.311	-104.484	-108.74	0	0	0	0	0
-108.601	-105.467	-115.038	-104.176	-103.925	0	0	0	0	0
-107.098	-109.271	-113.461	-105.542	-114.567	0	0	0	0	0
-109.406	-112.375	-108.018	-113.025	-105.645	0	0	0	0	0
-106.976	-105.798	-110.53	-112.868	-115.873	0	0	0	0	0
-113.329	-107.196	-115.792	-116.806	-107.652	0	0	0	0	0
-113.991	-108.346	-105.648	-111.496	-115.358	0	0	0	0	0
-105.812	-123.965	-110.396	-105.827	-108.458	0	0	0	0	0
-124.884	-108.145	-106.236	-115.322	-106.146	0	0	0	0	0
-106.56	-104.382	-106.101	-109.073	-110.963	0	0	0	0	0
-103.691	-107.55	-108.547	-107.392	-114.936	0	0	0	0	0
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-110.686	-104.938	-107.553	-117.632	-114.129	0	0	0	0	0
-114.314	-117.25	-115.532	-115.702	-106.156	0	0	0	0	0
-103.121	-107.595	-109.142	-105.566	-113.473	0	0	0	0	0
-103.384	-105.232	-105.472	-115.91	-106.695	0	0	0	0	0
-104.028	-112.163	-109.124	-107.541	-106.584	0	0	0	0	0
-113.835	-106.649	-107.403	-109.03	-114.846	0	0	0	0	0
-111.165	-105.665	-114.493	-109.293	-111.995	0	0	0	0	0
-108.351	-110.074	-110.064	-117.456	-106.001	0	0	0	0	0
-107.885	-110.8	-112.142	-117.264	-111.492	0	0	0	0	0
-109.73	-106.904	-108.099	-121.089	-127.561	0	0	0	0	0
-107.529	-107.24	-128.88	-116.332	-110.876	0	0	0	0	0
-106.78	-115.073	-105.192	-103.533	-104.475	0	0	0	0	0
-104.441	-113.632	-106.068	-103.288	-103.425	0	0	0	0	0
-107.941	-105.658	-107.001	-118.535	-108.735	0	0	0	0	0
-105.671	-104.253	-118.865	-106.297	-108.474	0	0	0	0	0
-108.302	-111.144	-108.336	-116.421	-112.152	0	0	0	0	0
-102.678	-107.301	-111.258	-111.034	-110.234	0	0	0	0	0
-109.329	-107.141	-110.798	-123.399	-109.432	0	0	0	0	0
-107.379	-107.756	-110.223	-110.194	-128.185	0	0	0	0	0
-109.237	-109.755	-103.455	-108.661	-112.751	0	0	0	0	0
-102.298	-113.556	-114.495	-118.77	-119.333	0	0	0	0	0
-106.499	-104.761	-104.771	-115.941	-116.794	0	0	0	0	0
-106.756	-112.722	-124.287	-112.583	-109.972	0	0	0	0	0
-105.045	-109.798	-116.06	-108.263	-107.617	0	0	0	0	0
-107.927	-109.4	-112.463	-109.62	-116.938	0	0	0	0	0
-111.045	-110.64	-110.095	-102.512	-108.9	0	0	0	0	0
-103.102	-104.555	-118.485	-108.506	-111.854	0	0	0	0	0
-105.875	-116.679	-108.05	-107.396	-101.765	0	0	0	0	0
-103.836	-115.61	-106.963	-121.765	-116.051	0	0	0	0	0
-104.863	-111.507	-106.252	-110.053	-119.001	0	0	0	0	0
-110.434	-112.321	-111.264	-107.878	-106.293	0	0	0	0	0
-111.629	-110.751	-110.862	-104.863	-107.002	0	0	0	0	0
-111.95	-121.607	-106.973	-122.833	-110.598	0	0	0	0	0
-105.531	-104.515	-111.769	-109.285	-108.743	0	0	0	0	0
-106.402	-101.005	-108.282	-114.681	-118.626	0	0	0	0	0
-108.557	-106.68	-103.948	-111.262	-110.308	0	0	0	0	0
-104.928	-104.107	-107.179	-106.758	-109.556	0	0	0	0	0
-124.063	-110.385	-106.782	-104.769	-104.774	0	0	0	0	0
-107.515	-109.519	-114.488	-112.483	-106.36	0	0	0	0	0
-106.692	-104.14	-112.042	-115.109	-104.849	0	0	0	0	0
-104.159	-103.523	-111.066	-111.67	-116.535	0	0	0	0	0
-119.839	-113.374	-102.765	-111.172	-110.472	0	0	0	0	0
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-112.025	-106.371	-110.102	-108.83	-102.069	0	0	0	0	0
-102.722	-104.797	-103.614	-106.768	-105.244	0	0	0	0	0
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-104.277	-109.459	-108.614	-107.641	-106.087	0	0	0	0	0
-108.125	-103.721	-110.775	-101.973	-107.218	0	0	0	0	0
-113.747	-107.376	-114.68	-105.713	-106.288	0	0	0	0	0
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-105.609	-106.369	-110.103	-115.064	-127.488	0	0	0	0	0
-106.215	-107.358	-105.601	-110.296	-106.202	0	0	0	0	0
-109.186	-120.071	-112.475	-108.119	-105.599	0	0	0	0	0
-109.98	-109.141	-111.908	-105.334	-107.761	0	0	0	0	0
-102.911	-108.825	-104.923	-106.129	-104.869	0	0	0	0	0

-106.088	-113.134	-105.643	-108.434	-105.957	0	0	0	0	0
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-104.596	-109.169	-108.806	-105.596	-104.051	0	0	0	0	0
-105.562	-116.814	-106.259	-118.719	-106.389	0	0	0	0	0
-111.545	-110.9	-107.741	-108.849	-103.44	0	0	0	0	0
-112.268	-105.852	-114.608	-107.486	-106.04	0	0	0	0	0
-105.585	-111.394	-106.854	-108.407	-106.792	0	0	0	0	0
-107.287	-106.378	-118.944	-117.407	-107.338	0	0	0	0	0
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-107.506	-109.112	-107.663	-110.541	-105.781	0	0	0	0	0
-109.478	-109.378	-111.057	-110.249	-104.676	0	0	0	0	0
-110.044	-114.802	-104.187	-104.933	-106.397	0	0	0	0	0
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-108.429	-107.017	-117.302	-112.099	-108.024	0	0	0	0	0
-108.202	-106.254	-106.404	-105.168	-103.552	0	0	0	0	0
-108.526	-111.514	-113.522	-113.086	-104.885	0	0	0	0	0
-110.393	-110.673	-107.625	-104.408	-105.336	0	0	0	0	0
-106.385	-107.441	-107.57	-108.324	-104.62	0	0	0	0	0
-108.964	-107.881	-108.598	-110.432	-109.366	0	0	0	0	0
-108.654	-108.046	-105.091	-110.408	-105.062	0	0	0	0	0
-107.963	-107.81	-104.421	-109.483	-107.192	0	0	0	0	0
-114.882	-107.436	-112.549	-103.605	-105.004	0	0	0	0	0
-105.172	-108.358	-106.759	-109.7	-105.265	0	0	0	0	0
-110.311	-112.713	-110.769	-112.995	-102.21	0	0	0	0	0
-107.512	-111.661	-105.291	-112.75	-105.775	0	0	0	0	0
-110.995	-107.852	-107.193	-112.593	-102.98	0	0	0	0	0
-113.147	-111.179	-106.49	-110.57	-109.677	0	0	0	0	0
-109.408	-114.984	-110.824	-105.234	-107.063	0	0	0	0	0
-119.599	-114.882	-112.506	-105.284	-104.284	0	0	0	0	0
-115.379	-113.15	-105.819	-112.406	-106.271	0	0	0	0	0
-111.631	-108.394	-106.94	-107.734	-104.986	0	0	0	0	0
-110.175	-106.76	-108.27	-108.33	-106.362	0	0	0	0	0
-116.57	-109.046	-114.693	-106.376	-104.05	0	0	0	0	0
-116.032	-110.755	-113.887	-106.139	-105.021	0	0	0	0	0
-112.131	-106.817	-109.404	-106.59	-107.019	0	0	0	0	0
-108.462	-113.525	-108.41	-105.293	-102.724	0	0	0	0	0
-115.637	-108.297	-107.188	-108.981	-108.009	0	0	0	0	0
-113.822	-103.306	-103.573	-109.751	-106.41	0	0	0	0	0
-122.555	-111.091	-110.991	-108.873	-113.262	0	0	0	0	0
-117.775	-109.95	-111.097	-110.365	-105.012	0	0	0	0	0
-114.297	-107.775	-112.9	-106.423	-104.372	0	0	0	0	0
-106.811	-112.552	-110.594	-107.538	-104.278	0	0	0	0	0

-1.80172

Insertion Loss

J7-J8	J7-J9	J8-J9	J1-J2	J1-J3	J1-J4	J1-J5	J1-J6	J1-J7
0	0	0	-1.33291	-1.32617	-1.32765	-1.34324	-1.35147	-1.34231
0	0	0	-1.12424	-1.12319	-1.16013	-1.16542	-1.17367	-1.14677
0	0	0	-1.01228	-1.01375	-1.05544	-1.06682	-1.06404	-1.03093
0	0	0	-0.94243	-0.94247	-0.98603	-1.00073	-0.99481	-0.95131
0	0	0	-0.91401	-0.92057	-0.95666	-0.96861	-0.96049	-0.9216
0	0	0	-0.97894	-0.97347	-0.97761	-0.9862	-0.98537	-0.98198
0	0	0	-1.03164	-1.02048	-1.02729	-1.03487	-1.03534	-1.03618
0	0	0	-1.12385	-1.12064	-1.1443	-1.15698	-1.15289	-1.12329
0	0	0	-1.28697	-1.28809	-1.32455	-1.33709	-1.3285	-1.28583
0	0	0	-1.11341	-1.12156	-1.15517	-1.1696	-1.15325	-1.10538
0	0	0	-0.93839	-0.9472	-0.97547	-0.98525	-0.97568	-0.92813
0	0	0	-0.91152	-0.91097	-0.92565	-0.93078	-0.92635	-0.90584
0	0	0	-0.9036	-0.89367	-0.89335	-0.90153	-0.89824	-0.89347
0	0	0	-0.85815	-0.85854	-0.86639	-0.87106	-0.8704	-0.84448
0	0	0	-0.81668	-0.82355	-0.84563	-0.85258	-0.84247	-0.7968
0	0	0	-0.81175	-0.82071	-0.84808	-0.85425	-0.83692	-0.78672
0	0	0	-0.82675	-0.83539	-0.85812	-0.86087	-0.84854	-0.80512
0	0	0	-0.85453	-0.85845	-0.88054	-0.88046	-0.87249	-0.84033
0	0	0	-0.89554	-0.88917	-0.89161	-0.89414	-0.89114	-0.88548
0	0	0	-0.88152	-0.88161	-0.88036	-0.8825	-0.8775	-0.85903
0	0	0	-0.84416	-0.85511	-0.86634	-0.87132	-0.85663	-0.81757
0	0	0	-0.84871	-0.85573	-0.87324	-0.87794	-0.85822	-0.8128
0	0	0	-0.8652	-0.87143	-0.89133	-0.8921	-0.8727	-0.83212
0	0	0	-0.88447	-0.89259	-0.90776	-0.91169	-0.89735	-0.86268
0	0	0	-0.92841	-0.92489	-0.92931	-0.92998	-0.92265	-0.91117
0	0	0	-0.92939	-0.92973	-0.91833	-0.92326	-0.91412	-0.90219
0	0	0	-0.91032	-0.91841	-0.91612	-0.91271	-0.89864	-0.86896
0	0	0	-0.91438	-0.91469	-0.9214	-0.91288	-0.89262	-0.86339
0	0	0	-0.91583	-0.9214	-0.93576	-0.92638	-0.91051	-0.87855
0	0	0	-0.93931	-0.94452	-0.95515	-0.94403	-0.93559	-0.90431
0	0	0	-0.9764	-0.96888	-0.97579	-0.96506	-0.94885	-0.94091
0	0	0	-0.99405	-0.98892	-0.98886	-0.97476	-0.96844	-0.9623
0	0	0	-0.97573	-0.9851	-0.97759	-0.96278	-0.94088	-0.92946
0	0	0	-0.96911	-0.98194	-0.98588	-0.97107	-0.95279	-0.92115
0	0	0	-0.99073	-0.99755	-1.01231	-0.99419	-0.98432	-0.9458
0	0	0	-1.02313	-1.0252	-1.04113	-1.01872	-1.003	-0.98101
0	0	0	-1.05681	-1.0559	-1.07333	-1.05158	-1.04473	-1.02688
0	0	0	-1.11848	-1.11055	-1.11576	-1.08705	-1.07884	-1.06724
0	0	0	-1.14648	-1.14488	-1.15022	-1.11766	-1.10598	-1.08951
0	0	0	-1.18255	-1.18361	-1.20195	-1.16293	-1.15575	-1.11586
0	0	0	-1.2557	-1.24961	-1.27019	-1.23155	-1.22718	-1.18823
0	0	0	-1.30139	-1.3035	-1.31146	-1.28756	-1.28143	-1.24134
0	0	0	-1.33535	-1.32745	-1.32924	-1.31777	-1.30998	-1.29256

0	0	0	-1.33022	-1.32476	-1.30993	-1.31106	-1.29004	-1.30609
0	0	0	-1.27876	-1.28024	-1.27219	-1.28424	-1.24909	-1.26629
0	0	0	-1.22553	-1.22737	-1.23119	-1.23933	-1.19142	-1.20788
0	0	0	-1.20014	-1.20584	-1.21625	-1.2198	-1.17658	-1.19189
0	0	0	-1.18305	-1.18745	-1.19474	-1.2033	-1.16973	-1.1789
0	0	0	-1.18195	-1.17775	-1.19131	-1.19084	-1.15735	-1.17028
0	0	0	-1.18281	-1.17497	-1.19454	-1.19706	-1.1657	-1.17936
0	0	0	-1.20178	-1.19173	-1.19482	-1.18154	-1.15818	-1.17859
0	0	0	-1.18647	-1.18772	-1.19558	-1.18589	-1.15326	-1.15569
0	0	0	-1.17136	-1.17449	-1.19965	-1.18634	-1.15562	-1.14819
0	0	0	-1.19443	-1.19182	-1.21955	-1.20123	-1.17234	-1.17691
0	0	0	-1.20973	-1.21666	-1.24229	-1.22805	-1.20588	-1.19987
0	0	0	-1.24277	-1.24206	-1.26659	-1.23907	-1.22662	-1.23243
0	0	0	-1.2684	-1.27549	-1.28617	-1.26847	-1.24895	-1.26428
0	0	0	-1.28597	-1.29779	-1.31149	-1.28984	-1.27391	-1.26979
0	0	0	-1.29102	-1.30921	-1.33916	-1.30475	-1.29158	-1.2811
0	0	0	-1.32531	-1.3412	-1.37173	-1.34797	-1.33671	-1.32405
0	0	0	-1.34784	-1.36938	-1.39155	-1.37415	-1.35824	-1.3555
0	0	0	-1.37172	-1.38473	-1.40245	-1.38579	-1.36858	-1.37988
0	0	0	-1.38111	-1.39696	-1.40902	-1.40015	-1.38121	-1.4021
0	0	0	-1.37464	-1.38117	-1.38844	-1.37981	-1.34994	-1.38185
0	0	0	-1.35277	-1.36498	-1.38448	-1.37825	-1.34519	-1.36159
0	0	0	-1.34168	-1.35062	-1.37416	-1.37016	-1.33408	-1.35573
0	0	0	-1.33574	-1.34202	-1.36165	-1.35149	-1.31658	-1.35406
0	0	0	-1.33349	-1.32952	-1.36016	-1.35576	-1.32768	-1.35498
0	0	0	-1.33145	-1.32314	-1.34976	-1.3307	-1.30976	-1.35007
0	0	0	-1.33263	-1.3309	-1.352	-1.32829	-1.30026	-1.35335
0	0	0	-1.31614	-1.31403	-1.34737	-1.31838	-1.29706	-1.3241
0	0	0	-1.31303	-1.3163	-1.34736	-1.31355	-1.29019	-1.32475
0	0	0	-1.31373	-1.31576	-1.35938	-1.32345	-1.30751	-1.33786
0	0	0	-1.31764	-1.31639	-1.35446	-1.31636	-1.30168	-1.33753
0	0	0	-1.33657	-1.33367	-1.36623	-1.32521	-1.31594	-1.35912
0	0	0	-1.3447	-1.34393	-1.37456	-1.33721	-1.32869	-1.37021
0	0	0	-1.34012	-1.34677	-1.37372	-1.32323	-1.31114	-1.35913
0	0	0	-1.34499	-1.35311	-1.40153	-1.34751	-1.33471	-1.36935
0	0	0	-1.36155	-1.36298	-1.41755	-1.36457	-1.3573	-1.38531
0	0	0	-1.36841	-1.37782	-1.42764	-1.36218	-1.35662	-1.39902
0	0	0	-1.37678	-1.38537	-1.43903	-1.38529	-1.38162	-1.41515
0	0	0	-1.39297	-1.40527	-1.45295	-1.38946	-1.39186	-1.43067
0	0	0	-1.40033	-1.42639	-1.47825	-1.41056	-1.4034	-1.45193
0	0	0	-1.40753	-1.43036	-1.48694	-1.43232	-1.42563	-1.44912
0	0	0	-1.41841	-1.44324	-1.5033	-1.43582	-1.43408	-1.46591
0	0	0	-1.43405	-1.45112	-1.52695	-1.46122	-1.46149	-1.48679
0	0	0	-1.4471	-1.47419	-1.53761	-1.47536	-1.47496	-1.50291
0	0	0	-1.44981	-1.47737	-1.55353	-1.47735	-1.47787	-1.52667
0	0	0	-1.46368	-1.47644	-1.54674	-1.48918	-1.47875	-1.52556
0	0	0	-1.45915	-1.47752	-1.54566	-1.48008	-1.46473	-1.51628
0	0	0	-1.45562	-1.47582	-1.56497	-1.50916	-1.50008	-1.52741
0	0	0	-1.45611	-1.47501	-1.56206	-1.50209	-1.49026	-1.52246
0	0	0	-1.45743	-1.4811	-1.5689	-1.4924	-1.47845	-1.53332
0	0	0	-1.45969	-1.47401	-1.56707	-1.50607	-1.50269	-1.5356
0	0	0	-1.46488	-1.48631	-1.56871	-1.49312	-1.48068	-1.53132
0	0	0	-1.45236	-1.47362	-1.57813	-1.50271	-1.49445	-1.53471
0	0	0	-1.45856	-1.47354	-1.57529	-1.50193	-1.49169	-1.51716
0	0	0	-1.46292	-1.47601	-1.59146	-1.50101	-1.49715	-1.53713

0	0	0	-1.46498	-1.48237	-1.59771	-1.52648	-1.52302	-1.53917
0	0	0	-1.47491	-1.49076	-1.60372	-1.51445	-1.50719	-1.54427
0	0	0	-1.4764	-1.48884	-1.61868	-1.52742	-1.52565	-1.56172
0	0	0	-1.48532	-1.50769	-1.62006	-1.54026	-1.5427	-1.56272
0	0	0	-1.48245	-1.50751	-1.6337	-1.53408	-1.53124	-1.5585
0	0	0	-1.49806	-1.5125	-1.65178	-1.57531	-1.57304	-1.57971
0	0	0	-1.51012	-1.52239	-1.65368	-1.56453	-1.56418	-1.586
0	0	0	-1.51687	-1.53474	-1.68064	-1.58943	-1.58089	-1.60756
0	0	0	-1.51652	-1.53953	-1.67439	-1.60487	-1.59915	-1.60424
0	0	0	-1.52288	-1.55321	-1.68981	-1.59405	-1.58467	-1.61636
0	0	0	-1.52992	-1.55428	-1.70846	-1.63679	-1.62958	-1.62417
0	0	0	-1.53482	-1.55644	-1.69929	-1.6278	-1.61757	-1.6218
0	0	0	-1.53167	-1.56094	-1.72852	-1.64431	-1.63203	-1.65128
0	0	0	-1.54203	-1.56398	-1.71012	-1.64976	-1.64066	-1.64086
0	0	0	-1.53789	-1.56326	-1.71705	-1.63883	-1.62327	-1.64266
0	0	0	-1.54093	-1.55878	-1.72713	-1.66584	-1.64067	-1.65077
0	0	0	-1.5464	-1.55997	-1.70767	-1.65875	-1.6363	-1.63196
0	0	0	-1.53616	-1.54477	-1.72478	-1.65191	-1.62132	-1.6454
0	0	0	-1.54725	-1.5508	-1.70896	-1.66852	-1.64366	-1.63214
0	0	0	-1.54903	-1.55239	-1.71715	-1.64862	-1.62825	-1.64098
0	0	0	-1.5383	-1.54156	-1.7165	-1.66202	-1.63667	-1.63617
0	0	0	-1.55474	-1.55303	-1.69949	-1.6569	-1.63591	-1.6264
0	0	0	-1.53491	-1.5421	-1.70746	-1.64568	-1.61862	-1.62581
0	0	0	-1.55068	-1.54105	-1.69984	-1.66821	-1.64951	-1.62388
0	0	0	-1.54785	-1.54355	-1.69251	-1.64487	-1.62405	-1.61865
0	0	0	-1.547	-1.53379	-1.70598	-1.67506	-1.64173	-1.63162
0	0	0	-1.56441	-1.55599	-1.70241	-1.67706	-1.65568	-1.63034
0	0	0	-1.55522	-1.54464	-1.7007	-1.65419	-1.63382	-1.62481
0	0	0	-1.5691	-1.55517	-1.70542	-1.68503	-1.66779	-1.63244
0	0	0	-1.57329	-1.55846	-1.69614	-1.66916	-1.64248	-1.61905
0	0	0	-1.56966	-1.55471	-1.70661	-1.685	-1.65999	-1.62707
0	0	0	-1.59757	-1.57895	-1.70297	-1.70848	-1.67706	-1.63693
0	0	0	-1.58641	-1.57457	-1.70476	-1.68971	-1.66443	-1.63496
0	0	0	-1.60773	-1.58585	-1.71332	-1.72209	-1.69349	-1.63924
0	0	0	-1.6096	-1.59413	-1.69891	-1.70487	-1.67684	-1.63851
0	0	0	-1.59948	-1.58552	-1.70886	-1.70655	-1.68014	-1.64164
0	0	0	-1.61846	-1.60614	-1.70847	-1.7315	-1.70134	-1.64008
0	0	0	-1.60769	-1.60313	-1.70527	-1.70512	-1.6772	-1.63984
0	0	0	-1.63627	-1.62415	-1.71768	-1.74442	-1.70888	-1.65296
0	0	0	-1.64999	-1.63538	-1.70721	-1.7422	-1.70547	-1.6534
0	0	0	-1.6276	-1.6135	-1.7169	-1.72803	-1.6923	-1.65842
0	0	0	-1.66307	-1.6419	-1.70603	-1.75345	-1.71482	-1.65124
0	0	0	-1.64458	-1.62918	-1.69575	-1.7288	-1.69113	-1.64122
0	0	0	-1.6572	-1.63769	-1.70185	-1.74955	-1.70448	-1.64719
0	0	0	-1.6683	-1.64778	-1.69666	-1.74202	-1.69955	-1.6379
0	0	0	-1.64316	-1.62866	-1.70069	-1.72367	-1.68011	-1.64501
0	0	0	-1.69166	-1.66547	-1.70866	-1.75888	-1.7153	-1.65645
0	0	0	-1.67195	-1.64971	-1.68339	-1.72327	-1.68462	-1.63447
0	0	0	-1.67406	-1.65038	-1.69229	-1.73849	-1.69111	-1.63933
0	0	0	-1.69416	-1.66777	-1.68921	-1.7387	-1.69556	-1.63121
0	0	0	-1.66404	-1.64139	-1.68665	-1.70949	-1.66604	-1.63435
0	0	0	-1.70534	-1.67902	-1.69697	-1.74577	-1.69405	-1.63397
0	0	0	-1.6921	-1.66734	-1.68476	-1.72063	-1.67088	-1.62847
0	0	0	-1.68123	-1.66009	-1.68848	-1.72034	-1.67144	-1.62995
0	0	0	-1.71168	-1.68754	-1.69592	-1.72724	-1.67955	-1.63119

0	0	0	-1.67493	-1.66009	-1.6847	-1.68933	-1.64533	-1.62016
0	0	0	-1.71118	-1.68906	-1.70499	-1.7322	-1.67961	-1.6281
0	0	0	-1.69669	-1.68173	-1.69777	-1.70083	-1.66045	-1.62934
0	0	0	-1.68636	-1.66597	-1.69203	-1.70015	-1.65409	-1.63075
0	0	0	-1.71902	-1.70281	-1.71707	-1.71416	-1.67908	-1.63899
0	0	0	-1.68437	-1.67636	-1.69923	-1.68181	-1.64277	-1.63484
0	0	0	-1.71211	-1.69737	-1.70925	-1.70941	-1.67009	-1.62522
0	0	0	-1.69338	-1.68155	-1.72029	-1.68715	-1.64561	-1.63328
0	0	0	-1.67216	-1.66167	-1.71105	-1.6747	-1.62962	-1.62722
0	0	0	-1.7045	-1.69729	-1.73455	-1.69767	-1.65664	-1.64497
0	0	0	-1.66471	-1.6619	-1.71007	-1.66231	-1.61924	-1.62524
0	0	0	-1.68788	-1.67933	-1.71754	-1.67686	-1.63626	-1.63088
0	0	0	-1.67638	-1.6728	-1.73066	-1.66491	-1.62816	-1.63707
0	0	0	-1.64093	-1.63486	-1.70803	-1.63585	-1.598	-1.6204
0	0	0	-1.67897	-1.6695	-1.7333	-1.6645	-1.62777	-1.63472
0	0	0	-1.64064	-1.6315	-1.71724	-1.62934	-1.59437	-1.62686
0	0	0	-1.64465	-1.63556	-1.71272	-1.63429	-1.60081	-1.62464
0	0	0	-1.65362	-1.64899	-1.73906	-1.64265	-1.60395	-1.63518
0	0	0	-1.61114	-1.60292	-1.70639	-1.60086	-1.5673	-1.61376
0	0	0	-1.63384	-1.62973	-1.72879	-1.61898	-1.58999	-1.628
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