ARRL Handbook CD

Template File

Title:	HBK-Match
Chapter:	13
Topic:	Pi-L Network Tables

Template contains:

Pi-Net values.

Pi-L net values.

Pi-Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L	
R1=1700 ohms				
160	518	2527	15.4	
80	263	1281	7.8	
40	137	671	4.1	
20	69	338	2.06	Qo=12.0
15	46	226	1.38	Qo=12.0
10	35	173	0.99	Qo=12.3
R1=1750 ohms				
160	504	2483	15.8	
80	256	1259	8.0	
40	134	659	4.2	
20	68	332	2.11	Qo=12.0
15	45	222	1.41	Qo=12.0
10	35	176	0.99	Qo=12.7
R1=1800 ohms				
160	491	2441	16.1	
80	249	1238	8.2	
40	130	648	4.3	
20	66	327	2.16	Qo=12.0
15	44	218	1.44	Qo=12.0
10	35	180	0.99	Qo=13.0
R1=1850 ohms				
160	479	2400	16.5	
80	243	1217	8.4	
40	127	637	4.4	
20	64	321	2.21	Qo=12.0
15	43	215	1.48	Qo=12.0
10	35	183	0.99	Qo=13.4
R1=1900 ohms				
160	468	2360	16.9	
80	237	1197	8.6	
40	124	626	4.5	
20	63	316	2.26	Qo=12.0
15	42	211	1.51	Qo=12.0
10	35	186	0.99	Qo=13.7
R1=1950 ohms				
160	457	2322	17.3	
80	232	1177	8.8	
40	121	616	4.6	
20	61	311	2.31	Qo=12.0
15	41	208	1.54	Qo=12.0
10	35	189	0.98	Qo=14.1
R1=2000 ohms				
160	446	2284	17.6	
80	226	1158	8.9	
40	118	606	4.7	
20	60	306	2.36	Qo=12.0
15	40	204	1.58	Qo=12.0
10	35	193	0.98	Qo=14.4

Pi-Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L	
R1=2050 ohms				
160	436	2248	18.0	
80	221	1140	9.1	
40	116	597	4.8	
20	58	301	2.41	Qo=12.0
15	39	201	1.61	Qo=12.0
10	35	196	0.98	Qo=14.8
R1=2100 ohms				
160	427	2213	18.4	
80	216	1122	9.3	
40	113	587	4.9	
20	57	296	2.46	Qo=12.0
15	38	198	1.64	Qo=12.0
10	35	199	0.98	Qo=15.1
R1=2150 ohms				
160	418	2179	18.7	
80	212	1105	9.5	
40	111	578	5.0	
20	56	292	2.51	Qo=12.0
15	37	195	1.67	Qo=12.0
10	35	202	0.98	Qo=15.5
R1=2200 ohms				
160	409	2145	19.1	
80	207	1088	9.7	
40	109	569	5.1	
20	55	287	2.56	Qo=12.0
15	37	192	1.71	Qo=12.0
10	35	205	0.98	Qo=15.8
R1=2250 ohms				
160	400	2113	19.5	
80	203	1071	9.9	
40	106	561	5.2	
20	54	283	2.61	Qo=12.0
15	36	189	1.74	Qo=12.0
10	35	208	0.98	Qo=16.2
R1=2300 ohms				
160	392	2081	19.8	
80	199	1055	10.1	
40	104	552	5.3	
20	53	279	2.65	Qo=12.0
15	35	186	1.77	Qo=12.0
10	35	211	0.98	Qo=16.5
R1=2350 ohms				
160	385	2050	20.2	
80	195	1039	10.2	
40	102	544	5.4	
20	51	274	2.70	Qo=12.0
15	35	189	1.78	Qo=12.2
10	35	214	0.98	Qo=16.8

Pi-Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L	
R1=2400 ohms				
160	377	2020	20.5	
80	191	1024	10.4	
40	100	536	5.5	
20	51	270	2.75	Qo=12.0
15	35	192	1.78	Qo=12.5
10	35	216	0.98	Qo=17.2
R1=2450 ohms				
160	370	1990	20.9	
80	188	1009	10.6	
40	98	528	5.6	
20	50	266	2.80	Qo=12.0
15	35	195	1.78	Qo=12.7
10	35	219	0.98	Qo=17.5
R1=2500 ohms				
160	363	1961	21.3	
80	184	994	10.8	
40	96	520	5.6	
20	49	262	2.85	Qo=12.0
15	35	198	1.78	Qo=13.0
10	35	222	0.98	Qo=17.9
R1=2550 ohms				
160	357	1933	21.6	
80	181	980	11.0	
40	95	513	5.7	
20	48	259	2.90	Qo=12.0
15	35	201	1.78	Qo=13.2
10	35	225	0.98	Qo=18.2
R1=2600 ohms				
160	351	1905	22.0	
80	178	966	11.1	
40	93	506	5.8	
20	47	255	2.94	Qo=12.0
15	35	204	1.77	Qo=13.5
10	35	227	0.98	Qo=18.5
R1=2650 ohms				
160	344	1878	22.3	
80	175	952	11.3	
40	91	498	5.9	
20	46	251	2.99	Qo=12.0
15	35	207	1.77	Qo=13.7
10	35	230	0.97	Qo=18.9
R1=2700 ohms				
160	339	1851	22.7	
80	172	939	11.5	
40	90	491	6.0	
20	45	248	3.04	Qo=12.0
15	35	210	1.77	Qo=14.0
10	35	233	0.97	Qo=19.2

Pi-Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L	
R1=2750 ohms				
160	333	1825	23.1	
80	169	925	11.7	
40	88	484	6.1	
20	45	244	3.09	Qo=12.0
15	35	213	1.77	Qo=14.3
10	35	235	0.97	Qo=19.6
R1=2800 ohms				
160	327	1799	23.4	
80	166	912	11.9	
40	87	478	6.2	
20	44	241	3.13	Qo=12.0
15	35	216	1.77	Qo=14.5
10	35	238	0.97	Qo=19.9
R1=2850 ohms				
160	322	1774	23.8	
80	163	900	12.0	
40	85	471	6.3	
20	43	237	3.18	Qo=12.0
15	35	218	1.77	Qo=14.8
10	35	241	0.97	Qo=20.3
R1=2900 ohms				
160	317	1749	24.1	
80	161	887	12.2	
40	84	464	6.4	
20	42	234	3.23	Qo=12.0
15	35	221	1.77	Qo=15.0
10	35	243	0.97	Qo=20.6
R1=2950 ohms				
160	312	1725	24.5	
80	158	875	12.4	
40	83	458	6.5	
20	42	231	3.27	Qo=12.0
15	35	224	1.77	Qo=15.3
10	35	246	0.97	Qo=20.9
R1=3000 ohms				
160	307	1701	24.8	
80	156	863	12.6	
40	82	452	6.6	
20	41	228	3.32	Qo=12.0
15	35	227	1.77	Qo=15.5
10	35	248	0.97	Qo=21.3

Pi-L Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L1	L2	
R1 = 1700 ohms					
160	344	1404	28.0	9.4	
80	175	712	14.2	4.8	
40	91	373	7.4	2.5	
20	46	188	3.8	1.26	Qo=12.0
15	35	136	2.22	0.84	Qo=13.4
10	35	123	1.22	0.62	Qo=17.5
R1 = 1750 ohms					
160	336	1396	28.6	9.4	
80	170	708	14.5	4.8	
40	89	370	7.6	2.5	
20	45	187	3.8	1.26	Qo=12.0
15	35	137	2.21	0.84	Qo=13.7
10	35	124	1.21	0.62	Qo=17.8
R1 = 1800 ohms					
160	328	1387	29.2	9.4	
80	166	703	14.8	4.8	
40	87	368	7.7	2.5	
20	44	186	3.9	1.26	Qo=12.0
15	35	139	2.21	0.84	Qo=13.9
10	35	125	1.21	0.62	Qo=18.2
R1 = 1850 ohms					
160	320	1379	29.7	9.4	
80	163	699	15.1	4.8	
40	85	366	7.9	2.5	
20	43	185	4.0	1.26	Qo=12.0
15	35	140	2.20	0.84	Qo=14.2
10	35	126	1.21	0.62	Qo=18.6
R1 = 1900 ohms					
160	313	1371	30.3	9.4	
80	159	695	15.4	4.8	
40	83	364	8.0	2.5	
20	42	184	4.1	1.26	Qo=12.0
15	35	141	2.20	0.84	Qo=14.5
10	35	128	1.20	0.62	Qo=19.0
R1 = 1950 ohms					
160	306	1363	30.9	9.4	
80	155	691	15.6	4.8	
40	81	362	8.2	2.5	
20	41	182	4.1	1.26	Qo=12.0
15	35	142	2.19	0.84	Qo=14.8
10	35	129	1.20	0.62	Qo=19.4
R1 = 2000 ohms					
160	300	1356	31.4	9.4	
80	152	687	15.9	4.8	
40	80	360	8.3	2.5	
20	40	181	4.2	1.26	Qo=12.0
15	35	143	2.18	0.84	Qo=15.1
10	35	130	1.19	0.62	Qo=19.7

Pi-L Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L1	L2	
R1 = 2050 ohms					
160	294	1348	32.0	9.4	
80	149	684	16.2	4.8	
40	78	358	8.5	2.5	
20	39	180	4.3	1.26	Qo=12.0
15	35	144	2.18	0.84	Qo=15.3
10	35	131	1.19	0.62	Qo=20.1
R1 = 2100 ohms					
160	288	1341	32.5	9.4	
80	146	680	16.5	4.8	
40	76	356	8.6	2.5	
20	39	180	4.4	1.26	Qo=12.0
15	35	146	2.17	0.84	Qo=15.6
10	35	132	1.19	0.62	Qo=20.5
R1 = 2150 ohms					
160	282	1334	33.1	9.4	
80	143	677	16.8	4.8	
40	75	354	8.8	2.5	
20	38	179	4.4	1.26	Qo=12.0
15	35	147	2.17	0.84	Qo=15.9
10	35	133	1.18	0.62	Qo=20.9
R1 = 2200 ohms					
160	277	1327	33.6	9.4	
80	140	673	17.0	4.8	
40	73	352	8.9	2.5	
20	37	178	4.5	1.26	Qo=12.0
15	35	148	2.16	0.84	Qo=16.2
10	35	134	1.18	0.62	Qo=21.3
R1 = 2250 ohms					
160	271	1321	34.2	9.4	
80	138	670	17.3	4.8	
40	72	351	9.1	2.5	
20	36	177	4.6	1.26	Qo=12.0
15	35	149	2.16	0.84	Qo=16.5
10	35	135	1.18	0.62	Qo=21.6
R1 = 2300 ohms					
160	266	1315	34.7	9.4	
80	135	667	17.6	4.8	
40	71	349	9.2	2.5	
20	36	176	4.6	1.26	Qo=12.0
15	35	150	2.15	0.84	Qo=16.7
10	35	137	1.17	0.62	Qo=22.0
R1 = 2350 ohms					
160	261	1308	35.3	9.4	
80	133	663	17.9	4.8	
40	69	347	9.4	2.5	
20	35	175	4.7	1.26	Qo=12.0
15	35	151	2.15	0.84	Qo=17.0
10	35	138	1.17	0.62	Qo=22.4

Pi-L Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L1	L2	
R1 = 2400 ohms					
160	257	1302	35.8	9.4	
80	130	660	18.2	4.8	
40	68	346	9.5	2.5	
20	35	176	4.7	1.26	Qo=12.2
15	35	152	2.14	0.84	Qo=17.3
10	35	139	1.17	0.62	Qo=22.8
R1 = 2450 ohms					
160	252	1296	36.3	9.4	
80	128	657	18.4	4.8	
40	67	344	9.6	2.5	
20	35	177	4.7	1.26	Qo=12.4
15	35	153	2.14	0.84	Qo=17.6
10	35	140	1.17	0.62	Qo=23.1
R1 = 2500 ohms					
160	248	1291	36.9	9.4	
80	126	654	18.7	4.8	
40	66	343	9.8	2.5	
20	35	178	4.7	1.26	Qo=12.6
15	35	154	2.13	0.84	Qo=17.8
10	35	141	1.16	0.62	Qo=23.5
R1 = 2550 ohms					
160	244	1285	37.4	9.4	
80	124	652	19.0	4.8	
40	65	341	9.9	2.5	
20	35	179	4.7	1.26	Qo=12.7
15	35	155	2.13	0.84	Qo=18.1
10	35	142	1.16	0.62	Qo=23.9
R1 = 2600 ohms					
160	240	1279	37.9	9.4	
80	121	649	19.2	4.8	
40	64	340	10.1	2.5	
20	35	181	4.7	1.26	Qo=12.9
15	35	156	2.12	0.84	Qo=18.4
10	35	143	1.16	0.62	Qo=24.2
R1 = 2650 ohms					
160	236	1274	38.5	9.4	
80	119	646	19.5	4.8	
40	63	338	10.2	2.5	
20	35	182	4.7	1.26	Qo=13.1
15	35	157	2.12	0.84	Qo=18.7
10	35	144	1.15	0.62	Qo=24.6
R1 = 2700 ohms					
160	232	1269	39.0	9.4	
80	118	643	19.8	4.8	
40	62	337	10.4	2.5	
20	35	183	4.7	1.26	Qo=13.3
15	35	158	2.12	0.84	Qo=18.9
10	35	145	1.15	0.62	Qo=25.0

Pi-L Net Values
R2 = 50 Qo = 12
C(min) = 35 pF

Band	C1	C2	L1	L2	
R1 = 2750 ohms					
160	228	1264	39.5	9.4	
80	116	641	20.1	4.8	
40	61	335	10.5	2.5	
20	35	184	4.7	1.26	Qo=13.5
15	35	159	2.11	0.84	Qo=19.2
10	35	146	1.15	0.62	Qo=25.4
R1 = 2800 ohms					
160	225	1259	40.1	9.4	
80	114	638	20.3	4.8	
40	60	334	10.6	2.5	
20	35	185	4.7	1.26	Qo=13.7
15	35	160	2.11	0.84	Qo=19.5
10	35	147	1.15	0.62	Qo=25.7
R1 = 2850 ohms					
160	221	1254	40.6	9.4	
80	112	636	20.6	4.8	
40	59	333	10.8	2.5	
20	35	186	4.6	1.26	Qo=13.8
15	35	161	2.10	0.84	Qo=19.7
10	35	148	1.15	0.62	Qo=26.1
R1 = 2900 ohms					
160	218	1249	41.1	9.4	
80	110	633	20.9	4.8	
40	58	331	10.9	2.5	
20	35	187	4.6	1.26	Qo=14.0
15	35	162	2.10	0.84	Qo=20.0
10	35	149	1.14	0.62	Qo=26.5
R1 = 2950 ohms					
160	215	1244	41.6	9.4	
80	109	631	21.1	4.8	
40	57	330	11.1	2.5	
20	35	188	4.6	1.26	Qo=14.2
15	35	163	2.10	0.84	Qo=20.3
10	35	149	1.14	0.62	Qo=26.8
R1 = 3000 ohms					
160	212	1239	42.2	9.4	
80	107	629	21.4	4.8	
40	56	329	11.2	2.5	
20	35	189	4.6	1.26	Qo=14.4
15	35	164	2.09	0.84	Qo=20.6
10	35	150	1.14	0.62	Qo=27.2

Pi-Net Values

R1 = 50 Qo = 4 Ck = 30 pF

Band	C1	C2	L
R2 = 35 ohms			
160	3729	4229	2.8
80	1891	2130	1.4
40	990	1101	0.7
20	499	540	0.38
15	333	351	0.25
10	245	250	0.19
R2 = 40 ohms			
160	3589	3872	3.0
80	1820	1949	1.5
40	953	1006	0.8
20	480	492	0.40
15	321	319	0.27
10	236	227	0.20
R2 = 45 ohms			
160	3466	3575	3.2
80	1757	1798	1.6
40	920	927	0.8
20	464	453	0.43
15	310	292	0.28
10	228	207	0.21
R2 = 50 ohms			
160	3355	3325	3.4
80	1701	1671	1.7
40	891	861	0.9
20	449	419	0.45
15	300	270	0.30
10	221	191	0.22
R2 = 55 ohms			
160	3255	3111	3.5
80	1651	1563	1.8
40	864	804	0.9
20	436	390	0.47
15	291	251	0.31
10	214	177	0.23
R2 = 60 ohms			
160	3164	2925	3.7
80	1605	1469	1.9
40	840	754	1.0
20	424	366	0.49
15	283	234	0.33
10	208	164	0.24
R2 = 65 ohms			
160	3080	2762	3.8
80	1562	1386	1.9
40	818	711	1.0
20	412	344	0.51
15	275	220	0.34
10	203	154	0.25

Pi-Net Values

R1 = 50 Qo = 4 Ck = 30 pF

Band	C1	C2	L
R2 = 70 ohms			
160	3003	2618	4.0
80	1523	1313	2.0
40	797	673	1.1
20	402	325	0.53
15	268	207	0.36
10	198	144	0.26
R2 = 75 ohms			
160	2930	2490	4.1
80	1486	1248	2.1
40	778	639	1.1
20	392	307	0.55
15	262	195	0.37
10	193	136	0.27
R2 = 80 ohms			
160	2863	2375	4.3
80	1452	1189	2.2
40	760	608	1.1
20	383	292	0.57
15	256	185	0.38
10	188	128	0.28
R2 = 85 ohms			
160	2800	2270	4.4
80	1420	1137	2.2
40	743	581	1.2
20	375	278	0.59
15	250	176	0.40
10	184	121	0.29