

Tuning Procedure

1. Tune C48, C46, C42, T3, T2, T1 to maximize the main wave output and syntonize wave minimize.
2. The frequency is determined and stabilized by the crystal. Ranged from 174.70 MHz ~ 196.51 MHz is met and fixed by the proper crystal frequency. As the cartridge doesn't have high sensitivity so there is no such kind a circuit for suppression of spurious radiation, and limiting modulation.
3. As the output power is usually less than 15 dBm, there is no circuit for limiting power. If it is necessary to lower the power then please change L4 to be a resistor or get the R37's value higher.

Part	Used	PartType	Designators
1	4	0.1u	C3 C5 C18 C28
2	5	1K	R13 R17 R23 R29 R33
3	1	1N4001	D3
4	1	1P	C47
5	1	1S2638	D2
6	1	1u	C6
7	1	2.2K	R26
8	6	2.2u	C1 C15 C16 C17 C19 C22
9	1	3.3K	R18
10	4	4.7u	C8 C26 C27 C52
11	2	4T	L3 L5
12	2	5.6K	R24 R35
13	2	5T	L6 L7
14	1	9V	B2
15	1	10	R37
16	9	10K	R1 R2 R3 R10 R19 R20 R25 R28 R32
17	2	10P	C43 C50
18	1	10u	C4
19	4	10uH	L1 L2 L4 R15
20	2	15K	R7 R14
21	1	15P	C38
22	1	17.439MHz	Z1
23	3	20P	C7 C33 C34
24	4	22K	R9 R11 R12 R21
25	2	30P	C32 C49
26	2	33K	R27 R31
27	3	47K	R8 R16 R22
28	2	47u	C12 C20
29	2	50P	C31 C39
30	1	78L05	IC3
31	1	89	T1
32	1	96	T3
33	1	98	T2
34	1	100K	R6
35	3	100P	C2 C11 C35
36	1	100u	C30
37	8	102	C24 C36 C37 C40 C41 C44 C45 C53
38	2	102J	C10 C25
39	5	103	C21 C23 C29 C54 C55
40	1	103J	C9
41	2	150K	R4 R5
42	1	200P	C14
43	1	470	R36
44	2	680	R30 R34
45	1	4558	IC1
46	4	C1923	Q1 Q2 Q3 Q4

47	3	CVN620	C42 C46 C48
48	1	G3	D1
49	1	GND	
50	1	MIC	M1
51	1	NE571	IC2