

RF550 SCHEMATIC DIAGRAM

The schematic diagram illustrates the internal circuitry of the RF550 receiver, organized into several functional stages:

- MIC INPUT:** Features a microphone input jack (C39, 200P) and a switch (S3) for selecting between a BEAD (1) and a 10K VR-B (2) input.
- MIKE AMP:** Utilizes a 2SC1000 transistor (Q1) for initial signal amplification, with a 33V supply and various biasing resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11).
- BAL MOD:** A balanced modulator stage using a TA7045M IC (Q2) to generate DSB-SC signals, powered by 8.0V and 4.7V sources.
- IF AMP AND LIMITER:** Employs a TA7061 IC (Q3) for intermediate frequency amplification and limiting, with a 10.7 MHz crystal filter (XF1) and a 1.9V supply.
- IF FILTER:** A transformer-coupled filter stage (T-1, T-2, T-3) that filters the IF signal, with associated capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39).
- DETECTOR:** Uses a TA7045M IC (Q4) for signal detection and automatic gain control, with a 6.4V supply and various biasing resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39).
- POWER:** A power supply section (Q5) that converts AC from a transformer (T5) into a regulated 1.5V supply for the meter, using a 2SC509 transistor (Q5) and a 1.5V Zener diode (Z1).
- METER AMP:** A 2SC372 transistor (Q6) that drives the meter (M1) through a 10K resistor (R1) and a 1.5V supply.
- LOCAL OSC:** A local oscillator section (Q7) that provides a 1.5V supply to the meter, using a 2SC372 transistor (Q7) and a 1.5V Zener diode (Z1).

The diagram includes numerous component values, such as resistors (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39), capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39), and integrated circuits (TA7045M, TA7061, 2SC1000, 2SC509, 2SC372, 1N4002, 1N4001, 1N4003, 1N4004, 1N4005, 1N4006, 1N4007, 1N4008, 1N4009, 1N4010, 1N4011, 1N4012, 1N4013, 1N4014, 1N4015, 1N4016, 1N4017, 1N4018, 1N4019, 1N4020, 1N4021, 1N4022, 1N4023, 1N4024, 1N4025, 1N4026, 1N4027, 1N4028, 1N4029, 1N4030, 1N4031, 1N4032, 1N4033, 1N4034, 1N4035, 1N4036, 1N4037, 1N4038, 1N4039, 1N4040, 1N4041, 1N4042, 1N4043, 1N4044, 1N4045, 1N4046, 1N4047, 1N4048, 1N4049, 1N4050, 1N4051, 1N4052, 1N4053, 1N4054, 1N4055, 1N4056, 1N4057, 1N4058, 1N4059, 1N4060, 1N4061, 1N4062, 1N4063, 1N4064, 1N4065, 1N4066, 1N4067, 1N4068, 1N4069, 1N4070, 1N4071, 1N4072, 1N4073, 1N4074, 1N4075, 1N4076, 1N4077, 1N4078, 1N4079, 1N4080, 1N4081, 1N4082, 1N4083, 1N4084, 1N4085, 1N4086, 1N4087, 1N4088, 1N4089, 1N4090, 1N4091, 1N4092, 1N4093, 1N4094, 1N4095, 1N4096, 1N4097, 1N4098, 1N4099, 1N4100).

※ 改良のために、回路の一部を変更する場合がありますので、ご承知おきください。