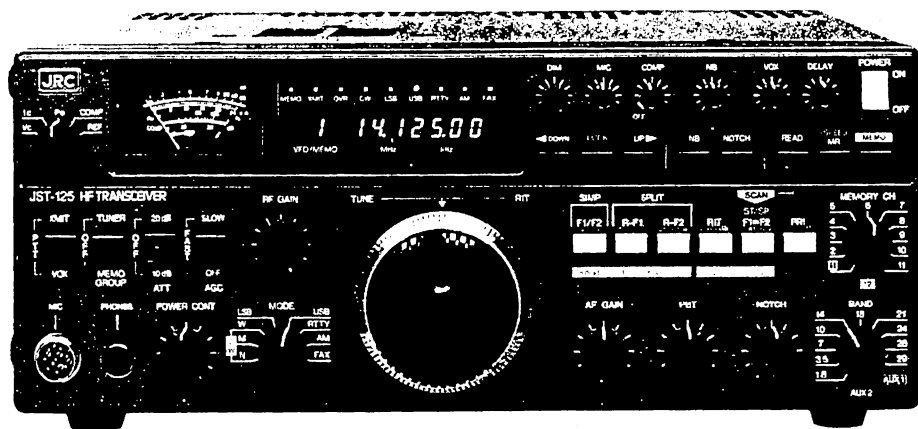


# INSTRUCTION MANUAL FOR MODEL JST-125



*Japan Radio Co., Ltd.*

# HF TRANSCEIVER

## 8. SPECIFICATIONS

### [General Specifications]

Transmitting Frequency Range	
1.8MHz band	1.8 to 2.0MHz
3.5MHz band	3.5 to 4.0MHz
7MHz band	7.0 to 7.3MHz
10MHz band	10.1 to 10.15MHz
14MHz band	14.0 to 14.35MHz
18MHz band	18.068 to 18.168MHz *1
21MHz band	21.0 to 21.45MHz
24MHz band	24.89 to 24.99MHz *1
28MHz band	28.0 to 29.7MHz

NOTE: \*1) For reception only. To transmit, refer to Paragraph 5.6.

Receiving Frequency Range	
100kHz to 30MHz	
Type of Emission	SSB (LSB, USB) CW AM (Reception Only) RTTY FAX (AFSK)
Frequency Increment	10Hz
Memory Capacity	72 channels (12ch x 6 groups)
Antenna Impedance	50 ohms nominal (Unbalanced)
Input Voltage	13.8V DC $\pm$ 10% Negative grounded
Power Consumption	Approx. 2A (Receiving with no signal) Approx. 20A (Transmitting at 100W output) (JST-125D) Approx. 5A (Transmitting at 10W output) (JST-125S)
Dimensions	330(348) x 130(145) x 273(356)mm (W x H x D) Dimensions written in (include protuberances)
Weight	Approx. 10kg

### [Transmitter]

Power Output	JST-125D: 10 to 100W (Continuously adjustable) JST-125S: 1 to 10W (Continuously adjustable)
--------------	------------------------------------------------------------------------------------------------------

Carrier Suppression	50dB or more
Undesired Sideband Suppression	60dB or more (at 1.5kHz modulation)
Spurious Radiation	-40dB or less
Intermodulation	3rd order: -31dB or less (below PEP)
Frequency Response	400 to 2600Hz (within 6dB, SSB)
Frequency Stability	$\pm$ 10PPM or less after 5 to 60 minute warm-up. Within $\pm$ 2PPM per hour, thereafter
Microphone Impedance	600 ohms
Modulation Input Level	-60 to -20dBm required for rated output
Modulation System	SSB, FAX: Balanced modulation RTTY: Reactance modulation
RTTY shift width	170Hz ( $\pm$ 85Hz)

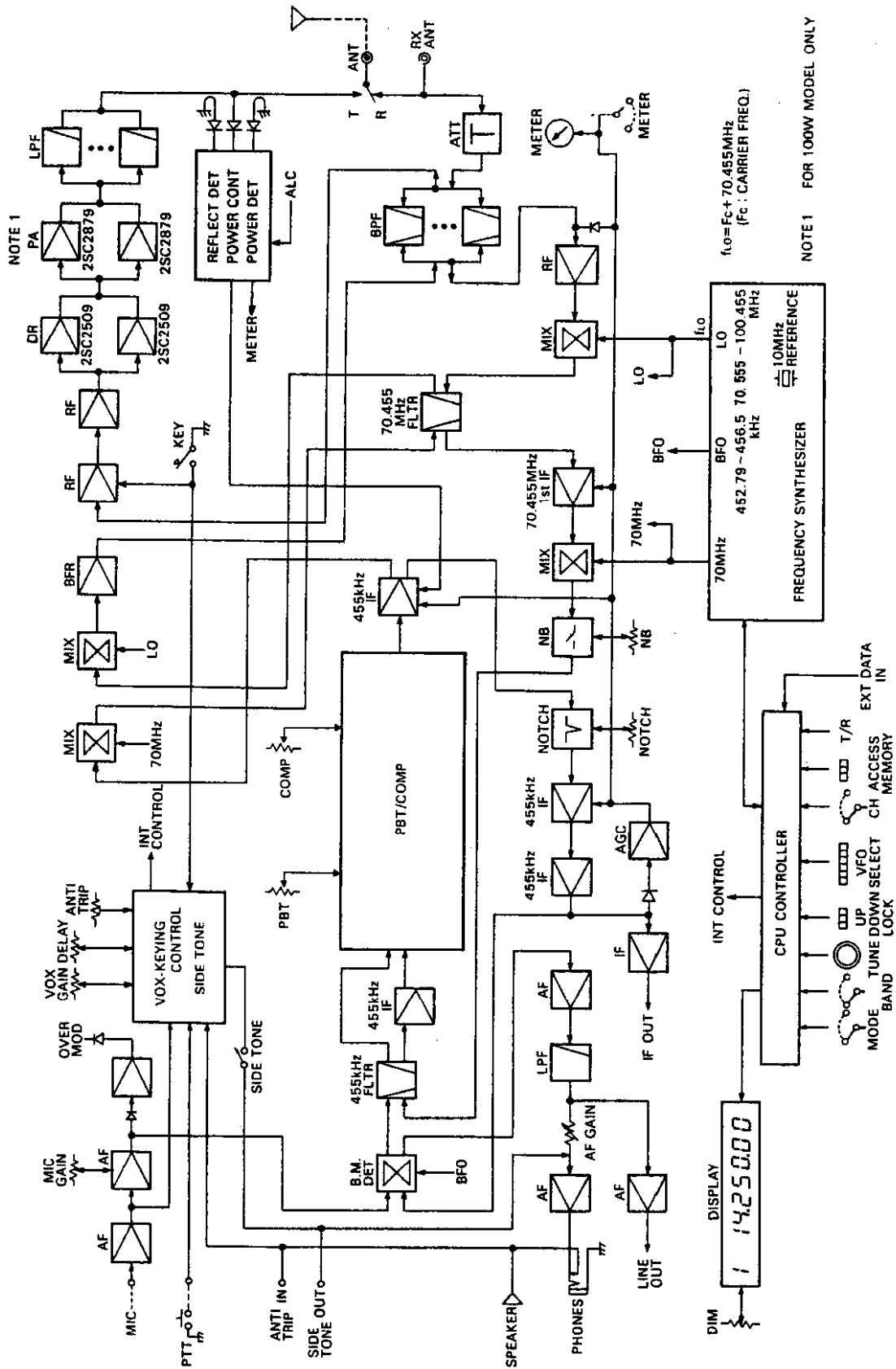
### [Receiver]

Receiving System	Double superheterodyne	
Intermediate Frequency	1st IF: 70.455MHz 2nd IF: 455kHz For PBT: 8.7MHz	
Sensitivity (10dB S/N)	SSB, CW, RTTY, FAX AM	
0.1 to 0.5MHz	14dB $\mu$ (5 $\mu$ V)	24dB $\mu$ (15 $\mu$ V)
0.5 to 1.6MHz	6dB $\mu$ (2 $\mu$ V)	16dB $\mu$ (6 $\mu$ V)
1.6 to 30MHz	-10dB $\mu$ (0.3 $\mu$ V)	6dB $\mu$ (2 $\mu$ V)
Image Rejection	70dB or more	
IF Rejection	70dB or more	
Selectivity	-6dB	-60dB
SSB, CW(W), RTTY, FAX	2.3kHz	4.3kHz
AM	6kHz	-
*CW-M	0.7kHz	2.3kHz
*CW-N	0.32kHz	1.4kHz

NOTE: Modes with \* are available only when optional filters CFL-260 and CFL-230 are mounted.

RIT Range	$\pm$ 20kHz
NOTCH Filter Attenuation	Approx. 30dB
AF output	1W or more into 4-ohm load with less than 10% distortion

# 9. BLOCK DIAGRAM



# 10. CIRCUIT DIAGRAMS

NOTE: Circuit and Components subject to change for an improvement without notice.

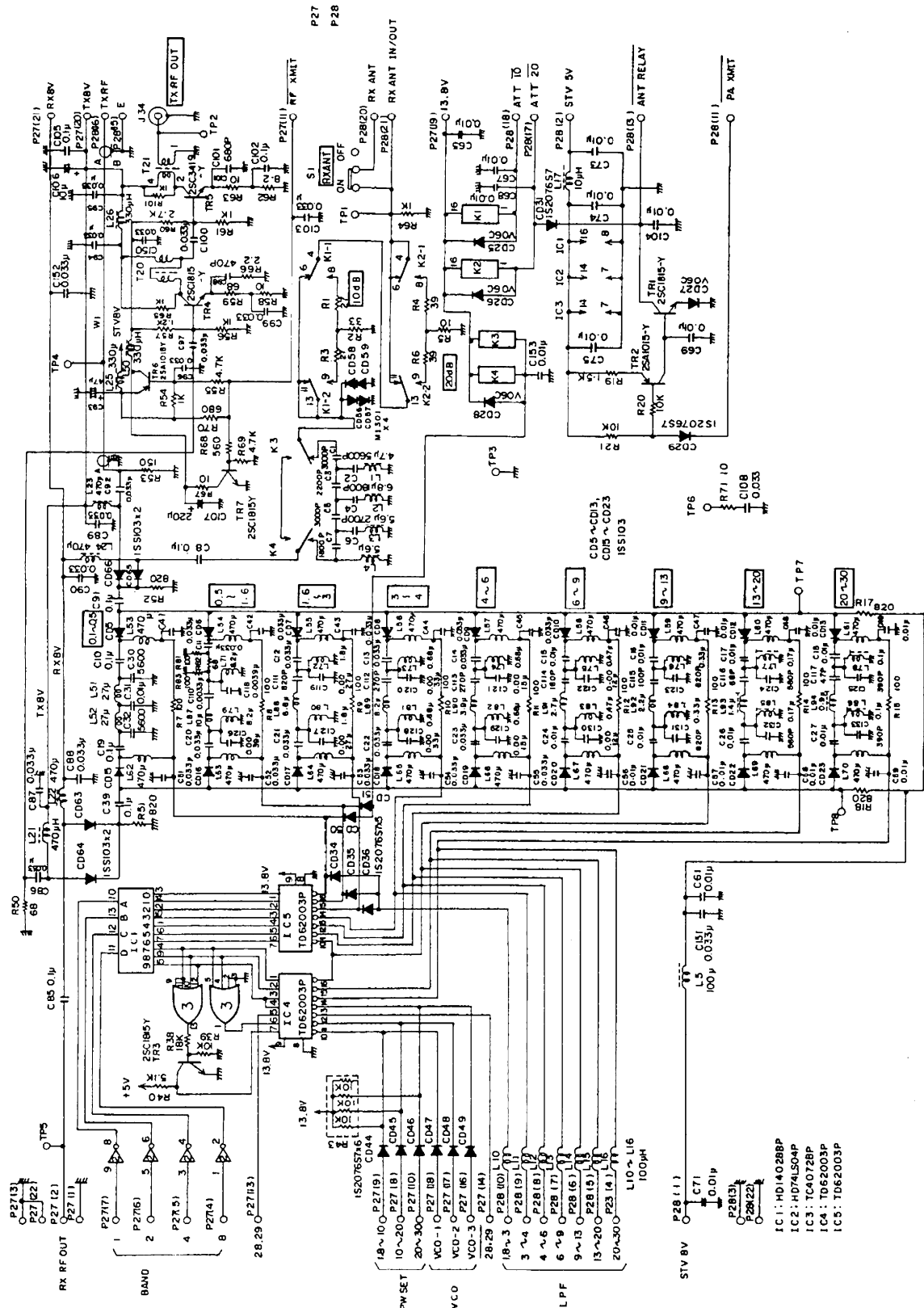


Figure 10.1 CFL-225 BPF Unit



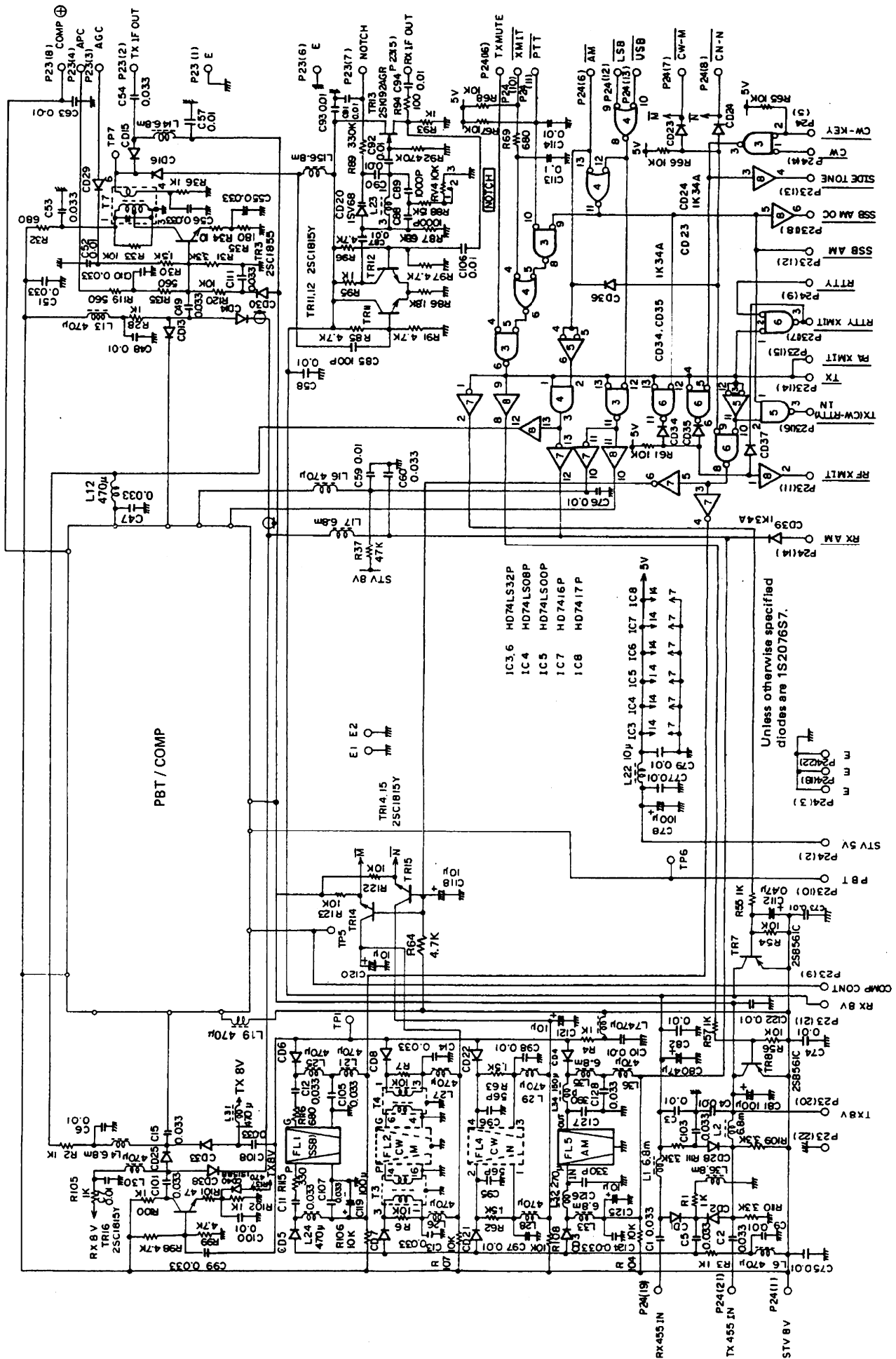


Figure 10.3 CAE-213A IF AMP Unit

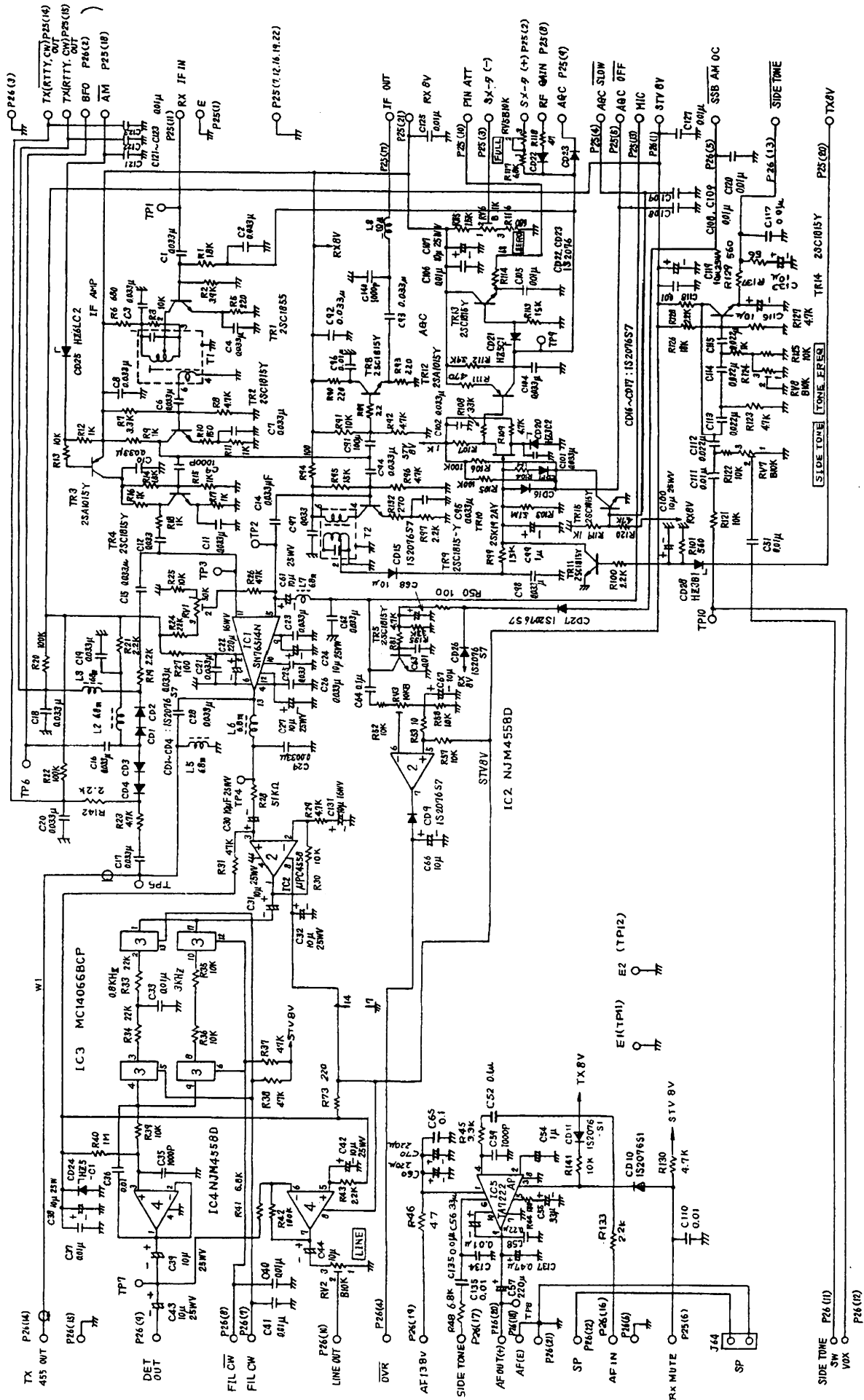


Figure 10.4 CAB-400A AF AMP Unit

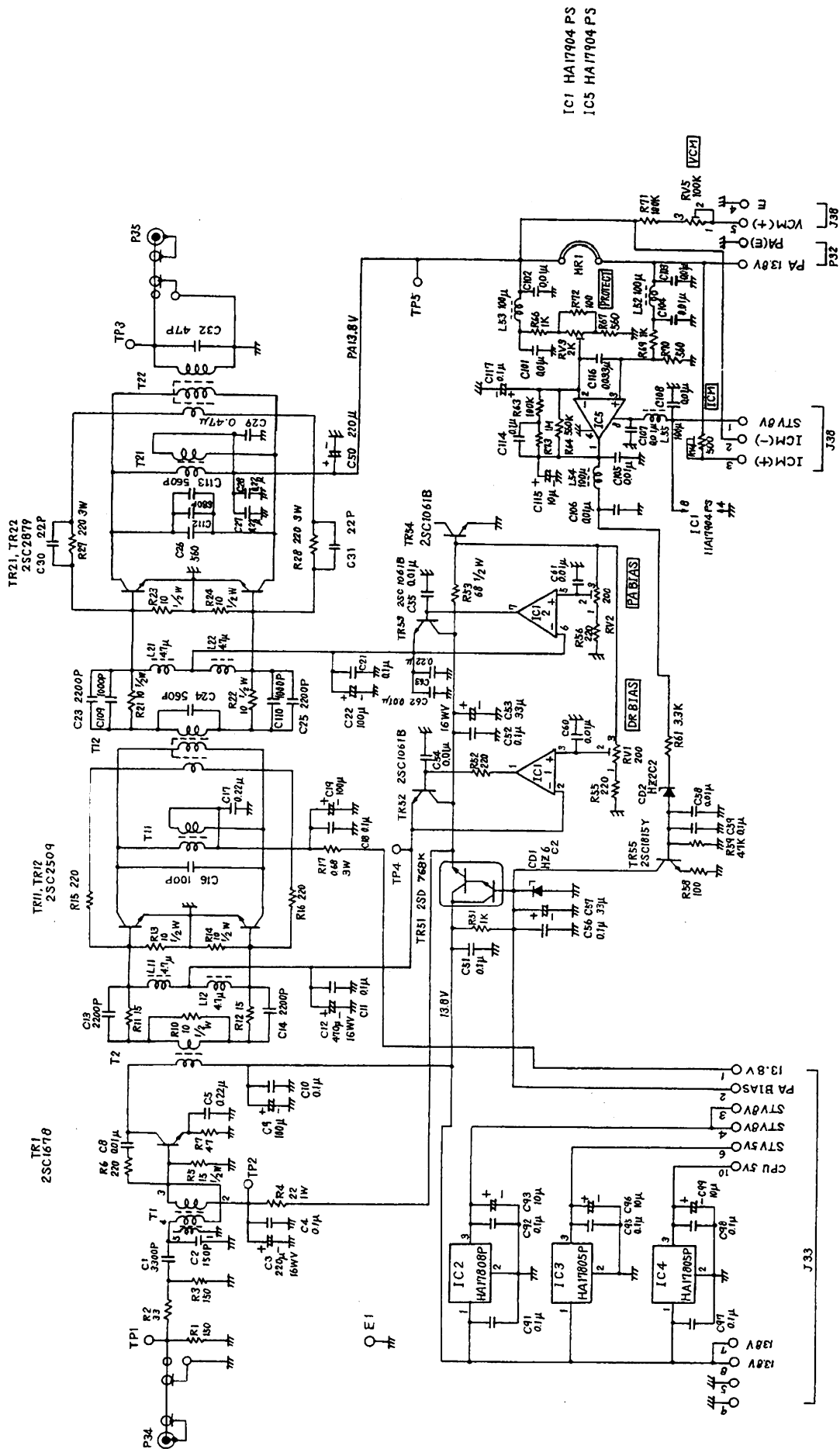


Figure 10.5 CAH-253A 100W PA Unit



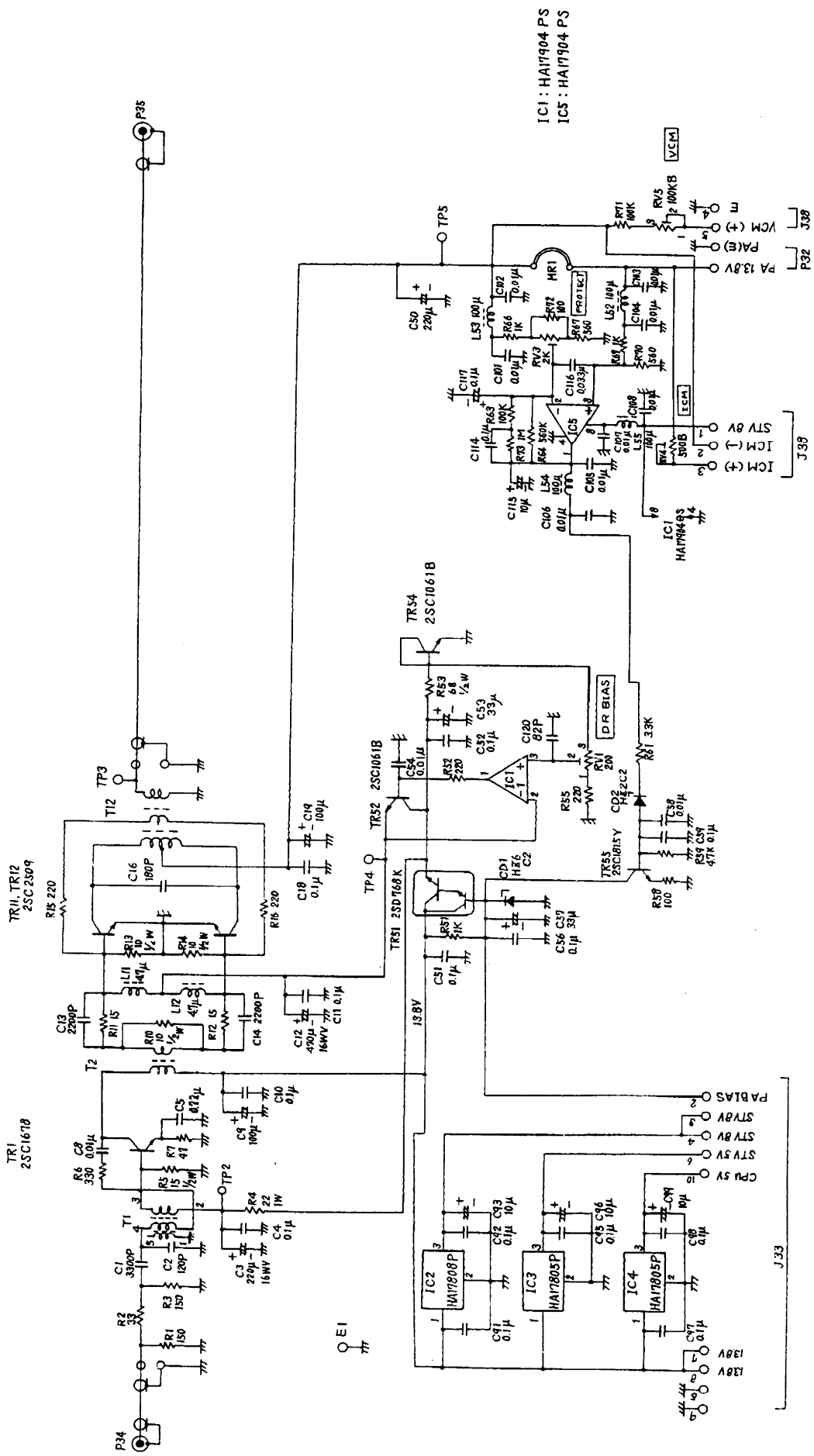


Figure 10.6 CAH-279A 10W PA Unit

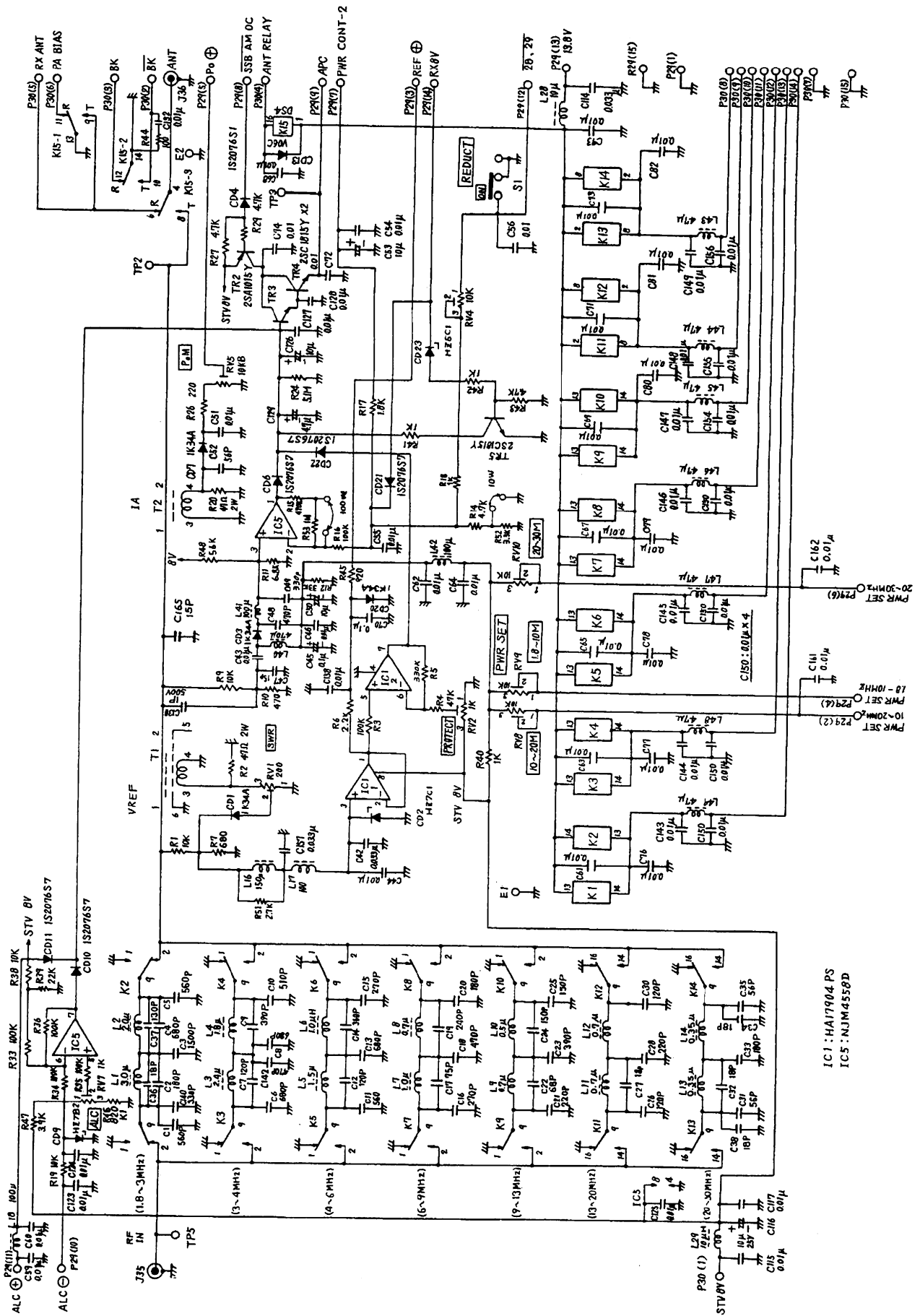


Figure 10.7 CMB-116B OUTPUT Unit

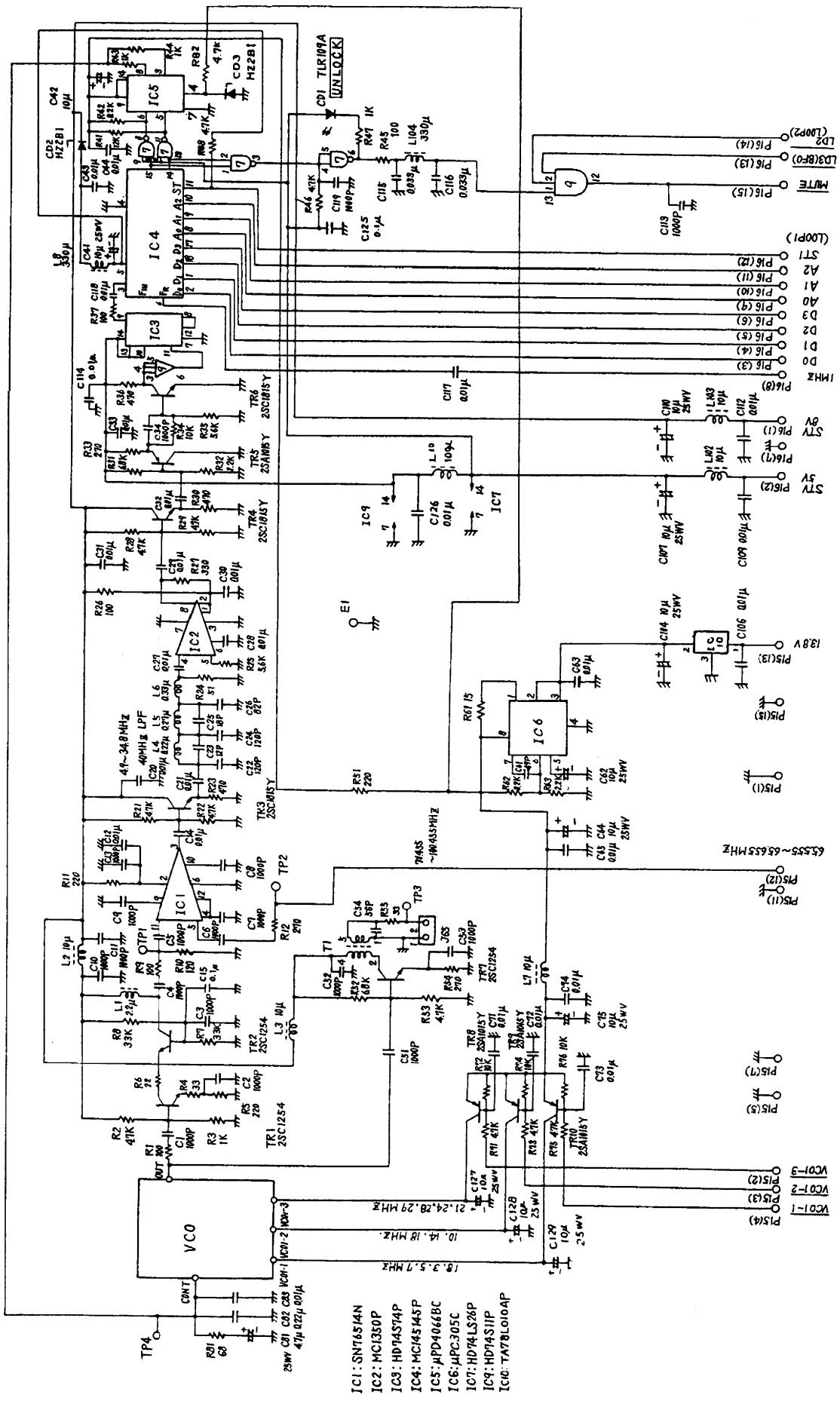


Figure 10.8 CGA-94 LOOP 1 Unit (1/2)

CONT

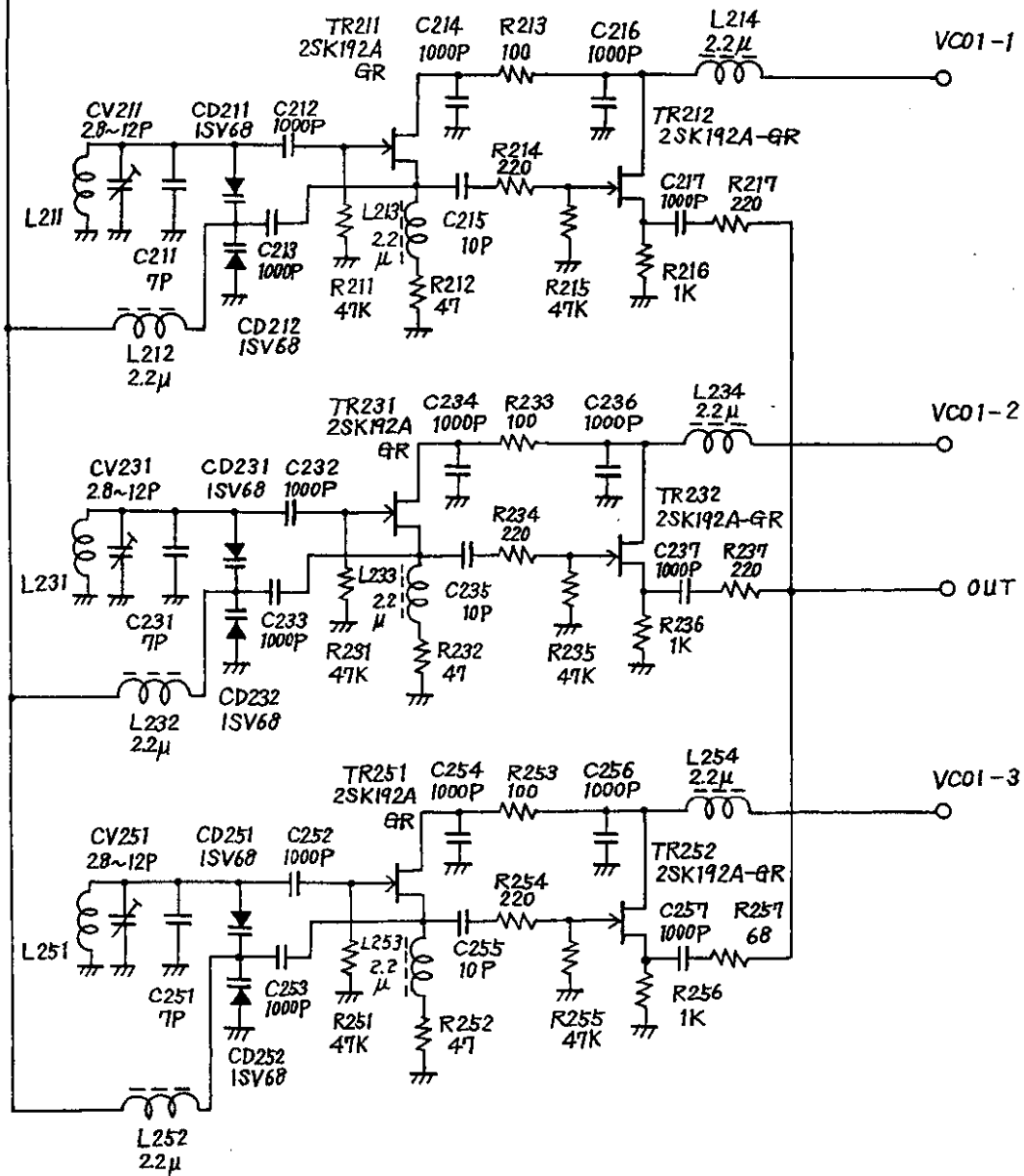


Figure 10.9 CGA-94 LOOP 1 Unit (2/2)

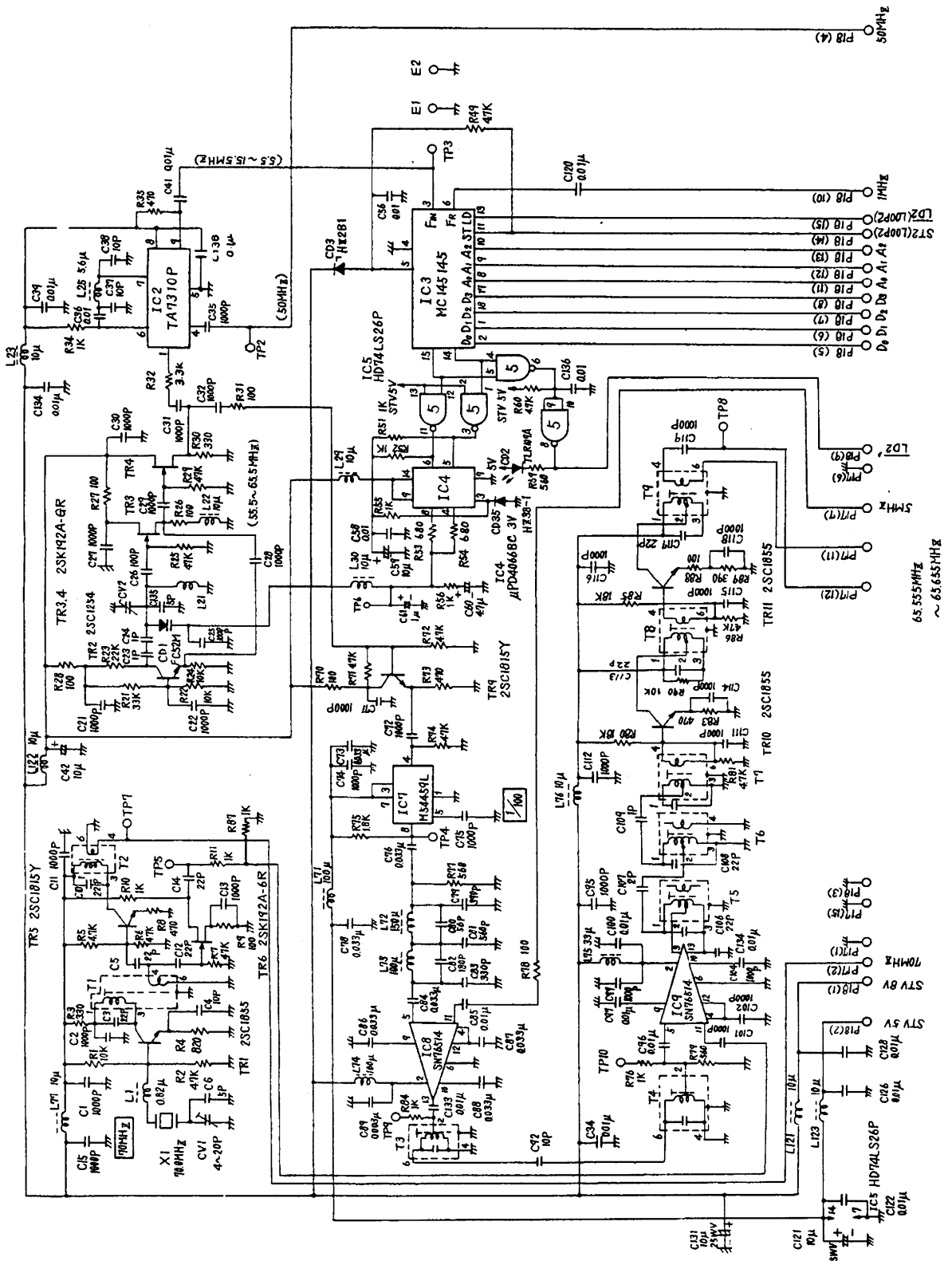


Figure 10.10 CGA-95A LOOP 2 Unit

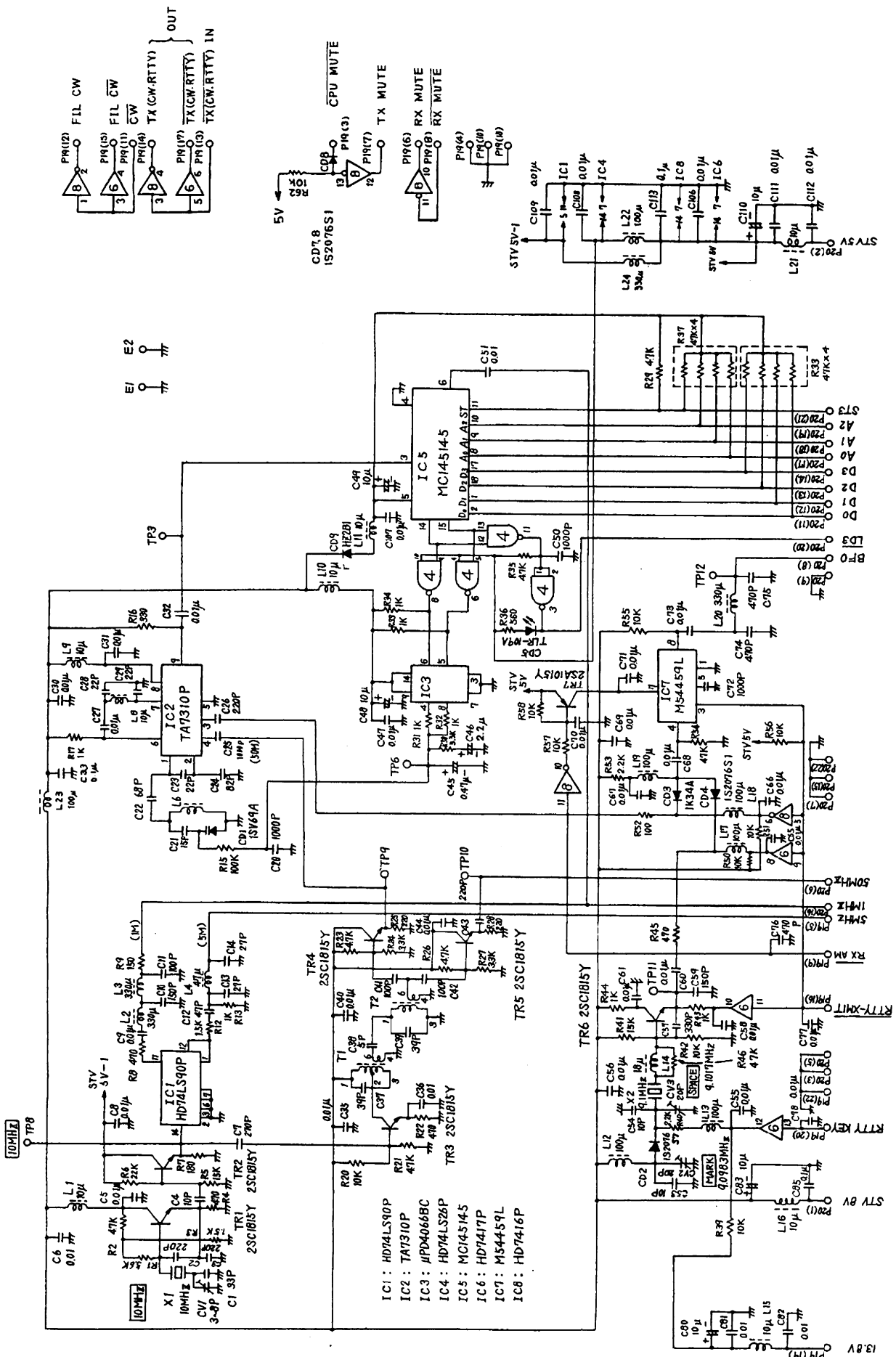


Figure 10.11 CGD-118A BFO Unit

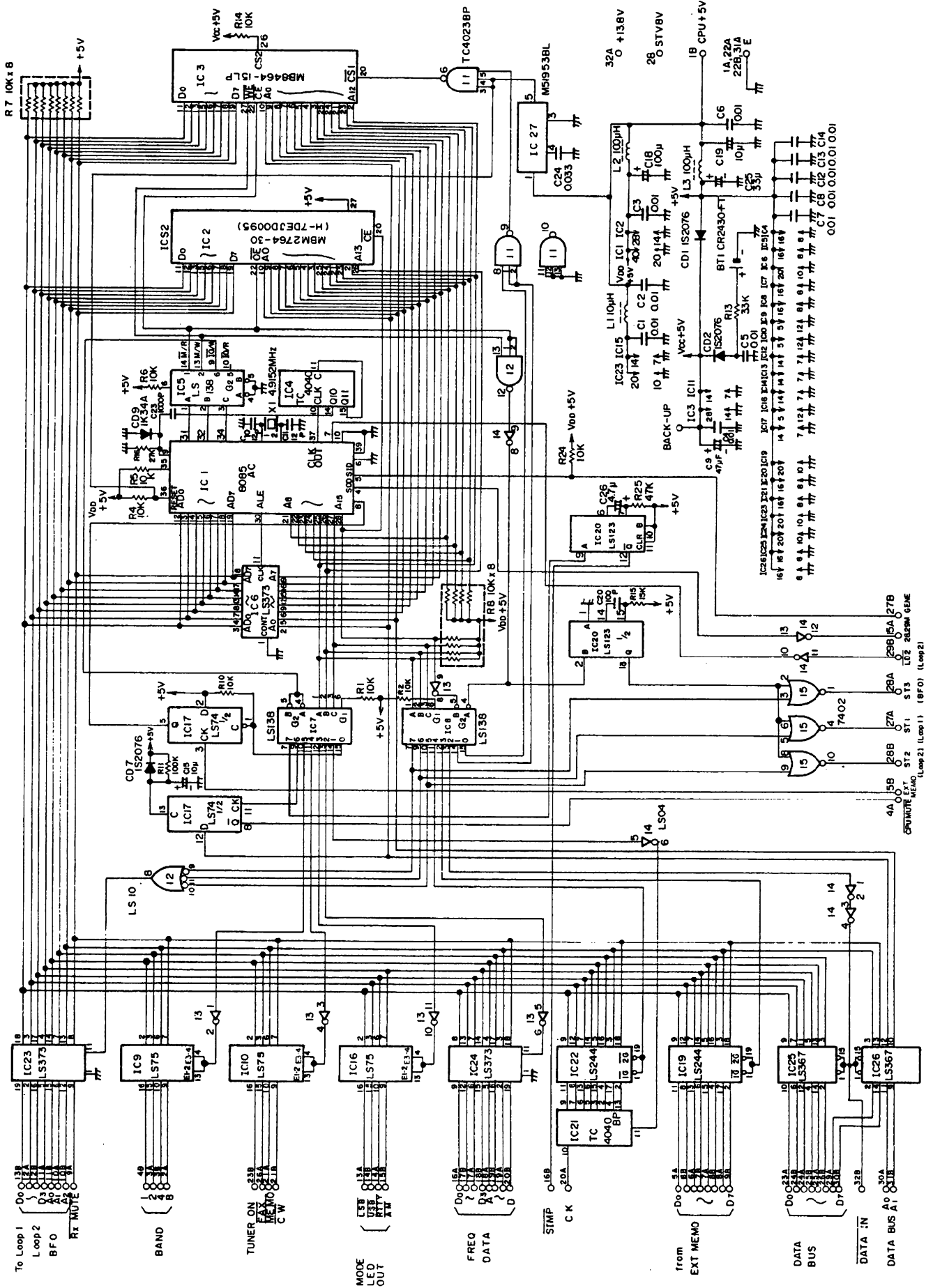


Figure 10.12 CDC-477 CPU Unit

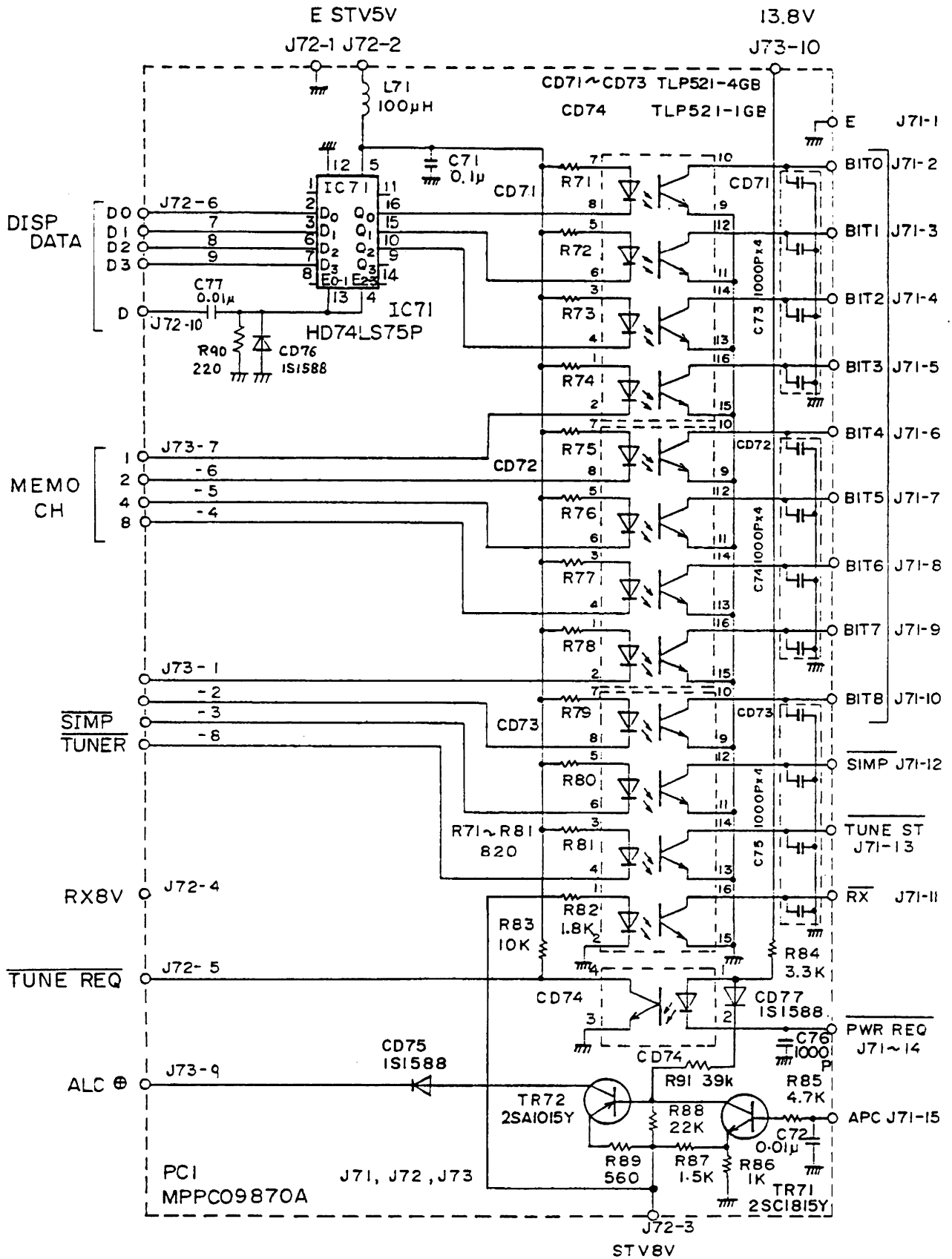


Figure 10.13 CMH-604 INTERFACE Unit



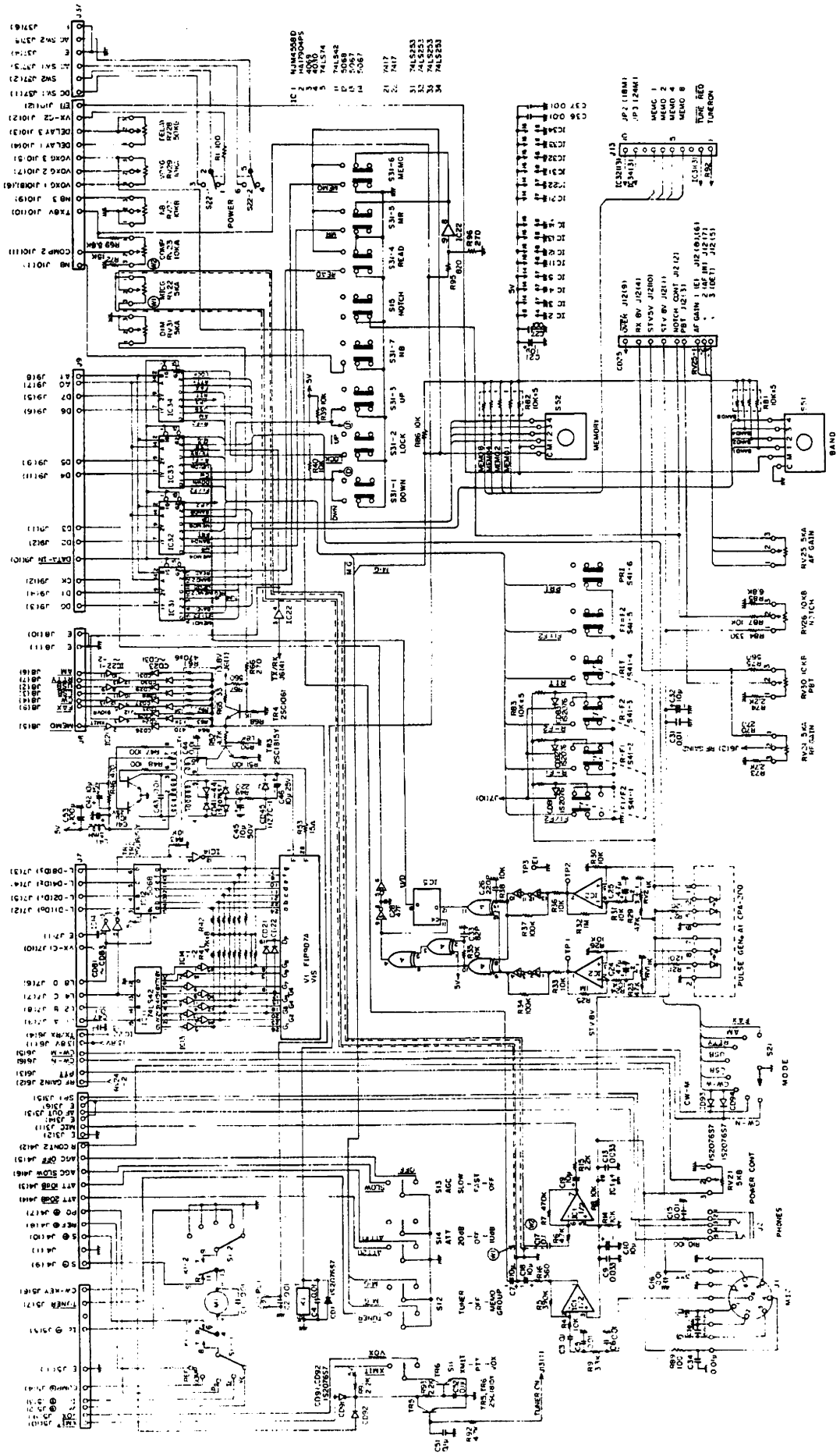


Figure 10.14 CFQ-2549 PANEL Unit

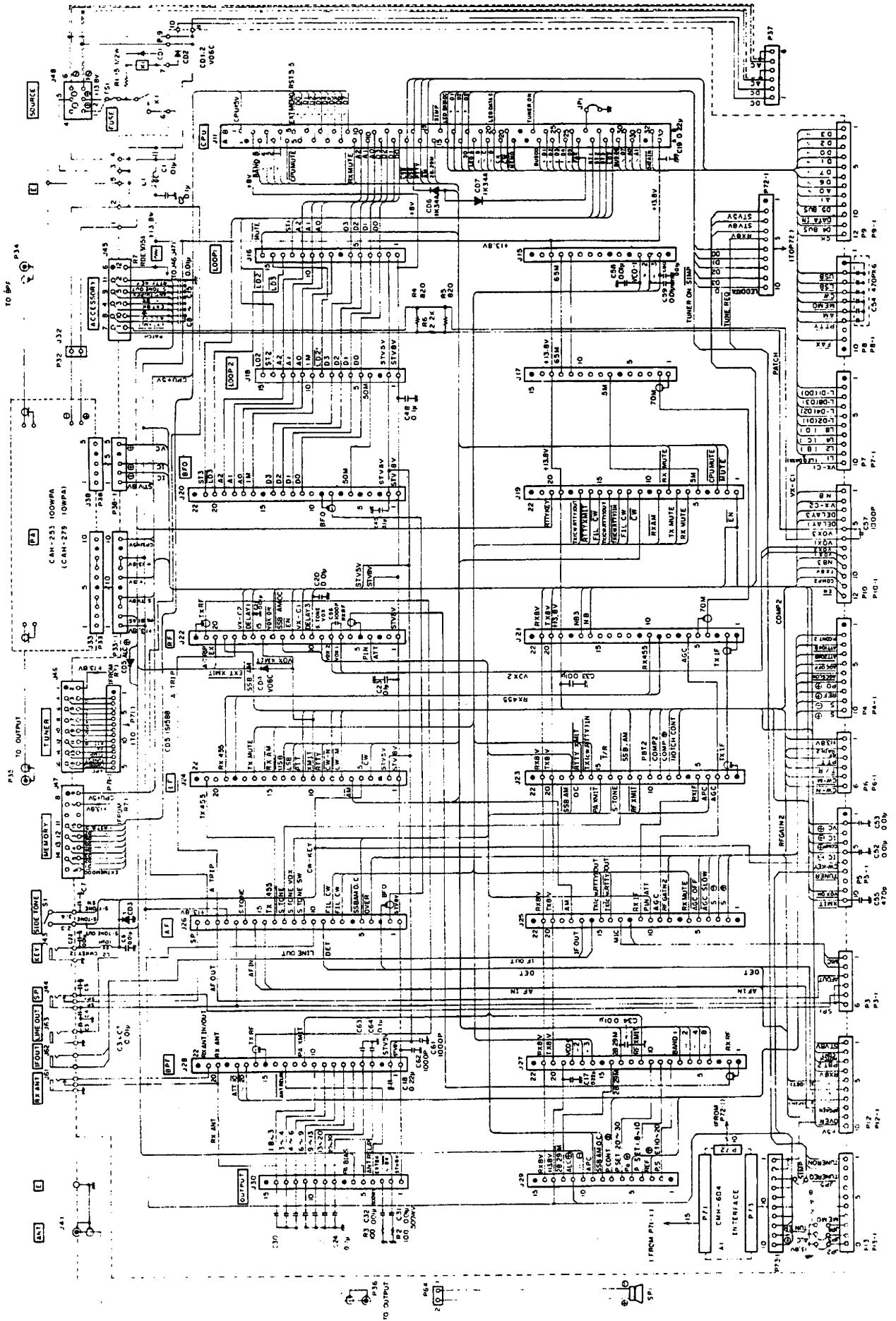


Figure 10.15 CWB-529 MOTHER BOARD Unit

*For further information contact:*

---



*Since 1915*

*Japan Radio Co., Ltd.*

**Main Office:** Akasaka Twin Tower (Main),  
17-22, Akasaka 2-chome,  
Minato-ku, Tokyo 107, JAPAN  
Telephone: Tokyo(03)584-8836,8826  
Telex: 2425420 JRCTOK J  
Cable: JAPANRADIO TOKYO

**Overseas Branches:** London, New York  
**Liaison Offices:** Rio de Janeiro, Jakarta, Kuala Lumpur,  
Rotterdam, Las Palmas, Paramaribo,  
Manila, Seattle

---