

# Service Manual

## Telephone Equipment

*Supplement*

Model No.

**KX-TS2388CAB/KX-TS2388CAW/  
KX-TS2388RUB/KX-TS2388RUW/  
KX-TS2388UAB/KX-TS2388UAW/  
KX-TS880B/KX-TS880W/  
KX-TS880LXB/KX-TS880LXW/  
KX-TS880MLW/KX-TS880MXB/  
KX-TS880MXW/KX-TS880NDB/  
KX-TS880NDW/KX-TS880SAW/  
KX-TS881MXB/KX-TS881MXW/  
KX-TS889MXW/KX-TS108W**

Integrated Telephone System

B: Black Version

W: White Version

Please use this manual with the original service manual mentioned on the next page.

### **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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# 1 ORIGINAL SERVICE MANUAL INFORMATION

Model No. on S/M	Destinations	Order No. of S/M	Suffix Code	
			Base Unit	Handset
KX-TS2388RUB/KX-TS2388RUW/KX-TS2388CAB/KX-TS2388CAW/ KX-TS2388UAB/KX-TS2388UAW	Russia, Central Asia and Ukraine	KM41010283CE	E to F	---
KX-TS880B/KX-TS880W	U.S.A.	KM41010285CE	E to F	---
KX-TS880LXB/KX-TS880LXW	Latin America	KM41010284CE	E to F	---
KX-TS880MLW	Malaysia	KM41110510CE	B to C	---
KX-TS880MXB/KX-TS880MXW	Middle East and Asia	KM41010286CE	E to F	---
KX-TS880NDB/KX-TS880NDW	Singapore and Indonesia	KM41011291CE	E to F	---
KX-TS880SAW	South Africa	KM41012301CE	E to F	---
KX-TS881MXB/KX-TS881MXW	Hong Kong, Thailand and Viet- nam	KM41011288CE	F to G	---
KX-TS889MXW	UAE	KM41105383CE	B to C	---
KX-TS108W	U.S.A.	KM40112751C1	G to H	---

## 2 REPLACEMENT PARTS LIST

### 2.1. REFERENCE CHART

Reason for Change	
*The following items (1-8) indicate the reason for change. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .	
1. Improve performance	<b>Note:</b> [For KX-TS2388 series, KX-TS880 series, KX-TS881MX series, KX-TS889MX] To be replaced with a new part and change PCB board. (PNLB1814Y* → PNLB1814V*) Parts with *1 marking have been changed at the same time.  <b>Remarks:</b> *a: To enhance the quality
2. Change of material or dimension	
3. To meet approved specification	
4. Standardization	
5. Addition	
6. Deletion	
7. Correction	
8. Other	

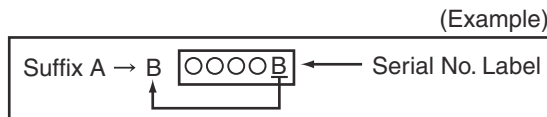
Interchangeability Code		
**The following items (V-Z) indicate the Interchangeability. See the "Notes" column for each part in <b>ORIGINAL AND NEW PARTS COMPARISON LISTS</b> .		
V	Original  Early (before change) New  Late (after change)	Original or new parts may be used in early or late production sets. Use original parts until exhausted, then stock new parts.
W	Original  Early (before change) New  Late (after change)	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.
X	Original  Early (before change) New  Late (after change)	New parts only may be used in early or late production sets. Stock new parts.
Y	Original  Early (before change) New  Late (after change)	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
Z	Other	

**Note:**

Alphabets in the "Remarks" column in the following lists correspond to the alphabets in the "Remarks" in REFERENCE CHART.

### 2.2. ORIGINAL AND NEW PARTS COMPARISON LISTS

Serial No. Label tells you the suffix code as follows.



For KX-TS2388 series, KX-TS880 series, KX-TS881MX series, KX-TS889MX (FOR P.C.BOARD PART No. PNLB1814VA)

Ref. No.	Part No.		Part Name & Description	Pcs/ Set	Remarks	Notes	Time of Change (Suffix)
	Original (Old)	New					
<b>Main P.C. Board Parts (Base Unit)</b>							
D102	MA4180	-----	DIODE(SI)	*1	1	*a	6 Y *2
D112	-----	DY2J25000L	DIODE(SI)	*1	1	*a	5 Y *2

**Note:**

\*2: Please refer to "1 ORIGINAL SERVICE MANUAL INFORMATION".

PNLB1814VA PCB has a new diode (chip mount type) at D112 location to replaced an axial diode which previously at D102 location. Old PCB with date code before 2014.07.07, does not have land for D112.

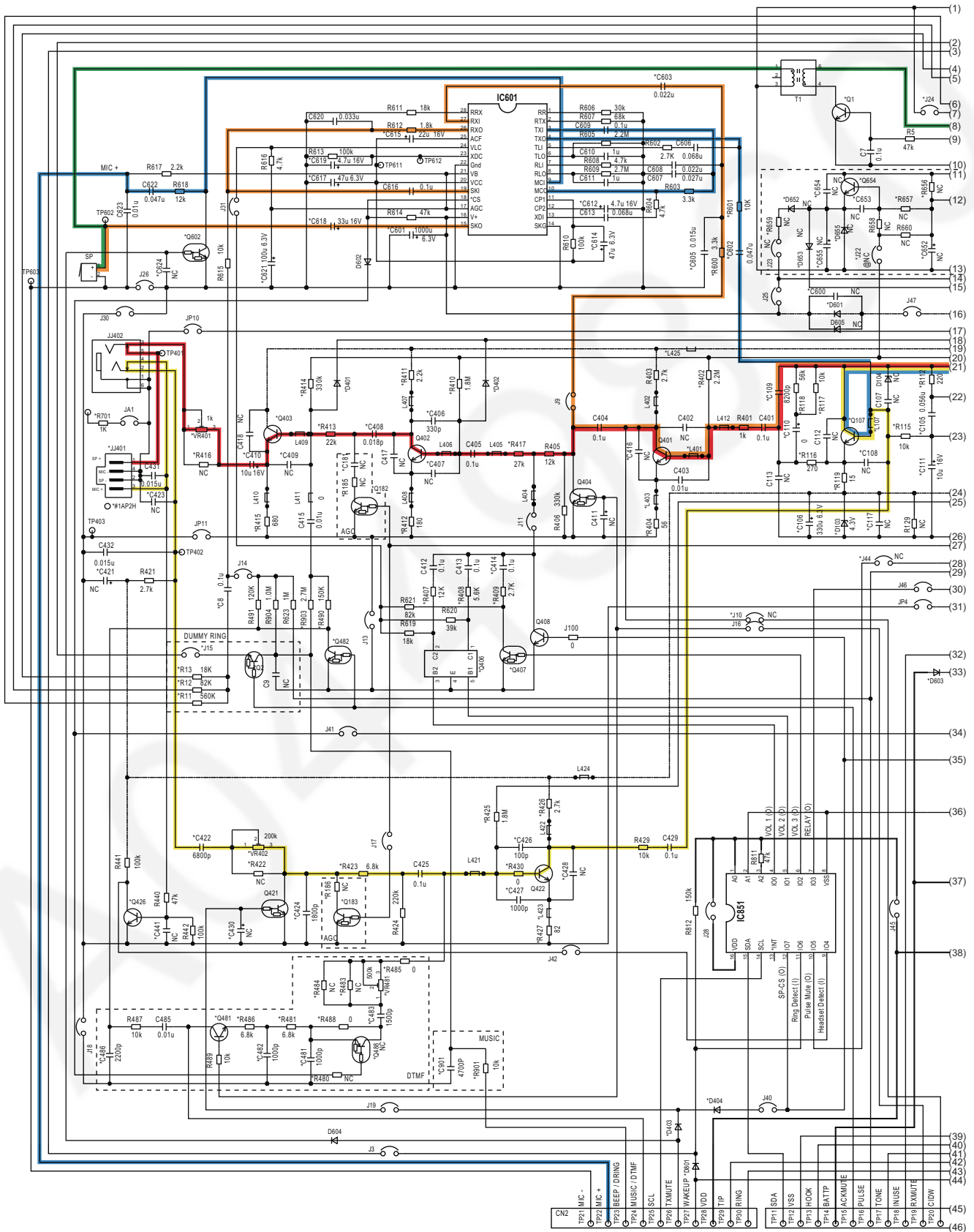
Please refer to **3.1 SCHEMATIC DIAGRAM (FOR P.C.BOARD PART No. PNLB1814VA)** (P.4) and **3.2 CIRCUIT BOARD (FOR P.C.BOARD PART No. PNLB1814VA)** (P.24) for detail.

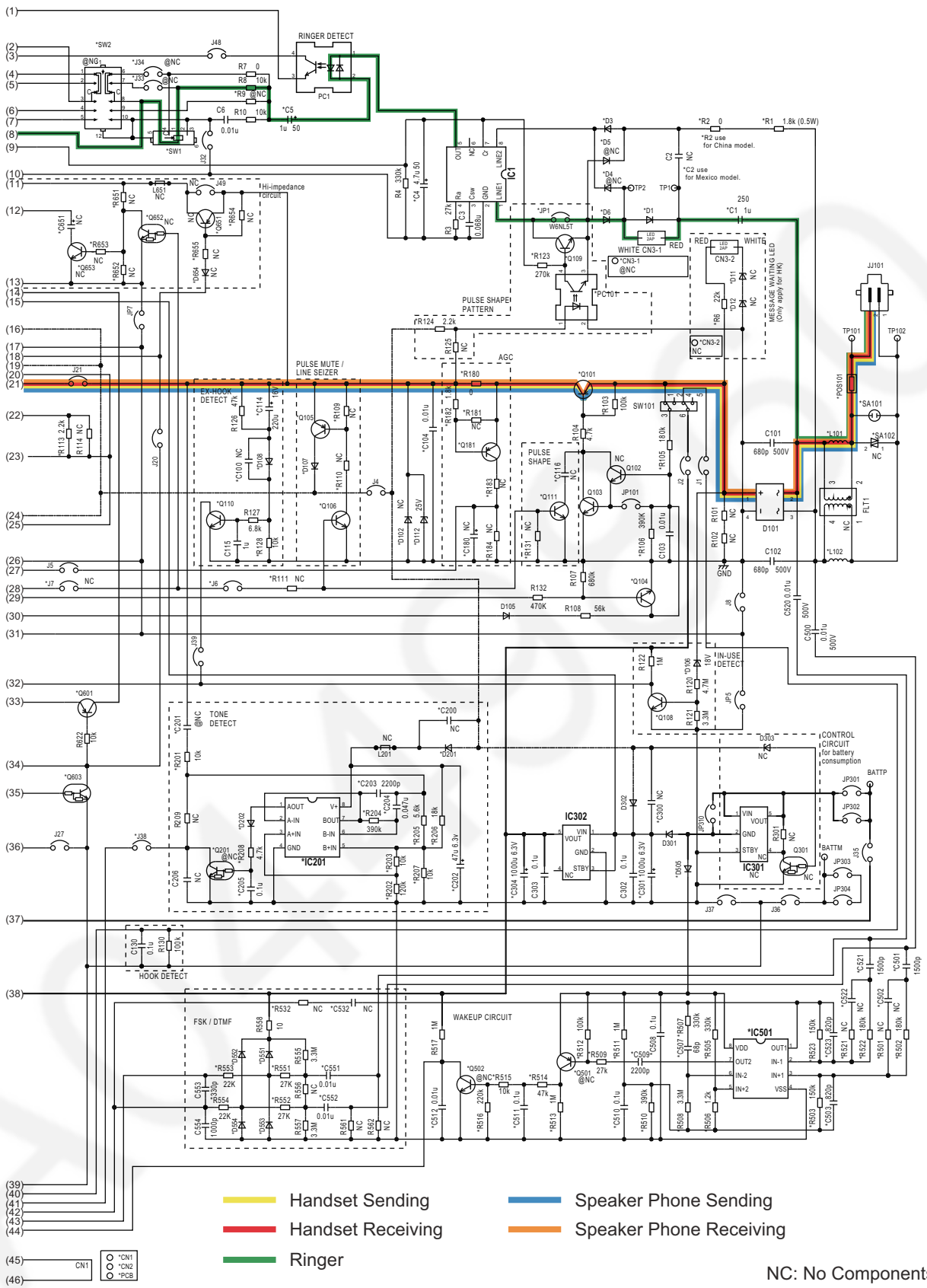
# 3 CHANGES

## 3.1. SCHEMATIC DIAGRAM (FOR P.C.BOARD PART No. PNLB1814VA)

### 3.1.1. KX-TS2388CA/KX-TS2388RU/KX-TS2388UA

[Changed from original section "11.2. Schematic Diagram (Main)"]

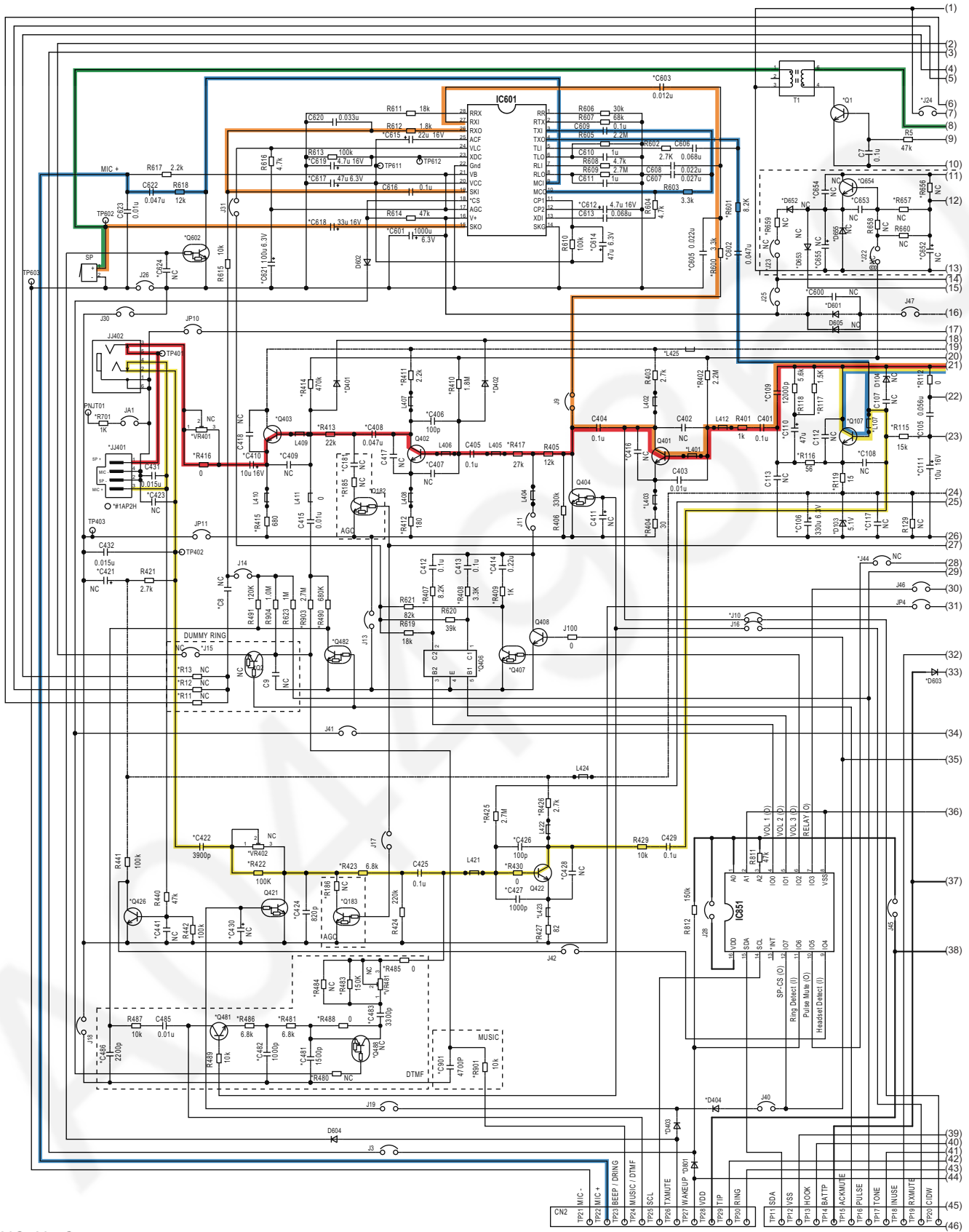


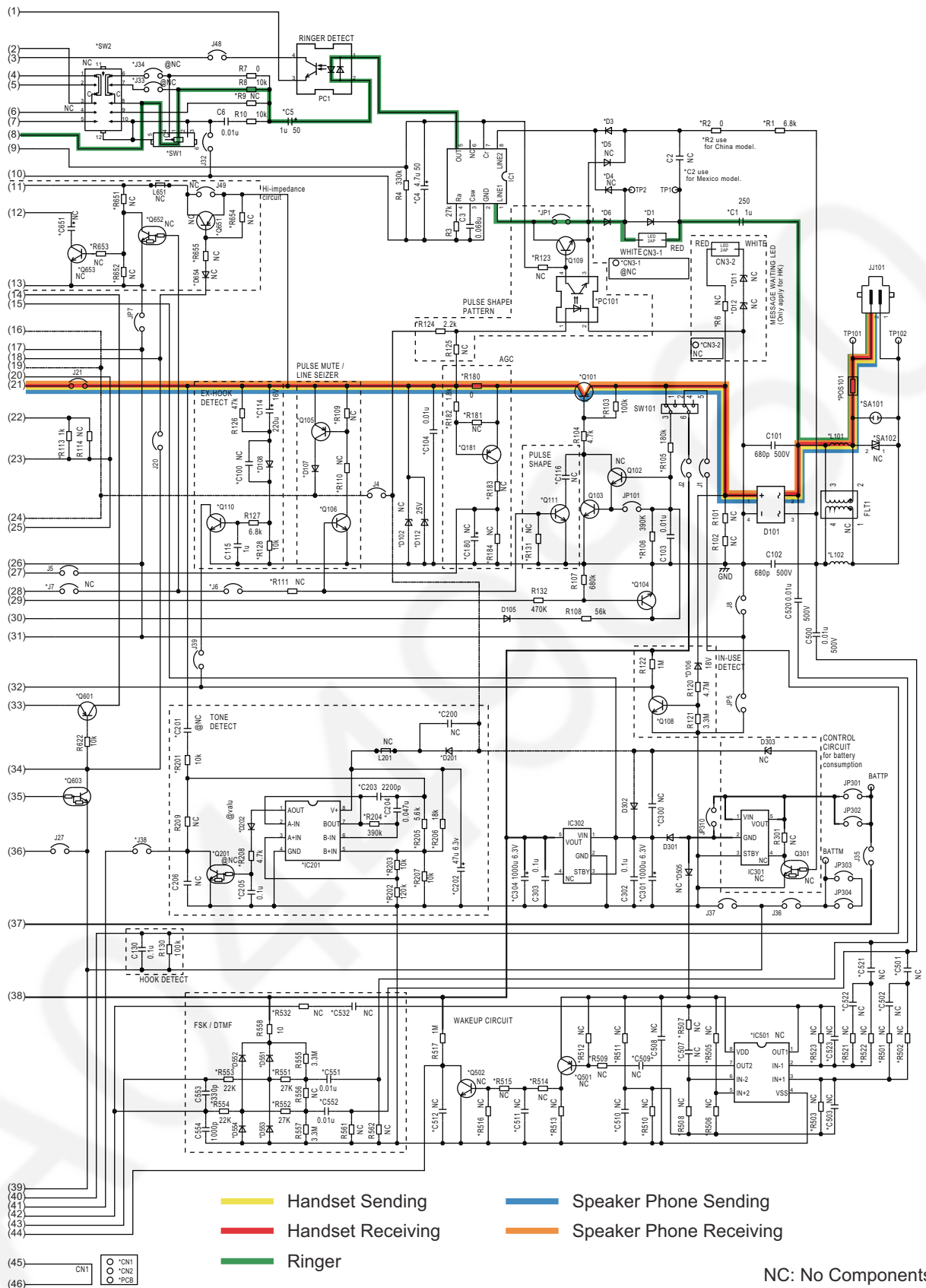


KX-TS2388 SCHEMATIC DIAGRAM (Main)

### 3.1.2. KX-TS880

[Changed from original section "7.2. Schematic Diagram (Main)"]





- Handset Sending
- Handset Receiving
- Ringer
- Speaker Phone Sending
- Speaker Phone Receiving

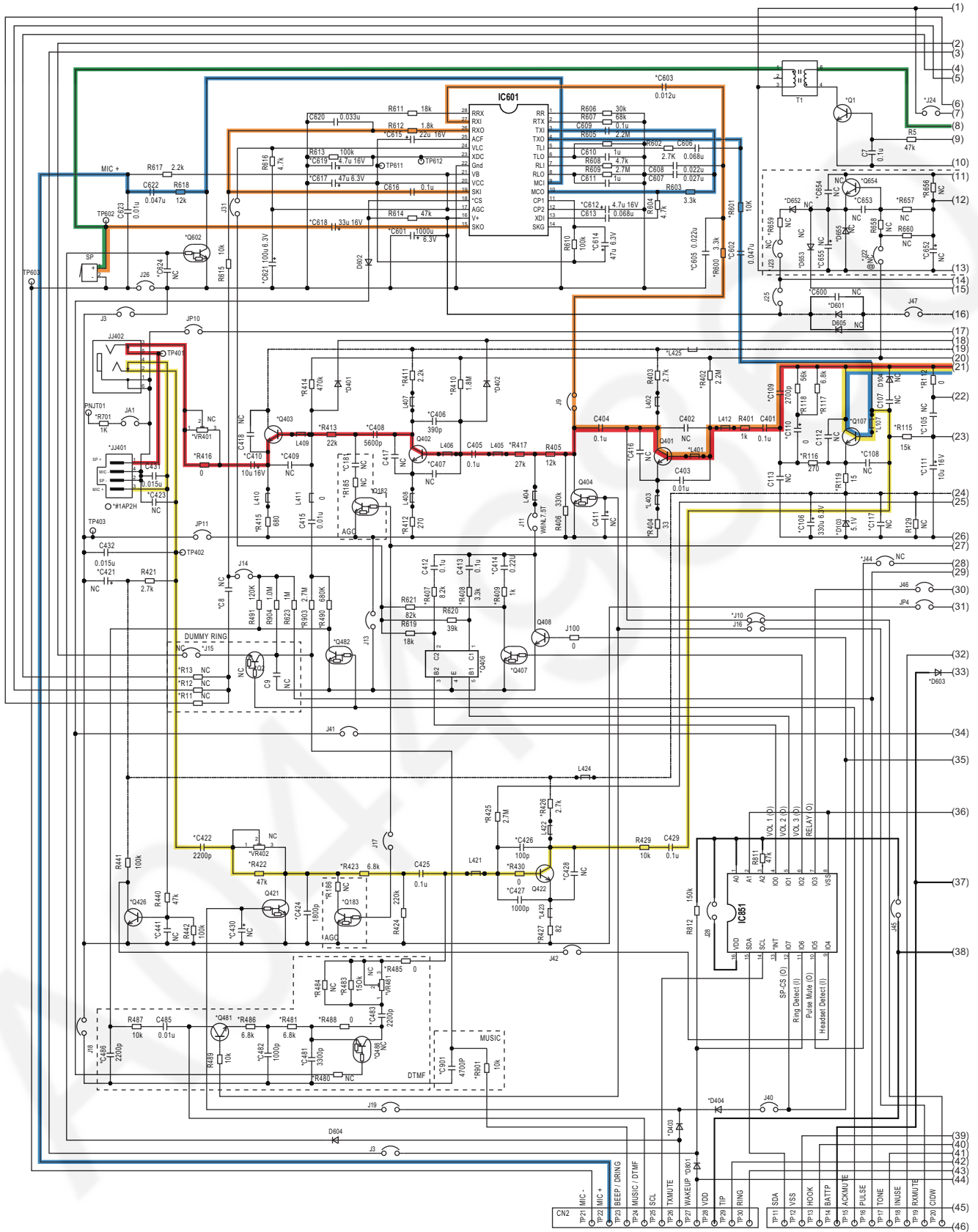
(45) ○ \*CN1  
 (46) ○ \*CN2  
 ○ \*PCB

NC: No Components  
 KX-TS880 SCHEMATIC DIAGRAM (Main)



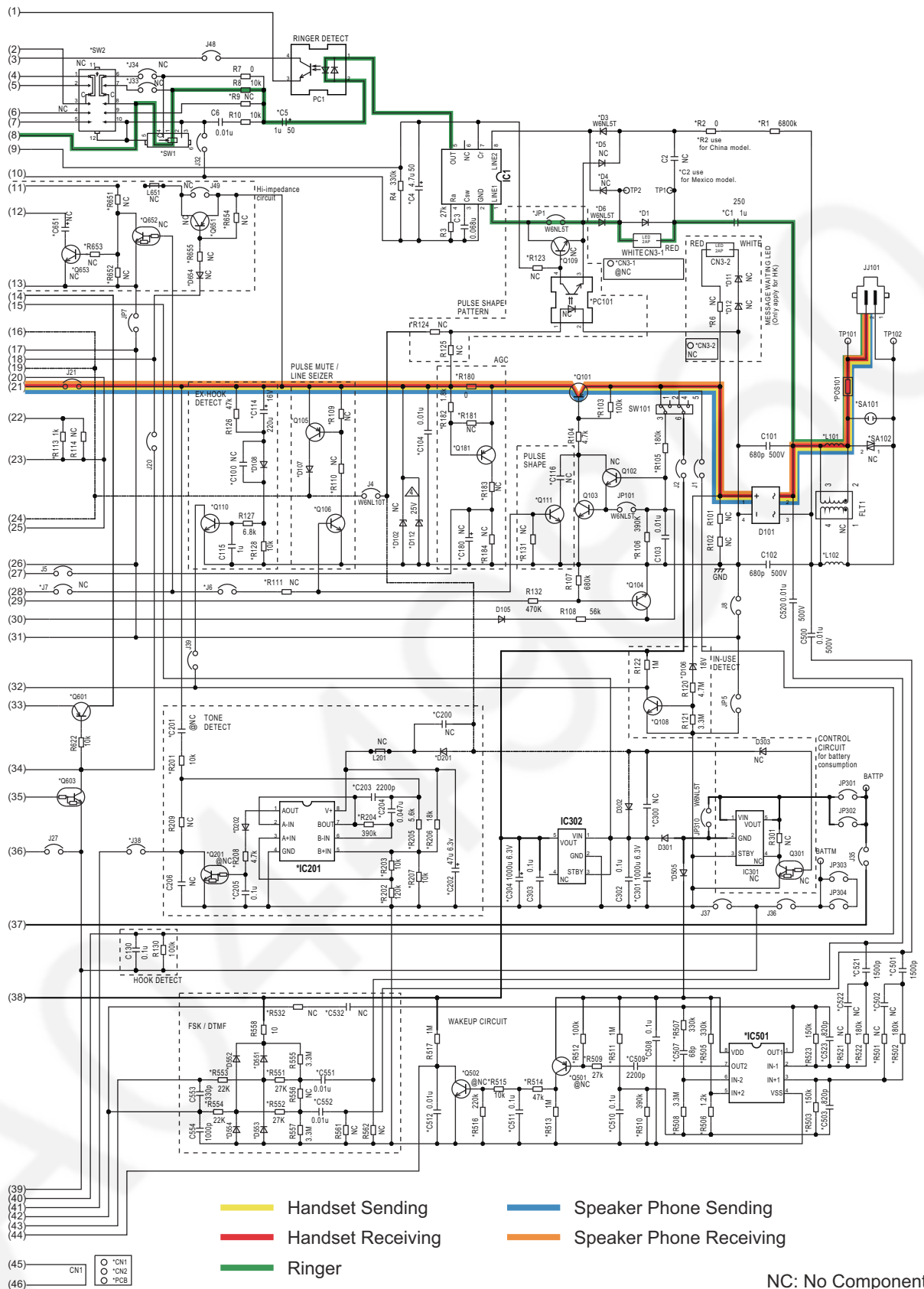
### 3.1.3. KX-TS880LX

[Changed from original section "11.2. Schematic Diagram (Main)"]



NC: No Components

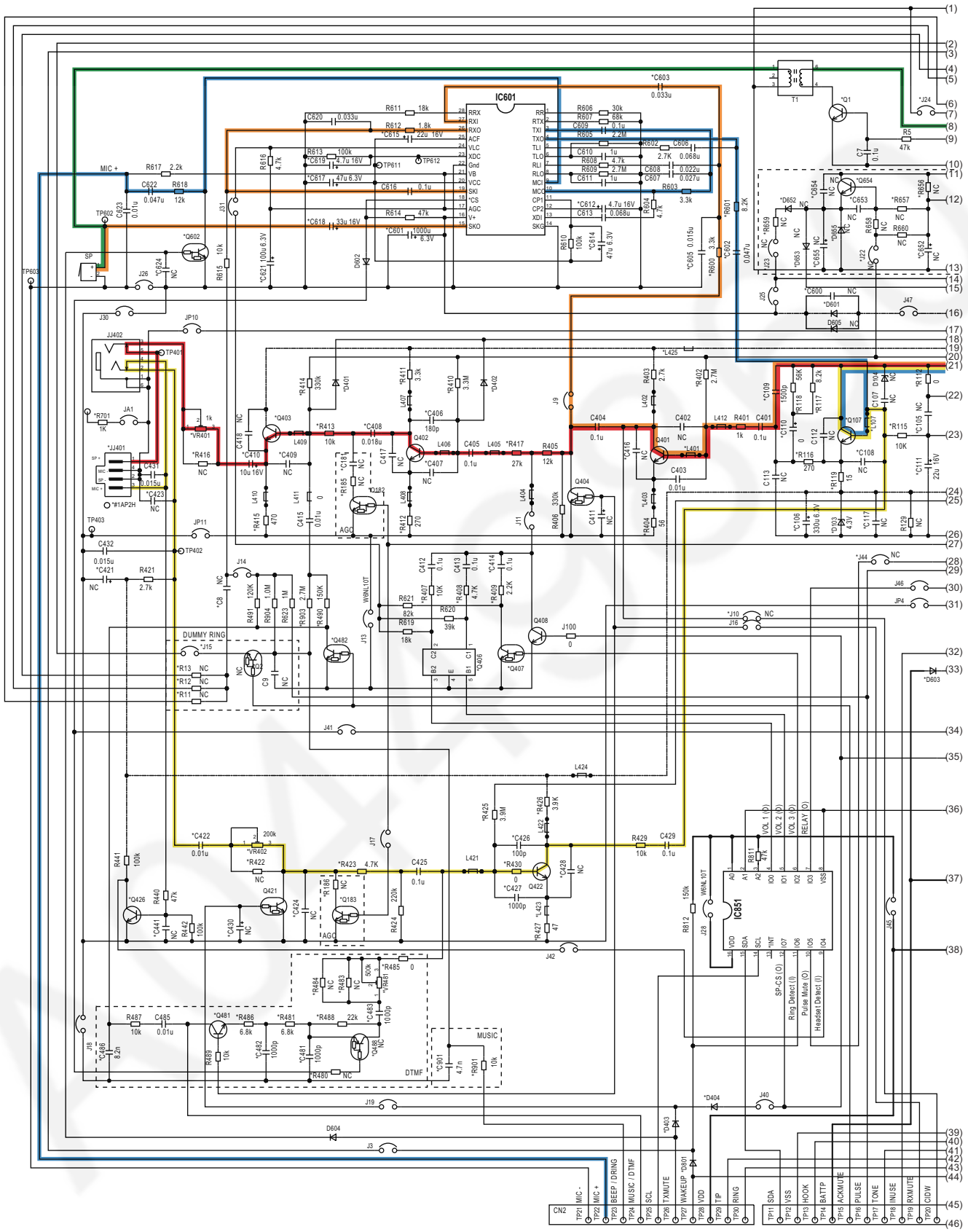




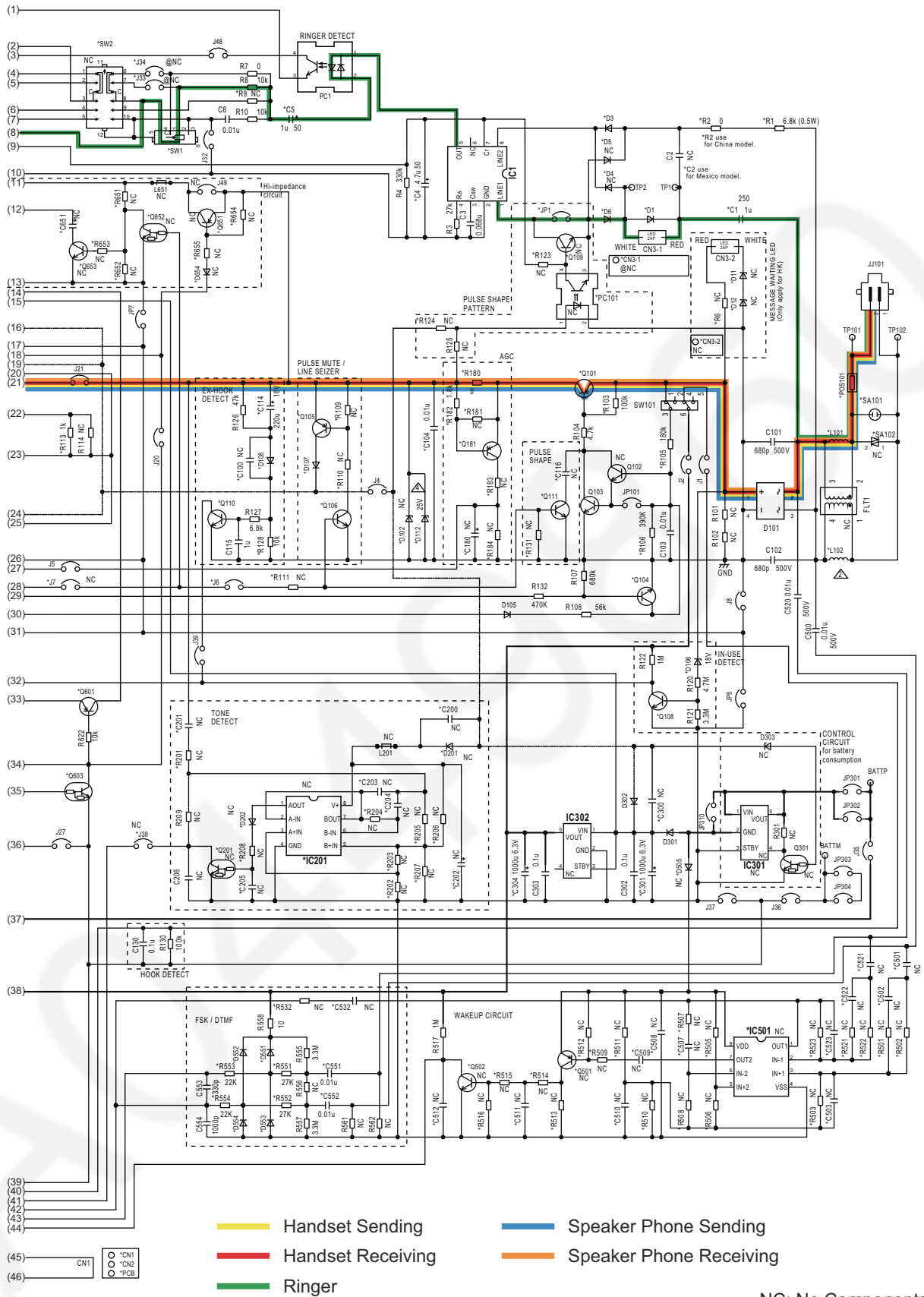
NC: No Components  
KX-TS880 SCHEMATIC DIAGRAM (Main)

### 3.1.4. KX-TS880ML

[Changed from original section "11.2. Schematic Diagram (Main)"]



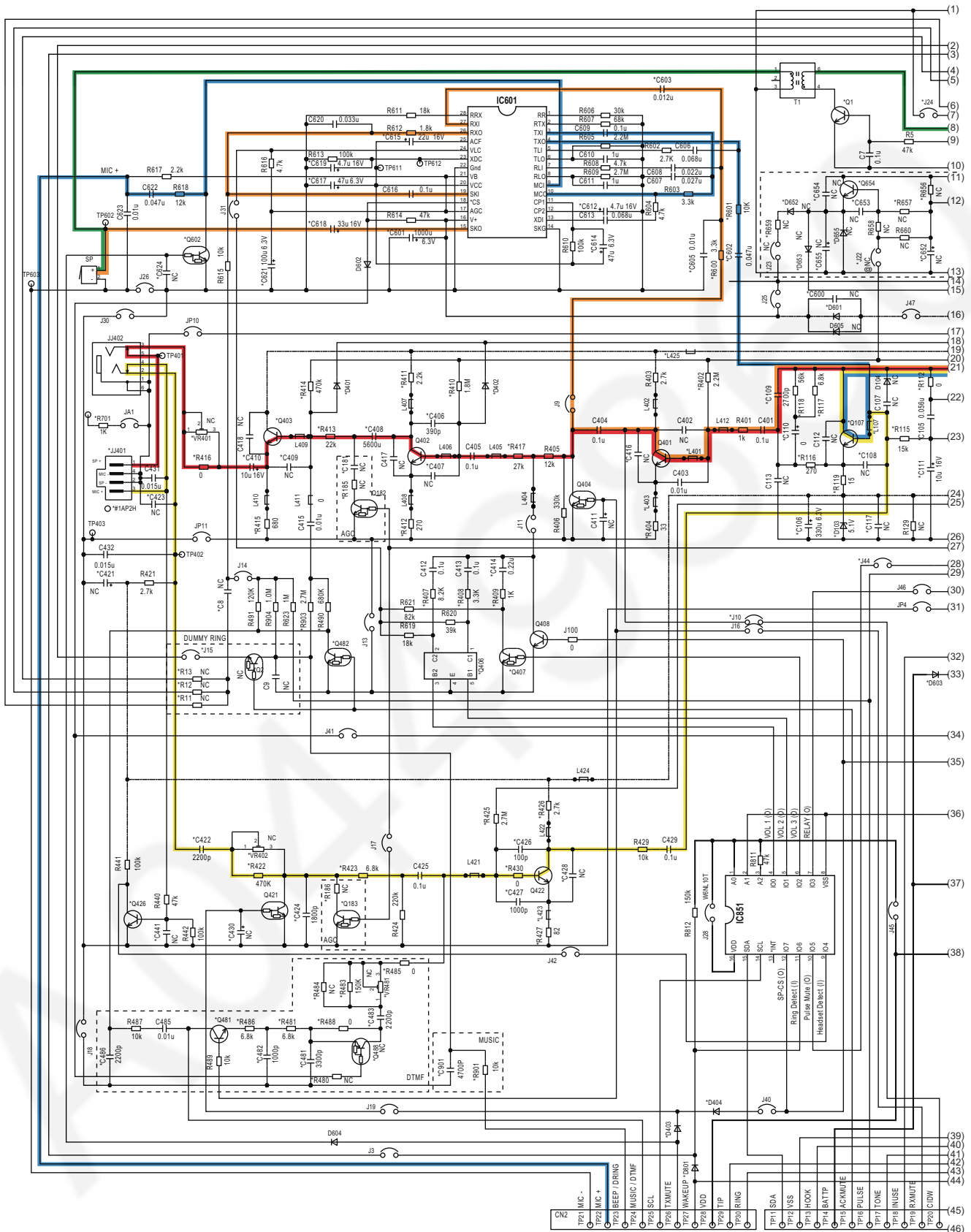
NC: No Components



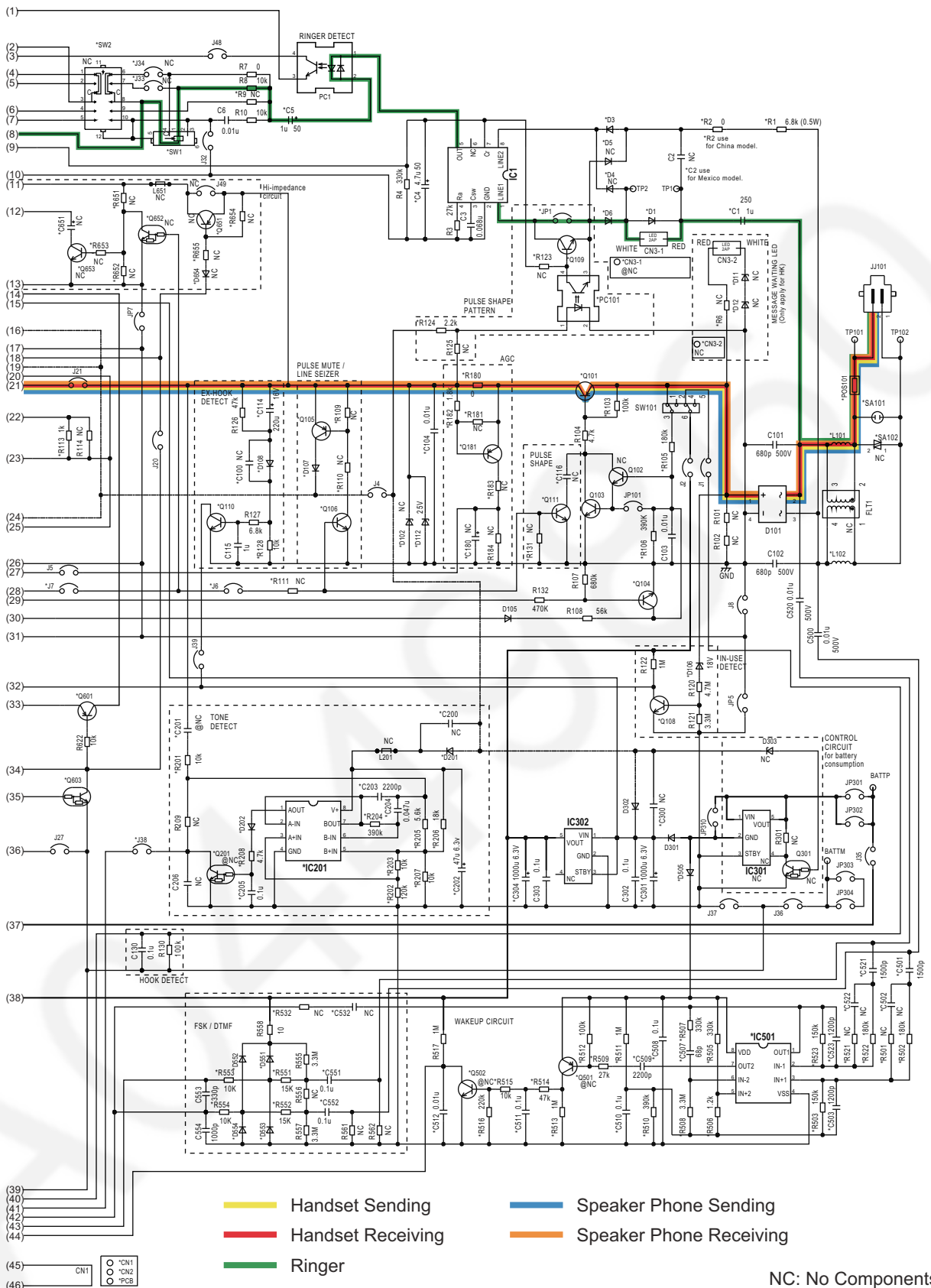
NC: No Components  
 KX-TS880 SCHEMATIC DIAGRAM (Main)

### 3.1.5. KX-TS880MX

[Changed from original section "11.2. Schematic Diagram (Main)"]

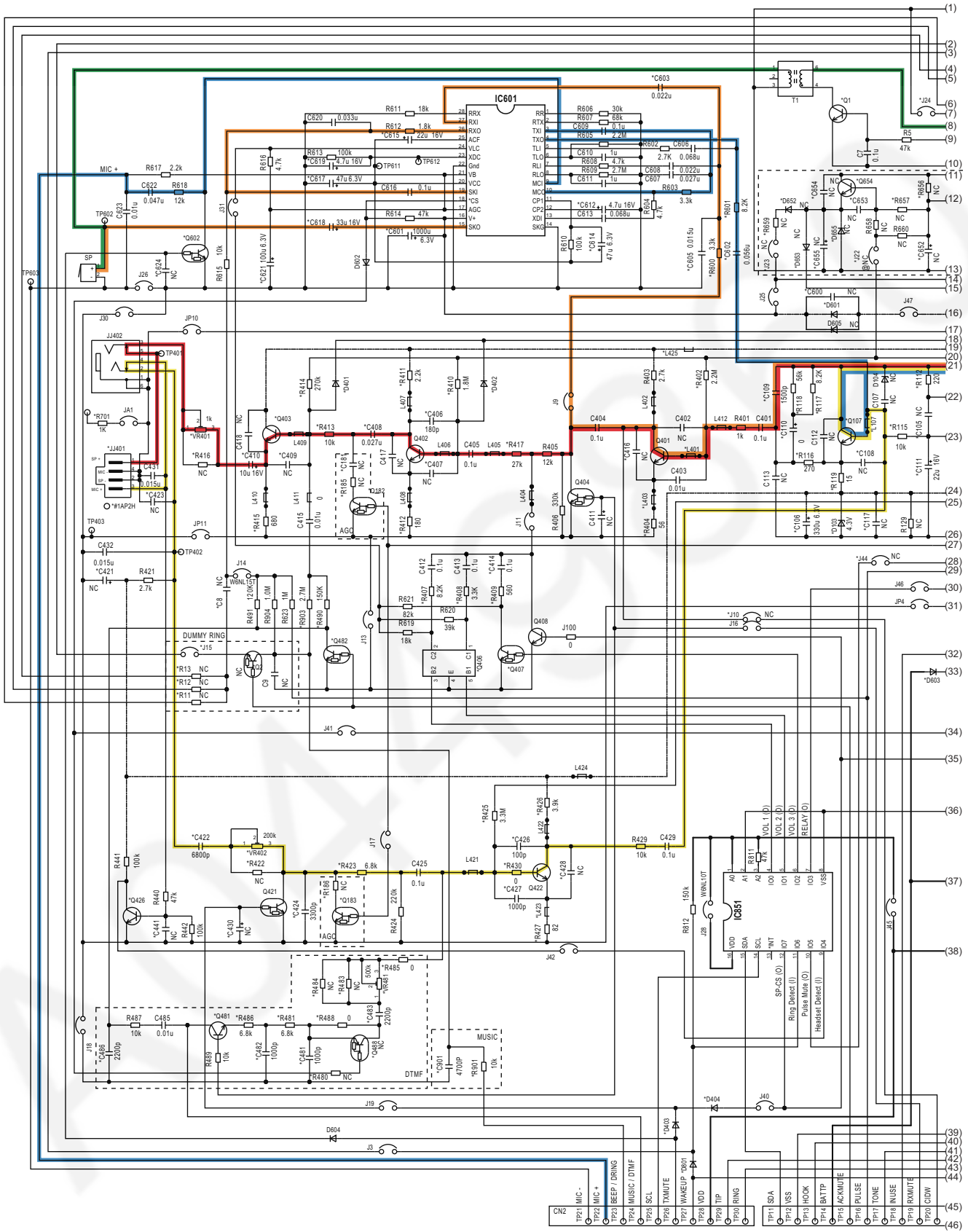


NC: No Components

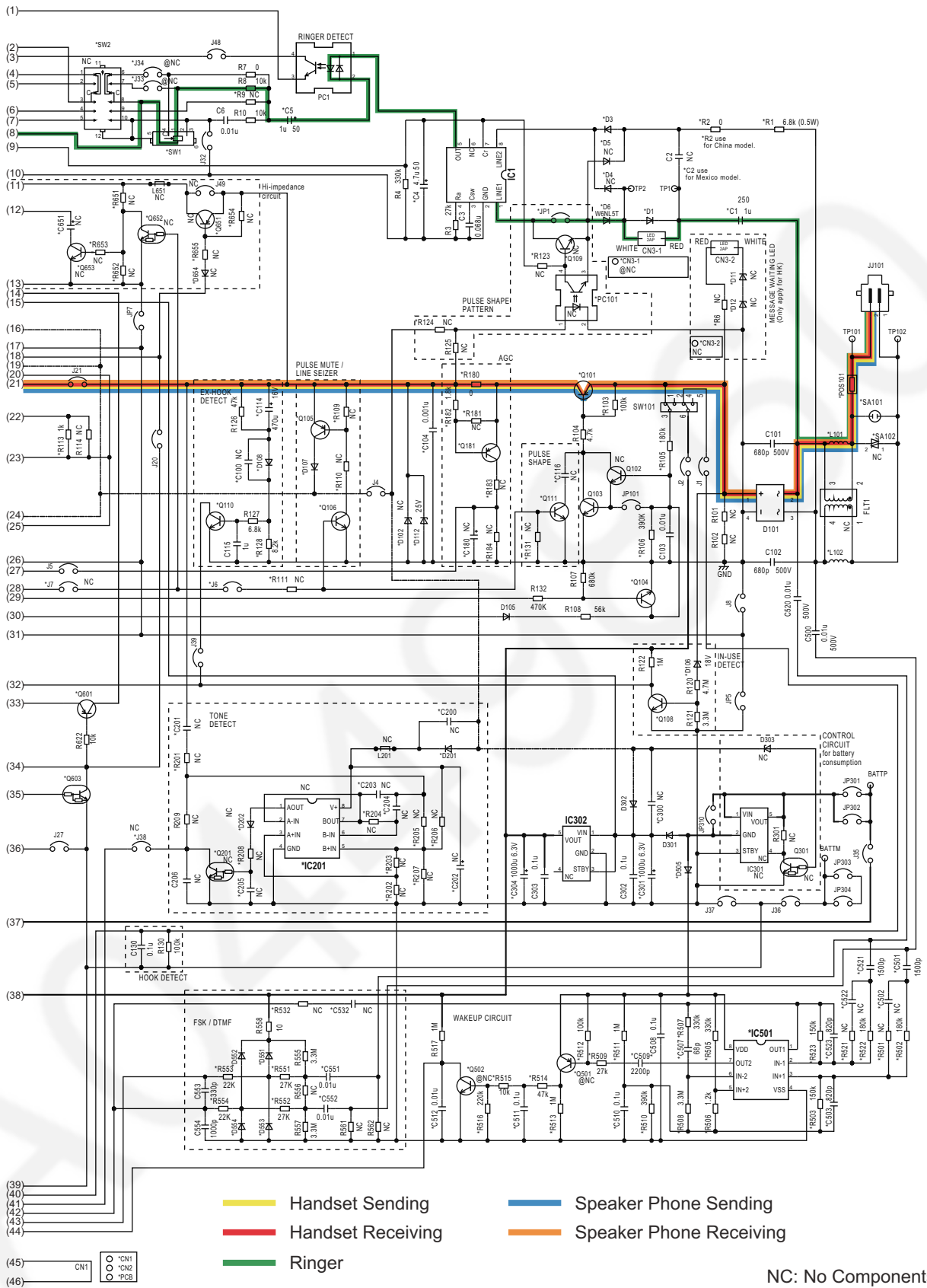


### 3.1.6. KX-TS880ND

[Changed from original section "11.2. Schematic Diagram (Main)"]



NC: No Components

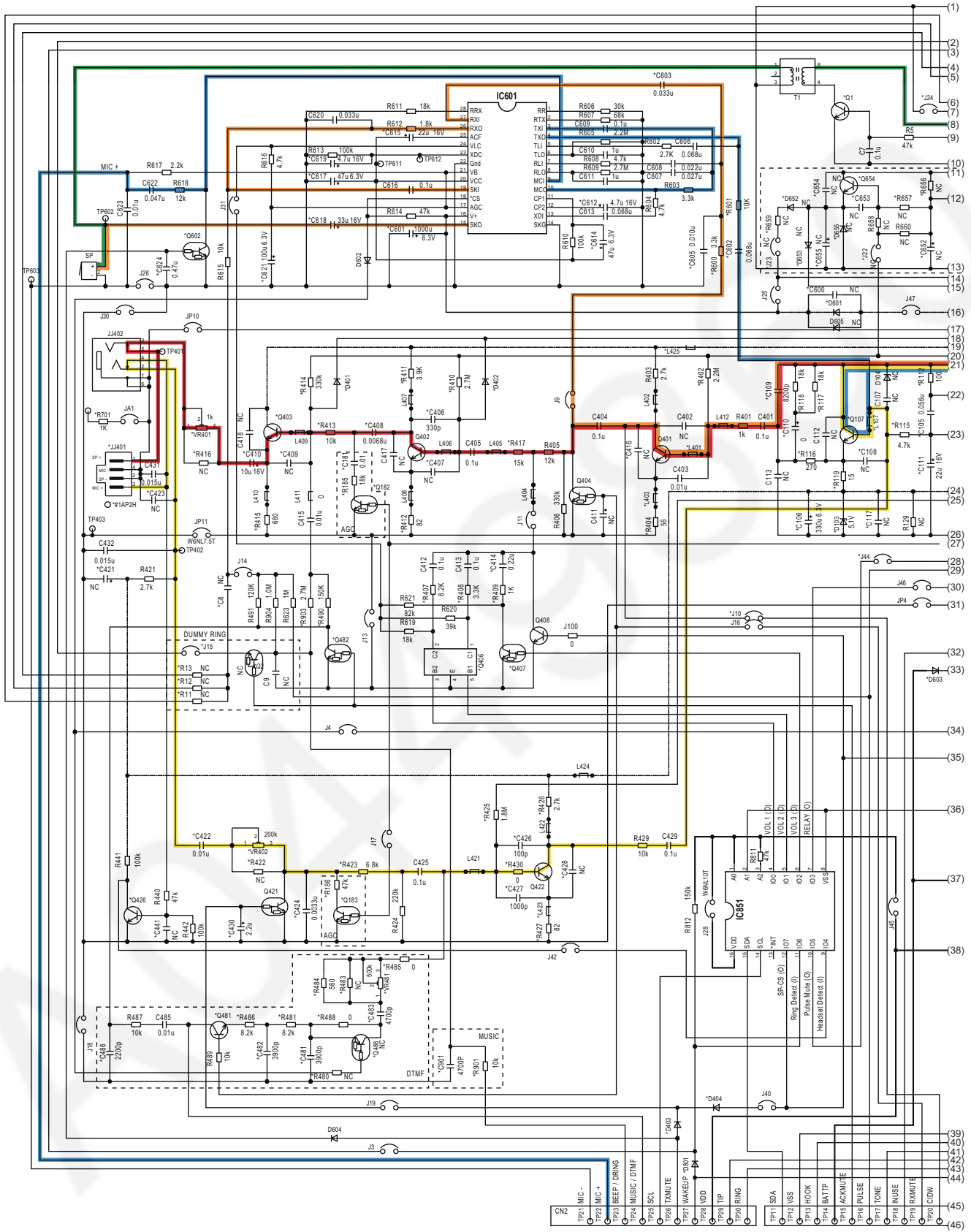


KX-TS880 SCHEMATIC DIAGRAM (Main)

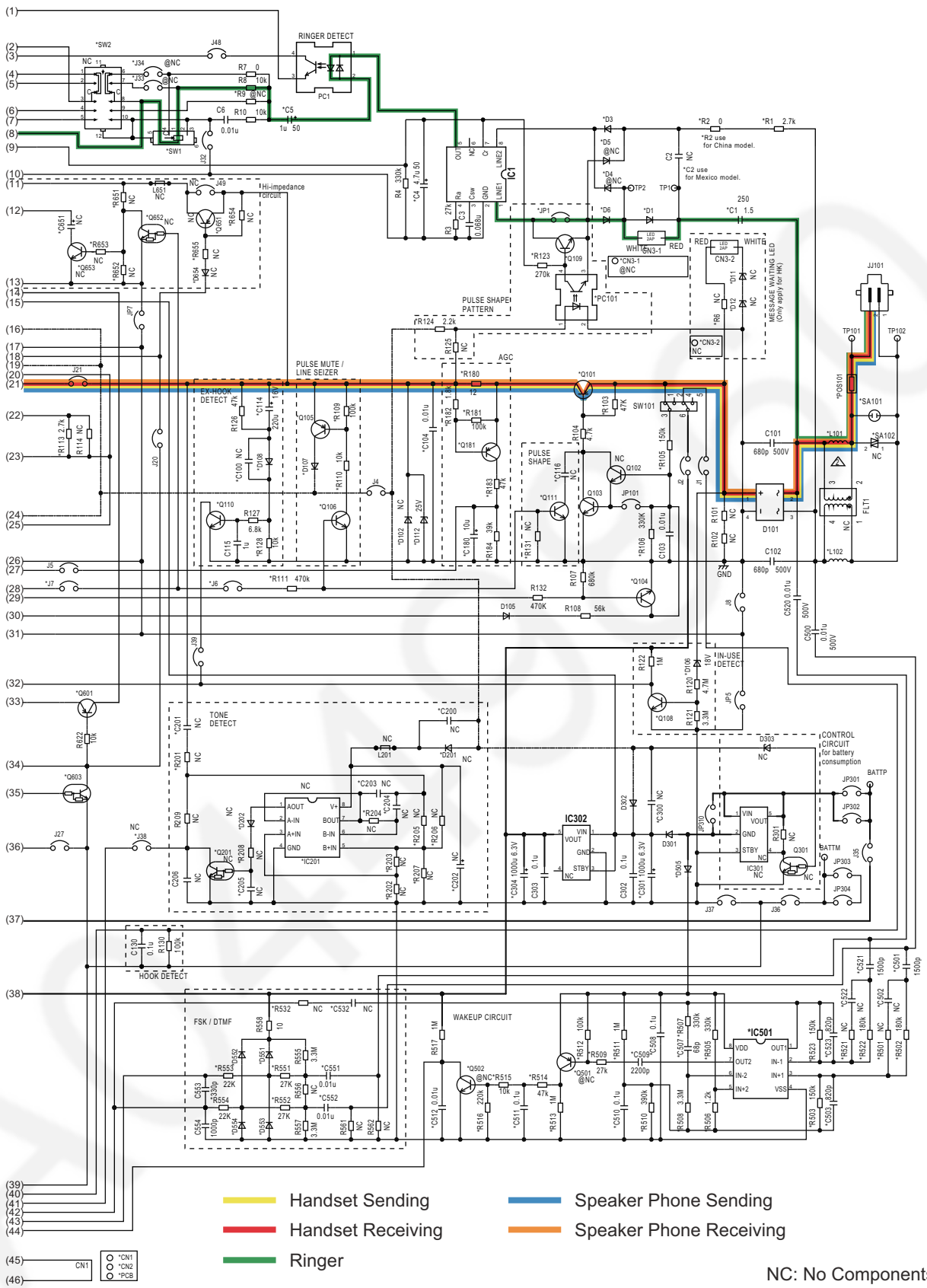


### 3.1.7. KX-TS880SA

[Changed from original section "11.2. Schematic Diagram (Main)"]



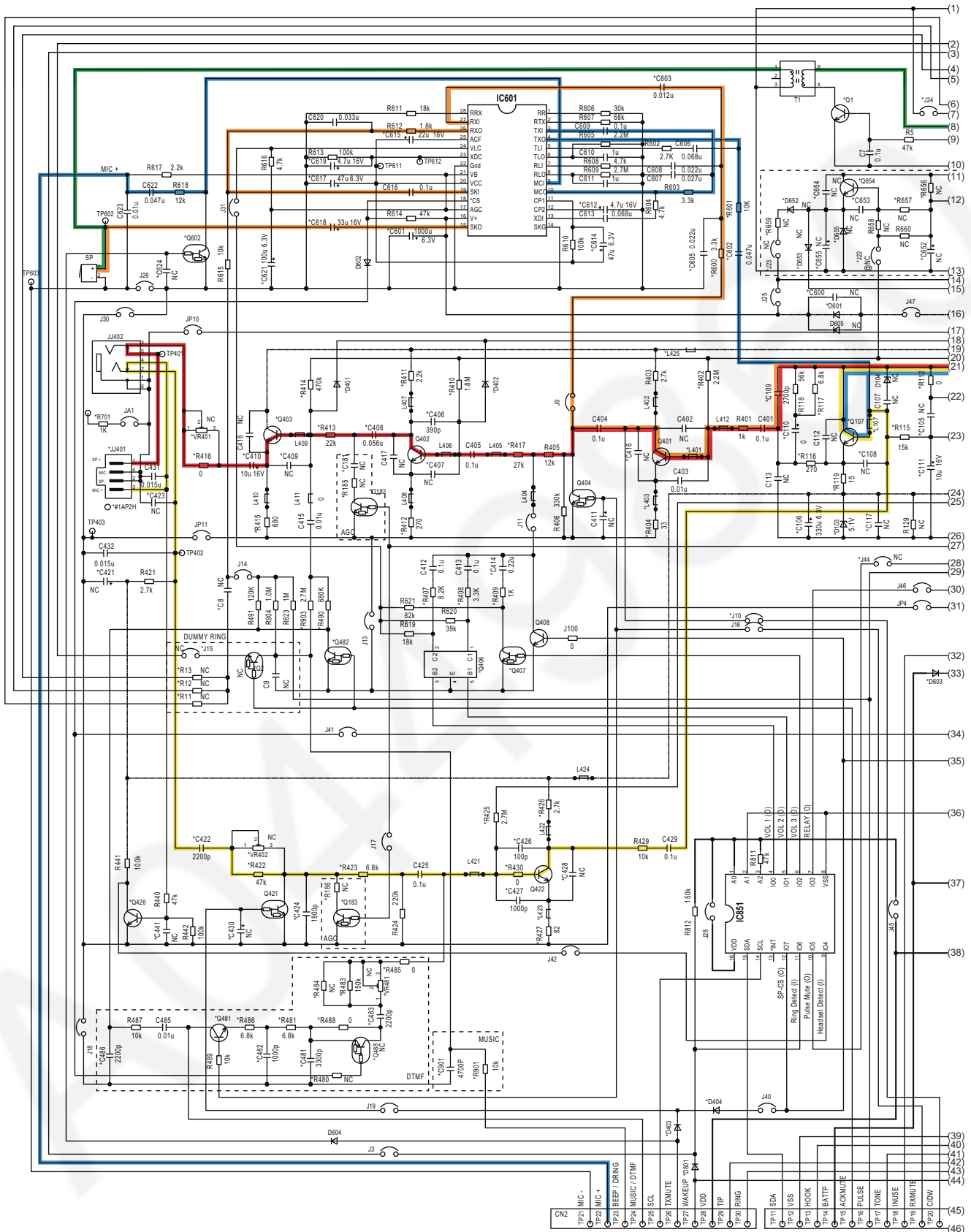
NC: No Components



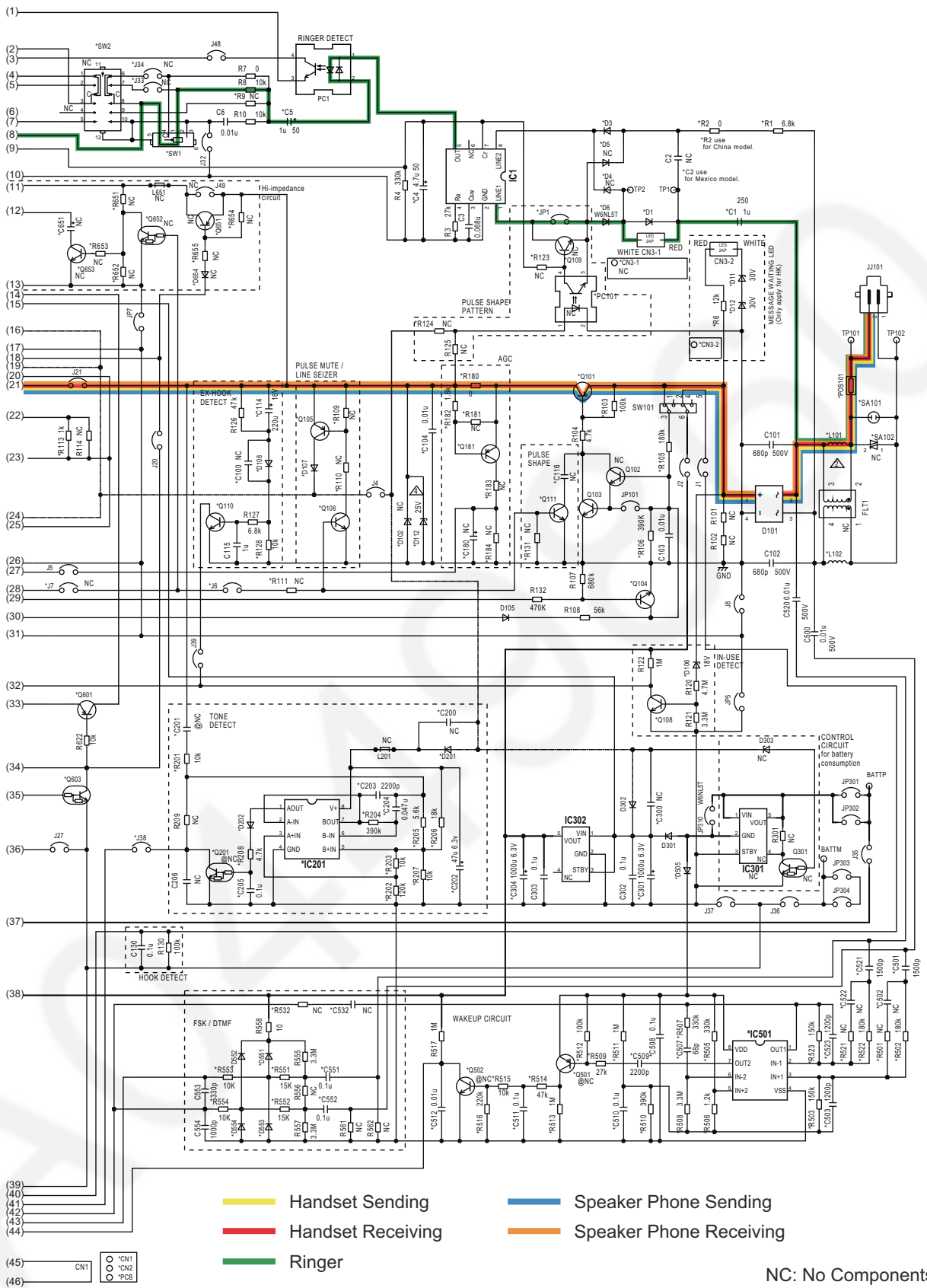
KX-TS880 SCHEMATIC DIAGRAM (Main)

### 3.1.8. KX-TS881MX

[Changed from original section "11.2. Schematic Diagram (Main)"]



NC: No Components



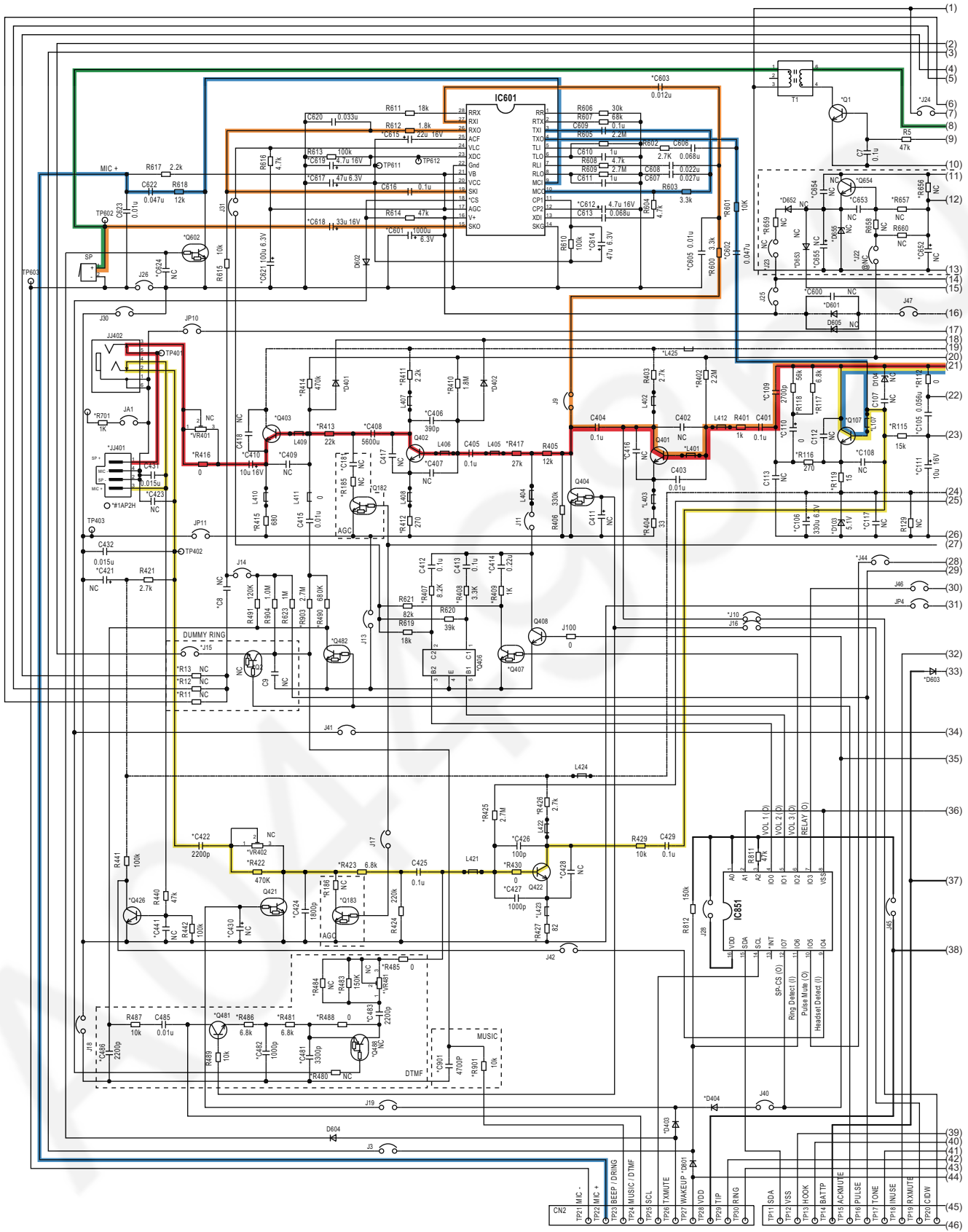
- Handset Sending
- Speaker Phone Sending
- Handset Receiving
- Speaker Phone Receiving
- Ringer

○ \*CN1  
 ○ \*CN2  
 ○ \*PCB  
 — CN1

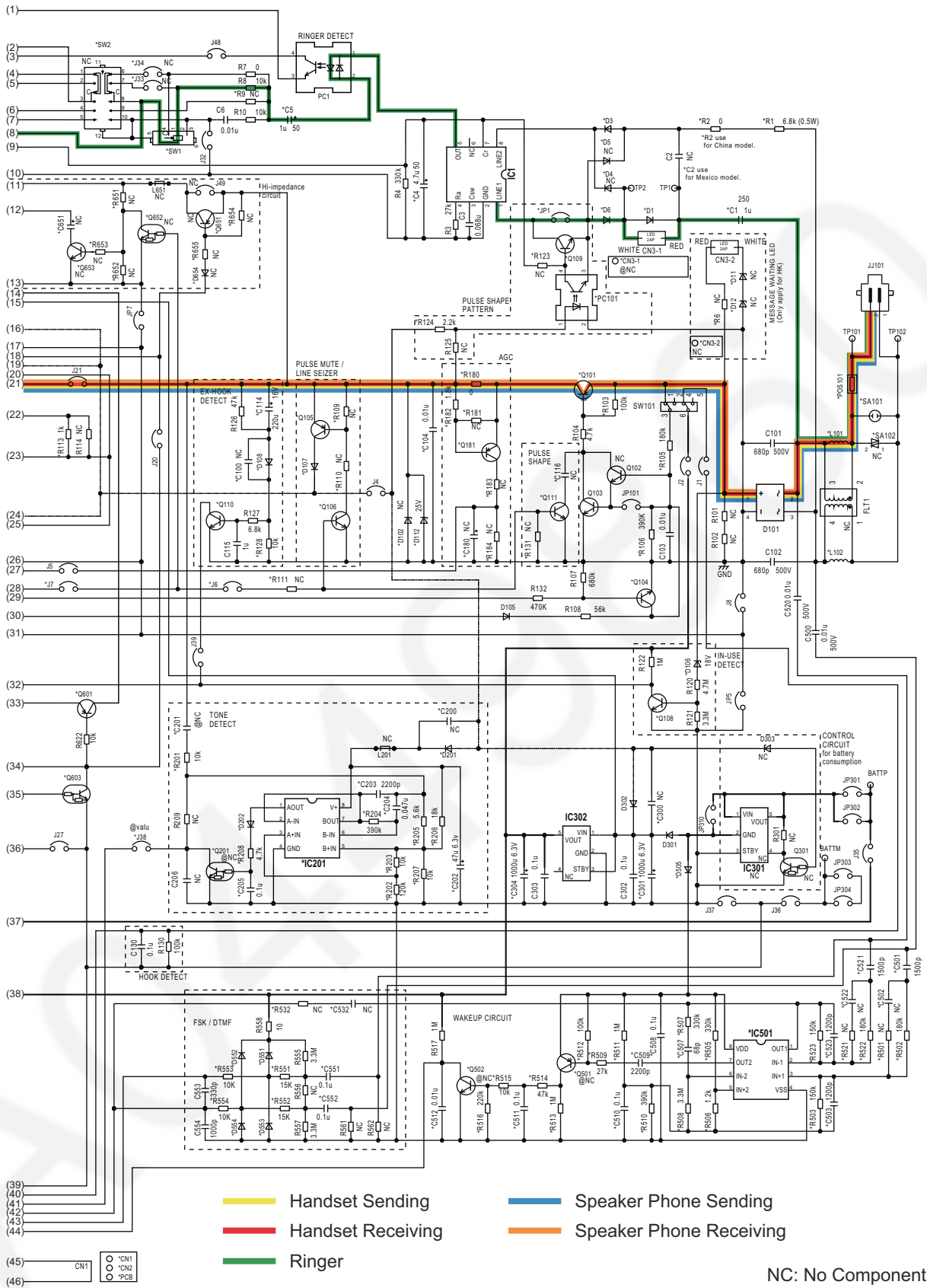
NC: No Components  
 KX-TS881 SCHEMATIC DIAGRAM (Main)

### 3.1.9. KX-TS889MX

[Changed from original section "11.2. Schematic Diagram (Main)"]



NC: No Components

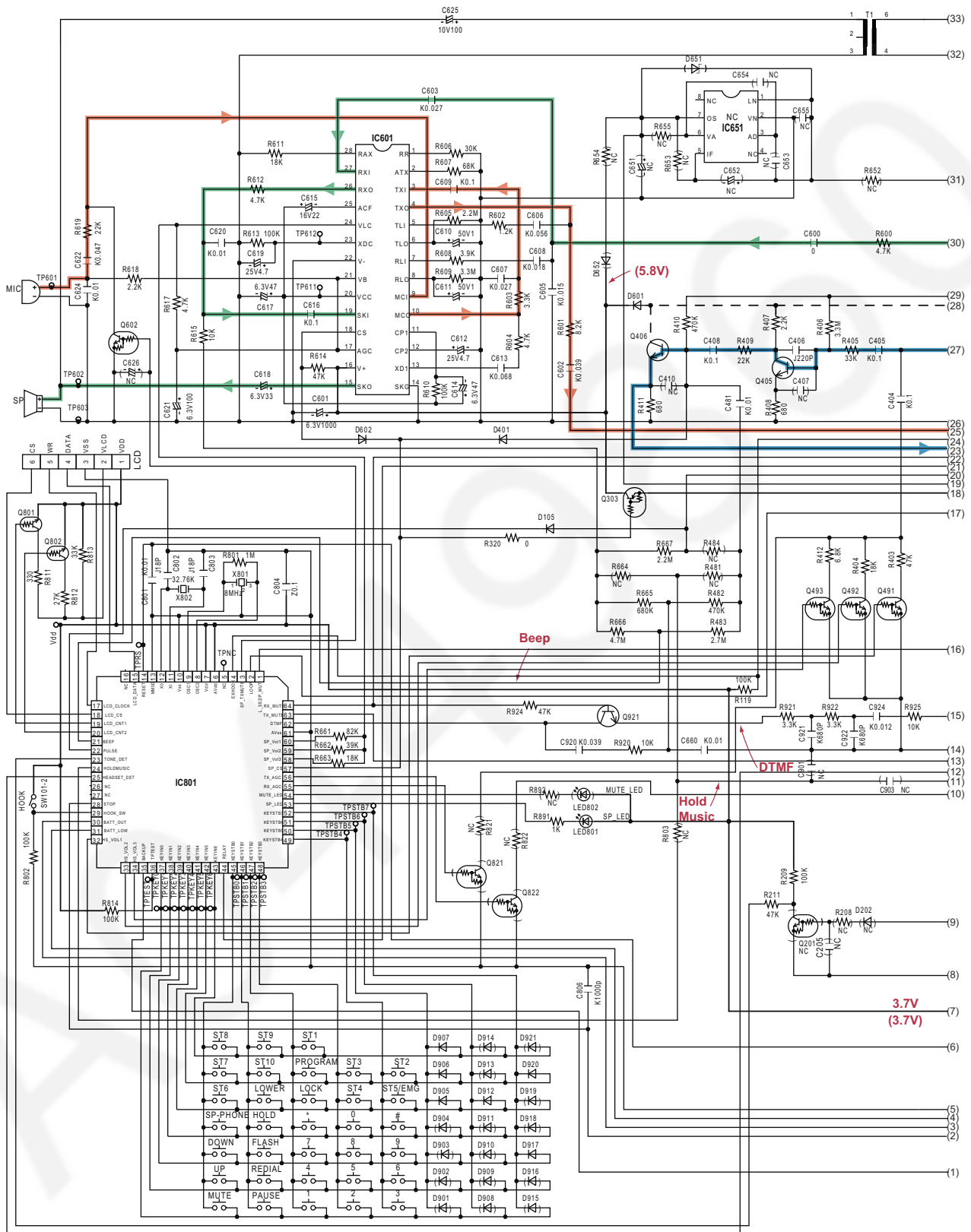


NC: No Components  
 KX-TS889 SCHEMATIC DIAGRAM (Main)

## 3.2. SCHEMATIC DIAGRAM (FOR P.C.BOARD PART No. PQUP11095TA)

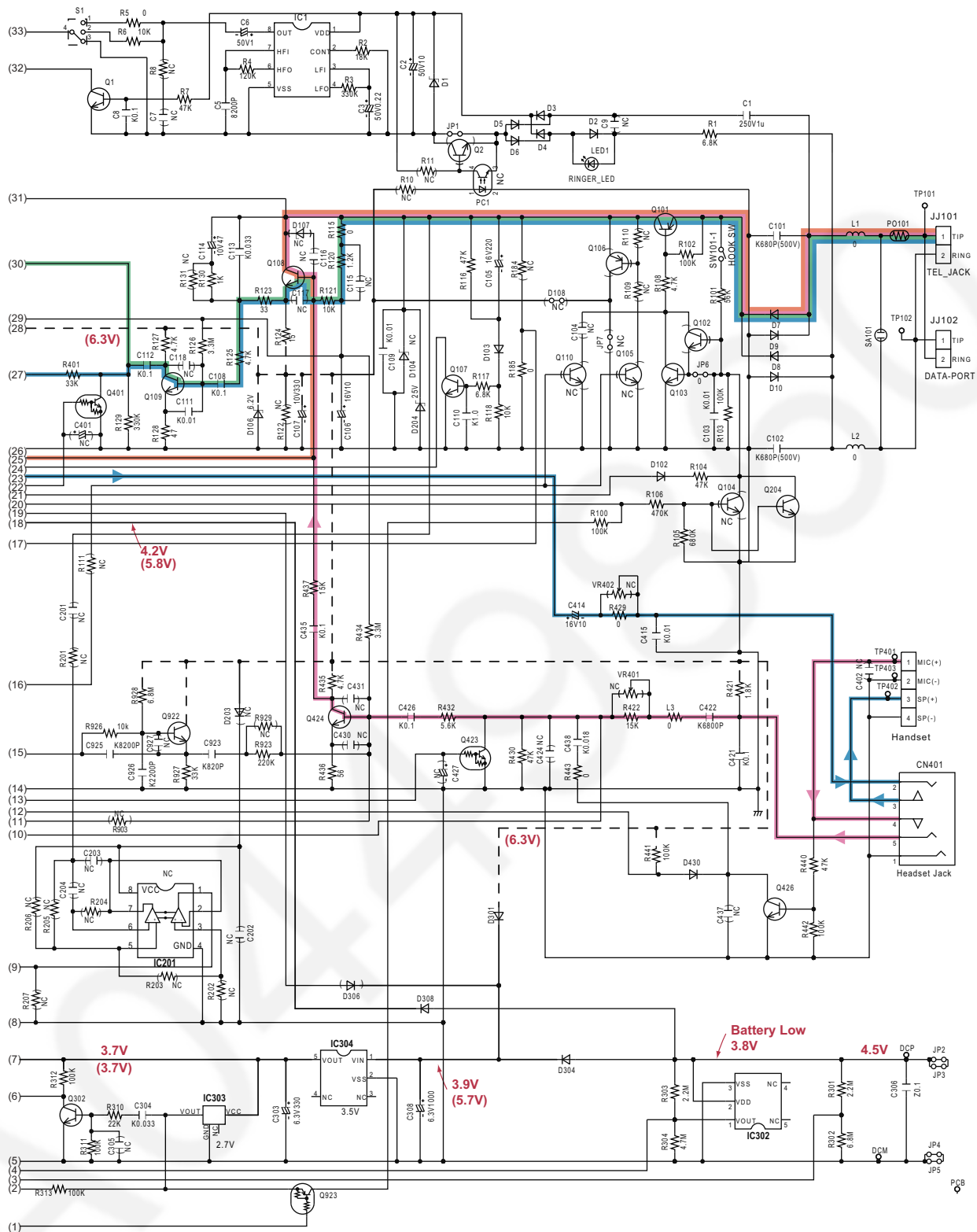
### 3.2.1. KX-TS108

[Changed from original section "5 CHEMATIC DIAGRAM"]



NC: No Components





The voltage during ON-Hook is indicated.  
 ( ) shows the voltage during OFF-Hook.

Handset & Headset Incoming Signal  
 Handset & Headset Outgoing Signal

Speaker Phone Incoming Signal  
 Speaker Phone Outgoing Signal

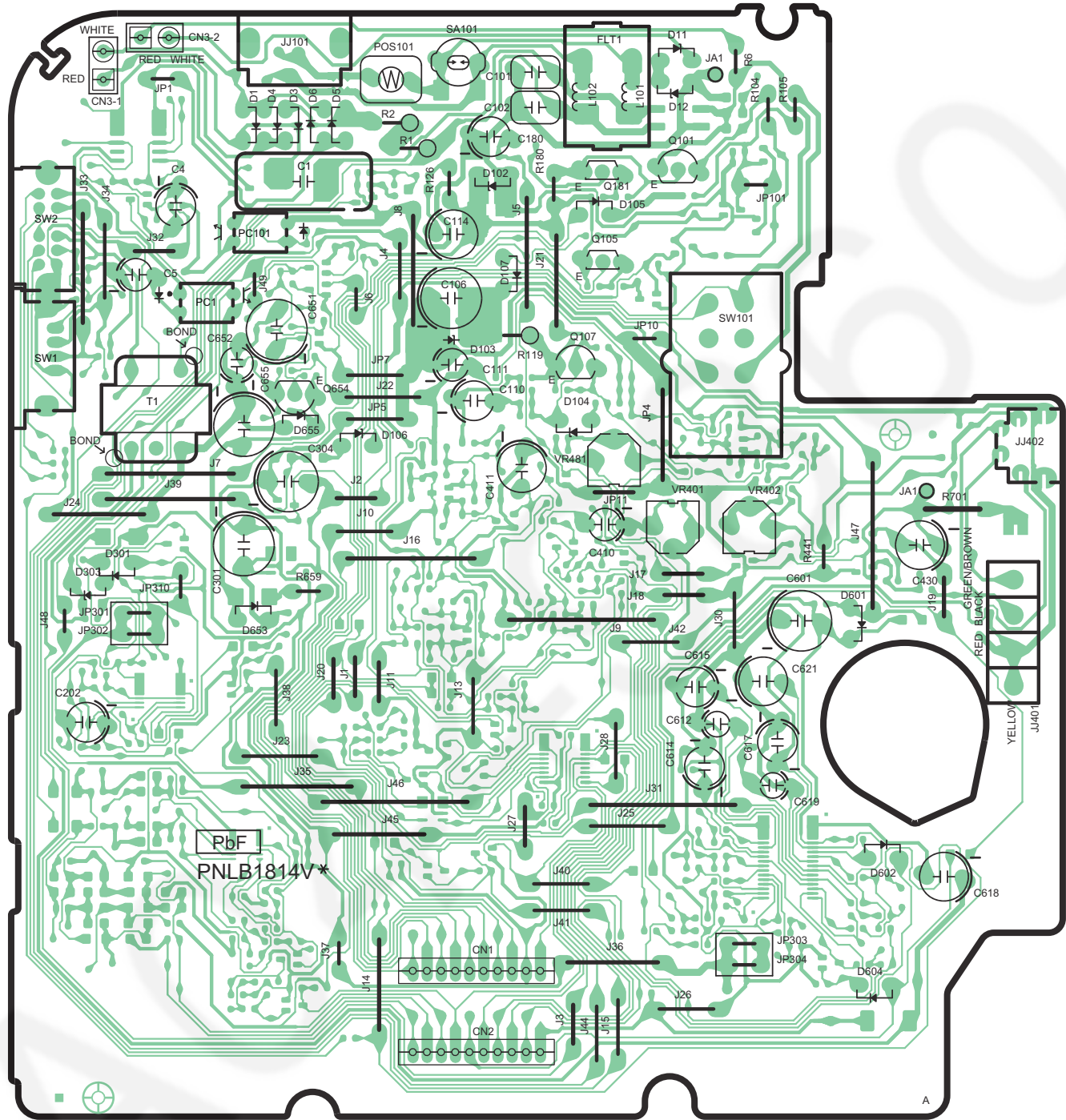
NC: No Components

KX-TS108 SCHEMATIC DIAGRAM (Main)

### 3.3. CIRCUIT BOARD (FOR P.C.BOARD PART No. PNLB1814VA)

#### 3.3.1. Main (Component View)

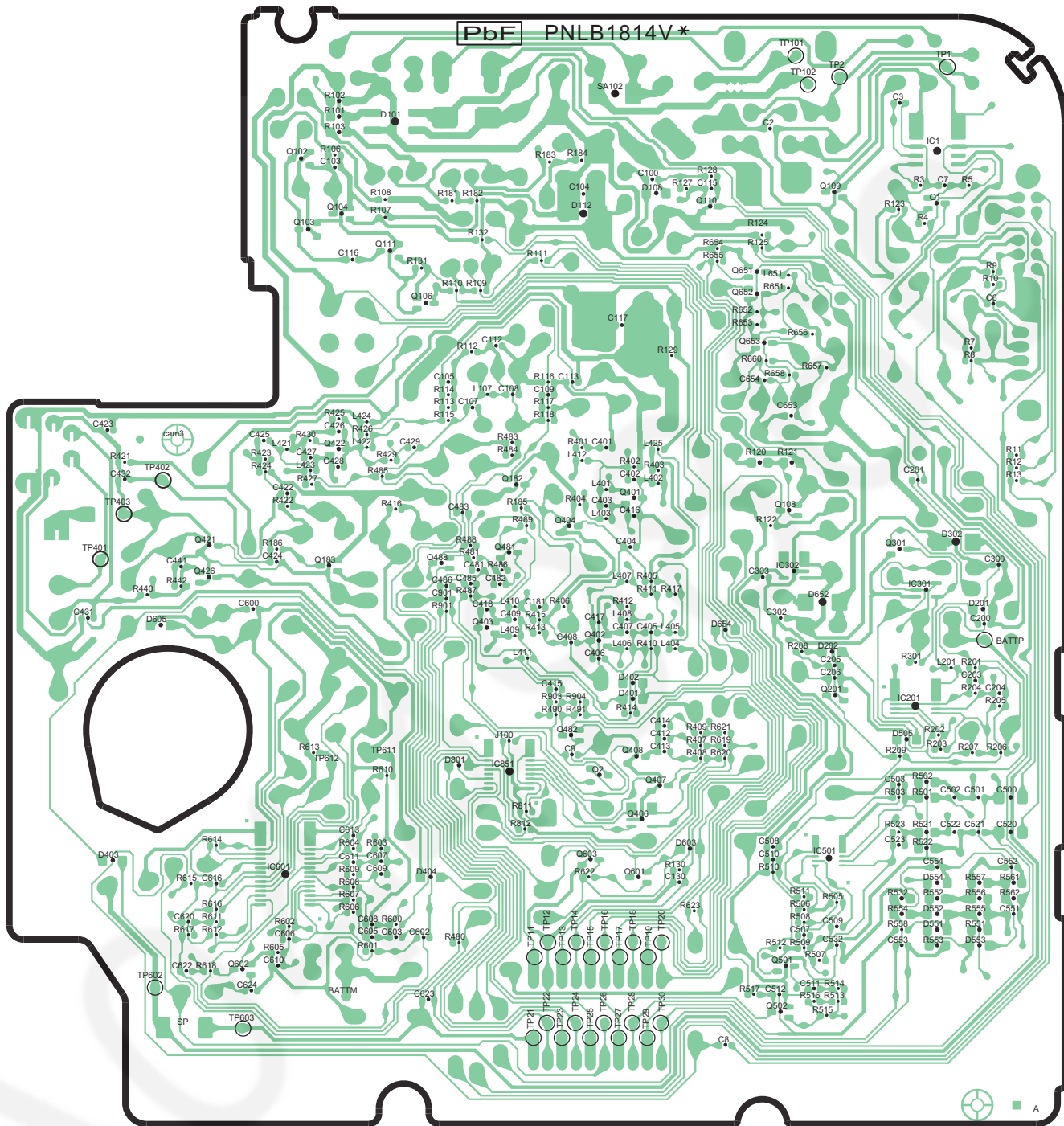
[Changed from original section "12.1.1. Component View"]



KX-TS880/881/889/2388 CIRCUIT BOARD (Main (Component View))

### 3.3.2. Main (Bottom View)

[Changed from original section "12.1.2. Bottom View"]



KX-TS880/881/889/2388 CIRCUIT BOARD (Main (Bottom View))