

# DJ-S40T / E

## Service Manual

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**ALINCO,INC.**

# SPECIFICATIONS

## 1) GENERAL

|   |   |
|---|---|
| Frequency coverage  | T : TX 430 ~ 449.995MHz RX 410 ~ 470MHz<br>E : TX 430 ~ 439.995MHz RX 430 ~ 439.995MHz<br>TA : TX 410 ~ 470MHz RX 410 ~ 470MHz      |
| Mode  | F3E (FM)  |
| Channel steps   | 5, 10, 12.5, 15, 20, 25, 30 & 50kHz   |
| Memory channels   | 99 channels+1 CALL channel  |
| Antenna connector   | SMA (50Ω unbalanced)  |
| Frequency stability   | ±5 ppm  |
| Microphone impedance  | 2kΩ nominal   |
| Power supply  | 4.5 ~ 16.0V DC (EXT.termonai)<br>3.6 ~ 16.0V DC (BATT terminal)   |
| Current   | 600mA (typical) Transmit high at 1W<br>150mA (typical) Receive at 280mW<br>40mA (typical) standby<br>15mA (typical) Battery save on |
| Usable temperature range                                    | -10 ~ +60° C (14 ~ 140° F)  |
| Dimensions  | 56 (W) × 102 (H) × 30 (D) mm (with EDH-31)<br>2.2"(W) × 4.0"(H) × 1.18"(D) inches (with EDH-31)<br>(Projections not included)       |
| Weight  | Approx. 160g (5.6oz) (with EBP-53N)<br>Approx. 95g (3.3oz) (without Battery)  |
| Sub audible Tone(CTCSS) encoder/decoder installed (38tones) |   |

## 2) TRANSMITTER

|                          |  |
|--------------------------|--|
| Output power             | Approx. 1.0W EBP-53N installed<br>Approx. 1.0W 13.8V DC<br>Approx. 0.6W EDH-31 installed<br>Approx. 0.2W (LOW) |
| Modulation system        | Variable reactance frequency modulation  |
| Spurious emissions       | -60dB or less  |
| Max. frequency deviation | ±5kHz  |

## 3) RECEIVER

|                          |   |
|--------------------------|---|
| Receive system           | Double conversion superheterodyne               |
| Intermediate frequencies | 1st 21.7MHz / 2nd 450kHz                        |
| Sensitivity(12dB SINAD)  | -14.0µdB (0.2uV) or less [430 ~ 450MHz]         |
| Selectivity              | -6dB : 12kHz or more<br>-60dB : 28kHz or less   |
| Audio output power       | 280mW or higher( 8Ω load)<br>200mW (8Ω 10% THD) |

# CIRCUIT DESCRIPTION

## 1) Receiver System

The receiver system is a double superheterodyne system with a 21.7MHz first IF and a 450kHz second IF.

### 1. Front End

The signal from the antenna is passed through low-pass filter and input to RF coil L24 and L17(band pass filter).

The signal from L24 and L17 is amplified by Q9,Q10 and led to the band pass filter, and let to the first mixer base of Q11.

### 2. First Mixer

The amplified signal ( $f_0$ ) by Q9,Q10 is mixed with the first local oscillator signal( $f_0$ -21.7MHz) from the PLL circuit by the first stage mixer Q11 and so is converted into the first IF signal.

The unwanted frequency band of the first IF signal is eliminated by the monolithic crystal filter FL3, and led to IF amplifier Q8.

### 3. IF Circuit

The first IF signal is amplified by Q8, and input to pin 16 of IC3, where it is mixed with the second local oscillator signal(21.25MHz) and so is converted into the second IF signal(450kHz).

The second IF signal is output from pin3 of IC3, and unwanted frequency band of second IF signal is eliminated by a ceramic filter FL2.

The resulting signal is then amplified by the second IF limiting amplifier, and detected by quadrature circuit. the audio signal is output from pin9 of IC3

### 4.Audio Circuit

The demodulated signal in IF IC3 contains the audio signal and CTCSS signal .

CTCSS signal is passed through the low-pass filter of IC5 and led to TIN port of CPU to be decoded. The audio signal is input to the main volume VR3 passing through de-emphasis circuit and high-pass filter circuit of Q19. The signal of which level is adjusted at the main volume VR3 is input to IC6 of AF amp, then it is amplified to the level that can drive the speaker.

### 5.Squelch Circuit

The noise in the audio signal from IC3 is passed through the noise-filter and input to pin8 of IC3. IC3 includes filter amplifier,high-pass filter and rectifier.

The rectified voltage level from pin14 of IC3 is delivered to the comparator of the CPU.

The voltage is led to pin1 of CPU and compared with the setting voltage. The squelch will open if the input voltage is lower than the setting voltage.

During open squelch ,pin11(AFS)of CPU becomes "H"level and pin9(AFP)of CPU becomes "L"level, AF control signal is being controlled and sounds is outputted from the speaker.

## **2)Transmitter System**

### **1.Microphone Amplifier**

The input signal from built-in or external microphone is led to the microphone mute circuit Q15,pre-emphasis circuit ,IDC circuit IC4,the signal is input to the maximum deviation adjustment volume VR2.Then mixed at the add VR2 with the CTCSS tone signal which is generated by CPU,Then it is input to VCO as the modulation signal.

### **2.Power Amplifier**

The signal from VCO is amplified by IC1 and then passed through the low-pass filter, the antenna switch circuit and the output low-pass filter.

The unwanted harmonics frequency signal is eliminated by the low-pass filter and input to the antenna.

## **3)PLL,VCO Circuit**

Output frequency of PLL circuit is set by the serial data from microprocessor.

PLL circuit consists of VCO Q2,buffer amplifier Q6.

The pulse wave output of charge pump is converted to DC voltage by PLL loop filter circuit,snd supplied to D2,D15 of varicap diode in VCO unit.

The frequency modulation is executed when audio signal voltage is supplied to the varicap D3.

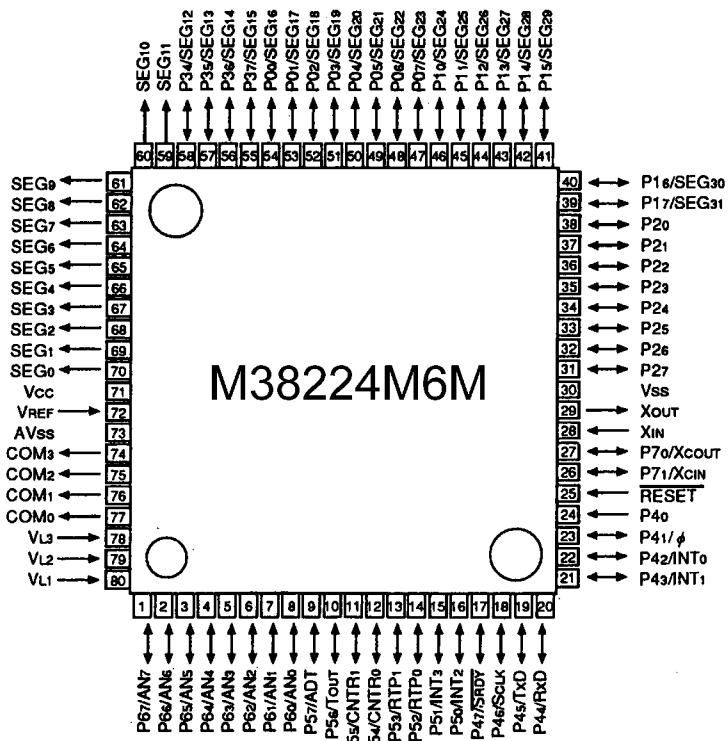
When PLL is unlocked,pin10 of IC2 goes to “High”.

#### 4) M38224M6M

CPU

Terminal Connection

(TOP VIEW)



## Terminal function of CPU

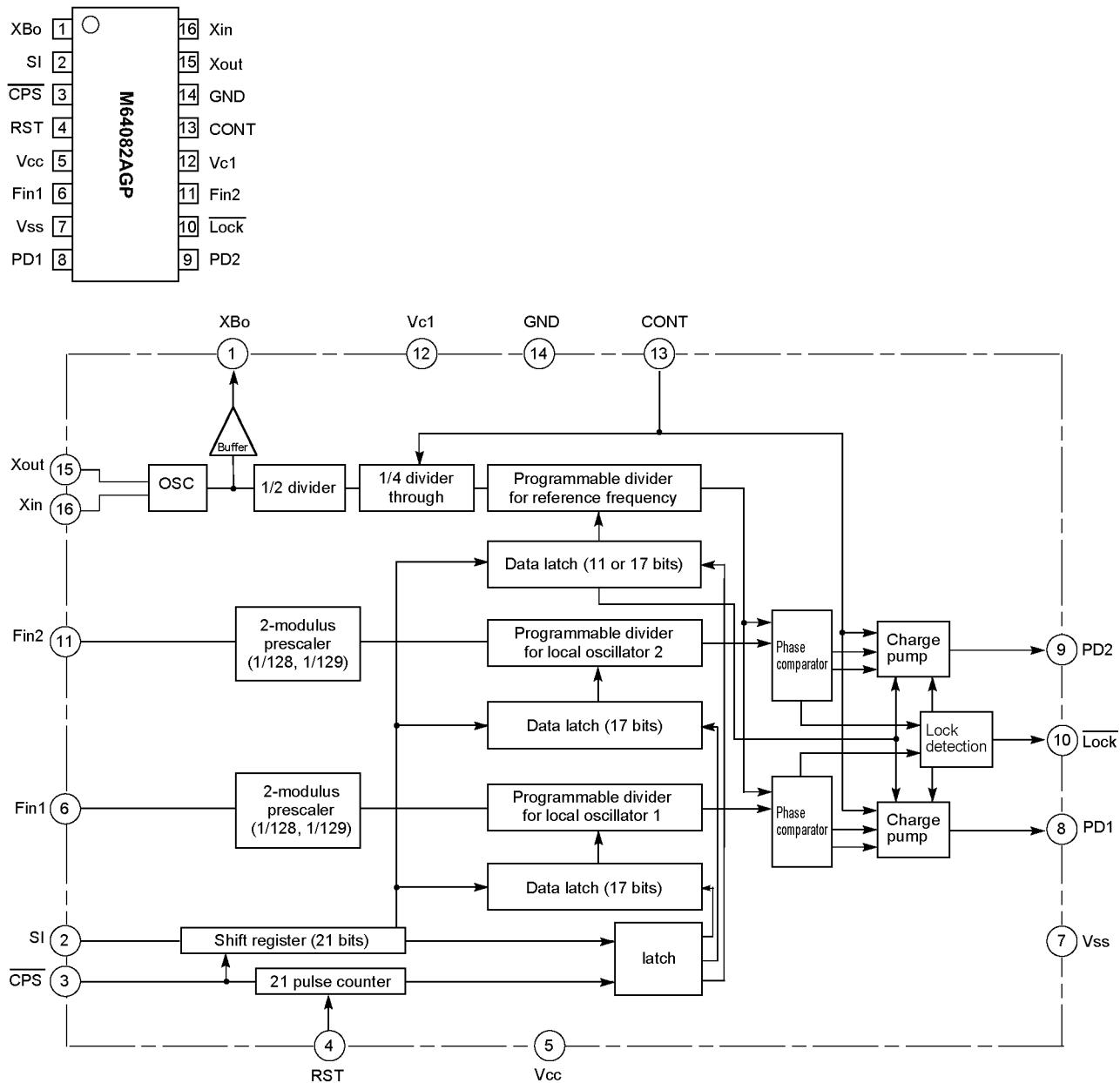
| No. | Pin Name | Function | I/O | Logic      | Description                            |
|-----|----------|----------|-----|------------|--|
| 1   | P67      | SQL      | I   | A/D        | Noise level input for squelch          |
| 2   | P66      | KEY      | I   | A/D        | Key input ( $\Delta$ , $\nabla$ , V/M) |
| 3   | P65      | VOX      | O   | Activ high | Power cont.                            |
| 4   | P64      | EXTDC    | I   | A/D        | Ext voltage input                      |
| 5   | P63      | BP1      | I   | A/D        | Band plan 1                            |
| 6   | P62      | TIN      | I   | A/D        | CTCSS tone input                       |
| 7   | P61      | SMT      | I   | A/D        | S-meter input                          |
| 8   | P60      | BATT     | I   | A/D        | Batt voltage input                     |
| 9   | P57      | AFP      | O   | Activ low  | Audio Amp ON/OFF                       |
| 10  | P56      | BEEP     | I/O | Pulse      | Beep sound out                         |
| 11  | P55      | AFS      | O   | Activ high | Audio signal ON/OFF                    |
| 12  | CNTR0    | TBST     | I/O | Pulse      | Art tone output                        |
| 13  | P53      | BP3      | I   |            | Band plan 3                            |
| 14  | P52      | MONI     | I   | Activ low  | Monitor key input                      |
| 15  | P51      | PSW      | I   | Activ low  | Power switch input                     |
| 16  | P50      | STB      | O   | Pulse      | Strobe for PLL                         |
| 17  | P47      | DATA     | I/O | Pulse      | Data for PLL                           |
| 18  | P46      | CLK      | O   | Pulse      | Clock for PLL                          |
| 19  | TxD      | CTX      | O   | Pulse      | UART data transmission output          |
| 20  | RxD      | CRX      | I   | Pulse      | UART data reception input              |
| 21  | P43      | SCR      | I   | Activ high | Alarm signal input                     |
| 22  | INTO     | BU       | I   | Activ low  | Back up signal detection input         |
| 23  | P41      | PTTK     | I   | Activ high | PTT signal input                       |
| 24  | P40      | BP4      | I   | Activ high | Band plan 4                            |
| 25  | RESET    | RESET    | I   | Activ low  | Reset input                            |
| 26  | P71      | SCL      | O   | Pulse      | Serial clock for EEPROM                |
| 27  | P70      | SDA      | I/O | Pulse      | Serial data for EEPROM                 |
| 28  | Xin      | XIN      | I   |            |  |
| 29  | Xout     | XOUT     | O   |            |  |
| 30  | Vss      | GND      |     |            | CPU GND                                |
| 31  | P27      | MMUTE    | O   | Activ high | Microphone mute output                 |
| 32  | P26      | H/L      | O   | Activ high | Power control high=H                   |
| 33  | P25      | EXP      | O   | Activ low  | EXP terminal control                   |
| 34  | P24      | FUNC     | I   | Activ low  | Func key input                         |
| 35  | P23      | PTTC     | O   | Activ high | Beep sound level control               |
| 36  | P22      | P3C      | O   | Activ low  | Power supply control for VCO output    |
| 37  | P21      | C3C      | O   | Activ high | Power supply control                   |
| 38  | P20      | R3C      | O   | Activ low  | Power supply control for RX            |
| 39  | P17      | T3C      | O   | Activ low  | Power supply control for TX            |
| 40  | P16      | TON4     | O   | Activ high | Tone output 4                          |

| No. | Pin Name | Function | I/O | Logic      | Description                    |
|-----|----------|----------|-----|------------|--------------------------------|
| 41  | P115     | TON3     | O   | Activ high | Tone output 3                  |
| 42  | P14      | TON2     | O   | Activ high | Tone output 2                  |
| 43  | P13      | TON1     | O   | Activ high | Tone output 1                  |
| 44  | SEG26    | SEG22    | O   |            | LCD SEG 22                     |
| 45  | P115     | SHIFT    | O   | Activ high | VCO shift output TX=H          |
| 46  | P10      | LAMPC    | O   | Activ high | Lamp ON/OFF output             |
| 47  | SEG23    | SEG21    | O   |            | LCD SEG 21                     |
| 48  | SEG22    | SEG20    | O   |            | SEG 20                         |
| 49  | SEG21    | SEG19    | O   |            | SEG 19                         |
| 50  | SEG20    | SEG18    | O   |            | SEG 18                         |
| 51  | SEG19    | SEG17    | O   |            | SEG 17                         |
| 52  | SEG18    | SEG16    | O   |            | SEG 16                         |
| 53  | P01      | CHG      | O   | Activ high | Battery charge control         |
| 54  | P00      | MICC     | O   | Activ low  | TX mic amp power supply output |
| 55  | SEG15    | SEG15    | O   |            | SEG 15                         |
| 56  | SEG14    | SEG14    | O   |            | SEG 14                         |
| 57  | SEG13    | SEG13    | O   |            | SEG 13                         |
| 58  | SEG12    | SEG12    | O   |            | SEG 12                         |
| 59  | SEG11    | SEG11    | O   |            | SEG 11                         |
| 60  | SEG10    | SEG10    | O   |            | SEG 10                         |
| 61  | SEG9     | SEG9     | O   |            | SEG 9                          |
| 62  | SEG8     | SEG8     | O   |            | SEG 8                          |
| 63  | SEG7     | SEG7     | O   |            | SEG 7                          |
| 64  | SEG6     | SEG6     | O   |            | SEG 6                          |
| 65  | SEG5     | SEG5     | O   |            | SEG 5                          |
| 66  | SEG4     | SEG4     | O   |            | SEG 4                          |
| 67  | SEG3     | SEG3     | O   |            | SEG 3                          |
| 68  | SEG2     | SEG2     | O   |            | SEG 2                          |
| 69  | SEG1     | SEG1     | O   |            | SEG 1                          |
| 70  | SEG0     | SEG0     | O   |            | SEG 0                          |
| 71  | Vcc      | VDD      |     |            |                                |
| 72  | Vref     | VDD      |     |            |                                |
| 73  | Avss     | GND      |     |            |                                |
| 74  | COM3     | COM3     | O   |            | LCD COM 3                      |
| 75  | COM2     | COM2     | O   |            | LCD COM 2                      |
| 76  | COM1     | COM1     | O   |            | LCD COM 1                      |
| 77  | COM0     | COM0     | O   |            | LCD COM 0                      |
| 78  | VL3      | VL3      | I   |            | LCD power supply               |
| 79  | VL2      | VL2      | I   |            | LCD power supply               |
| 80  | VL1      | VL1      | I   |            | LCD power supply               |

# SEMICONDUCTOR DATA

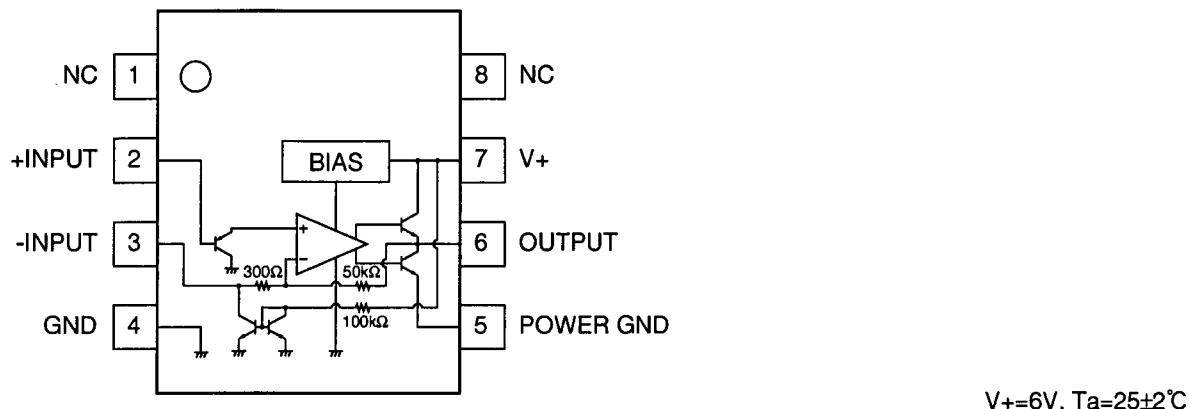
## 1) M64082AGP (XA0543)

### DUAL PLL FREQUENCY SYNTHESIZER



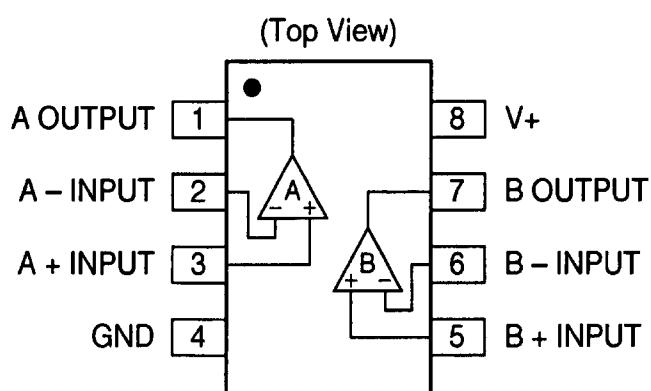
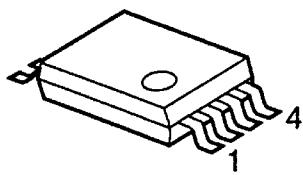
## 2) NJM2070MT1 (XA210)

Low Voltage Power Amplifier  
Equivalent Circuit



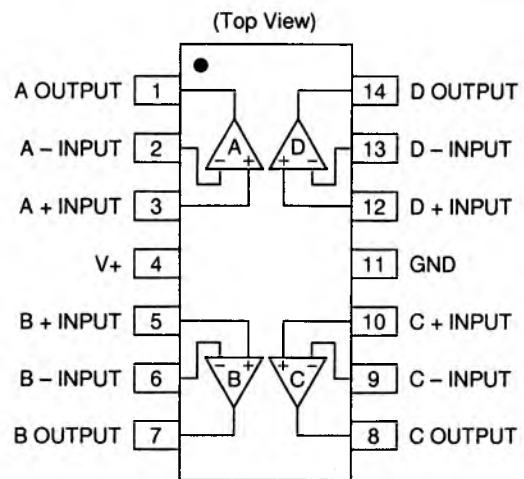
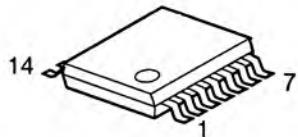
| Parameter                            | Condition                      |                     | Symbol   | Min. | Typ. | Max. | Unit    |
|--------------------------------------|--------------------------------|---------------------|----------|------|------|------|---------|
| Supply voltage                       |                                |                     | $V_+$    | 1.8  | -    | 15   | V       |
| Idle current                         | $RL=$                          |                     | $I_Q$    | -    | 4    | 7    | mA      |
| Output voltage                       |                                |                     | $V_o$    | -    | 2.7  | -    | V       |
| Input bias current                   |                                |                     | $I_B$    | -    | 200  | -    | nA      |
| Output power                         | THD=10%, $f=1kHz$              | $V_+=6V$ , $RL=4$   | $P_o$    | 0.5  | 0.6  | -    | W       |
|                                      |                                | $V_+=4.5V$ , $RL=4$ |          | -    | 0.32 | -    | W       |
|                                      |                                | $V_+=3V$ , $RL=4$   |          | -    | 120  | -    | mW      |
|                                      | THD=10%, $f=1kHz$              | $V_+=2V$ , $RL=4$   |          | -    | 30   | -    | mW      |
|                                      |                                | $V_+=6V$ , $RL=4$   |          | -    | 500  | -    | mW      |
|                                      |                                | $V_+=4.5V$ , $RL=4$ |          | -    | 250  | -    | mW      |
| Distortion                           | $P_o=0.4W$ , $RL=4$ , $f=1kHz$ |                     | THD      | -    | 0.25 | -    | %       |
| Voltage gain                         | $f=1kHz$                       |                     | $A_v$    | 41   | 44   | 47   | dB      |
| Input impedance                      | $f=1kHz$                       |                     | $Z_{IN}$ | 100  | -    | -    | k       |
| Equivalent input noise voltage       | $R_s=10k$                      | A curve             | $V_{n1}$ | -    | 2.5  | -    | $\mu V$ |
|                                      |                                | B=22Hz to 22kHz     | $V_{n2}$ | -    | 3    | -    | $\mu V$ |
| Power supply voltage rejection ratio | $f=100Hz$ , $C_x=100\mu F$     |                     | SVR      | 24   | 30   | -    | dB      |
| Power gain band width (-3dB)         | $RL=8$ , $P_o=250mW$           |                     | P.B      | -    | 200  | -    | kHz     |

## 3) NJM2904V-TE1 (XA0573)



#### 4) NJM2902V-TE1 (XA0596)

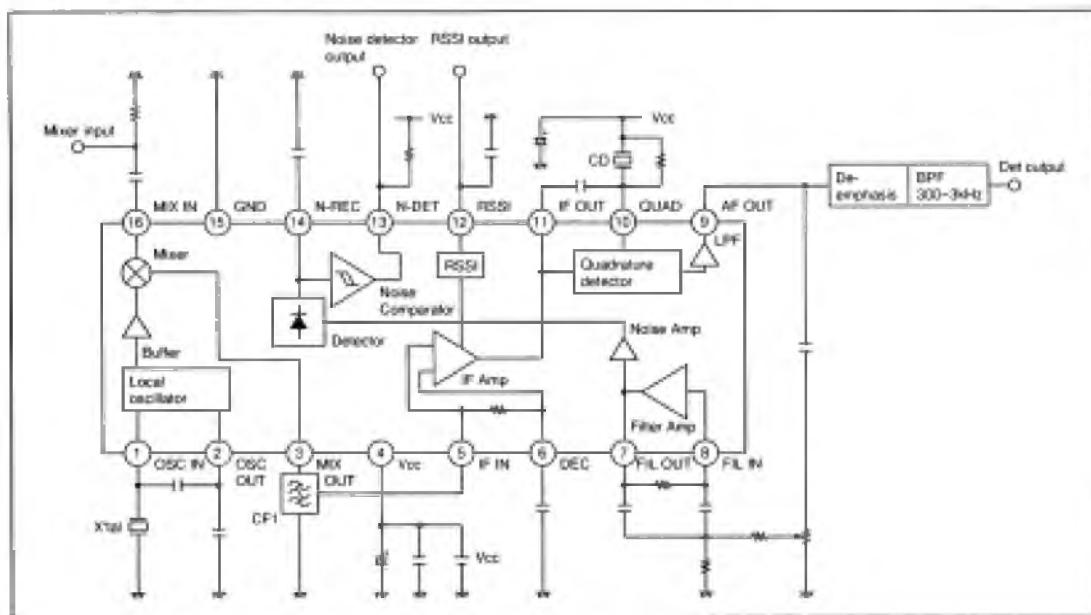
Quad Single Supply Operational Amplifier



#### 5) TA31136FN (XA0404)

Low Power FM IF

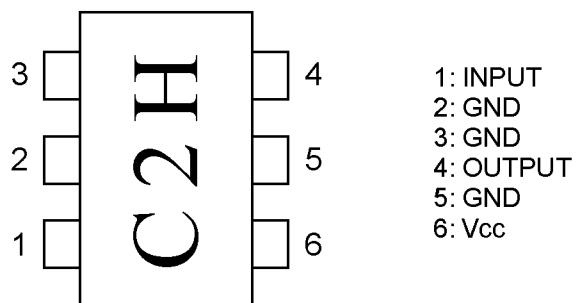
Block Diagram



## 6) UPC2771T(XA0545)

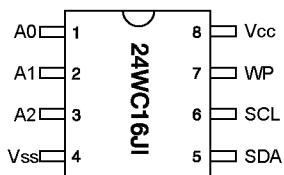
Terminal Connection

(Top View)



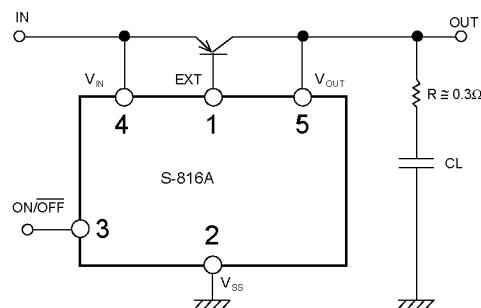
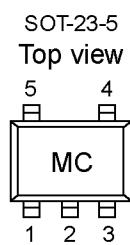
## 7) CAT24WC16JITE13 (XA0855)

PDIP



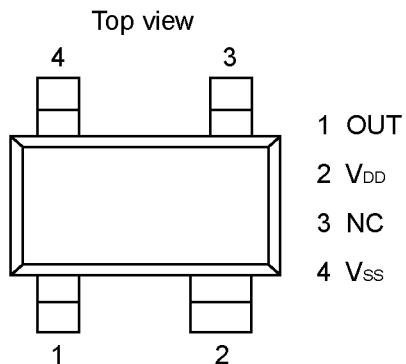
| Name   | Function                       |
|--------|--------------------------------|
| A0..A2 | User Configurable Chip Selects |
| Vss    | Ground                         |
| SDA    | Serial Address/Data I/O        |
| SCL    | Serial Clock                   |
| WP     | Write Protect Input            |
| Vcc    | +2.5V~6.0V Power Supply        |

## 8) S-816A30AMC (XA0848)

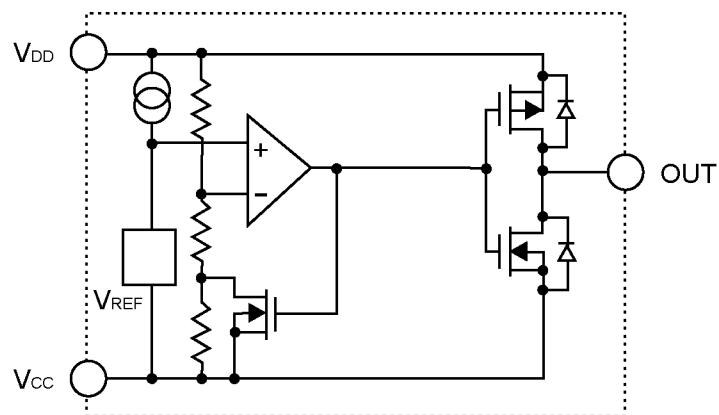


## 9) S-80827ALNP (XA0857)

Pin Assignment

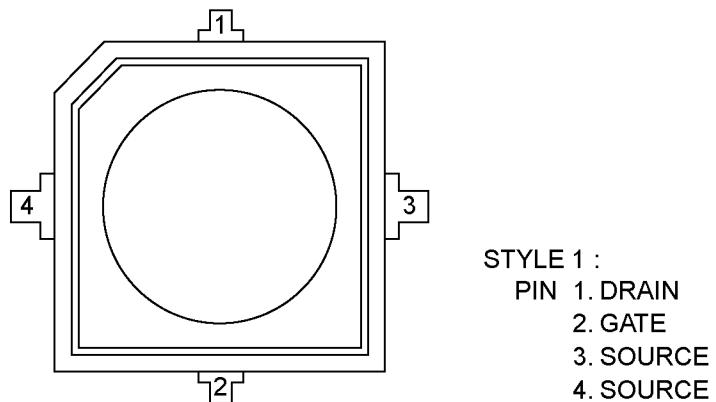


Block Diagram



## 10) MRF9745T1 (XE0034)

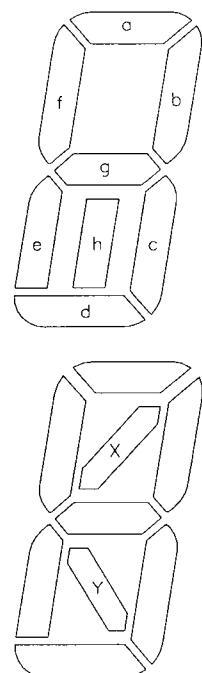
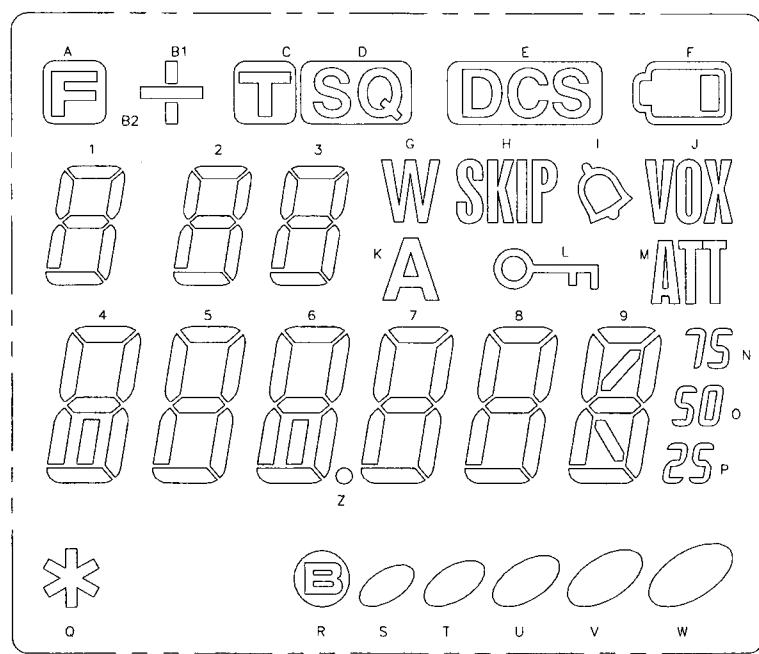
PAKEGE DIMENSIONS



## 11) Transistor, Diode and LED Outline Drawings

|                            |                         |                    |                      |                         |                        |                         |
|----------------------------|-------------------------|--------------------|----------------------|-------------------------|------------------------|-------------------------|
| 1SV307(TPH3)<br>XD0326     | 2SA1036K T146Q<br>XT110 | 2SA1576A<br>XT0094 | 2SB766A-TX<br>XT0170 | 2SC4081 T106R<br>XT0095 | 2SC4618TLP<br>XT0172   | 2SC4808-TX AR<br>XT0171 |
|                            |                         |                    |                      |                         |                        |                         |
| 2SC5066-O(TE85L)<br>XT0138 | 2SD2216R-TX<br>XT0135   | 2SK3074<br>XE0044  | DA204U<br>XD0130     | HSU277TRF<br>XD331      | ISV311(TPL3)<br>XD0344 | M1FE 40400V1A<br>XD0368 |
|                            |                         |                    |                      |                         |                        |                         |
| MA2S728-TX<br>XD0315       | MA741WA TX<br>XD0251    | MA729-TX<br>XD0291 | MRF9745T1<br>XE0034  | RN1107 TE85L<br>XU0193  | RN2107 TE85L<br>XU0192 | SML-310MTT86<br>XL0036  |
|                            |                         |                    |                      |                         |                        |                         |
| XP1114 (TX)<br>XU0161      | XP1501-TX<br>XU0172     | UMC5N TR<br>XU0152 |                      |                         |                        |                         |
|                            |                         |                    |                      |                         |                        |                         |
|                            |                         |                    |                      |                         |                        |                         |

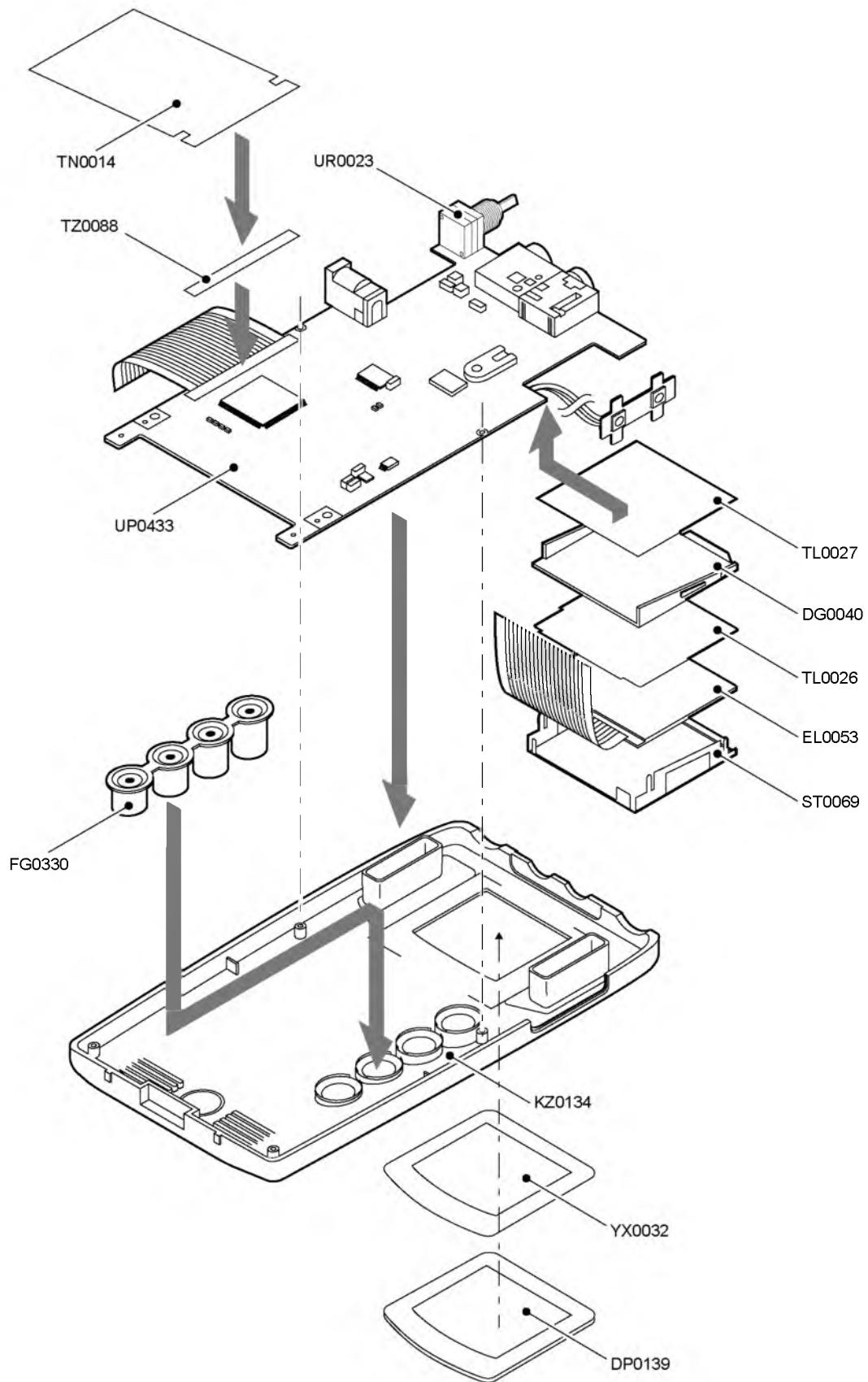
## 12) LCD connection



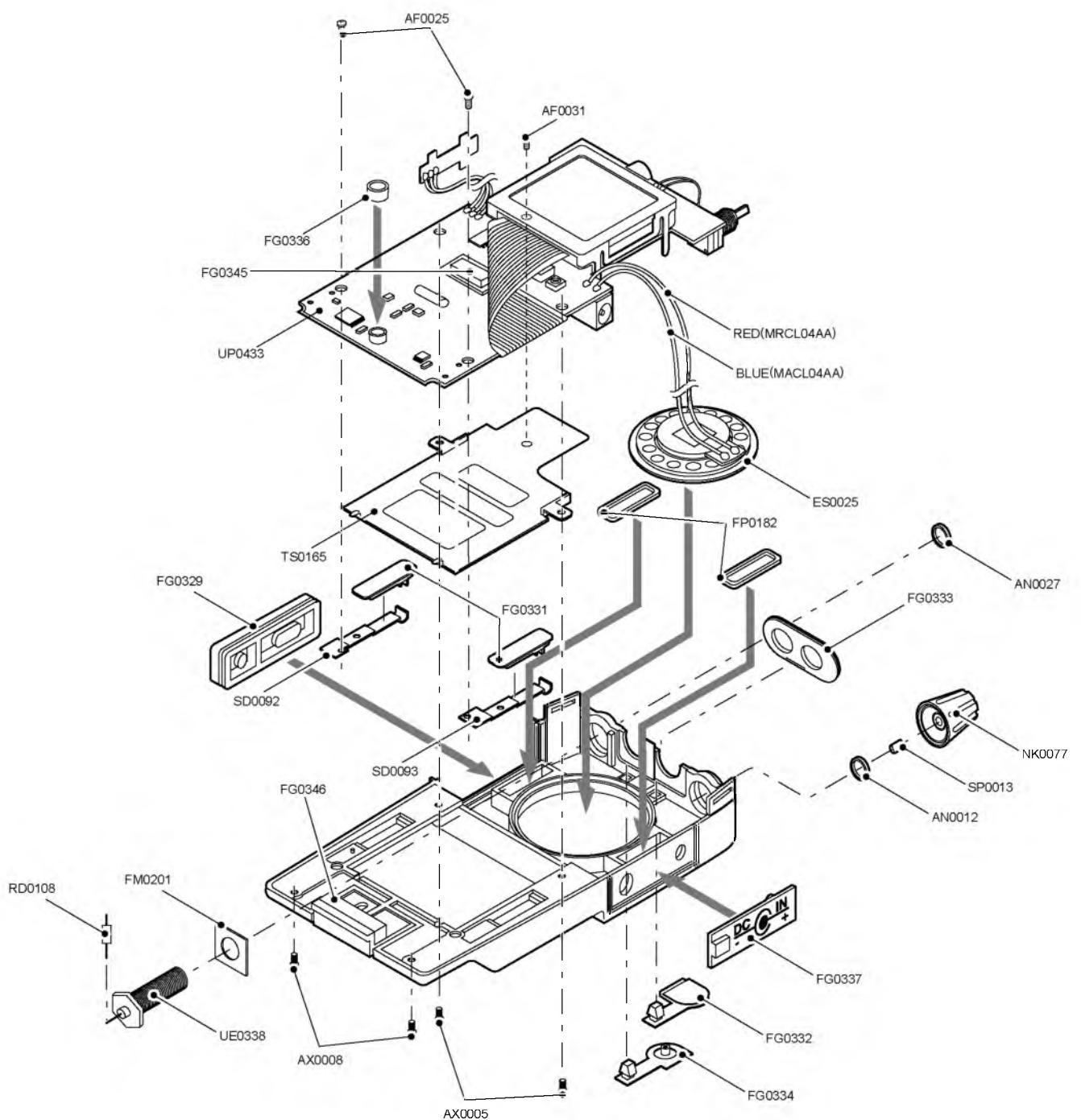
| Pin No | COM0 | COM1 | COM2 | COM3 |
|--------|------|------|------|------|
| 1      | COM0 | -    | -    | -    |
| 2      | -    | COM1 | -    | -    |
| 3      | -    | -    | COM2 | -    |
| 4      | -    | -    | -    | COM3 |
| 5      | D    | E    | F    | C    |
| 6      | H    | I    | J    | G    |
| 7      | L    | M    | N    | K    |
| 8      | P    | O    | V    | W    |
| 9      | R    | S    | U    | T    |
| 10     | 9c   | 9b   | 9a   | Y    |
| 11     | 9e   | 9g   | 9f   | 9d   |
| 12     | 8c   | 8b   | 8a   | X    |
| 13     | 8e   | 8g   | 8f   | 8d   |
| 14     | 7c   | 7b   | 7a   | Z    |
| 15     | 7e   | 7g   | 7f   | 7d   |
| 16     | 6c   | 6b   | 6a   | 6h   |
| 17     | 6e   | 6g   | 6f   | 6d   |
| 18     | 5c   | 5b   | 5a   | Q    |
| 19     | 5e   | 5g   | 5f   | 5d   |
| 20     | 4c   | 4b   | 4a   | 4h   |
| 21     | 4e   | 4g   | 4f   | 4d   |
| 22     | 3c   | 3b   | 3a   | B2   |
| 23     | 3e   | 3g   | 3f   | 3d   |
| 24     | 2c   | 2b   | 2a   | B1   |
| 25     | 2e   | 2g   | 2f   | 2d   |
| 26     | 1c   | 1b   | 1a   | A    |
| 27     | 1e   | 1g   | 1f   | 1d   |

## EXPLODED VIEW

### 1) Front View



## 2) Bottom View



# PARTS LIST

## MAIN Unit

| Ref.<br>No. | Parts No. | Description   | Parts Name        | Version |     |     | Ref.<br>No. | Parts No. | Description   | Parts Name        | Version |   |    |
|-------------|-----------|---------------|-------------------|---------|-----|-----|-------------|-----------|---------------|-------------------|---------|---|----|
|             |           |               |                   | T       | E   | TA  |             |           |               |                   | T       | E | TA |
|             | UP0433    | PC Board      | DJS40 INTEGRATED  | 0.5     | 0.5 | 0.5 | C65         | CS0367    | Chip tantalum | TMCM0A0106MTR     | 1       | 1 | 1  |
| C1          | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C66         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1 | 1  |
| C2          | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1   | 1   | C67         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1 | 1  |
| C3          | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C68         | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1 | 1  |
| C4          | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C69         | CU3527    | Chip C.       | GRM36CH221J25PT   | 1       | 1 | 1  |
| C5          | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1   | 1   | C70         | CU3505    | Chip C.       | GRM36CH040C50PT   | 0       | 1 | 0  |
| C6          | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1   | 1   | C70         | CU3504    | Chip C.       | GRM36CJ030C50PT   | 1       | 0 | 1  |
| C7          | CS0408    | Chip tantalum | 6MCM156MATER      | 1       | 1   | 1   | C71         | CU3504    | Chip C.       | GRM36CJ030C50PT   | 1       | 1 | 1  |
| C8          | CU3511    | Chip C.       | GRM36CH100D50PT   | 1       | 1   | 1   | C72         | CU3504    | Chip C.       | GRM36CJ030C50PT   | 1       | 1 | 1  |
| C10         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C73         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C11         | CU3008    | Chip C.       | C1608CH1H070CT-A  | 1       | 1   | 1   | C74         | CU3502    | Chip C.       | GRM36CK010C50PT   | 1       | 1 | 1  |
| C12         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C75         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C14         | CS0411    | Chip tantalum | 4MCM226MATER      | 1       | 1   | 1   | C76         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C15         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C77         | CU3502    | Chip C.       | GRM36CK010C50PT   | 1       | 1 | 1  |
| C16         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C79         | CU3510    | Chip C.       | GRM36CH090D50PT   | 1       | 1 | 1  |
| C17         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C80         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C18         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C81         | CU3508    | Chip C.       | GRM36CH070D50PT   | 1       | 1 | 1  |
| C19         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C82         | CU3527    | Chip C.       | GRM36CH221J25PT   | 1       | 1 | 1  |
| C20         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C83         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1 | 1  |
| C21         | CU3008    | Chip C.       | C1608CH1H070CT-A  | 1       | 1   | 1   | C84         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C22         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C85         | CU3515    | Chip C.       | GRM36CH220J50PT   | 1       | 1 | 1  |
| C23         | CU3507    | Chip C.       | GRM36CH060D50PT   | 1       | 1   | 1   | C86         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1 | 1  |
| C24         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C87         | CU3510    | Chip C.       | GRM36CH090D50PT   | 1       | 1 | 1  |
| C25         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C90         | CU3507    | Chip C.       | GRM36CH060D50PT   | 1       | 1 | 1  |
| C26         | CU3505    | Chip C.       | GRM36CH040C50PT   | 1       | 1   | 1   | C92         | CU3502    | Chip C.       | GRM36CK010C50PT   | 1       | 1 | 1  |
| C27         | CU3510    | Chip C.       | GRM36CH090D50PT   | 1       | 1   | 1   | C93         | CU3523    | Chip C.       | GRM36CH101J50PT   | 1       | 1 | 1  |
| C28         | CU3508    | Chip C.       | GRM36CH070D50PT   | 1       | 1   | 1   | C95         | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C29         | CU3511    | Chip C.       | GRM36CH100D50PT   | 1       | 1   | 1   | C96         | CU3522    | Chip C.       | GRM36CH820J50PT   | 1       | 1 | 1  |
| C30         | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1   | 1   | C97         | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1 | 1  |
| C32         | CU3502    | Chip C.       | GRM36CK010C50PT   | 1       | 1   | 1   | C98         | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1 | 1  |
| C34         | CU3501    | Chip C.       | GRM36CK0R5C50PT   | 1       | 1   | 1   | C100        | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1 | 1  |
| C35         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1   | 1   | C101        | CU3551    | Chip C.       | GRM36B223K16PT    | 1       | 1 | 1  |
| C36         | CU3515    | Chip C.       | GRM36CH220J50PT   | 1       | 1   | 1   | C102        | CU3539    | Chip C.       | GRM36B222K50PT    | 1       | 1 | 1  |
| C37         | CU3514    | Chip C.       | GRM36CH180J50PT   | 1       | 1   | 1   | C103        | CU3539    | Chip C.       | GRM36B222K50PT    | 1       | 1 | 1  |
| C38         | CU3509    | Chip C.       | GRM36CH080D50PT   | 1       | 1   | 1   | C104        | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1 | 1  |
| C39         | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1   | 1   | C105        | CU0108    | Chip C.       | LMK212BJ105KG     | 1       | 1 | 1  |
| C40         | CU3502    | Chip C.       | GRM36CK010C50PT   | 1       | 1   | 1   | C106        | CU3551    | Chip C.       | GRM36B223K16PT    | 1       | 1 | 1  |
| C41         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1   | 1   | C107        | CU3101    | Chip C.       | C1608JB1C473KT-NS | 1       | 1 | 1  |
| C42         | CU3503    | Chip C.       | GRM36CK020C50PT   | 1       | 1   | 1   | C108        | CU3524    | Chip C.       | GRM36CH121J50PT   | 1       | 1 | 1  |
| C44         | CU3501    | Chip C.       | GRM36CK0R5C50PT   | 1       | 1   | 1   | C109        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C46         | CU3101    | Chip C.       | C1608JB1C473KT-NS | 1       | 1   | 1   | C110        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C47         | CS0406    | Chip tantalum | 35MCM105MATER     | 1       | 1   | 1   | C111        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C48         | CU3505    | Chip C.       | GRM36CH040C50PT   | 1       | 1   | 1   | C112        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C50         | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1   | 1   | C113        | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1 | 1  |
| C51         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C114        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C52         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C115        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C53         | CU108     | Chip C.       | LMK212BJ105KG     | 1       | 1   | 1   | C116        | CU3541    | Chip C.       | GRM36B332K50PT    | 1       | 1 | 1  |
| C54         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C117        | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1 | 1  |
| C55         | CU3523    | Chip C.       | GRM36CH101J50PT   | 1       | 1   | 1   | C118        | CS0408    | Chip tantalum | 6MCM156MATER      | 1       | 1 | 1  |
| C56         | CU3520    | Chip C.       | GRM36CH560J50PT   | 1       | 1   | 1   | C119        | CU0108    | Chip C.       | LMK212BJ105KG     | 1       | 1 | 1  |
| C57         | CU3516    | Chip C.       | GRM36CH270J50PT   | 1       | 1   | 1   | C120        | CU3538    | Chip C.       | GRM36B182K50PT    | 1       | 1 | 1  |
| C58         | CU3511    | Chip C.       | GRM36CH100D50PT   | 1       | 1   | 1   | C121        | CU3101    | Chip C.       | C1608JB1C473KT-NS | 1       | 1 | 1  |
| C59         | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1   | 1   | C122        | CU3523    | Chip C.       | GRM36CH101J50PT   | 1       | 1 | 1  |
| C60         | CU3531    | Chip C.       | GRM36B471K50PT    | 1       | 1   | 1   | C123        | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1 | 1  |
| C61         | CU3535    | Chip C.       | GRM36B102K50PT    | 1       | 1   | 1   | C124        | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1 | 1  |
| C62         | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1   | 1   | C125        | CU3549    | Chip C.       | GRM36B153K16PT    | 1       | 1 | 1  |
| C63         | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1   | 1   | C126        | CU0108    | Chip C.       | LMK212BJ105KG     | 1       | 1 | 1  |
| C64         | CU3111    | Chip C.       | C1608JB1C104KT-N  | 1       | 1   | 1   | C127        | CU3547    | Chip C.       | GRM36B103K16PT    | 1       | 1 | 1  |

| Ref. No. | Parts No. | Description     | Parts Name        | Version |   |    | Ref. No. | Parts No. | Description     | Parts Name           | Version |   |    |
|----------|-----------|-----------------|-------------------|---------|---|----|----------|-----------|-----------------|----------------------|---------|---|----|
|          |           |                 |                   | T       | E | TA |          |           |                 |                      | T       | E | TA |
| C128     | CU3551    | Chip C.         | GRM36B223K16PT    | 1       | 1 | 1  | D8       | XL0036    | Chip Diode      | SML-310MTT86         | 1       | 1 | 1  |
| C129     | CS0367    | Chip tantalum   | TMCMA0J106MTR     | 1       | 1 | 1  | D10      | XL0036    | Chip Diode      | SML-310MTT86         | 1       | 1 | 1  |
| C130     | CS0414    | Chip tantalum   | 6MCM476MB2TER     | 1       | 1 | 1  | D11      | XD0331    | Chip Diode      | HSU277TRF            | 1       | 1 | 1  |
| C131     | CS0408    | Chip tantalum   | 6MCM156MATER      | 1       | 1 | 1  | D13      | XD0130    | Chip Diode      | DA204U T106          | 1       | 1 | 1  |
| C132     | CU3544    | Chip C.         | GRM36B562K25PT    | 1       | 1 | 1  | D15      | XD0344    | Chip Diode      | 1SV311 (TPL3)        | 1       | 1 | 1  |
| C133     | CU3540    | Chip C.         | GRM36B272K50PT    | 1       | 1 | 1  | D16      | XD0291    | Chip Diode      | MA729-TX             | 1       | 1 | 1  |
| C134     | CU3547    | Chip C.         | GRM36B103K16PT    | 1       | 1 | 1  | D17      | XD0315    | Chip Diode      | MA2S728-TX           | 1       | 1 | 1  |
| C135     | CU3545    | Chip C.         | GRM36B682K25PT    | 1       | 1 | 1  | EL1      | EL0053    | LCD             | WD-S2304I-7NNAA      | 1       | 1 | 1  |
| C137     | CU3543    | Chip C.         | GRM36B472K25PT    | 1       | 1 | 1  | FL2      | XC0075    | Ceramic Filter  | CFUCG450E-TC         | 1       | 1 | 1  |
| C138     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | FL3      | XF0034    | Crystal Filter  | DSF753S 21.700MHZ    | 1       | 1 | 1  |
| C139     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | IC1      | XA0545    | IC              | UPC2771T             | 1       | 1 | 1  |
| C140     | CU0108    | Chip C.         | LMK212BJ105KG     | 1       | 1 | 1  | IC2      | XA0543    | IC              | M64082AGP            | 1       | 1 | 1  |
| C141     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | IC3      | XA0404    | IC              | TA31136FN(EL)        | 1       | 1 | 1  |
| C142     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | IC4      | XA0573    | IC              | NJM2904V-TE1         | 1       | 1 | 1  |
| C143     | CU3547    | Chip C.         | GRM36B103K16PT    | 1       | 1 | 1  | IC5      | XA0596    | IC              | NJM2902V-TE1         | 1       | 1 | 1  |
| C144     | CS0408    | Chip tantalum   | 6MCM156MATER      | 1       | 1 | 1  | IC6      | XA0210    | IC              | NJM2070M T1          | 1       | 1 | 1  |
| C145     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | IC7      | XA0903    | IC              | M38224M6M233HP DJS40 | 1       | 1 | 1  |
| C146     | CS0408    | Chip tantalum   | 6MCM156MATER      | 1       | 1 | 1  | IC9      | XA0817    | IC              | S-24C16AFJX-TB-01    | 1       | 1 | 1  |
| C147     | CS0422    | Chip tantalum   | TMCMB1A476MTR     | 1       | 1 | 1  | IC10     | XA0848    | IC              | S-816A30AMC-BAF-T2   | 1       | 1 | 1  |
| C148     | CU0108    | Chip C.         | LMK212BJ105KG     | 1       | 1 | 1  | IC11     | XA0857    | IC              | S-80827ALNP          | 1       | 1 | 1  |
| C149     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | JK1      | UJ0022    | Jack            | HSJ1102-01-540       | 1       | 1 | 1  |
| C150     | CU3551    | Chip C.         | GRM36B223K16PT    | 1       | 1 | 1  | JK2      | UJ0019    | Jack            | HSJ1493-01-010       | 1       | 1 | 1  |
| C151     | CU3551    | Chip C.         | GRM36B223K16PT    | 1       | 1 | 1  | JK3      | UJ0015    | Jack            | HEC2781 010020       | 1       | 1 | 1  |
| C152     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | L1       | QC0215    | Chip Inductor   | MLF2012A1R0K-T       | 1       | 1 | 1  |
| C157     | CE0411    | Electrolytic C. | 16MV10UWA3        | 1       | 1 | 1  | L2       | QC0533    | Chip Inductor   | LQN21A39NJ04         | 1       | 1 | 1  |
| C158     | CS0414    | Chip tantalum   | 6MCM476MB2TER     | 1       | 1 | 1  | L3       | QC0507    | Chip Inductor   | LK16081R0K-T         | 1       | 1 | 1  |
| C159     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L4       | QC0623    | Chip Inductor   | LL1608-FS47NJ        | 1       | 1 | 1  |
| C160     | CU0108    | Chip C.         | LMK212BJ105KG     | 1       | 1 | 1  | L5       | QC0627    | Chip Inductor   | LL1608-FSR10J        | 1       | 1 | 1  |
| C161     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L6       | QKA45A    | Coil            | MR1.5 4.5T 0.4       | 1       | 1 | 1  |
| C162     | CU3517    | Chip C.         | GRM36CH330J50PT   | 1       | 1 | 1  | L7       | QKA45A    | Coil            | MR1.5 4.5T 0.4       | 1       | 1 | 1  |
| C163     | CU3517    | Chip C.         | GRM36CH330J50PT   | 1       | 1 | 1  | L8       | QKA25A    | Coil            | MR1.5 2.5T 0.4       | 1       | 1 | 1  |
| C165     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L9       | QC0619    | Chip Inductor   | LL1608-FS22NJ        | 1       | 1 | 1  |
| C166     | CS0414    | Chip tantalum   | 6MCM476MB2TER     | 1       | 1 | 1  | L10      | QC0616    | Chip Inductor   | LL1608-FS12NJ        | 1       | 1 | 1  |
| C167     | CU3503    | Chip C.         | GRM36CK020C50PT   | 1       | 1 | 1  | L11      | QC0616    | Chip Inductor   | LL1608-FS12NJ        | 1       | 1 | 1  |
| C168     | CU3531    | Chip C.         | GRM36B471K50PT    | 1       | 1 | 1  | L12      | QC0527    | Chip Inductor   | LQN21A12NJ04         | 1       | 1 | 1  |
| C169     | CU3531    | Chip C.         | GRM36B471K50PT    | 1       | 1 | 1  | L13      | QC0507    | Chip Inductor   | LK16081R0K-T         | 1       | 1 | 1  |
| C170     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | L14      | QC0527    | Chip Inductor   | LQN21A12NJ04         | 1       | 1 | 1  |
| C171     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L15      | QC0528    | Chip Inductor   | LQN21A15NJ04         | 1       | 1 | 1  |
| C172     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L16      | QC0507    | Chip Inductor   | LK16081R0K-T         | 1       | 1 | 1  |
| C173     | CE0411    | Electrolytic C. | 16MV10UWA3        | 1       | 1 | 1  | L17      | QC0618    | Chip Inductor   | LL1608-FS18NJ        | 1       | 1 | 1  |
| C174     | CS0367    | Chip tantalum   | TMCMA0J106MTR     | 1       | 1 | 1  | L18      | QC0526    | Chip Inductor   | LQN21A10NJ04         | 1       | 1 | 1  |
| C175     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | L19      | QC0526    | Chip Inductor   | LQN21A10NJ04         | 1       | 1 | 1  |
| C178     | CU3519    | Chip C.         | GRM36CH470J50PT   | 1       | 1 | 1  | L20      | QC0527    | Chip Inductor   | LQN21A12NJ04         | 1       | 1 | 1  |
| C179     | CU3519    | Chip C.         | GRM36CH470J50PT   | 1       | 1 | 1  | L21      | QC0527    | Chip Inductor   | LQN21A12NJ04         | 1       | 1 | 1  |
| C180     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L22      | QC0507    | Chip Inductor   | LK16081R0K-T         | 1       | 1 | 1  |
| C181     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | L23      | QC0623    | Chip Inductor   | LL1608-FS47NJ        | 1       | 1 | 1  |
| C182     | CU3519    | Chip C.         | GRM36CH470J50PT   | 1       | 1 | 1  | L24      | QC0534    | Chip Inductor   | LQN21A47NJ04         | 1       | 1 | 1  |
| C184     | CU3510    | Chip C.         | GRM36CH090D50PT   | 1       | 0 | 1  | L25      | QC0616    | Chip Inductor   | LL1608-FS12NJ        | 1       | 1 | 1  |
| C184     | CU3511    | Chip C.         | GRM36CH100D50PT   | 0       | 1 | 0  | MIC1     | EY0017    | Mic             | OB-27P44             | 1       | 1 | 1  |
| C185     | CU3503    | Chip C.         | GRM36CK020C50PT   | 1       | 1 | 1  | Q1       | XU0193    | Chip Transistor | RN1107 TE85L         | 1       | 1 | 1  |
| C186     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | Q2       | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| C187     | CU3111    | Chip C.         | C1608JB1C104KT-N  | 1       | 1 | 1  | Q3       | XE0034    | FET             | MRF9745T1            | 1       | 1 | 1  |
| C188     | CU3509    | Chip C.         | GRM36CH080D50PT   | 1       | 1 | 1  | Q4       | XE0044    | FET             | 2SK3074 TE12L        | 1       | 1 | 1  |
| C209     | CU3535    | Chip C.         | GRM36B102K50PT    | 1       | 1 | 1  | Q5       | XU0172    | Chip Transistor | XP1501-TX            | 1       | 1 | 1  |
| C210     | CU3531    | Chip C.         | GRM36B471K50PT    | 1       | 1 | 1  | Q6       | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| C212     | CU0108    | Chip C.         | LMK212BJ105KG     | 1       | 1 | 1  | Q7       | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| C213     | CU3004    | Chip C.         | C1608CH1H030CT-AS | 1       | 1 | 1  | Q8       | XT0172    | Chip Transistor | 2SC4618TLP           | 1       | 1 | 1  |
| D1       | XD0326    | Chip Diode      | 1SV307(TPH3)      | 1       | 1 | 1  | Q9       | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| D2       | XD0344    | Chip Diode      | 1SV311 (TPL3)     | 1       | 1 | 1  | Q10      | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| D3       | XD0331    | Chip Diode      | HSU277TRF         | 1       | 1 | 1  | Q11      | XT0138    | Chip Transistor | 2SC5066-O(TE85L)     | 1       | 1 | 1  |
| D4       | XD0251    | Chip Diode      | MA741WA TX        | 1       | 1 | 1  | Q12      | XT0171    | Chip Transistor | 2SC4808-TX.AR        | 1       | 1 | 1  |
| D5       | XD0331    | Chip Diode      | HSU277TRF         | 1       | 1 | 1  | Q13      | XU0092    | Chip Transistor | UN911H-TX            | 1       | 1 | 1  |
| D6       | XD0291    | Chip Diode      | MA729-TX          | 1       | 1 | 1  | Q15      | XT0095    | Chip Transistor | 2SC4081 T106R        | 1       | 1 | 1  |
| D7       | XD0368    | Chip Diode      | M1FE40-4063       | 1       | 1 | 1  | Q16      | XU0193    | Chip Transistor | RN1107 TE85L         | 1       | 1 | 1  |

| Ref. No. | Parts No. | Description     | Parts Name     | Version |   |    |
|----------|-----------|-----------------|----------------|---------|---|----|
|          |           |                 |                | T       | E | TA |
| Q17      | XT0170    | Chip Transistor | 2SB766A-TX     | 1       | 1 | 1  |
| Q19      | XT0095    | Chip Transistor | 2SC4081 T106R  | 1       | 1 | 1  |
| Q20      | XT0135    | Chip Transistor | 2SD2216R-TX    | 1       | 1 | 1  |
| Q21      | XT0110    | Chip Transistor | 2SA1036K T146Q | 1       | 1 | 1  |
| Q22      | XU0161    | Chip Transistor | XP1114(TX)     | 1       | 1 | 1  |
| Q23      | XT0135    | Chip Transistor | 2SD2216R-TX    | 1       | 1 | 1  |
| Q24      | XU0193    | Chip Transistor | RN1107 TE85L   | 1       | 1 | 1  |
| Q26      | XU0172    | Chip Transistor | XP1501-TX      | 1       | 1 | 1  |
| Q27      | XT0170    | Chip Transistor | 2SB766A-TX     | 1       | 1 | 1  |
| Q28      | XU0152    | Chip Transistor | UMC5NTR        | 1       | 1 | 1  |
| Q29      | XU0192    | Chip Transistor | RN2107 TE85L   | 1       | 1 | 1  |
| Q30      | XU0172    | Chip Transistor | XP1501-TX      | 1       | 1 | 1  |
| Q31      | XT0094    | Chip Transistor | 2SA1576A T106R | 1       | 1 | 1  |
| Q32      | XT0170    | Chip Transistor | 2SB766A-TX     | 1       | 1 | 1  |
| Q35      | XU0192    | Chip Transistor | RN2107 TE85L   | 1       | 1 | 1  |
| Q36      | XU0193    | Chip Transistor | RN1107 TE85L   | 1       | 1 | 1  |
| Q39      | XT0110    | Chip Transistor | 2SA1036K T146Q | 1       | 1 | 1  |
| Q40      | XT0135    | Chip Transistor | 2SD2216R-TX    | 1       | 1 | 1  |
| R4       | RK3550    | Chip R.         | ERJ2GEJ103X    | 1       | 1 | 1  |
| R5       | RK3526    | Chip R.         | ERJ2GEJ101X    | 1       | 1 | 1  |
| R6       | RK3558    | Chip R.         | ERJ2GEJ473X    | 1       | 1 | 1  |
| R8       | RK3558    | Chip R.         | ERJ2GEJ473X    | 1       | 1 | 1  |
| R9       | RK3522    | Chip R.         | ERJ2GEJ470X    | 1       | 1 | 1  |
| R11      | RK3522    | Chip R.         | ERJ2GEJ470X    | 1       | 1 | 1  |
| R12      | RK3572    | Chip R.         | ERJ2GEJ684X    | 1       | 1 | 1  |
| R13      | RK3562    | Chip R.         | ERJ2GEJ104X    | 1       | 1 | 1  |
| R14      | RK3562    | Chip R.         | ERJ2GEJ104X    | 1       | 1 | 1  |
| R15      | RK3522    | Chip R.         | ERJ2GEJ470X    | 1       | 1 | 1  |
| R16      | RK3526    | Chip R.         | ERJ2GEJ101X    | 1       | 1 | 1  |
| R17      | RK3546    | Chip R.         | ERJ2GEJ472X    | 1       | 1 | 1  |
| R18      | RK3522    | Chip R.         | ERJ2GEJ470X    | 1       | 1 | 1  |
| R19      | RK3546    | Chip R.         | ERJ2GEJ472X    | 1       | 1 | 1  |
| R20      | RK3550    | Chip R.         | ERJ2GEJ103X    | 1       | 1 | 1  |
| R21      | RK3545    | Chip R.         | ERJ2GEJ392X    | 1       | 1 | 1  |
| R22      | RK3558    | Chip R.         | ERJ2GEJ473X    | 1       | 1 | 1  |
| R23      | RK3550    | Chip R.         | ERJ2GEJ103X    | 1       | 1 | 1  |
| R24      | RK3544    | Chip R.         | ERJ2GEJ332X    | 1       | 1 | 1  |
| R25      | RK3566    | Chip R.         | ERJ2GEJ224X    | 1       | 1 | 1  |
| R26      | RK3562    | Chip R.         | ERJ2GEJ104X    | 1       | 1 | 1  |
| R28      | RK3534    | Chip R.         | ERJ2GEJ471X    | 1       | 1 | 1  |
| R29      | RK3530    | Chip R.         | ERJ2GEJ221X    | 1       | 1 | 1  |
| R31      | RK3544    | Chip R.         | ERJ2GEJ332X    | 1       | 1 | 1  |
| R32      | RK3556    | Chip R.         | ERJ2GEJ333X    | 1       | 1 | 1  |
| R33      | RK3530    | Chip R.         | ERJ2GEJ221X    | 1       | 1 | 1  |
| R34      | RK3544    | Chip R.         | ERJ2GEJ332X    | 1       | 1 | 1  |
| R35      | RK3518    | Chip R.         | ERJ2GEJ220X    | 1       | 1 | 1  |
| R36      | RK3554    | Chip R.         | ERJ2GEJ223X    | 1       | 1 | 1  |
| R37      | RK3518    | Chip R.         | ERJ2GEJ220X    | 1       | 1 | 1  |
| R38      | RK3538    | Chip R.         | ERJ2GEJ102X    | 1       | 1 | 1  |
| R39      | RK3538    | Chip R.         | ERJ2GEJ102X    | 1       | 1 | 1  |
| R40      | RK3526    | Chip R.         | ERJ2GEJ101X    | 1       | 1 | 1  |
| R41      | RK3526    | Chip R.         | ERJ2GEJ101X    | 1       | 1 | 1  |
| R42      | RK3526    | Chip R.         | ERJ2GEJ101X    | 1       | 1 | 1  |
| R43      | RK3518    | Chip R.         | ERJ2GEJ220X    | 1       | 1 | 1  |
| R44      | RK3538    | Chip R.         | ERJ2GEJ102X    | 1       | 1 | 1  |
| R45      | RK3544    | Chip R.         | ERJ2GEJ332X    | 1       | 1 | 1  |
| R46      | RK3530    | Chip R.         | ERJ2GEJ221X    | 1       | 1 | 1  |
| R47      | RK3530    | Chip R.         | ERJ2GEJ221X    | 1       | 1 | 1  |
| R48      | RK3566    | Chip R.         | ERJ2GEJ224X    | 1       | 1 | 1  |
| R49      | RK3559    | Chip R.         | ERJ2GEJ563X    | 1       | 1 | 1  |
| R50      | RK3559    | Chip R.         | ERJ2GEJ563X    | 1       | 1 | 1  |
| R51      | RK3562    | Chip R.         | ERJ2GEJ104X    | 1       | 1 | 1  |
| R52      | RK3539    | Chip R.         | ERJ2GEJ122X    | 1       | 1 | 1  |
| R53      | RK3539    | Chip R.         | ERJ2GEJ122X    | 1       | 1 | 1  |

| Ref. No. | Parts No. | Description | Parts Name  | Version |   |    |
|----------|-----------|-------------|-------------|---------|---|----|
|          |           |             |             | T       | E | TA |
| R54      | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R55      | RK3564    | Chip R.     | ERJ2GEJ154X | 1       | 1 | 1  |
| R56      | RK3526    | Chip R.     | ERJ2GEJ101X | 1       | 1 | 1  |
| R59      | RK3540    | Chip R.     | ERJ2GEJ152X | 1       | 1 | 1  |
| R61      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R62      | RK1018    | Chip R.     | ERJ8GEY101V | 1       | 1 | 1  |
| R63      | RK3554    | Chip R.     | ERJ2GEJ223X | 1       | 1 | 1  |
| R64      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R66      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R67      | RK3501    | Chip R.     | ERJ2GE0R00X | 1       | 1 | 1  |
| R68      | RK3552    | Chip R.     | ERJ2GEJ153X | 1       | 1 | 1  |
| R69      | RK3548    | Chip R.     | ERJ2GEJ682X | 1       | 1 | 1  |
| R70      | RK3555    | Chip R.     | ERJ2GEJ273X | 1       | 1 | 1  |
| R71      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R72      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R73      | RK3556    | Chip R.     | ERJ2GEJ333X | 1       | 1 | 1  |
| R75      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R76      | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R77      | RK3572    | Chip R.     | ERJ2GEJ684X | 1       | 1 | 1  |
| R78      | RK3562    | Chip R.     | ERJ2GEJ104X | 1       | 1 | 1  |
| R79      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R80      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R81      | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R82      | RK3522    | Chip R.     | ERJ2GEJ470X | 1       | 1 | 1  |
| R83      | RK3557    | Chip R.     | ERJ2GEJ393X | 1       | 1 | 1  |
| R84      | RK3554    | Chip R.     | ERJ2GEJ223X | 1       | 1 | 1  |
| R85      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R86      | RK3548    | Chip R.     | ERJ2GEJ682X | 1       | 1 | 1  |
| R87      | RK3559    | Chip R.     | ERJ2GEJ563X | 1       | 1 | 1  |
| R88      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R89      | RK3538    | Chip R.     | ERJ2GEJ102X | 1       | 1 | 1  |
| R90      | RK3567    | Chip R.     | ERJ2GEJ274X | 1       | 1 | 1  |
| R91      | RK3545    | Chip R.     | ERJ2GEJ392X | 1       | 1 | 1  |
| R92      | RK3563    | Chip R.     | ERJ2GEJ124X | 1       | 1 | 1  |
| R93      | RK3558    | Chip R.     | ERJ2GEJ473X | 1       | 1 | 1  |
| R94      | RK3561    | Chip R.     | ERJ2GEJ823X | 1       | 1 | 1  |
| R95      | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R96      | RK3543    | Chip R.     | ERJ2GEJ272X | 1       | 1 | 1  |
| R97      | RK3542    | Chip R.     | ERJ2GEJ222X | 1       | 1 | 1  |
| R98      | RK3545    | Chip R.     | ERJ2GEJ392X | 1       | 1 | 1  |
| R99      | RK3560    | Chip R.     | ERJ2GEJ683X | 1       | 1 | 1  |
| R100     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R101     | RK3563    | Chip R.     | ERJ2GEJ124X | 1       | 1 | 1  |
| R102     | RK3552    | Chip R.     | ERJ2GEJ153X | 1       | 1 | 1  |
| R103     | RK3559    | Chip R.     | ERJ2GEJ563X | 1       | 1 | 1  |
| R104     | RK3563    | Chip R.     | ERJ2GEJ124X | 1       | 1 | 1  |
| R105     | RK3546    | Chip R.     | ERJ2GEJ472X | 1       | 1 | 1  |
| R106     | RK3540    | Chip R.     | ERJ2GEJ152X | 1       | 1 | 1  |
| R107     | RK3514    | Chip R.     | ERJ2GEJ100X | 1       | 1 | 1  |
| R108     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R109     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R111     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R112     | RK3572    | Chip R.     | ERJ2GEJ684X | 1       | 1 | 1  |
| R113     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R114     | RK3567    | Chip R.     | ERJ2GEJ274X | 1       | 1 | 1  |
| R115     | RK3560    | Chip R.     | ERJ2GEJ683X | 1       | 1 | 1  |
| R116     | RK3538    | Chip R.     | ERJ2GEJ102X | 1       | 1 | 1  |
| R117     | RK3546    | Chip R.     | ERJ2GEJ472X | 1       | 1 | 1  |
| R118     | RK3526    | Chip R.     | ERJ2GEJ101X | 1       | 1 | 1  |
| R119     | RK3538    | Chip R.     | ERJ2GEJ102X | 1       | 1 | 1  |
| R120     | RK3546    | Chip R.     | ERJ2GEJ472X | 1       | 1 | 1  |
| R121     | RK3550    | Chip R.     | ERJ2GEJ103X | 1       | 1 | 1  |
| R122     | RK3546    | Chip R.     | ERJ2GEJ472X | 1       | 1 | 1  |
| R123     | RK3546    | Chip R.     | ERJ2GEJ472X | 1       | 1 | 1  |

| Ref. No. | Parts No. | Description | Parts Name   | Version |   |    |
|----------|-----------|-------------|--------------|---------|---|----|
|          |           |             |              | T       | E | TA |
| R124     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R125     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R126     | RK3546    | Chip R.     | ERJ2GEJ472X  | 1       | 1 | 1  |
| R127     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R128     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R129     | RK3541    | Chip R.     | ERJ2GEJ182X  | 1       | 1 | 1  |
| R130     | RK3564    | Chip R.     | ERJ2GEJ154X  | 1       | 1 | 1  |
| R131     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R132     | RK3566    | Chip R.     | ERJ2GEJ224X  | 1       | 1 | 1  |
| R133     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R134     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R135     | RK3551    | Chip R.     | ERJ2GEJ123X  | 1       | 1 | 1  |
| R136     | RK3522    | Chip R.     | ERJ2GEJ470X  | 1       | 1 | 1  |
| R137     | RK3532    | Chip R.     | ERJ2GEJ331X  | 1       | 1 | 1  |
| R138     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R139     | RK3558    | Chip R.     | ERJ2GEJ473X  | 1       | 1 | 1  |
| R140     | RK3558    | Chip R.     | ERJ2GEJ473X  | 1       | 1 | 1  |
| R141     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R142     | RK3558    | Chip R.     | ERJ2GEJ473X  | 1       | 1 | 1  |
| R143     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R144     | RK3574    | Chip R.     | ERJ2GEJ105X  | 1       | 1 | 1  |
| R145     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R146     | RK3529    | Chip R.     | ERJ2GEJ181X  | 1       | 1 | 1  |
| R147     | RK3552    | Chip R.     | ERJ2GEJ153X  | 1       | 1 | 1  |
| R148     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R149     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R150     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R151     | RK3574    | Chip R.     | ERJ2GEJ105X  | 1       | 1 | 1  |
| R153     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 0 | 1  |
| R156     | RK3546    | Chip R.     | ERJ2GEJ472X  | 1       | 1 | 1  |
| R157     | RK3546    | Chip R.     | ERJ2GEJ472X  | 1       | 1 | 1  |
| R159     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R160     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R161     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R162     | RK3551    | Chip R.     | ERJ2GEJ123X  | 1       | 1 | 1  |
| R163     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R164     | RK3558    | Chip R.     | ERJ2GEJ473X  | 1       | 1 | 1  |
| R165     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R167     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R168     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R169     | RK0003    | Chip R.     | ERJ6GEYJ150V | 1       | 1 | 1  |
| R170     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R173     | RK3501    | Chip R.     | ERJ2GE0R00X  | 1       | 1 | 1  |
| R174     | RK3558    | Chip R.     | ERJ2GEJ473X  | 1       | 1 | 1  |
| R175     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R176     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R177     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R178     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R180     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R182     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R183     | RK3538    | Chip R.     | ERJ2GEJ102X  | 1       | 1 | 1  |
| R190     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R191     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R192     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R193     | RK3552    | Chip R.     | ERJ2GEJ153X  | 1       | 1 | 1  |
| R194     | RK3547    | Chip R.     | ERJ2GEJ562X  | 1       | 1 | 1  |
| R195     | RK3501    | Chip R.     | ERJ2GE0R00X  | 1       | 1 | 1  |
| R196     | RK3550    | Chip R.     | ERJ2GEJ103X  | 1       | 1 | 1  |
| R197     | RK3562    | Chip R.     | ERJ2GEJ104X  | 1       | 1 | 1  |
| R198     | RK3546    | Chip R.     | ERJ2GEJ472X  | 1       | 1 | 1  |
| R199     | RK3529    | Chip R.     | ERJ2GEJ181X  | 1       | 1 | 1  |
| R200     | RK3542    | Chip R.     | ERJ2GEJ222X  | 1       | 1 | 1  |
| R201     | RK3574    | Chip R.     | ERJ2GEJ105X  | 1       | 1 | 1  |
| R202     | RK3562    | Chip R.     | ERJ2GEJ104X  | 0       | 0 | 0  |

| Ref. No. | Parts No. | Description   | Parts Name         | Version |   |    |
|----------|-----------|---------------|--------------------|---------|---|----|
|          |           |               |                    | T       | E | TA |
| R203     | RK3558    | Chip R.       | ERJ2GEJ473X        | 1       | 1 | 1  |
| R204     | RK3542    | Chip R.       | ERJ2GEJ222X        | 1       | 1 | 1  |
| R205     | RK3562    | Chip R.       | ERJ2GEJ104X        | 1       | 1 | 1  |
| R206     | RK3501    | Chip R.       | ERJ2GE0R00X        | 1       | 1 | 1  |
| R208     | RK3548    | Chip R.       | ERJ2GEJ682X        | 1       | 1 | 1  |
| R209     | RK3501    | Chip R.       | ERJ2GE0R00X        | 1       | 1 | 1  |
| R210     | RK3501    | Chip R.       | ERJ2GE0R00X        | 0       | 0 | 0  |
| R211     | RK3562    | Chip R.       | ERJ2GEJ104X        | 1       | 1 | 1  |
| R212     | RK3554    | Chip R.       | ERJ2GEJ223X        | 1       | 1 | 1  |
| R213     | RK3522    | Chip R.       | ERJ2GEJ470X        | 1       | 1 | 1  |
| R214     | RK3538    | Chip R.       | ERJ2GEJ102X        | 1       | 1 | 1  |
| TC1      | CT0046    | Trimmer       | TC03C100A-TP02     | 1       | 1 | 1  |
| TC2      | CT0046    | Trimmer       | TC03C100A-TP02     | 1       | 1 | 1  |
| TC3      | CT0046    | Trimmer       | TC03C100A-TP02     | 1       | 1 | 1  |
| VR1      | RH0140    | Trimmer R.    | MVR22HXBRN472      | 1       | 1 | 1  |
| VR2      | RH0140    | Trimmer R.    | MVR22HXBRN472      | 1       | 1 | 1  |
| VR3      | RV0046    | Volume        | TP76N00A135FB103   | 1       | 1 | 1  |
| W6       | MACLH2GG  | Wire          | #30AH1-025-H1      | 1       | 1 | 0  |
| W7       | UX1277    | Wore          | WIRE DJS40 W7      | 1       | 1 | 1  |
| X1       | XQ0103    | Crystal       | TOP-B 21.250MHZ    | 1       | 1 | 1  |
| X2       | XK0005    | Discriminator | CDBC450CX24-TC     | 1       | 1 | 1  |
| X3       | XQ0131    | Crystal       | CSA310 3.686400MHZ | 1       | 1 | 1  |
| FM0196   |           |               | RADIATE SHEET      | 1       | 1 | 1  |
| DG0040   |           |               | LCD LIGHT DJS40    | 1       | 1 | 1  |
| ST0069   |           |               | LCD HOLDER         | 1       | 1 | 1  |
| TL0027   |           |               | REFLECTION SHEET   | 1       | 1 | 1  |
| TS0142   |           |               | VCO case XH655     | 1       | 1 | 1  |
| TS0148   |           |               | VCO Shield DJP85   | 1       | 1 | 1  |
| TL0026   |           |               | DIFFUSION SHEET    | 1       | 1 | 1  |

## PTT Unit

| Ref. No. | Parts No. | Description | Parts Name | Version |   |    |
|----------|-----------|-------------|------------|---------|---|----|
|          |           |             |            | T       | E | TA |
| SW1      | UU0027    | Switch      | SKQGAA     | 1       | 1 | 1  |
| SW7      | UU0027    | Switch      | SKQGAA     | 1       | 1 | 1  |

## Mechanical Parts

| Ref.<br>No. | Parts No. | Description           | Parts Name        | Version |   |    |
|-------------|-----------|-----------------------|-------------------|---------|---|----|
|             |           |                       |                   | T       | E | TA |
| W1          | MBCL02AA  | Wire                  | #30B02-20-02      | 1       | 1 | 1  |
| W2          | MRCL02AA  | Wire                  | #30R02-20-02      | 1       | 1 | 1  |
| W3          | MRCL02AA  | Wire                  | #30R02-20-02      | 1       | 1 | 1  |
| AF0025      | Screw     | OPH M2+2.5 FE/N1      | 2                 | 2       | 2 |    |
| AF0031      | Screw     | OPH 2+5 FE/N3         | 1                 | 1       | 1 |    |
| AN0012      | Nut       | RND N7X0.75 BR/B.ZN   | 1                 | 1       | 1 |    |
| AN0027      | Nut       | ANTENNA NUT XH720     | 1                 | 1       | 1 |    |
| AX0005      | Screw     | OP 1.7+5.0 Fe Ni3     | 2                 | 2       | 2 |    |
| AX0008      | Screw     | OPH P1.7+4 FE/B.ZN3   | 2                 | 2       | 2 |    |
| DP0139      |           | LCD panel             | 1                 | 1       | 1 |    |
| ES0025      | Spesker   | 32-8BB-06             | 1                 | 1       | 1 |    |
| FG0329      |           | PTT RUBBER            | 1                 | 1       | 1 |    |
| FG0330      |           | SILICON KEY RUBBER    | 1                 | 1       | 1 |    |
| FG0331      |           | TERMINAL RUBBER       | 2                 | 2       | 2 |    |
| FG0332      |           | MIC CAP RUBBER        | 1                 | 1       | 1 |    |
| FG0333      |           | JACK CAP RUBBER       | 1                 | 1       | 1 |    |
| FG0334      |           | SP CAP RUBBER         | 1                 | 1       | 1 |    |
| FG0336      |           | MIC RUBBER            | 1                 | 1       | 1 |    |
| FG0337      |           | DC CAP RUBBER         | 1                 | 1       | 1 |    |
| FG0345      |           | FLEXIBLE CUSHION S40  | 1                 | 1       | 1 |    |
| FG0346      |           | CUSHION A DJS40       | 1                 | 1       | 1 |    |
| FM0201      |           | ANTENNA GROUND DJS40  | 1                 | 1       | 1 |    |
| FP0179      |           | REAR PANEL            | 1                 | 1       | 1 |    |
| FP0182      |           | SP CUSHION            | 2                 | 2       | 2 |    |
| KZ0134A     |           | FRONT CASE ASSY DJS40 | 1                 | 1       | 1 |    |
| KZ0135A     |           | REAR CASE ASSY S40    | 1                 | 1       | 1 |    |
| W5          | MACL04AA  | Wire                  | #30A02-040-02     | 1       | 1 | 1  |
| W4          | MRCL04AA  | Wire                  | #30 RED 02-040-02 | 1       | 1 | 1  |
| NK0077      |           | VOL KNOB DJS40        | 1                 | 1       | 1 |    |
| RD0108      |           | J1/6Z                 | 1                 | 1       | 1 |    |
| SD0092      |           | TERMINAL L            | 1                 | 1       | 1 |    |
| SD0093      |           | TERMINAL R            | 1                 | 1       | 1 |    |
| SP0013      |           | LECTRA #7800          | 1                 | 1       | 1 |    |
| TN0014      |           | FLEX. SHIELD          | 1                 | 1       | 1 |    |
| TN0014      |           | FLEX. SHIELD          | 1                 | 1       | 1 |    |
| TS0165      |           | RF SHIELD             | 1                 | 1       | 1 |    |
| TZ0088      |           | INSULATOR DJS40J      | 1                 | 1       | 1 |    |
| UE0338      |           | SMA 19-16-3TGG        | 1                 | 1       | 1 |    |
| YX0032      |           | LCD TAPE DJS40        | 1                 | 1       | 1 |    |

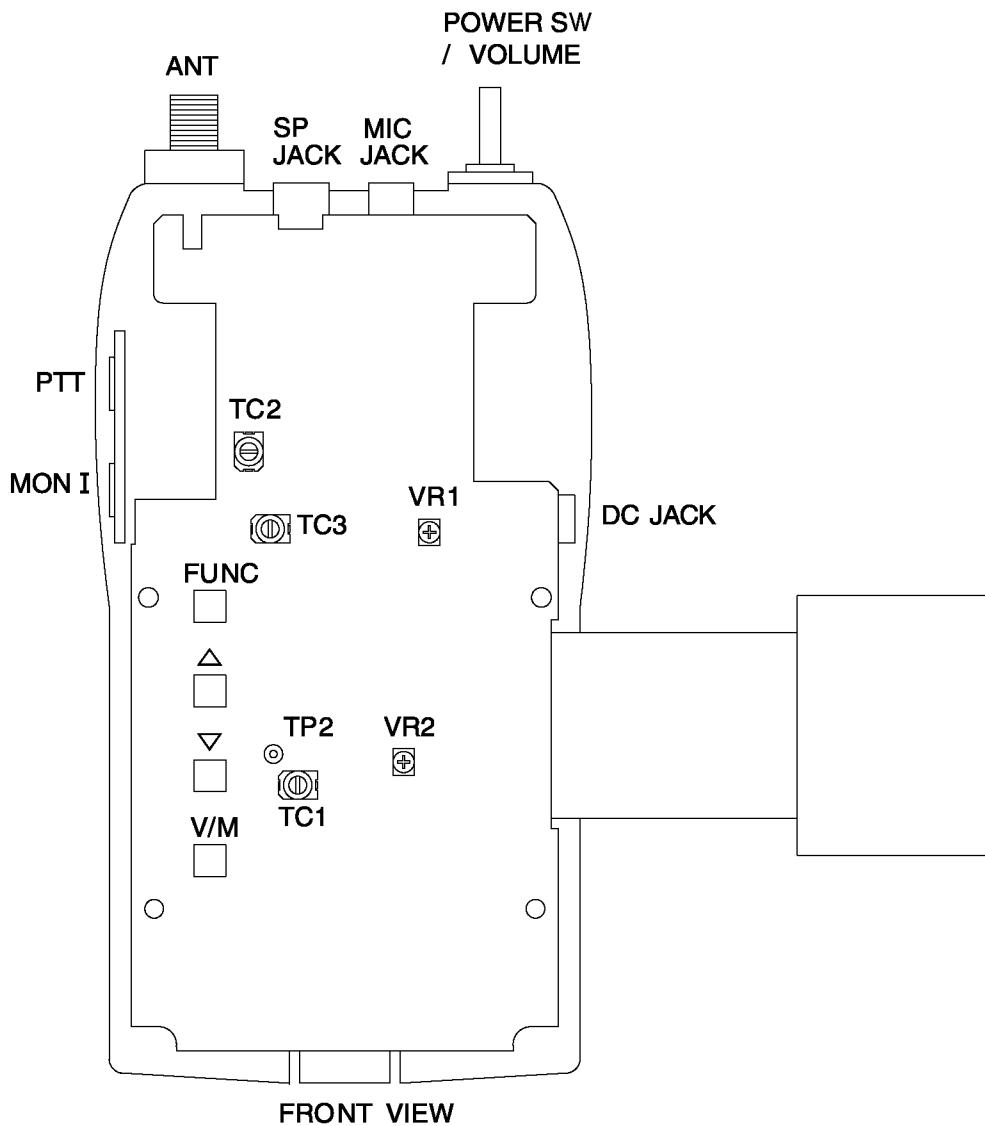
## Packing

| Ref.<br>No. | Parts No. | Description | Parts Name        | Version |   |    |
|-------------|-----------|-------------|-------------------|---------|---|----|
|             |           |             |                   | T       | E | TA |
|             | EBP-53N   |             | Ni-Cd Bttery Pack | 1       | 1 | 0  |
|             | EDC-93    |             | AC Aadaptor(120V) | 1       | 0 | 0  |
|             | EDC-94    |             | AC Aadaptor(230V) | 0       | 1 | 0  |
|             | EA0070AC  |             | Anntena           | 1       | 1 | 1  |
|             | PH0013    |             | Warranty          | 1       | 0 | 0  |
|             | DS0446    |             | Serial No. sheet  | 1       | 1 | 1  |
|             | PK0087    |             | Schematic         | 1       | 1 | 1  |
|             | HK0520    |             | Package           | 1       | 1 | 1  |
|             | HM0215    |             | Carton            | 1       | 1 | 1  |
|             | HU0170    |             | Carton Plate      | 1       | 1 | 1  |
|             | HP0006Z   |             | Plastic Bag       | 1       | 1 | 1  |
|             | PR0452    |             | FCC Home use seal | 1       | 0 | 0  |
|             | PR0447    |             | FCC Warnig        | 1       | 0 | 0  |
|             | PS0405A   |             | Instruction       | 1       | 1 | 1  |
|             | EDH-31    |             | Battery Case      | 1       | 1 | 1  |
|             | EBC-18    |             | Belt Clip Strap   | 1       | 1 | 1  |

# ADJUSTMENT

1. Enter the frequency in memory. (M1 ~ M17) \* Refer to Memory Channel's Frequency List
2. Press FUNC > MONI (Key Lock) > FUNC > ▲ > ▼ 2 times > V/M > MONI 2 times  
(It becomes in "Adjustment Mode" and "A" appears on the display)
3. Adjust the Set 1. (Refer to Adjustment Manual)
4. Press FUNC > MONI (Key Lock) > FUNC > ▲  
(It becomes in "Nomal Mode" and "A" disappears on the display)

Remark1.# The frequency in each Memory Channel can be changed within ±500KHz.

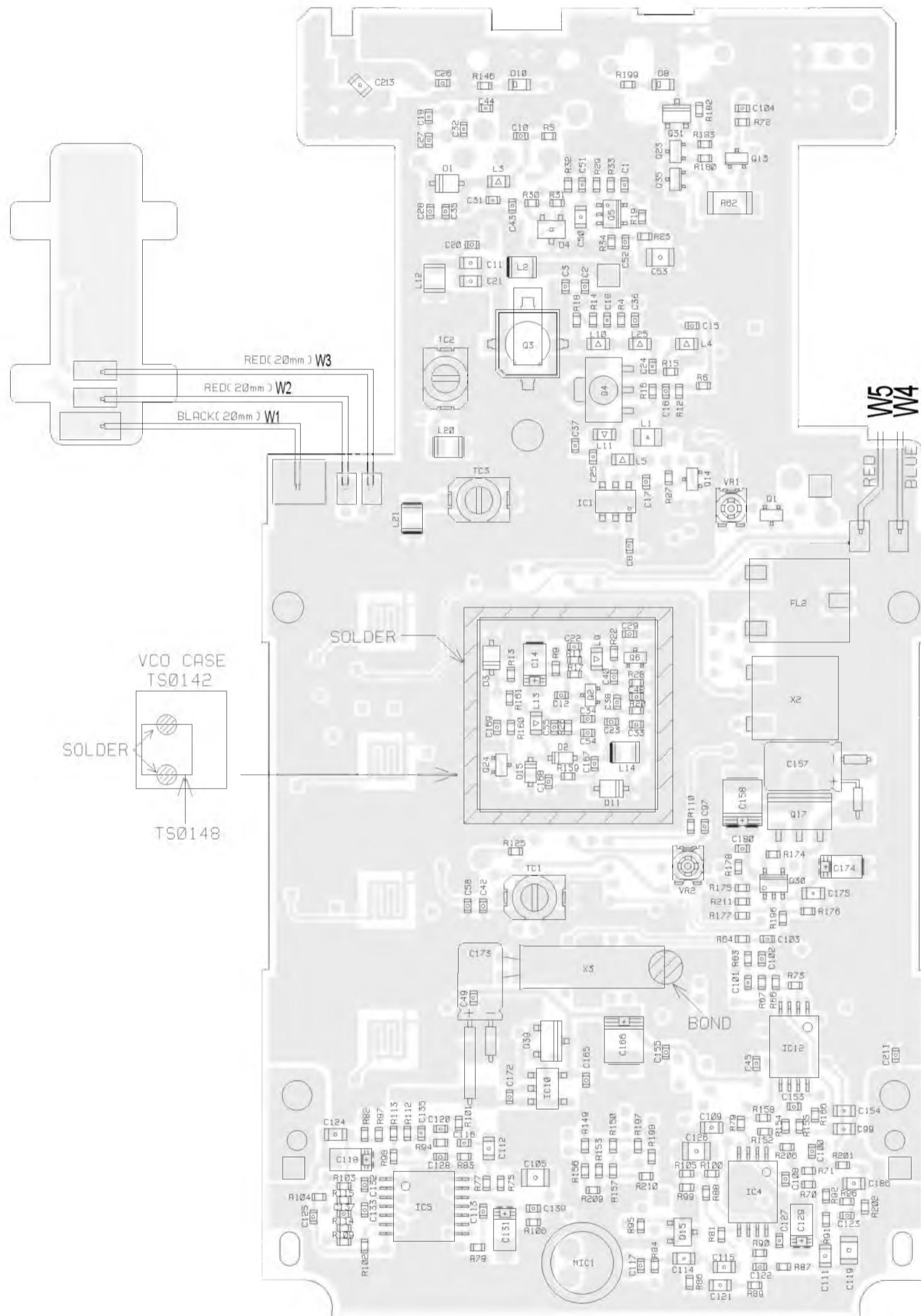


Standard Measuring Condition  
DC IN : 7.0V  
Modulation Frequency: 1KHz  
Deviation : 3.5KHz  
Audio output power : 50mW (8Ω )

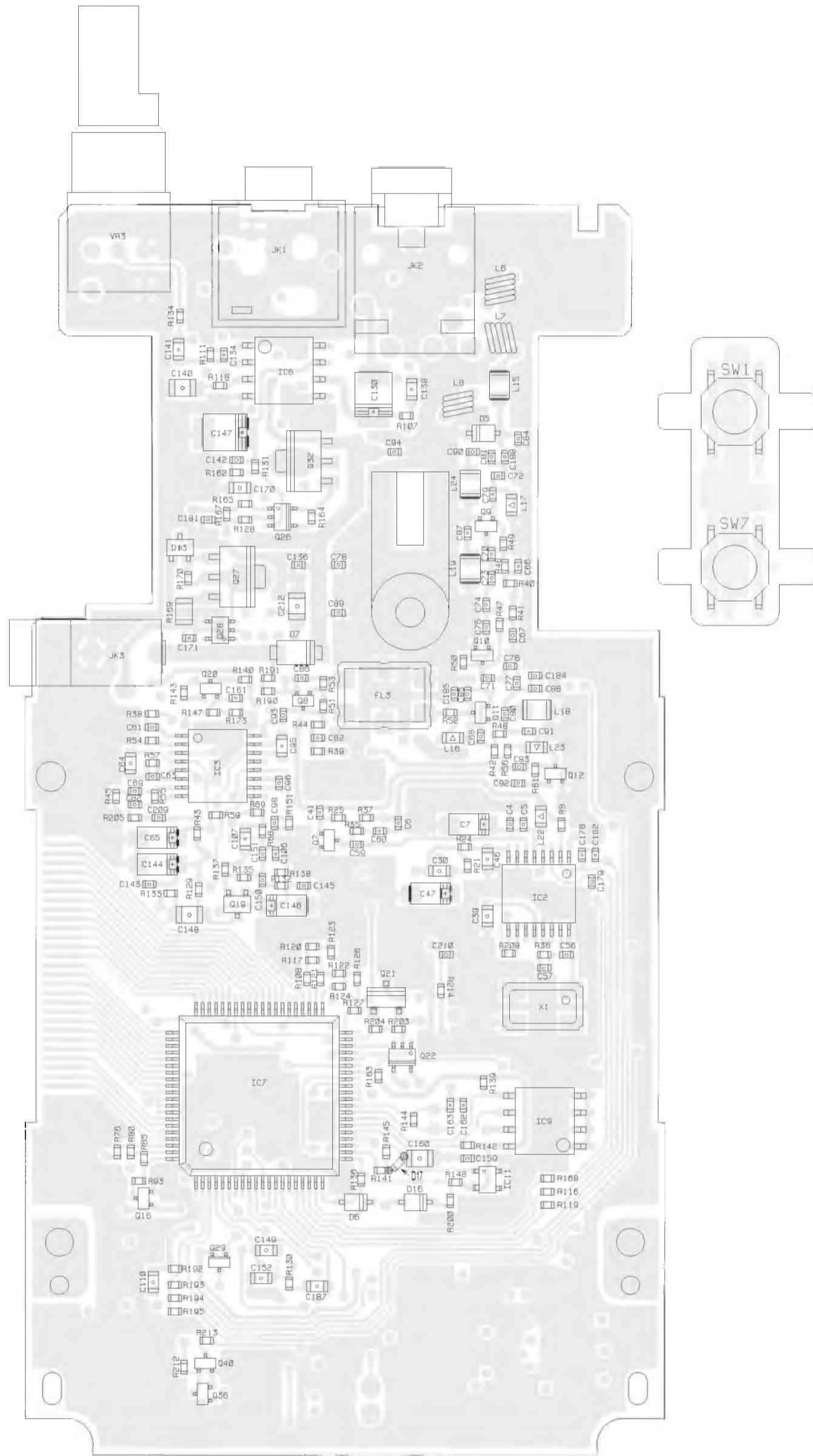
| Item                     | Ch | Frequency (MHz)                      | Status    | Adj. or Check | Terminal | Adj. Point  | Adj. Range                         | Condition   |
|--------------------------|----|--------------------------------------|-----------|---------------|----------|-------------|------------------------------------|---|
| 1. PD Voltage            | 1  | E :435.05<br>T :435.05<br>TA :435.05 | Rx and Tx | Check         | TP2      | --          | Rx : 0.8 ~ 1.2V<br>Tx : 1.0 ~ 1.4V |   |
| 2. Reference Frecuency   | 1  | E :435.05<br>T :435.05<br>TA :435.05 | Tx        | Adj.          | ANT      | TC1         | ±100Hz                             |   |
| 3. High Power output.    | 2  | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Adj.          | ANT      | VR1         | 1.0 ±0.05W                         |   |
| 4. High Power current    | 2  | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Check         | DC Jack  | --          | less than 0.6A                     |   |
| 5. Low Power output      | 3  | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Check         | ANT      | --          | 0.1 ~ 0.25W                        |   |
| 6. Sensitivity           | 5  | E :435.05<br>T :445.05<br>TA :445.05 | Rx        | Adj.          | SP Jack  | TC2 and TC3 | less than -7.0dB                   | The sensitivity must be adjusted to the best.                 |
| 7. S-meter (1)           | 7  | E :435.05<br>T :445.05<br>TA :445.05 | Rx        | Adj.          | --       | FUNC Key    | --                                 | RF sig. level : 0dBu  |
| 8. S-meter (5)           | 8  | E :435.05<br>T :445.05<br>TA :445.05 | Rx        | Adj.          | --       | FUNC Key    | --                                 | RF sig. level : 20dBu   |
| 9. Mic Deviation         | 9  | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Adj.          | ANT      | VR2         | 4.5 ± 0.1KHz                       | AF sig. : 1KHz / 50mVrms<br>AF Filter : OFF-20KHz (at MT2605) |
| 10. Tone Deviation       | 13 | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Check         | ANT      | --          | 0.6 ~ 1.2KHz                       | AF Filter : OFF-3KHz (at MT2605)                              |
| 16. Tone burst Deviation | 16 | E :435.05<br>T :445.05<br>TA :445.05 | Tx        | Check         | ANT      | --          | 2.2 ~ 3.0KHz                       | AF Filter : OFF-20KHz (at MT2605)                             |
| 17. Aging test           | 17 | E :435.50<br>T :445.50<br>TA :445.50 | Tx and Rx |               |          |             |                                    | Using the aging test tool.                                    |

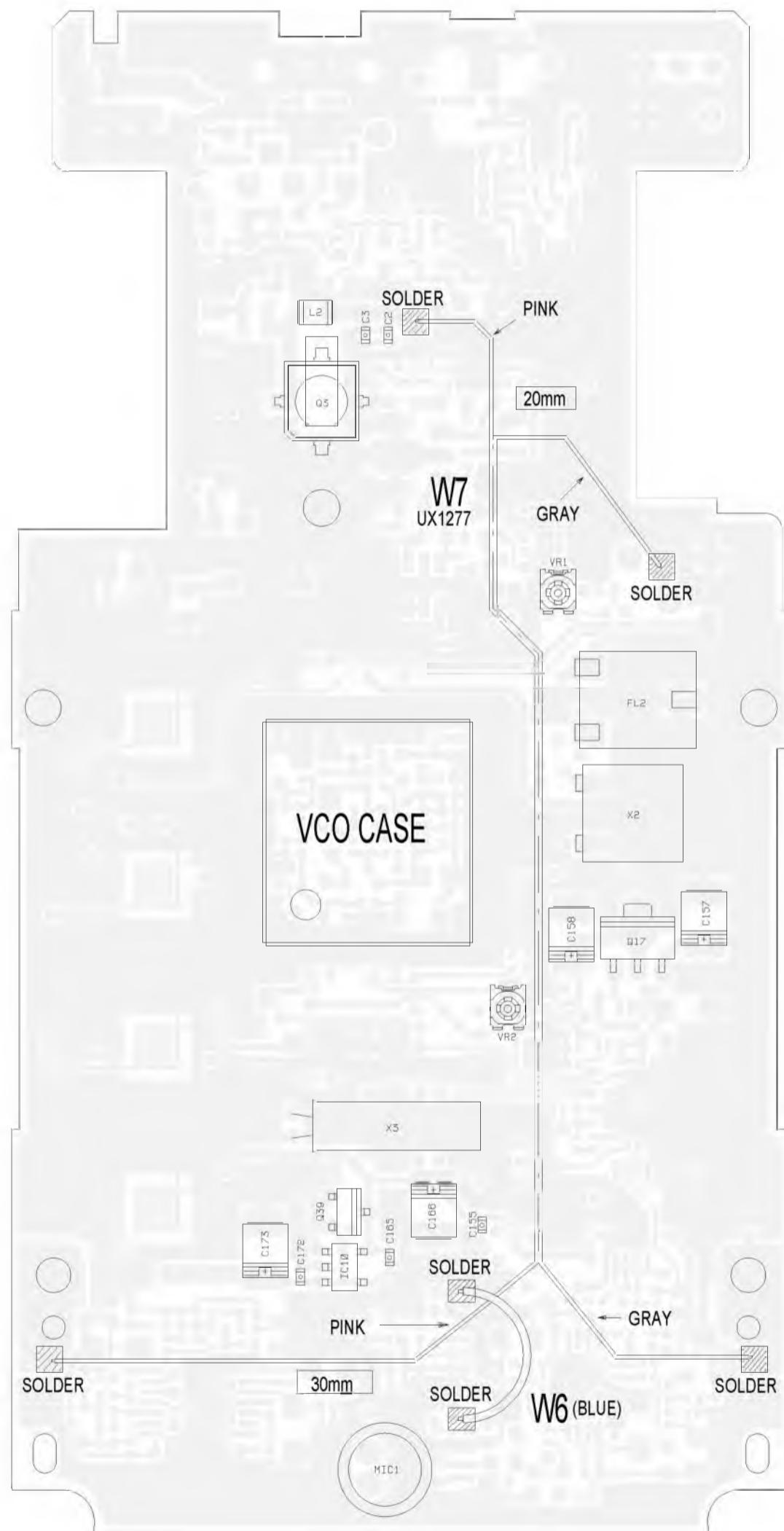
## PC BOARD VIEW

### 1) UP0433(1/2) Side A



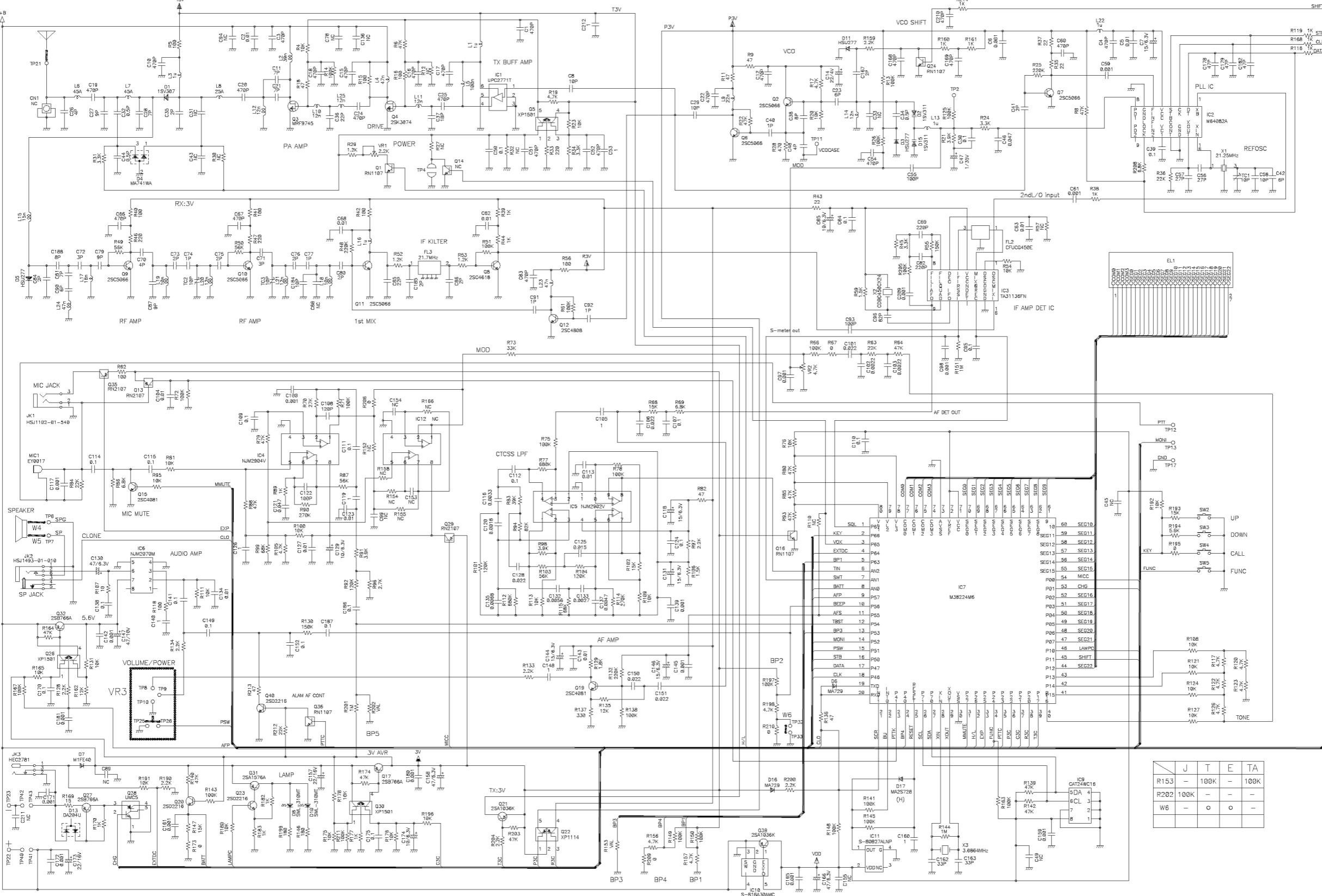
**2) UP0433(1/2) Side B**



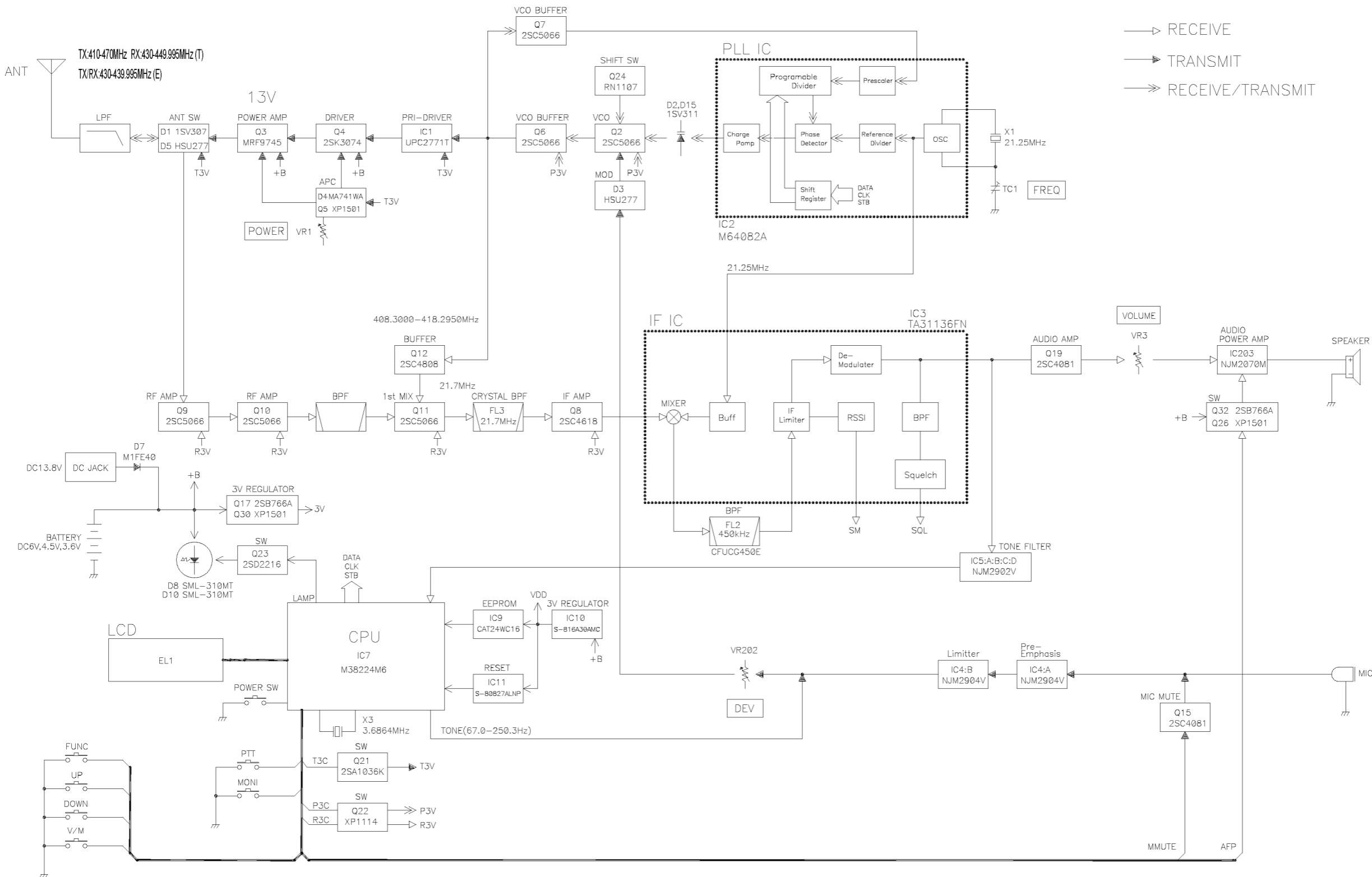


### 3) PTT Unit WIRING

## **SCHEMATIC DIAGRAM**



# BLOCK DIAGRAM







# **ALINCO, INC.**

**Head Office :** Shin-Dai Building 9th Floor  
2-6, 1-Chome, Dojimahama, Kita-ku, Osaka 530-0004, Japan  
Phone: +81-6-4797-2136 Fax: +81-6-4797-2157  
E-mail:[export@alinco.co.jp](mailto:export@alinco.co.jp)

Dealer/Distributor