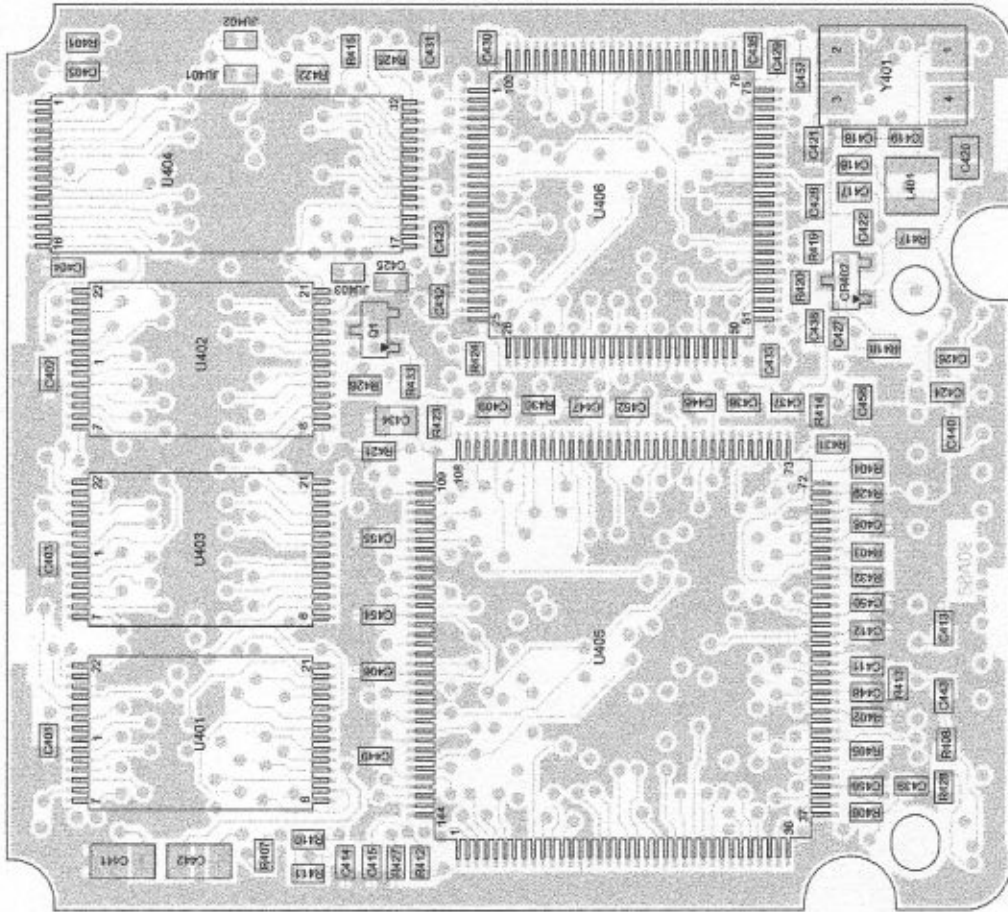


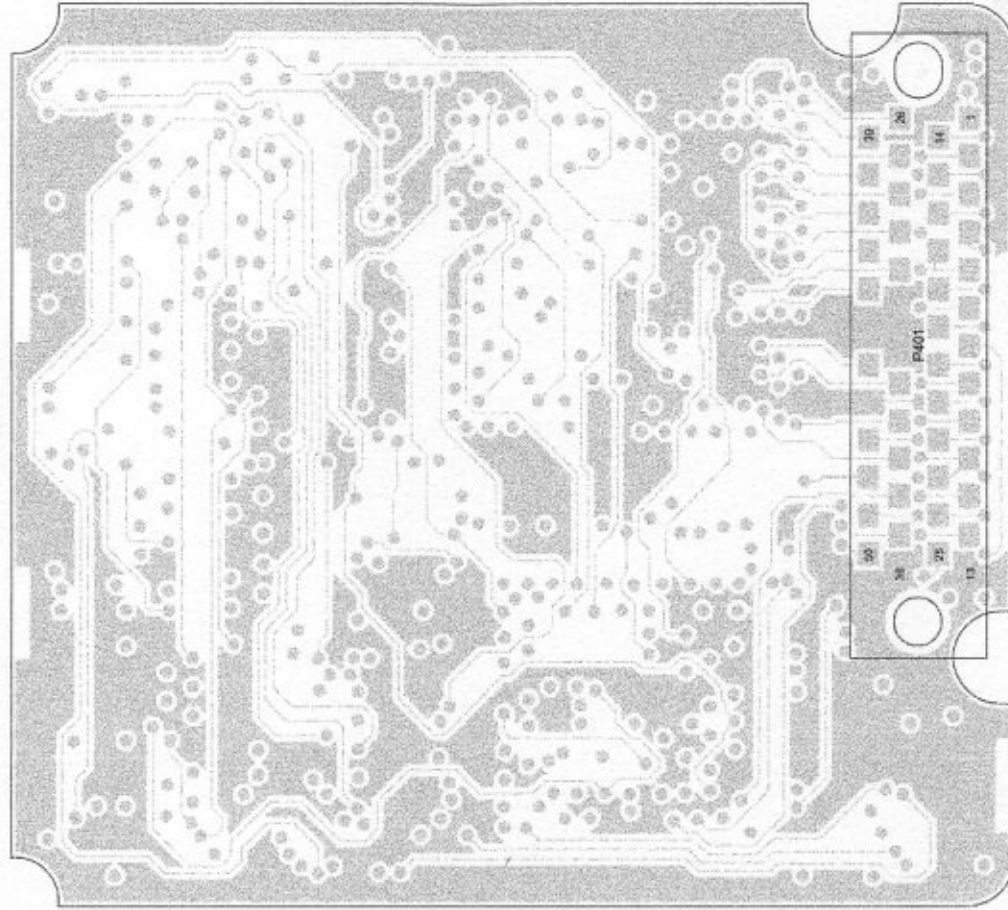
NTN8250F Vocoder Board Schematic Diagram, Sheet

VIEWS FROM SIDE 1



MAEPF-27186-O

VIEWS FROM SIDE 2



MAEPF-27186-O

**NTN8250F Vocoder Board Component Location Detail**

**NTN8250F Vocoder Board  
Electrical Parts List**

ITEM	MOTOROLA PART NUMBER	DESCRIPTION
C401 thru C406	2113932K15	CAPACITOR, Fixed: pF ±5%, 50V Unless otherwise stated
C405	2113932K15	0.1 uF -80V-20% 16V
C408, C409	2113932K15	0.1 uF -80V-20% 16V
C411, C412	2113932K15	0.1 uF -80V-20% 16V
C413	2113932K15	0.1 uF -80V-20% 16V
C414	2113930F39	33
C415	2113930F46	47
C416	2113930F03	1 pF 50V ±0.1 pF 50V
C417	2113931F17	470
C418	2113930F03	1 pF 50V ±0.1 pF 50V
C419	2113930F20	5.1 pF 50V ±0.25 pF 50V
C420	2113143A23	0.22 uF 10%
C421	2113930F03	1 pF 50V ±0.1 pF 50V
C422	2113931F17	470
C423	2113930F34	20
C424 thru C433	2113932K15	0.1 uF -80V-20% 16V
C434	2113743A23	0.22 uF 10%
C435 thru C440	2113932K15	CAP CER, 100 uF ±80V-20% 16V
C441, C447	2311098M42	3.3 uF
C443	2113932K15	0.1 uF -80V-20% 16V
C446 thru C450	2113932K15	0.1 uF -80V-20% 16V
C452	2113932K15	0.1 uF -80V-20% 16V
C454 thru C456	2113932K15	0.1 uF -80V-20% 16V
C457, C458	2113931F13	330
CR402	4813825A06	DIODE, See Note 1, PIN DIODE, 35V
J401	.....	JUMPER: Not Placed
J402, J403	0662057B47	0
L401	2462387E71	COIL, RF: 1800 nH
P401	.....	PLUG: Not Placed
Q1	4805128M12	TRANSISTOR: See Note 1, NPN
R401	0662057A73	RESISTOR, Fixed: Ω ±5%, 1/8W Unless otherwise stated
R402	0662057A97	10k
R403 thru R407	0662057A73	100k
R408	0662057A97	100k
R410	0662057A73	10k
R411	0662057A65	4.7k
R412, R413	0662057A73	10k
R414	0662057B12	390k
R415	0662057A49	1k
R417	0662057A63	3.9k
R418	0662057A73	10k
R419	0662057B22	1 M
R420	0662057A57	2.2k
R421 thru R424	0662057A97	100k
R425 thru R433	0662057A73	10k
U401 thru U403	5185963A18	INTEGRATED CIRCUIT MODULE: See Note 1, 32k x 8 DSP SRAM
U404	5185130C54	256k x 8 FLASH ROM
U405	51054457NR6	DSP (Digital Signal Processor)
U406	5185963A10	AD5C (ABACUS/DSP Support IC)
Y401	4805573W01	CRYSTAL: See Note 2, 33 MHz

- Note:
- For optimum performance, order replacement diodes, transistors, and circuit modules by Motorola part number only.
  - When ordering crystals, specify center frequency, crystal frequency, crystal type, and package. Do not specify Motorola part number.
  - Part value resistor:
    - $p=10^{-2}$
    - $n=10^{-3}$
    - $\mu=10^{-4}$
    - $m=10^{-3}$
    - $k=10^3$
    - $M=10^6$
  - ITEM refers to the component reference designator. SIDE refers to the location of the component on the board; S1-Side 1, S2-Side 2.
  - THE NTN8250F Vocoder kits use an 8-layer printed circuit board.

