

APPENDIX 3

FUNCTION OF DEVICES
21-1804

TWO (2) PAGE LIST FOLLOWS THIS SHEET

FUNCTION OF DEVICES
FCC ID: AAO21-1804

APPENDIX 3

8. SEMICONDUCTORS AND FUNCTIONS

1) TRANSISTOR

REF NO	TYPE	MANUFACTURER	FUNCTION
Q1	2SC5084	TOSHIBA	RX RF AMP.
Q2	2SC5084	TOSHIBA	1'ST MIXER
Q3	KTC3880S	K. E. C	1'ST IF AMP.
Q4	KRC104S	K. E. C	AUDIO MUTE
Q5	KTC3875	K. E. C	SQUELCH
Q6	KRC1504S	K. E. C	AUDIO MUTE
Q7	KRC104S	K. E. C	AUDIO MUTE
Q8	KRA105S	K. E. C	TX B+ SWITCHING
Q9	KTC3875	K. E. C	BATT LOW
Q10	KTC3875	K. E. C	BATT LOW
Q11	KRA105S	K. E. C	TX B+ SWITCHING
Q12	KRC105S	K. E. C	RX B+ SWITCHING
Q13	KRC104S	K. E. C	MIC MUTE
Q20	MMBR951	MOTOLOLA	TX POWER DRIVER AMP.
Q21	BFG35	PHILIPS	TX POWER FINAL AMP.
Q22	KRA105S	K. E. C	TX SWITCHING
Q201	KRC104S	K. E. C	RX/TX VCO SWITCHING
Q202	2SC5084	TOSHIBA	O. S. C
Q203	2SC5084	TOSHIBA	BUFFER
Q204	2SC5084	TOSHIBA	TX DRIVER
Q205	2SC5084	TOSHIBA	RX BUFFER

2) INTERGRATED CIRCUIT

REF NO	TYPE	MANUFACTURER	FUNCTION
IC1	MC3361CD	MOTOLOLA	2'ND MIXER, IF, AND FM DETECTOR
IC2	LM386	NATIONAL	AUDIO POWER AMP.
IC3	TMP87P808M	TOSHIBA	C . P . U
IC4	TB31202FN	TOSHIBA	PLL FREQUENCY SYNTHESIZER
IC5	TK11440	TOKO	REGULATOR
IC6	K1A4558F	K. E. C	PRE-EMPHASIS AND MIC AMP, LIMITER.

APPENDIX 7

CIRCUITS AND DEVICES TO STABILIZE FREQUENCY

SYNTHESIZER

A phase locked loop (PLL) circuit establishes and stabilizes operating frequency.

The data for producing necessary frequencies is established by the CPU on the digital board.

The frequency stability of the Tx/Rx is maintained by the TCXO, which generates a stable frequency of 12.8 MHz.

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CIRCUITS TO SUPPRESS SPURIOUS RADIATION
AND LIMIT MODULATIONCircuitry to Suppress Spurious Emissions

Output from the final RF power amplifier, Q21, and presented to a low-pass filter configured in a "pi" network consisting of L23, C310, C306, L25, C311, L26, C312, C313, L27, C315, C316, and L306.

Circuitry to Limit Modulation and Audio Low Pass Filter

Microphone signal is amplified by IC6A, limited in IC6B to prevent deviation over 2.5 kHz, and applied to a 3 kHz low-pass filter configured around IC6.

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RADIATION AND LIMIT MODULATIONFCC ID: AAO21-1804
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