

5.0 LIST OF SEMICONDUCTORS DESIGNATIONS AND FUNCTIONS

5.1 Tx VCO UNIT

Q301	2SK508	Oscillator
Q302	2SC4325	Amplifier
Q303	2SC3583	VCO output amplifier
Q304	DTA124EUA	Switch
Q305	2SC2351	B + filter
Q306	DTYA114EUA	B + switch
IC301	uPC1688	Amplifier

5.2 Tx MAIN UNIT (YOUNGER)

Q201	2SK3018	PTT buffer
Q202	UMG1N	Switch
Q204	UMC2	Switch
Q207	2SD2351	B + filter
Q205	2SK3018	Charge pump
Q208	RTU002P02	Charge pump
Q209	2SK3018	Charge pump
Q210	UMC2N	Switch
Q212	UMG1N	Switch
Q213	DTC124EUA	Switch
Q206	DTA124EUA	Switch
Q211	2SC3357	RF amplifier
IC201	BAJ0BCOFP	10v regulator
IC202	XC6202P702P	7v regulator
IC204	TC75W51F	Mod LF amplifier
IC205	TA75S01F	Mod. Amplifier
IC208	MB1511	PLL
IC210	NJU7662M	DC/DC converter
IC209	TC4566F	LPE, switch
IC211	BA00CC0WFP	Tx power adjust
IC212-B	NJM2904	Power control
IC212-A	NJM2904	Error amplifier

IC203	XC6202P502M	5v regulator
IC213	TA75S01F	Mod. LF amplifier
IC206	TC7TW125FU	Level converter
IC207	TC7TW125FU	Level converter

5.3 TX POWER AMPLIFIER

Q501	2SK3018	Switch
Q502	DTB143EK	B + switch
IC501-B	BAM4558F	Reverse power control
IC501-A	BAM4558F	Error amplifier
IC502	TA75S01F	Power control
IC504	AN78L05M	5v regulator
IC503	TA75S01F	Power signal amplifier
PM510	RA08H1317M	Driver amplifier
Q504	RD70HVF1	Power amplifier
Q505	RD70HVF1	Power amplifier

5.4 RX VCO UNIT

Q301	2SK508	Oscillator
Q302	2SC4325	Amplifier
Q303	2SC3583	VCO output amplifier
Q304	DTA124EUK	Switch
Q305	2SC2351	B + filter
Q306	DTYA114EUA	B + switch
IC301	uPC1688	Amplifier

5.5 RX MAIN UNIT

Q861	3SK177	RF amplifier
Q810	2SK508	1 st High IF amplifier
Q809	2SD2351	B + filter
Q806	RTU002P02	Charge pump
Q805	2SK3018	Charge pump
Q807	2SK3018	Charge pump

Q808	UMC2N	Switch
Q804	UMC2N	Switch
Q811	DTA144EUA	Switch
Q803	33061MCH	Rx switch
Q802	2SD2351	Rx switch
Q801	2SK3018	Rx switch
IC806	MB1511	PLL
IC807	NJU7662M	DC/DC inverter
IC808	TC4566F	LPF switch
IC805	XC6202P502M	5v regulator
IC809	TA75S01F	VCO error amplifier
IC811	SPM5001	1 st mixer
IC802	XC221A200	AF LPF
IC801	BA70BCOFP	7v regulator
IC803	TCWT125FU	Level converter
IC804	TCWT125FU	Level converter
IC810	XC221A1200	DC amplifier
IC812	XC6201P502M	5v regulator

5.6 IF UNIT

Q001	2SC4250	2 nd High IF
Q002	2SK880	Wide/Narrow switch
Q003	DTC323TU	Wide/Narrow switch
Q004	2SK880	Wide/Narrow switch
Q005	2SK3018	Wide/Narrow switch
Q006	2SD2351	Noise amplifier
Q007	XP01501	Squelch switch
IC001	BA4116FV	Low IF/oscillator/detector
IC002	M02551GP	AF amplifier

5.7 ANALOG LOGIC UNIT

Q1	2SK3018	Power switch
Q2	DTA144EUA	Power switch
Q3	2SK3018	Switch

Q4	2SK3018	Switch
Q5	2SK3018	Switch
Q6	2SB1698	Switch
Q7	2SK3018	AF/Switch
Q9	UMX1N	ALC
Q11	2SK3018	Switch
IC1	H8S2239	CPU
IC2	AK2344	Rx audio processor
IC3	AK2344	Tx audio processor
IC4	NJM2405	Voltage detector
IC5	BD3931FP	5v regulator
IC6	TA24C256	EE ROM
IC7	TA75S393F	Voltage detector
IC8	BA33BC0T	3.3v regulator
IC9	M62551GP	Tx power detector
IC10	R1180D33C	3.3v regulator
IC11	BU4819FVE	Reset
IC12	USBN9604	USB control
IC13	BH33FB1WHFV	3.3v regulator
IC14	TC74HC541	BUS switch
IC15	BU4S69F	Inverter
IC16	BU4S01F	Switch
IC17	BU4S81F	Switch
IC18	NJU2073	Rx audio amplifier
IC19	MAX7412	Rx LPF
IC20	M62551GP	Squelch control
IC21	BU4S666G2	Rx AF switch
IC22	M62551GP	D/A converter buffer
IC23	DP7113	Rx audio volume control
IC24	BU4S66CF	Rx audio switch
IC25	BU4S81F	BUSY buffer
IC27	BU4S81F	Repeater switch
IC28	FX828	Rx CTCSS/DCS
IC29	FX828	Tx CTCSS/DCS
IC30	BU4S66G2	Beep switch

IC31	MAX7412	Tx LPF
IC32	M62551GP	Mic amplifier

5.8 DIGITAL LOGIC UNIT

Q1	2SK3018	Inverter
Q2	2SK3018	Inverter
IC1	TMS320VC5509A	DSP
IC2	EN29LV400AB	Flash ROM
IC3	TL16C550C1	SIO
IC4	S1131B1QPD	1.6v regulator
IC6	M62551GP	Tx LPF
IC7	M62551GP	Rx LPF
IC8	MAX7414	Rx LPF
IC9	M62551GP	Tx LPF
IC10	TLV320AIC23B	A/D converter
IC11	BU4819FVE	Reset

5.9 FRONT CONTROL UNIT

Q401	UMC2N	Tx out
Q402	2SA1576	Back light control
Q403	2SD2118	Back light control
Q404	DTA144FUA	Monitor switch
Q405	DTA144FUA	Call switch
Q406	2SK3018	R/W switch
Q407	2SK3018	R/S switch
Q408	2SK3018	EN switch
Q409	DTC314TU	Low power switch
Q410	UMC2N	LED driver
Q411	UMC2N	LED driver
Q412	UMC2N	LED driver
Q413	UMC2N	LED driver
Q414	UMC2N	LED driver
Q415	2SK3018	R/W switch
Q416	2SK880	Switch
Q417	2SD2351	AF power/Switch

Q418	DTA124EUA	AF power/switch
Q419	DTA124EUA	AF power/switch
Q420	DTA114EUA	AF power/switch
IC401	BAJ2000WT	12v regulator
IC402	TDA1519C	AF power amplifier
IC403	XC6202P502P	5v regulator
IC404	TA75S01F	LED back light control
IC405	TC7W125FU	Level converter
IC406	TC7W125FU	Level converter
IC407	TC7W125FU	Level converter
IC408	TC7W125FU	Level converter
IC409	M62551GP	LCD control
IC410	TA75S558F	Rx AF amplifier
IC411	M62551GP	Mic amplifier

