

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	DTA114EUA	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	LPF, 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	RA13H4452M	Driver amplifier
Q504	RD60HUF1	Power amplifier
Q505	RD60HUF1	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	DTA114EUA	B + switch

IC301	uPC1688	Amplifier
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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	RTU002P02	Power switch
Q2	2SK3018	Switch
Q3	2SK3018	Switch

Q4	2SK3018	Switch
Q5	IMX1	ALC
U1	MCF52233	CPU
U2	25AA256	EEPROM
U3	CMX7041	RX audio processor
U4	CMX7041	TX audio processor
U5	MCP1316	Supervisor
U6	BD9778HFP	Switching regulator
U7	MCP1825S-33	Regulator
U8	LM397	Low voltage detect
U9	LVC1G02	Logic
U10	LVC1G08	Logic
U11	LVC1G08	Logic
U12	LVC1G08	Logic
U13	LVC1G3157	Analog switch
U14	LVC1G3157	Analog switch
U15	CAT5113	Volume digital potentiometer
U16	LMV358	RX op amp
U17	LMV358	RX op amp
U18	LVC1G3157	Analog switch
U19	LMV358	RX op amp
U20	LVC1G66	Analog switch
U21	LMV358	DAC op amp
U22	LMV358	TX op amp
U23	CAT5113	Beep digital potentiometer
U24	LMV358	TX op amp
U25	LMV358	TX op amp
U26	CAT5114	Digital TX mod potentiometer
U27	LVC1G3157	Analog switch
U28	CAT5114	TX mod balance potentiometer
U29	CAT5114	Analog TX mod potentiometer
U30	LVC1G3157	Analog switch
U31	MAX7412	TX LPF

5.8 DIGITAL LOGIC UNIT

IC1	TMS320VC5509A	DSP
IC2	CY62137EV30LL	SRAM
IC3	A29L160AUG	FLASH
IC4	LMV358	LPF
IC5	TLV320AIC23	CODEC
IC6	LMV358	LPF
IC7	LMV321	LPF
IC8	TC7SH04F	Inverter
IC9	FT2232HL	UART
IC10	TL16C550C	UART
IC11	AT93C46DN	EEPROM
IC12	TC7SH04F	Inverter
IC13	TPS3823-33DBVR	Reset
IC14	TC7SH08F	Logic
IC15	TPS77316DGK	Regulator

5.9 FRONT CONTROL UNIT

Q1	DTA124E	Switch
Q2	DTC144E	Switch
Q3	DTA124E	Switch
Q4	DTC144E	Switch
Q5	DTC114T	Switch
Q6	2SCR542P	Backlight control
Q7	2SA1576A	Backlight control
Q8	2SK3018	Switch
Q9	2SK3018	Switch
Q10	2SK3018	Switch
Q11	FMG9A	LED Switch
Q12	FMG9A	LED Switch
Q13	FMG9A	LED Switch
U1	PQ12RD21	Regulator
U2	MCP1754ST-50	Regulator
U3	TDA1519C	Audio Amp

U4	LM321	LCD contrast
U5	74LVC4245A	Level converter
U6	LM321	LCD backlight
U7	FT230X	UART
U8	LMP7701	Mic amp
U9	LMP7701	Headset amp