

FUNCTION OF RF SEMICONDUCTORS AND OTHER ACTIVE DEVICES

SCHEMATIC KEY	PART NUMBER	CIRCUIT APPLICATION	OPERATING FREQUENCY	INDUSTRY EQUIVALENT
CR4301	4805649Q13	RX VCO FREQ CONTROL	358.15 - 425.15 MHz	1SV228
CR4302	4862824C01	RX VCO FREQ CONTROL	358.15 - 425.15 MHz	1SV229
CR4303	4862824C01	RX VCO FREQ CONTROL	358.15 - 425.15 MHz	1SV229
CR4311	4862824C01	TX VCO MODULATOR	403 - 470 MHz	1SV229
CR4321	4862824C01	TX VCO FREQ CONTROL	403 - 470 MHz	1T363
D0101	4813825A05	DATA SWITCH	230 kHz	MMBD301
D0151	4813833C02	DC SWITCH	DC	MMBD6100
D0179	4813833C02	CLAMP	DC	MMBD6100
D0301	4802245J47	DC SWITCH	DC	RB471E
D0621	4813833C02	DC SWITCH	DC	MMBD6100
D0651	4813833C02	DC SWITCH	DC	MMBD6100
D0660	4813833C02	DC SWITCH	DC	MMBD6100
D0661	4813833C02	DC SWITCH	DC	MMBD6100
D3101	4880154K03	CLIPPER	44.85 MHz	MMBD353
D4001	4862824C01	FRONT END FILTER TUNING	403 - 470 MHz	1SV229
D4002	4862824C01	FRONT END FILTER TUNING	403 - 470 MHz	1SV229
D4003	4880154K03	CLIPPER	403 - 470 MHz	MMBD353
D4004	4862824C01	FRONT END FILTER TUNING	403 - 470 MHz	1SV229
D4005	4862824C01	FRONT END FILTER TUNING	403 - 470 MHz	1SV229
D4006	4880142L01	DIODE SWITCH	DC	MMBV3401LT
D4007	4813833C02	DC SWITCH DC		MMBD6100
D4051	4886143B01	DOUBLE BALANCED MIXER	44.85 - 470 MHz	SMS3927-99
D4201	4802233J09	VOLTAGE MULTIPLIER	1.05 MHz	IMN10
D4221	4813825A05	CLIPPER	403 - 470 MHz	MMBD301
D4261	4802245J22	REF OSC FREQ CONTROL	16.8 MHz	1T363
D4451	4813825A05	FORWARD POWER DETECTOR	403 - 470 MHz	MMBD301
D4471	4802482J02	RF PIN SWITCH	403 - 470 MHz	MA4P959
D4472	4802482J02	RF PIN SWITCH	403 - 470 MHz	MA4P959
Q0110	4880048M01	DC SWITCH	DC	DTC144EKA
Q0151	4880048M01	DC SWITCH	DC	DTC144EKA
Q0171	4880048M01	DC SWITCH	DC	DTC144EKA
Q0173	4880052M01	DC SWITCH	DC	RXT-A28
Q0177	4880048M01	DC SWITCH	DC	DTC144EKA
Q0181	4880048M01	DC SWITCH	DC	DTC144EKA
Q0183	4880048M01	DC SWITCH	DC	DTC144EKA
Q0185	4880048M01	DC SWITCH	DC	DTC144EKA
Q0271	4880214G02	DC SWITCH	DC	MMBT3904
Q0641	4880048M01	DC SWITCH	DC	DTC144EKA
Q0661	4805921T02	DC SWITCH	DC	FMC2A
Q0662	4880214G02	DC SWITCH	DC	MMBT3904
Q0663	4880048M01	DC SWITCH	DC	DTC144EKA
Q0681	4880052M01	DC SWITCH	DC	RXT-A28
Q3101	4813827A07	IF AMPLIFIER	44.85 MHz	MMBR941
Q3102	4813827A07	IF AMPLIFIER	44.85 MHz	MMBR941
Q3141	4880214G02	DC SWITCH	DC	MMBT3904
Q3151	4880048M01	DC SWITCH	DC	DTC144EKA
Q3152	4880048M01	DC SWITCH	DC	DTC144EKA
Q4001	4813827A07	RF AMPLIFIER	403 - 470 MHz	MMBR941
Q4002	4813824A17	DC SWITCH	DC	MMBT3906
Q4003	4813827A07	RF AMPLIFIER	403 - 470 MHz	MMBR941
Q4004	4805921T02	DC SWITCH	DC	FMC2A
Q4221	4880048M01	DC SWITCH	DC	DTC144EKA
Q4301	4805218N63	RX VCO	358.15 - 425.15 MHz	BFQ67W
Q4311	4805218N63	RX VCO	358.15 - 425.15 MHz	BFQ67W
Q4332	4813827A07	RX VCO BUFFER	358.15 - 425.15 MHz	MMBR941

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SCHEMATIC KEY	PART NUMBER	CIRCUIT APPLICATION	OPERATING FREQUENCY	INDUSTRY EQUIVALENT
Q4333	4802245J50	DC SWITCH	DC	UMC5N
Q4421	4886212B01	TX DRIVER STAGE	403 - 470 MHz	MRF1518
Q4441	4813828C32	TX FINAL STAGE	403 - 470 MHz	MRF1570
Q4471	4880048M01	DC SWITCH	DC	DTC144EKA
Q4472	4805128M27	CONSTANT CURRENT SINK	DC	BSR33
Q4473	4880214G02	POWER CONTROL DC AMP	DC	MMBT3904
U0101	5102226J56	MICROPROCESSOR	38.4 kHz - 7.4 MHz	MC68HC11FL0
U0111	5102463J47	EEPROM	1 MHz	X25320_2.7V
U0121	5186137B01	FLASH ROM	1.85 MHz	AT49F040
U0122	5185963A21	SRAM	1.85 MHz	63A21
U0141	5113805A30	DECODER/DEMUX	5 kHz	MC74HC138A
U0211	5183222M49	AUDIO AMPLIFIER	AUDIO	MC3403
U0221	5185963A53	AUDIO FILTER	16.8 MHz	63A53
U0251	5184704M60	AUDIO GATE	AUDIO	HEF4053B
U0271	5109699X01	AUDIO POWER AMPLIFIER	AUDIO	TDA1519C
U0301	5102463J53	VOICE STORAGE	1 MHz	ISD33000
U0341	5180932W01	AUDIO AMPLIFIER	AUDIO	LM2904
U0342	5105750U28	AUDIO GATE	AUDIO	TC4S66F
U0351	5102463J40	VOLTAGE REGULATOR	DC	LP2951ACMM-3.3
U0611	5183308X01	VOLTAGE REGULATOR	DC	LM2941
U0641	5183308X01	VOLTAGE REGULATOR	DC	LM2941
U0651	5113816A07	VOLTAGE REGULATOR	DC	MC78M05
U0652	5113815A02	RESET MONITOR	DC	MC33064
U0653	4805921T02	DATA SWITCH	1 MHz	FMC2A
U3101	5186144B01	RECEIVER SYSTEM	455 kHz - 44.85 MHz	SA616
U3111	5102463J52	RF SWITCH	455 kHz	MC74HC4066
U3115	5102463J52	RF SWITCH	455 kHz	MC74HC4066
U4201	5185963A27	FREQUENCY SYNTHESIZER	1.05 - 470 MHz	63A27
U4211	5185963A33	VOLTAGE REGULATOR	DC	LP2951
U4301	5105750U54	TX VCO/RX BUFFER/TX BUFFER	358.15 - 470 MHz	50U54
U4401	5185130C65	GAIN CONTROLLED AMPLIFIER	403 - 470 MHz	30C65
U4402	5113818A03	CURRENT CONTROL OP. AMP.	403 - 470 MHz	MC33072
U4501	5185765B28	TX POWER CONTROL	1 MHz	H99S-4
U4502	5185963A15	TEMPERATURE SENSOR	DC	LM50
VR0151	4813830A15	DC LEVEL-SENSING SWITCH	DC	MMBZ5232B
VR0501	4805656W09	ESD PROTECTION	DC	MMQA20VT1
VR0503	4805656W09	ESD PROTECTION	DC	MMQA20VT1
VR0504	4813830A40	ESD PROTECTION	DC	MMBZ5257B
VR0505	4805656W09	ESD PROTECTION	DC	MMQA20VT1
VR0509	4813830A40	ESD PROTECTION	DC	MMBZ5257B
VR0510	4813830A40	ESD PROTECTION	DC	MMBZ5257B
VR0537	4813830A15	ESD PROTECTION	DC	MMBZ5232B
VR0541	4813830A27	ESD PROTECTION	DC	MMBZ5244B
VR0601	4813832C77	TRANSIENT SUPPRESSOR	DC	MR2835S
VR0621	4813830A15	VOLTAGE REGULATOR	DC	MMBZ5232B
VR0671	4813830A15	VOLTAGE REGULATOR	DC	MMBZ5232B
VR4471	4813830A15	CURRENT SINK REFERENCE	DC	MMBZ5232B

COMMENTS: The Motorola designators are special code numbers for active devices used in Motorola radios. These devices are either identical or derived from the device family listed under Industry Equivalent, by the manufacturer or are proprietary to Motorola. Service people do not have access to any cross-references or given any information on proprietary devices and are prevented from making unauthorized substitution.