



Raymarine Limited

10kW Open Array Radars

FCC ID: PJ5MTX9-S3

Parts Lists

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Mod/PSU PCB	4357-048
LNC	4346-006
IF PCB	4473-012

10kW Open Array Scanner Unit Mod/PSU PCB

PCB Assy. 4357-048

Part No	Description	Qty	Cct Designator
3039-073-A	H/S_Bracket	1	Brkt1
15096	H/S-CLIP	1	CLIP1
07395	WEIDMULLER LU 10.16/90	1	CN1
07335	PicoFlex2x10	1	CN2
07371	Molex-39-30-1080	1	CN3
07349	Molex_KK_1x4_RA	1	CN5
07307	CON2	1	CN6
07370	PicoFlex2x5	1	CN7
07369	Wago-733-368	1	CN8
07368	Molex_KK_1x3_RA	1	CN9
07327	MOLEX_KK_1X2	1	CN11
07364	M60-04-30-114P	1	CN12
3030-214	NF/3030-214/3030-214	1	CT1
3030-214	3030-214	1	CT2
93041000P	1n	28	C1,C2,C3,C4,C6,C7,C8,C9,C10,C11,C12,C13,C14,C15,C16,C80, C92,C102,C140,C141,C159,C162,C164,C186,C215,C252,C265,C270
930147P	47p	4	C5,C202,C209,C259
9302100P	100p	15	C17,C18,C19,C20,C21,C22,C165,C170,C253,C254,C255, C256,C257,C258,C269
93BDHXXX4N7	4n7	7	C23,C24,C27,C129,C130,C163,C261C25,C26,C28,C32,C41,C66,C69,
93070U1	100n	54	C70,C71,C72,C73,C74,C76,C77,C81,C82,C83,C96,C101,C104,C105, C106,C107,C108,C116,C117,C118,C124,C135,C137,C145,C158,C160, C177,C178,C191,C192,C193,C195,C206,C217,C218,C219,C226,C227, C235,C237,C238,C239,C241,C242,C243,C246,C251
93FDHBXXX4U7	4.7u	4	C34,C35,C40,C268
93EDOBXX100N	100n	4	C36,C37,C38,C39
93040U01	10n	21	C42,C45,C48,C54,C55,C56,C57,C75,C84,C85,C87,C100, C122,C132,C161,C167,C185,C203,C204,C210,C267
93BDHXXX2N2	2n2	7	C43,C46,C49,C109,C112,C138,C179
03132	680u	5	C44,C47,C50,C133,C172
03151	47n	5	C51,C52,C53,C146,C154

Part No	Description	Qty	Cct Designator
932410U	10u	2	C60,C182
9324100U	100u	2	C65,C61
9306105X7R	1u	12	C62,C63,C64,C114,C115,C143,C144,C181,C214,C245,C249,C260
03122	4n7	1	C67
93060U47	470n	1	C79
930433N	33n	4	C88,C134,C175,C176
9301470P	470p	4	C89,C90,C91,C196
03152	100n	1	C94
03083	2n2	2	C166,C103
03134	1000u	2	C110,C123
03135	220u	5	C111,C136,C152,C155,C213
03146	1uF	1	C113
03093	100n	4	C120,C121,C169,C188
9300220P	220p	6	C127,C128,C168,C180,C220,C262
93BDHBXX330P	330p	1	C139
93HEFEXX4U7	4u7	2	C147,C142
93HEHEXX1U	1u	1	C148
03066	1000u	3	C149,C150,C151
03090	1n	1	C153
03148	47p	4	C156,C157,C171,C183
03155	100n	1	C184
930122P	22p	1	C194
930147P	47p	1	C198
9300220P	220p	1	C199
930122P	22p	1	C200
930122P	22p	1	C201
03031	100u	1	C208
03089	100pF	2	C224,C223
03135	220u	1	C225
03138	4n7	1	C228
03149	100u	2	C234,C233
03161	1u5	1	C250
03080	47u	1	C266
9203BZX12V	BZX84C12V	5	D1,D12,D13,D14,D34
9200BAS19	BAS19	9	D8,D9,D10,D26,D40,D60,D63,D66,D69

Part No	Description	Qty	Cct Designator
9200UF1A200V	MURS120T3	2	D15,D17
920010BQ060	10BQ060	8	D19,D21,D23,D49,D61,D62,D64,D65
9200BAV99	BAV99	2	D38,D22
02087	UF180	4	D27,D28,D42,D50
920010BQ060	10BQ060	2	D54,D29
02082	BYV27-200	1	D33
920010BQ060	10BQ060	1	D37
9203BZX84C5V1	BZX84C5V1	1	D39
02074	BZV85-C18	1	D41
9203BZX6V8	BZX84C6V8	1	D43
9200BAV70	BAV70	3	D52,D53,D70
02077	UX-F5B	2	D57,D56
02086	1N5407	1	D58
02078	UF5404	1	D59
02092	APT15DS60B	2	D72,D73
15249	BL01RN1-A62	4	FB1,FB2,FB3,FB4
15362	40mm-Fan	1	Fan1
15347	SW50-2	2	HT1,HT2
3036-172	HEATSINK-3036-172	1	HT3
07350	Motor-On(C)	1	JP1
07350	Remote-Switch-On(C)	1	JP2
9600L1	BEAD_L1	7	L2,L3,L5,L9,L10,L13,L14
15185	100uH	3	L6,L7,L8
9400PC357D	PC357-D	5	OP1,OP2,OP3,OP4,OP5
3015-185-D	3015-185	1	PCB
05052	STP60N05FI	7	Q1,Q5,Q9,Q13,Q14,Q15,Q16
9500BC856	BC856	6	Q2,Q6,Q10,Q25,Q51,Q52
9500BC846	BC846	11	Q3,Q7,Q11,Q22,Q29,Q30,Q32,Q39,Q45,Q47,Q49
95003906	2N3906	3	Q4,Q8,Q12
9500IMX1	IMX1	6	Q17,Q27,Q34,Q38,Q40,Q43
9500IMZ1	IMZ1	4	Q18,Q19,Q33,Q46
95002N2222A	2N2222A	3	Q20,Q28,Q44
9500BC807	BC807	3	Q23,Q48,Q50
9500IMT1	IMT1	2	Q24,Q26
05055	IRFP2807	2	Q21,Q31

Part No	Description	Qty	Cct Designator
95003904	2N3904	3	Q35,Q36,Q37
05064	APT6017B2LL	1	Q41
26008	RIV-SCREW	9	RIV1,RIV2,RIV3,RIV4,RIV5,RIV6,RIV7,RIV8,RIV9
01205	PTH9M04BC222TS2F333	1	RT1
91072KEVM	2K	1	RV1
91064K7	4k7	31	R25,R37,R38,R39,R44,R45,R53,R54,R55,R61,R62,R63, R74,R77,R80,R83,R86,R89,R110,R127,R130,R142,R164, R196,R225,R235,R244,R254,R358,R361,R0
91060R0	0R	1	R1
91063K9	3K9	1	R5
910615K	15K	3	R7,R214,R255
910310R	10R	14	R8,R9,R95,R97,R99,R116,R119,R147,R228,R245,R247, R352,R356,R368
91031K	1K0	40	R10,R15,R16,R17,R18,R42,R58,R106,R117,R124,R148, R149,R150,R151,R152,R153,R171,R194,R205,R207,R215, R216,R217,R218,R229,R238,R239,R240,R243,R259,R262, R276,R277,R285,R297,R308,R343,R344,R347,R351
91DCFXXX1R0	1R0	1	R11
9106120R	120R	1	R12
91063R3	3R3	1	R13
910647K	47K	10	R14,R46,R52,R193,R260,R264,R265,R266,R360,R369
9103100R	100R	19	R20,R93,R96,R98,R143,R146,R156,R157,R158,R159, R198,R199,R203,R223,R234,R257,R278,R283,R371
91062K2	2K2	12	R21,R48,R60,R72,R73,R78,R79,R84,R85,R94,R213,R296
910310K	10K	44	R22,R32,R40,R57,R59,R64,R65,R66,R104,R108,R132,R133,R166, R168,R188,R195,R197,R201,R206,R208,R267,R268,R269,R270, R271,R272,R273,R274,R275,R280,R281,R284,R287,R288,R298, R304,R305,R306,R312,R355,R362,R363,R364,R370
9106220R	220R	6	R23,R29,R49,R50,R51,R160
91035K6	5K6	6	R24,R27,R43,R162,R311,R349
910327K	27k	5	R26,R56,R67,R68,R294
9106100K	100K	15	R28,R33,R34,R47,R113,R114,R115,R128,R176,R211, R237,R286,R345,R350,R375
9106470R	470R	7	R30,R100,R101,R103,R145,R209,R210
91033K3	3K3	7	R31,R41,R70,R109,R112,R163,R309

Part No	Description	Qty	Cct Designator
9106220K	220K	3	R35,R372,R373
910333K	33K	3	R36,R261,R291
91061K5	1K5	5	R71,R226,R248,R258,R263
910647R	47R	21	R75,R76,R81,R82,R87,R88,R129,R135,R136,R137,R138, R139,R140,R154,R155,R167,R186,R212,R293,R317,R318
01238	10R	3	R90,R91,R92
01231	20m	1	R102
910622K	22K	5	R111,R187,R200,R241,R374
91060R0	0R0	1	R131
910615K	15K	1	R134
910622R	22R	4	R141,R144,R204,R313
910618K	18K	1	R161
9106680R	680R	2	R224,R165
91063R3	3R3	1	R170
01211	33R	4	R172,R202,R230,R322
91061K8	1K8	3	R178,R292,R365
910310K	10K	1	R179
910622K	22K	1	R180
91FCGXXXX1K	1K	1	R181
91AAAXXX56K	56K	1	R189
910612K	12K	1	R190
9103270R	270R	2	R191,R192
01234	220K	1	R242
91036K8	6K8	1	R249
910333K	33K	1	R289
910639K	39K	1	R290
91031K	1K	1	R299
91060R0	0R0	1	R301
91062K7	2K7	1	R307
91036K8	6K8	2	R310,R348
910368K	68K	1	R314
01227	470K	1	R315
91061R0	1R0	4	R316,R319,R320,R321
01240	10R	1	R323
910310R	10R	1	R330

Part No	Description	Qty	Cct Designator
01235	1R0	1	R338
01241	2R2	1	R339
01191	10R	1	R340
01232	470K	2	R341,R342
910612K	12K	1	R346
01242	/27R	1	R357
91060R0	0R	1	R359
91031K	1K0	1	R367
91FCGXXX0R1	0R1	2	R377,R378
21117	ST-SCREW-4X12MM	4	SCRW2,SCRW3,SCRW4,SCRW5
15306	TO247-SILPAD	1	SIL1
3030-210	3030-210	1	TX1
3030-211	3030-211	1	TX2
3030-213	3030-213	1	TX4
9600CHOKE1	TDK-ZJYS51R5-4P	1	T1
15345	B8275-A2103-N1	1	T3
940074HC86	74HC86	1	U1
940074LS221	74LS221	2	U2,U11
9400LM324	LM324	2	U3,U14
9400MC33035DW	MC33035DW	1	U4
9400431	TL431-SO8	2	U9,U7
9400UCC3800	UCC3800	2	U10,U8
940074HC14ST	74HC14	1	U12
94004427	TC4427	1	U13
43009	RED	1	VARNISH
01219	V56ZA2	1	VR1
23042	FIBRE-WASHER	6	WASH1,WASH2,WASH3,WASH4,WASH5,WASH6

Pathfinder Scanner Unit - LNC (Low Noise Converter)

PCB Assy 4346-006

Part No.	Description	Quantity	Cct. Designator
93001000P	Capacitor 1000pF	8	C10,C11,C19,C28,C29,C36,C37, C39
93010P5	Capacitor 0.5pF	14	C3,C4,C5,C6, C7,C8,C9,C16,C20,C25,C26,C30,C31,C41
930139P	Capacitor 39pF	2	C32,C33
932410U	Capacitor 10uF,16V	3	C34,C35,C40
9200BAS16	Diode SOT23 BAS16	1	D4
9200BAV99	Diode BAV99	2	D10,D11
9200HSMS2800	Schottky Diode HSMS 2800	1	D5
9201BAT14	Dual Sil. Schottky Mix Diode	2	D6,D7
9205BABLIM1	Limiter diode	1	D3
9205DADLIM1	Limiter diode	1	D1
9205MICVAR1	Microwave Abrupt Varactor	1	D8
9205MUMLIM1	Limiter Diode	1	D2
9500FHX35	Microwave Material	3	MTR1,MTR2,MTR3
9500BSR18A	BSR 18A	2	Q1,Q2
9102100R	Resistor 100R	2	R5,R8
910210K	Resistor 10K 0.1W	6	R7,R19,R23,R27R46,R47
910210R	Resistor 10R	3	R25,R29,R31
91021K	Resistor 1K, 0.1W	0	R6
910233RU	Resistor 33R (Inverted)	4	R32,R33,R39,R40
910247R	Resistor 47R, 0.1W	7	R1,R2,R9,R20,R24,R28,R45
R910268RU	Resistor 68R (Inverted)	1	R34
910310K	Resistor 10K	2	R35,R36
9103270R	Resistor 270R	1	R12
91035K6	Resistor 5K6	2	R10,R18
91060R0	Resistor 0R0	1	R38
910612K	Resistor 12K	1	R42
910622K	Resistor 220K	2	R17,R21
91062K7	Resistor 2K7	1	R11
91064K7	Resistor 4K7	1	R41
9400431	IC TL431 SO8 REG3-36L	1	U1

IF Receiver (10kW Open Array)**PCB Assy. 4473-012**

Part No.	Description	Qty	Cct Designator
9500MSA1105	MSA-1105	1	AR1
930112P	12p	4	C1,C90,C237,C250
93041000P	1n	30	C6,C13,C15,C17,C32,C47,C52,C71,C82,C87,C88,C89, C93,C123,C204,C205,C206,C207,C209,C210,C211,C214, C215,C217,C218,C223,C228,C239,C244,C249
93070U1	100n	24	C7,C12,C29,C39,C73,C112,C113,C125,C129,C200,C201, C202,C203,C224,C226,C227,C233,C238,C240,C242,C258, C259,C260,C262
9302470P	470p	2	C40,C8
932410U	10u	18	C9,C10,C18,C19,C20,C24,C46,C51,C81,C102,C110, C128,C212,C213,C232,C247,C251,C261
9324100U	100u	5	C16,C111,C114,C225,C243
93040U01	10n	9	C25,C38,C42,C69,C75,C208,C229,C230,C231
9302100P	100p	6	C43,C85,C95,C219,C221,C264
9302220P	220p	2	C253,C44
930122P	22p	11	C45,C48,C50,C53,C55,C74,C80,C92,C94,C119,C120
930127P	27p	3	C56,C65,C97
930115P	15p	2	C63,C64
93011P5	1p5	1	C67
930118P	18p	1	C83
9301680P	680p	1	C252
9302470P	470pF	1	C254
9302220P	220pF	1	C255
3135	220u 25V	2	C257,C256
9200BAS16	BAS16	14	D1,D3,D5,D11,D12,D16,D18,D22,D26,D27,D28,D34,D35,D36
9200BAV70	BAV70	2	D7,D8
9200HSMP3830	HSMP3830	1	D17
9200BAV99	BAV99	1	D19
9600L3	10uH	3	L1,L6,L26
9600L4	220nH	2	L2,L3
15234	220nH	6	L4,L7,L8,L9,L10,L11

Part No.	Description	Qty	Cct Designator
9600L1	9600L1	4	L12,L13,L16,L18
9600L13	3u3	2	L17,L15
9600CHOKE2	ZJYS51R5-2P	1	L27
9400PC357D	PC357-D	1	OPTO1
9600CLH110	CON20	1	P1
7370	picoflex10	1	P2
7229	PicoFlex2x10	1	P4
95003904	2N3904	18	Q3,Q4,Q5,Q6,Q7,Q9,Q10,Q13,Q14,Q18,Q21,Q22,Q36, Q37,Q43,Q45,Q47,Q48
9500BSR18A	2N3906	9	Q8,Q11,Q12,Q15,Q16,Q19,Q23,Q33,Q38
9205BF999	BF999	4	Q31,Q32,Q34,Q35
95002SK2103	2SK2103	2	Q41,Q39
9500BC817	BC817	2	Q40,Q42
9500BFR92A	BFR92A	2	Q44,Q46
9.11E+11	2K5	1	RT1
9103510R	510R	4	R6,R12,R366,R377
91033K3	3k3	9	R8,R10,R54,R76,R117,R219,R315,R370,R371
91062k2	2k2	12	R11,R35,R52,R206,R344,R345,R346,R347,R364,R365,R372,R383
91031K	1k	17	R13,R20,R24,R33,R34,R63,R101,R104,R114,R115,R122, R134,R143,R145,R202,R322,R369
910647R	47R	3	R14,R21,R381
91062K7	2k7	4	R15,R16,R65,R367
9106180R	180R	2	R155,R17
9106680R	680R	10	R18,R87,R89,R106,R141,R217,R307,R308,R350,R363
9106100K	100k	4	R19,R300,R324,R326
910310K	10k	23	R22,R32,R36,R41,R44,R45,R46,R47,R48,R75,R90,R136, R137,R163,R209,R312,R314,R316,R317,R318,R327,R330,R351
910668R	68R	2	R23,R29
9106390R	390R	2	R208,R25
9106470R	470R	8	R26,R27,R28,R70,R72,R118,R131,R203
9106220R	220R	2	R334,R31
9106330K	330k	3	R37,R50,R119
910622K	22K	5	R42,R91,R123,R124,R213
910368K	68k	1	R49
91061K8	1K8	7	R51,R53,R55,R60,R74,R96,R215

Part No.	Description	Qty	Cct Designator
9103560R	560R	6	R59,R105,R125,R201,R218,R310
91061K2	1k2	3	R64,R142,R384
91064K7	4k7	12	R71,R78,R309,R311,R349,R352,R353,R354,R355,R375,R376,R386
9106330R	330R	3	R73,R144,R211
9103100R	100R	11	R79,R97,R103,R113,R130,R216,R319,R320,R321,R379,R380
91061K5	1k5	5	R93,R138,R139,R220,R302
910315K	15k	3	R98,R303,R306
91071KEVM	1k-pot	2	R99,R385
91063K9	3k9	1	R100
9106120R	120R	1	R102
910622R	22R	6	R111,R112,R116,R126,R127,R129
910647K	47k	6	R128,R304,R305,R328,R329,R373
9106220K	220k	1	R140
910612K	12k	1	R146
910333K	33K	2	R162,R331
910310R	10R	4	R210,R332,R338,R339
91035K6	5k6	1	R212
91060R0	0R	3	R342,R343,R378
910382R	82R	1	R362
7301	CON8	1	SK1
9600TOKOCM1	CM_CHOKE_SM	3	TF1,TF2,TF3
940088346	MB88346B	1	U1
9400TL084	TL084	5	U6,U7,U8,U11,U21
9400MC1350D	MC1350D	2	U9,U10
9400DS34C87	DS34C87	1	U12
940378054	940378054	1	U13
9400DS75176	DS75176BN	1	U17
940024022	S24022	1	U18
9400431	TL431CD	1	U20
9400AD8307AR	AD8307-AR	1	U22
9108ESD6V1U1	ESDA6V1U1	1	U23
15279	4.9152MHz	1	X1