

Raytheon

Raytheon Marine Company

Raytheon Pathfinder
Series Radar

ASLMTX9

Parts Lists

Index

List of Spare and Accessories

List of 10kW Core Assembly Parts

List of Modulator/PSU PCB parts

‘Pathfinder’ Radar Spares & Accessories

48” Open Array & 10kW Pedestal

Antenna

Description	Comment	Part No.
48"antenna mounting kit	O-ring + fixings (4 nuts, 4 + 4 washers)	R58046

Pedestal

Description	Comment	Part No.
O/A PEDESTAL CASE SEAL	Seals upper and lower castings	R58047
O/A PED FINAL DRIVE BELT		R58049
O/A PED GEARBOX ASSY	Incl. motor	R58050
O/A PED SHM HALL SENSOR	C/w cable and connector	R58051
O/A PED SWITCH ASSY	Isolator, c/w cable and connector	R58052
O/A PED MOUNTING KIT	4 studs, 4 nuts, 4 + 4 + 4 washers	R58054
O/A PED BITUMEN WASHER PK, 10MM	Qty. 4 (Part of pedestal mounting kit)	R58055
O/A PED CONNECTOR 8 WAY	For inter-unit cable	R58056
O/A PED COAXIAL TUBE ASSY		R58061

Core Assembly

Description	Comment	Part No.
10KW PED MODULATOR PCB		
O/A PED IF PCB	Variant of radome IF	R58058
O/A PED RIBBON 10 WAY 175MM	Mod/PSU to IF PCBs	R58059
10KW PED CORE ASSEMBLY	Complete core, fully tested (limited distribution)	
10KW PED MAGNETRON		
10KW PED CIRCULATOR		
RECEIVER LNC PCB		R101
CONNECTOR ASSY.		R105
RIBBON CABLE		R103
RECEIVER COVER & SEAL		R106

Accessories

Description	Comment	Part No.
Extension cable 5m	Existing	M92699
Extension cable 10m	Existing	M92700
Owner’s Handbook	81154_3	81154

NOTE: The following are ‘top level’ items, for the 10kW, 48" O/A radar

systems:	Interunit cable, 15m	M92728
	Interunit cable, 25m	M92705
	Radar arch cable kit, 15m (5m interunit + 10m Extension)	E55017
	48" open array, c/w fixings	M92693

Core Assembly 10KW

Part number	Description	Qty
3004-167-A	Core Casting + Choke assy	1
3010-278-C	LNC Receiver Seal	1
3010-279-C	Rubber Boot	1
3011-055-B	Receiver Ram (L Shape)	1
3011-071-A	IF Ram (L Shaped)	1
3011-072-C	Special Conductive washer	1
3011-075-A	Ram (Rectangle)	1
3011-076-A	Receiver Ram (Rectangle)	1
3011-093-C	Lower Cover Insulator	1
3029-193-A	High Voltage Label	2
3030-229-A	Circulator/Limiter	1
3030-174-C	Cable Screen	1
3030-225-A	10KW Magnatron	1
3034-011-F	Connector Assembly	1
3036-103-J	Receiver Cover	1
3036-140-C	LNC Screen Lid	1
3036-193-B	IF PCB Cover	1
3036-195-D	Lower Cover	1
4346-006P	LNC (RMEM)	1
4346-009-C	Cable Assembly 18 Way	1
4346-025	Open Array IF PCB	1
4357-017	10KW Modulator PCB	1
4357-019-A	Ribbon Cable Assembly	1
4357-026	Encoder PCB Assembly	1

Pathfinder Open Array Radar : Modulator			Revised: October 22nd 1999		
			Revision: H		
4357-024 (PCB 3015-185) Issue D					
Bill Of Materials					
			4357-017		
			Part No.		
Item	Quantity	Reference	Value	10kW Open Array	Rating/Tolerance
1	1	Brkt1	H/S Bracket	3036-	
12	2	CLIP1,CLIP2	H/S-CLIP	15096	
14	1	CN2	PicoFlex2x9	07299	
15	1	CN3	Molex-39-30-1080	07371	
16	1	CN5	Molex_KK_1x4_RA	07349	
17	1	CN6	CON2	07307	
18	1	CN7	PicoFlex2x5	07370	
19	1	CN8	Wago-733-368	07369	
20	1	CN9	Molex_KK_1x3_RA	07368	
21	1	CN10	Wago-256-404/406	-	
22	1	CN11	MOLEX_KK_1X2	07307	
23	1	CT1	NF/3030-214/3030-214	3030-214	
24	1	CT2	3030-214	3030-214	
25	22	C1,C2,C3,C4,C5,C6,C7,C8, C9,C10,C11,C12,C13,C14, C15,C16,C102,C140,C141, C159,C215,C252	1n	93041000P	
26	12	C17,C18,C19,C20,C21,C22, C253,C254,C255,C256,C257, C258	100p	9302100P	
27	5	C23,C24,C27,C129,C130	4n7	93BDHXXX4N7	
28	52	C25,C26,C28,C32,C41,C66, C69,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, C191,C192,C193,C195,C206, C217,C218,C219,C226,C227, C235,C237,C238,C239,C241, C242,C243,C246,C251	100n	93070U1	
29	7	C34,C35,C36,C37,C38,C196, C209	470p	9301470P	100V
30	3	C39,C40,C103	2n2	03083	1KV
31	17	C42,C45,C48,C54,C55,C56, C57,C75,C84,C85,C87,C100, C122,C132,C203,C204,C210	10n	93040U01	
32	7	C43,C46,C49,C109,C112, C138,C229	2n2	93BDHXXX2N2	
33	4	C44,C47,C133,C172	680u	03132	50V
34	1	C50	680u	03132	50V
35	5	C51,C52,C53,C146,C154	47n	03151	250V
37	1	C60	10u	932410U	25V
38	2	C65,C61	100u	9324100U	
39	10	C62,C63,C64,C114,C115, C143,C144,C214,C245,C249	1u	9306105X7R	16V
40	1	C67	4n7	03122	400V
41	1	C79	470n	93060U47	16V
42	2	C80,C92	1n0	93041000P	100V
43	2	C88,C134	33n	930433N	
44	3	C89,C90,C91	470p	9302470P	
45	1	C94	100n	03152	5%
46	2	C110,C123	1000u	03134	10V
47	8	C111,C136,C149,C150,C151, C152,C155,C213	220u	03135	25V
48	1	C113	1u	03146	63V
49	2	C121,C120	100n	03093	250V

50	4	C127,C128,C220,C262	220p	9300220P	100V
52	1	C139	330p	93BDHBXX330P	
53	4	C142,C147,C207,C208	4u7	93HEFEXX4U7	25V
54	1	C148	1u	93HEHEXX1U	50V
55	1	C153	1n	03090	1KV
56	2	C157,C156	47p	03148	1KV
57	3	C161,C167,C185	10n	93040U01	
58	3	C162,C164,C186	1n	93041000P	
59	2	C163,C261	4n7	93BDHXXX4N7	
60	2	C165,C170	100p	9302100P	
61	1	C166	2n2	03083	1KV
62	2	C180,C168	220p	9302220P	
63	1	C169	100n	03093	250V
64	2	C171,C183	47p	03148	1KV
65	1	C173	47n	03151	250V
66	2	C175,C176	33n	930433N	
67	2	C178,C177	100n	93070U1	
68	1	C179	2n2	93BDHXXX2N2	
69	2	C181,C260	1u	9306105X7R	16V
70	1	C182	10u	932410U	16V
71	1	C184	100n	PH468-TYPE-FEC966-496	630V
72	1	C188	100n	03093	250V
73	1	C189	100p	03088	1KV
74	1	C190	NFit	NF	
75	1	C194	33p	930133P	
77	1	C199	150p	9300150P	100V
78	1	C200	22p	930122P	
80	2	C259,C202	47p	930147P	
83	1	C221	W-L/33pF/33pF	03129	6.3KV
84	1	C222	33pF	03121	6.3KV
85	2	C224,C223	NF/100pF/100pF	03089	6.3KV
86	1	C225	NF/220u/220u	03135	25V
87	1	C228	4n7	03138	2KV
90	1	C233	100u	03149	400V
91	1	C234	100u	03149	400V
92	1	C250	1u5	WIMA-MKP10-630V	630V
93	392	TP1,FID1,TP2,TH2,FID2,	TEST-POINT		
94	5	D1,D12,D13,D14,D34	BZX84C12V	9203BZX12V	
95	8	D8,D9,D10,D26,D40,D60, D63,D66	BAS19	9200BAS19	
96	2	D15,D17	MURS120T3	9200UF1A200V	
97	2	D16,D18	BYV27-200	NF	
98	7	D19,D21,D23,D61,D62,D64, D65	10BQ060	920010BQ060	
100	2	D38,D22	BAV99	9200BAV99	
101	2	D28,D27	UF180	02087	
102	1	D29	MURS120T3/10BQ060/10B	9200UF1A200V	
104	1	D33	BYV27-200	02082	
106	1	D37	NF/10BQ060/10BQ060	920010BQ060	
107	1	D39	BZX84C5V1	9203BZX84C5V1	
108	1	D41	BZV85-C18	02074	
109	1	D42	UF180	02087	
110	1	D43	BZX84C6V8	9203BZX6V8	
111	1	D46	BZV85-C18	02074	
112	1	D47	BYV27-200	02082	
113	1	D49	10BQ060	920010BQ060	
114	1	D50	UF180	02087	
115	2	D52,D53	BAV70	9200BAV70	
116	1	D54	MURS120T3/10BQ060/10B	920010BQ060	
117	2	D56,D57	UX-FOB	02077	8KV
118	1	D58	UF5404/1N5407/1N5407	1N5407	400V/600V/600V
119	1	D59	UF5404	02078	400V
120	2	D68,D67	NF/BZV85-C18/BZV85-C18	02074	
121	1	D69	BAS19	9200BAS19	
122	2	EndCap1,EndCap2	Wago-256-EndCap	07325	

123	2	FB1,FB3	BL01RN1-A62	15249	
124	2	FB4,FB2	BL01RN1-A62	15249	
125	1	Fan1	40mm-Fan	40mm-Fan	12V
126	2	HT1,HT2	SW50-2	15347	8.6C/W
127	1	HT3	HEATSINK-3036-172	3036-172	
128	1	JP1	Motor-On(C)	07350	
129	2	LABEL1,LABEL2	LABEL	-	
131	6	L2,L3,L5,L9,L10,L13	BEAD_L1	9600L1	
132	3	L6,L7,L8	100uH	15185	
133	1	L14	BEAD_L1	9600L1	
134	4	OP1,OP2,OP3,OP4	PC357-D	9400PC357D	
135	1	OP5	PC357-D	9400PC357D	
136	1	PCB	3015-185	3015-185-D	
137	7	Q1,Q5,Q9,Q13,Q14,Q15,Q16	STP60N05FI	05052	
138	4	Q2,Q6,Q10,Q25	BC856	9500BC856	
139	6	Q3,Q7,Q11,Q22,Q29,Q39	BC846	9500BC846	
140	3	Q4,Q8,Q12	2N3906	95003906	
141	6	Q17,Q27,Q34,Q38,Q40,Q43	IMX1	9500IMX1	
142	2	Q18,Q19	IMZ1	9500IMZ1	
143	3	Q20,Q28,Q44	2N2222A	95002N2222A	
144	1	Q21	IRF540/IRFP2807	05055	
145	1	Q23	BC807	9500BC807	
146	2	Q24,Q26	IMT1	9500IMT1	
147	4	Q30,Q32,Q45,Q47	BC846	9500BC846	
148	1	Q31	IRFP2807	05055	
149	2	Q33,Q46	IMZ1	9500IMZ1	
150	3	Q35,Q36,Q37	2N3904	95003904	
151	1	Q41	IRFP450	IRFPC60	
152	1	Q42	NF/IRFPC60/IRFPC60	IRFPC60	
153	1	Q48	BC807	9500BC807	
154	7	RIV1,RIV2,RIV3,RIV4,RIV5, RIV6,RIV7	RIV-SCREW	26008	
155	1	RIV8	RIV-SCREW	26008	
156	1	RT1	PTH9M04BC222TS2F333	01205	
157	1	RV1	2K	91072KEVM	
158	28	R25,R37,R38,R39,R44,R45, R53,R54,R55,R61,R62,R63, R74,R77,R80,R83,R86,R89, R110,R127,R130,R142,R164, R196,R254,R358,R361,R0	4k7	91064K7	
159	1	R1	0R	91060R0	
162	1	R5	3K9	91063K9	
163	2	R7,R255	15K	910615K	
164	11	R8,R9,R95,R97,R99,R116, R119,R147,R329,R352,R356	10R	910310R	
165	30	R10,R15,R16,R17,R18,R42, R58,R106,R117,R124,R148, R149,R150,R151,R152,R153, R171,R194,R259,R262,R276, R277,R285,R297,R301,R308, R343,R344,R347,R351	1K0	91031K	1%
166	1	R11	1R0	91DCFXX1R0	
167	1	R12	120R	9106120R	
168	1	R13	3R3	91063R3	
169	11	R14,R46,R52,R189,R193, R260,R264,R265,R266,R289, R360	47K	910647K	
171	16	R20,R93,R96,R98,R143, R146,R156,R157,R158,R159, R198,R199,R203,R257,R283, R293	100R	9103100R	
172	11	R21,R48,R60,R72,R73,R78, R79,R84,R85,R94,R296	2K2	91062K2	
173	39	R22,R32,R40,R59,R64,R65, R66,R104,R108,R132,R133,	10K	910310K	

		R166,R168,R188,R195,R197, R201,R267,R268,R269,R270, R271,R272,R273,R274,R275, R280,R281,R284,R287,R288, R298,R299,R304,R305,R306, R312,R355,R362			
174	6	R23,R29,R49,R50,R51,R160	220R	9106220R	
175	6	R24,R27,R43,R162,R311, R349	5K6	91035K6	1%
176	4	R26,R56,R67,R68	27k	910327K	1%
177	12	R28,R33,R34,R47,R113, R114,R115,R128,R176,R286, R345,R350	100K	9106100K	
178	5	R30,R100,R101,R103,R145	470R	9106470R	
179	6	R31,R41,R70,R109,R163, R309	3K3	91033K3	1%
180	1	R35	220K	9106220K	
181	5	R36,R190,R261,R291,R294	33K	910333K	
182	1	R57	10K	910310K	1%
184	3	R71,R258,R263	1K5	91061K5	
185	19	R75,R76,R81,R82,R87,R88, R129,R135,R136,R137,R138, R139,R140,R154,R155,R167, R186,R317,R318	47R	910647R	
186	3	R90,R91,R92	10R	01191	2W
187	1	R102	20m	01231	4W_5%
188	2	R111,R187	22K	910622K	
189	1	R112	3K3	91033K3	
190	1	R131	2K2/1K8/1K8	91061K8	
191	1	R134	15K/12K/12K	910612K	
192	3	R141,R144,R313	22R	910622R	
193	1	R161	15K/18K/18K	910618K	
194	1	R165	680R	9106680R	
196	1	R170	NF/3R3/3R3	91063R3	
197	3	R172,R202,R322	33R	01211	2W
199	2	R178,R307	2K7	91062K7	
201	1	R180	NF/22K/22K	910622K	
202	7	R181,R182,R183,R184,R185, R310,R348	6K8	91036K8	1%
203	3	R191,R192,R278	270R	9103270R	
204	2	R200,R241	22K	910622K	
205	1	R204	22R	910622R	
206	11	R205,R207,R215,R216,R217, R218,R229,R238,R239,R240, R243	1K0	91031K	1%
207	4	R206,R208,R363,R364	10K	910310K	
208	2	R209,R210	470R	9106470R	
209	2	R211,R237	100K	9106100K	
210	1	R212	47R	910647R	
211	1	R213	2K2	91062K2	
212	1	R214	15K	910615K	
213	2	R219,R230	33R	01211	2W
214	2	R223,R234	100R	9103100R	
215	1	R224	680R	9106680R	
216	3	R225,R235,R244	4K7	91064K7	
217	1	R226	1K5	91061K5	
218	3	R228,R245,R247	10R	910310R	
220	1	R242	220K	01234	1%/2W/500V
222	1	R248	1K5	91061K5	1%
223	1	R249	NF/33K/6K8	91036K8	1%
224	1	R250	0R/0R/NF	NF	
225	1	R290	39K	910639K	
226	1	R292	1K8	91061K8	
227	1	R314	68K	910368K	
228	1	R315	470K	01227	7kV

229	4	R316,R319,R320,R321	1R0	91061R0	
230	1	R323	1K0/10R/10R	01240	2.5W
233	1	R326	0R47/NF/0R47	91040R47	0.5W
234	2	R327,R328	0R47	91040R47	0.5W
235	1	R330	10R/15R/15R	910615R	
236	1	R333	NF/NF/0R47	91040R47	0.5W
237	2	R334,R335	NF/0R47/0R47	91040R47	0.5W
238	1	R337	10R/15R/15R	910615R	
239	1	R338	4R7/1R0/1R0	01235	2.5W
240	1	R339	4R7/2R2/2R2	NEW2R2_4W	2.5W/4W/4W
241	1	R340	10R	01191	2.5W
242	1	R341	470K	01232	0.5W/350V
243	1	R342	470K	01232	0.5W/350V
244	1	R346	12K	910612K	
245	1	R357	22R	01226	2W
246	1	R359	1R0/0R/0R	91060R0	
247	1	R365	1k8	91061K8	
248	4	SCRW2,SCRW3,SCRW4,SCRW5	ST-SCREW-4X12MM	21117	
249	2	SIL1,SIL2	TO247-SILPAD	15306	1kV
250	1	SIL3	CUSTOM-SILPAD-TO220X	SIL_PAD	
251	2	TH_DATUM,TH_TH2	TEST-POINT	-	
252	4	TP19,TP20,TP21,TP22	TEST-POINT		
253	5	TP34,TP35,TP36,TP37, TP456	TEST-POINT		
254	1	TX1	3030-210	3030-210	
255	1	TX2	3030-211	3030-211	
257	1	TX4	3030-213(6/10kW)	3030-213	
258	4	Term1,Term2,Term3,Term4	Wago-256-term	07234	
259	1	T1	TDK-ZJYS51R5-4P	9600CHOKE1	
260	1	T3	B8275-A2103-N1	15345	
261	1	U1	74HC86	940074HC86	
262	2	U2,U11	74LS221	940074LS221	
263	2	U3,U14	LM324	9400LM324	
264	1	U4	MC33035DW	9400MC33035DW	
265	1	U7	TL431-SO8	9400431	
266	1	U8	UCC3800	9400UCC3800	
267	1	U9	TL431-SO8	9400431	
268	1	U10	UCC3800	9400UCC3800	
269	1	U12	74HC14	940074HC14ST	
270	1	U13	TC4427	94004427	
271	1	VARNISH	RED	43009	
272	1	VR1	V56ZA2	01219	
274	6	WASH1,WASH2,WASH3,WASH4, WASH5,WASH6	FIBRE-WASHER	23042	
275	1	WASH7	FIBRE-WASHER	top-hat-washer	
276	1	WASH8	FIBRE-WASHER	top-hat-washer	