

Raytheon

Raytheon Marine Company

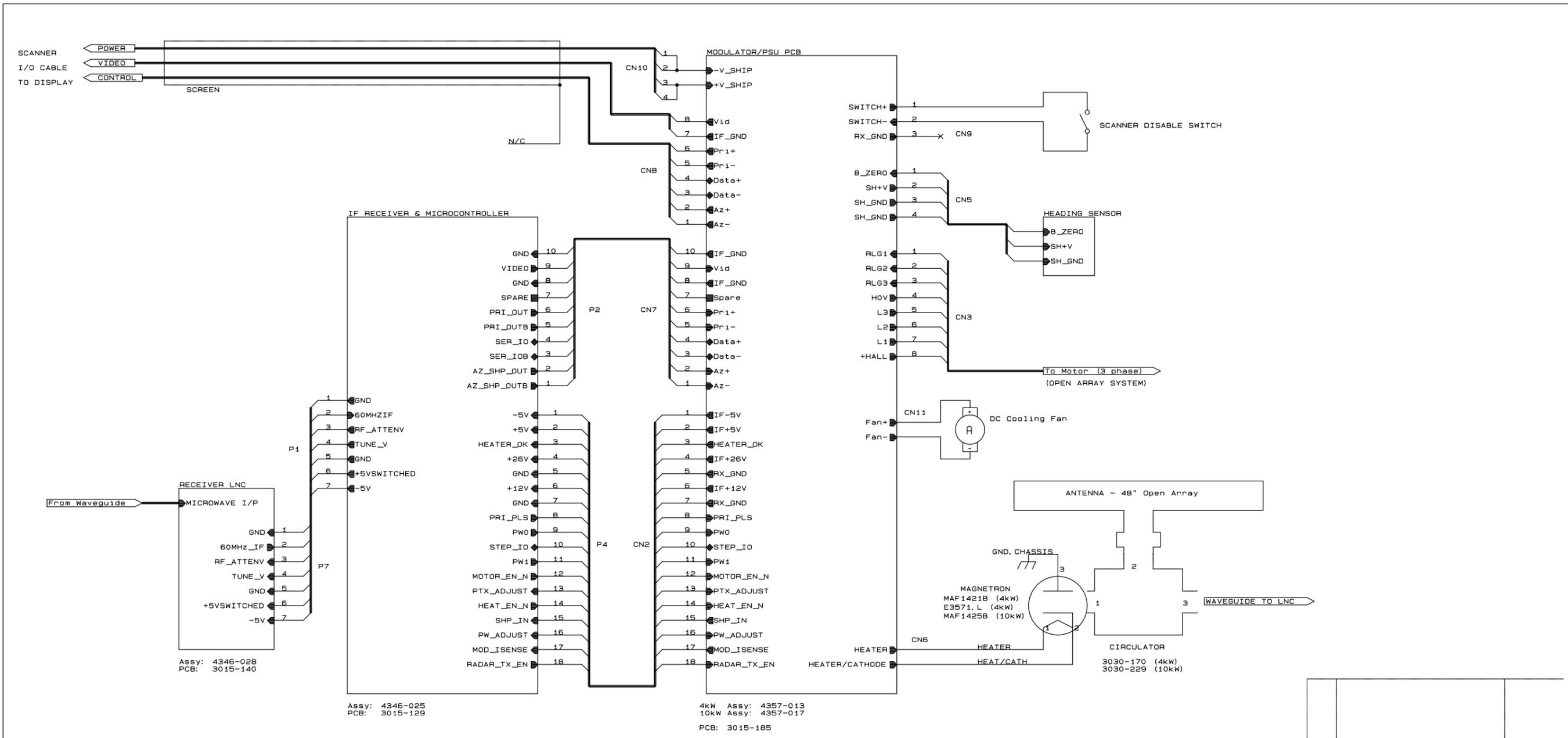
Raytheon Pathfinder Series Radar

ASLMTX9

Circuit Diagrams

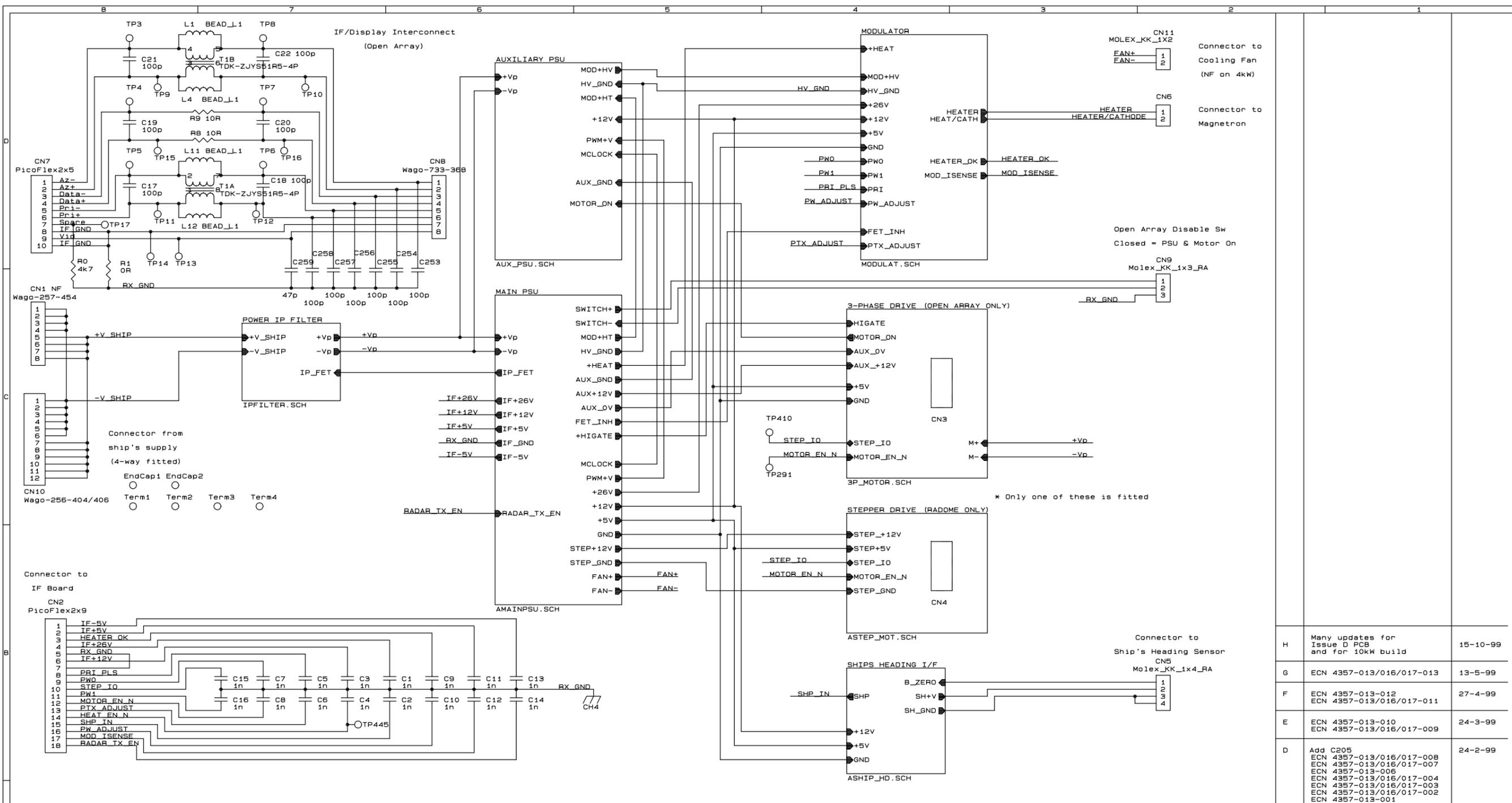
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TOP-LEVEL OPEN ARRAY SCANNER INTERCONNECT

ISS	Description of Change	Date
B	Update for 10kW Open Array	8-12-99
A	Original Issue	12-5-99



Visual Build Std. Identification

R3 1k0, R4 1k8, R5 3k9, R7 15k

TP1, TP2

"4" "6" "10" "OPEN ARRAY"

Fan1 12V (NF on 4kW)

HT1 SW50-2 8.6C/W, HT2 SW50-2 8.6C/W, HT3 HEATSINK-3036-172

TP445

CH4

CH8, CH11, CH9, CH3, CH1, CH2, CH5, CH6, CH7

RM12, RM10

PCB 3015-185

Connector to IF Board

CN2 PicoFlex2x9

1 IF-5V, 2 IF+5V, 3 HEATER_OK, 4 IF+26V, 5 RX_GND, 6 IF+12V, 7 PBI_PLS, 8 PW0, 9 STEP_IO, 10 PW1, 11 MOTOR_EN_N, 12 PTX_ADJUST, 13 HEAT_EN_N, 14 SHIP_IN, 15 PW_ADJUST, 16 MOD_ISENSE, 17 RADAR_TX_EN, 18

EndCap1, EndCap2, Term1, Term2, Term3, Term4

Orcad Schematic / Part Field Allocation:

#	Footprint	TH_DATUM	TH_TH2	LABEL1	LABEL2
1	Footprint				
2	Build Option (4A, 6A, 10A, ALL, NF)				
3	Tolerance/Rating				
4	not used				
5	not used				
6	4kW Open Array Build Option p/n				
7	6kW Open Array Build Option p/n				
8	10kW Open Array Build Option p/n				

Note: Some part values change with build type these are written as 4kW/6kW/10kW

Revision History

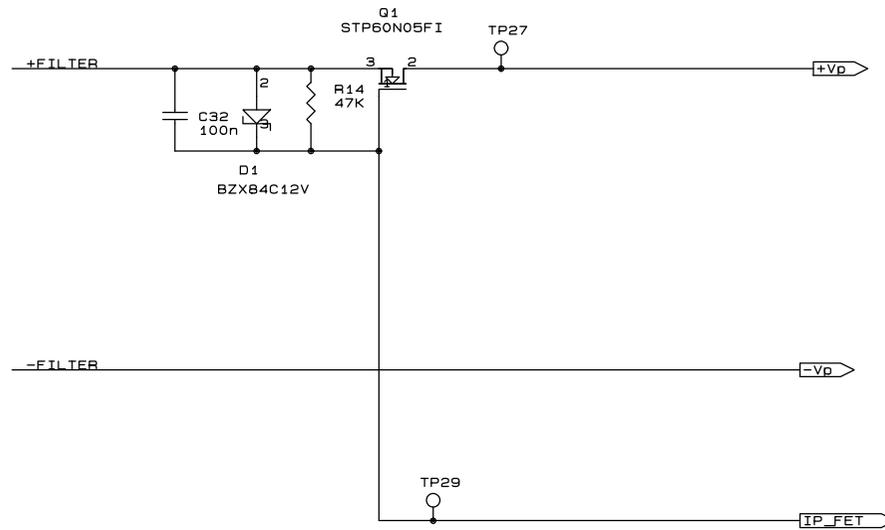
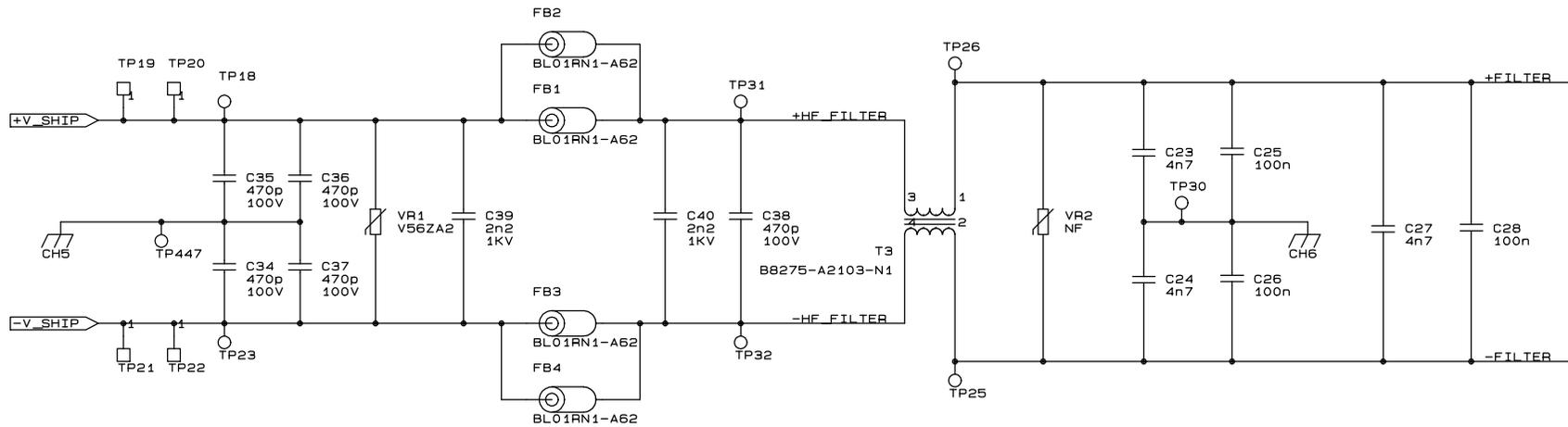
Rev	Description of change	Date
H	Many updates for Issue D PCB and for 10kW build	15-10-99
G	ECN 4357-013/016/017-013	13-5-99
F	ECN 4357-013-012, ECN 4357-013/016/017-011	27-4-99
E	ECN 4357-013-010, ECN 4357-013/016/017-009	24-3-99
D	Add C205, ECN 4357-013/016/017-008, ECN 4357-013/016/017-007, ECN 4357-013-006, ECN 4357-013/016/017-004, ECN 4357-013/016/017-003, ECN 4357-013/016/017-002, ECN 4357-013-001	24-2-99
C	Minor BOM corrections	25-1-99
B10	As for PCB Iss C	13-1-99
A12	Initial PCB Rev. B	07-9-98
Ax	Initial Draft's	01-9-98
ISS	Description of change	Date

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 Anchorage Park
 Portsmouth
 England

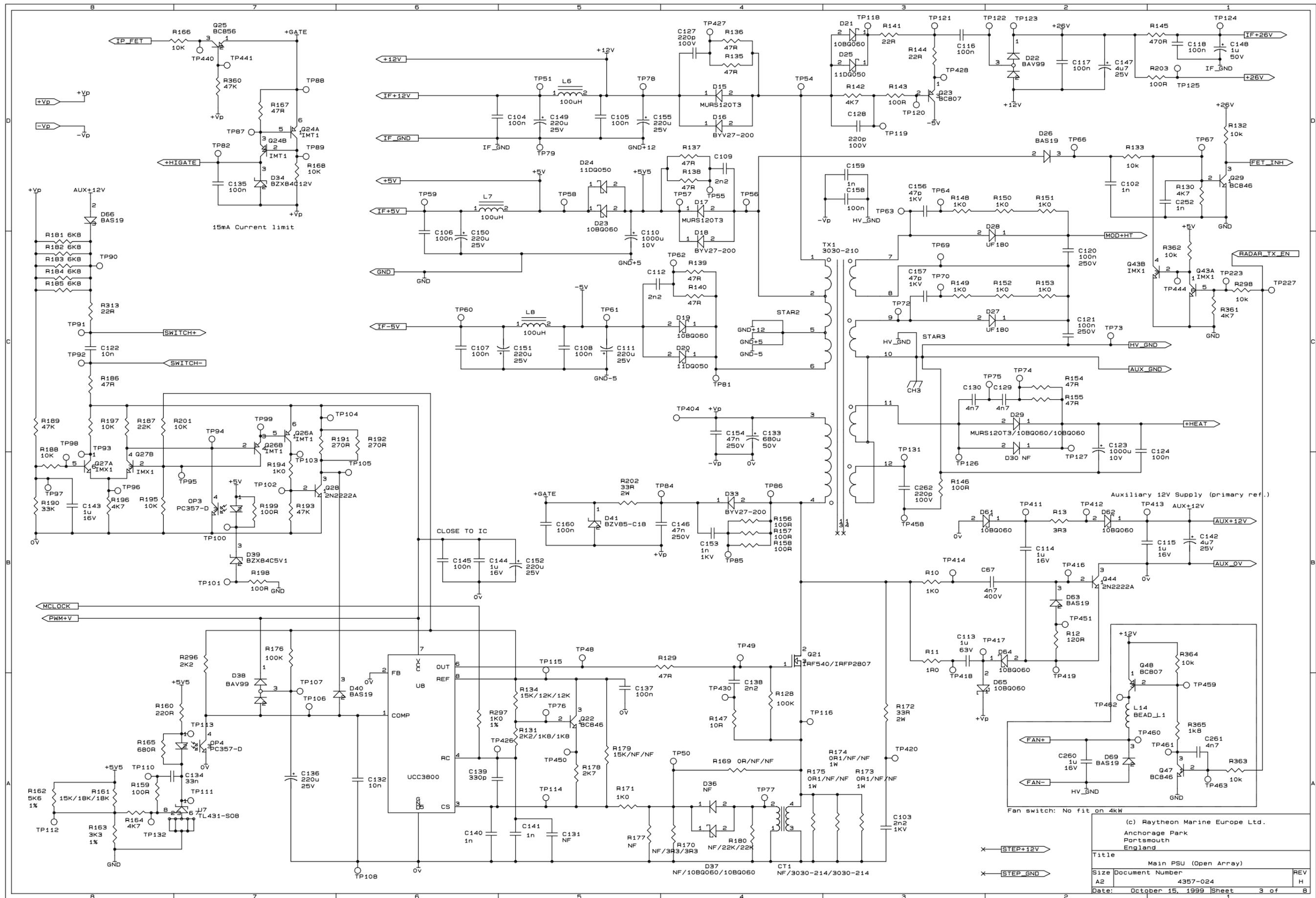
Title: Pathfinder Radar : Modulator/PSU (MkII)

Size: Document Number A2, 4357-024

Date: October 22, 1999 Sheet 1 of 8



(c) Raytheon Marine Europe Ltd. Anchorage Park Portsmouth England		
Title POWER I/P FILTER		
Size A3	Document Number 4357-024	REV H
Date: October 1, 1999	Sheet 2 of	8

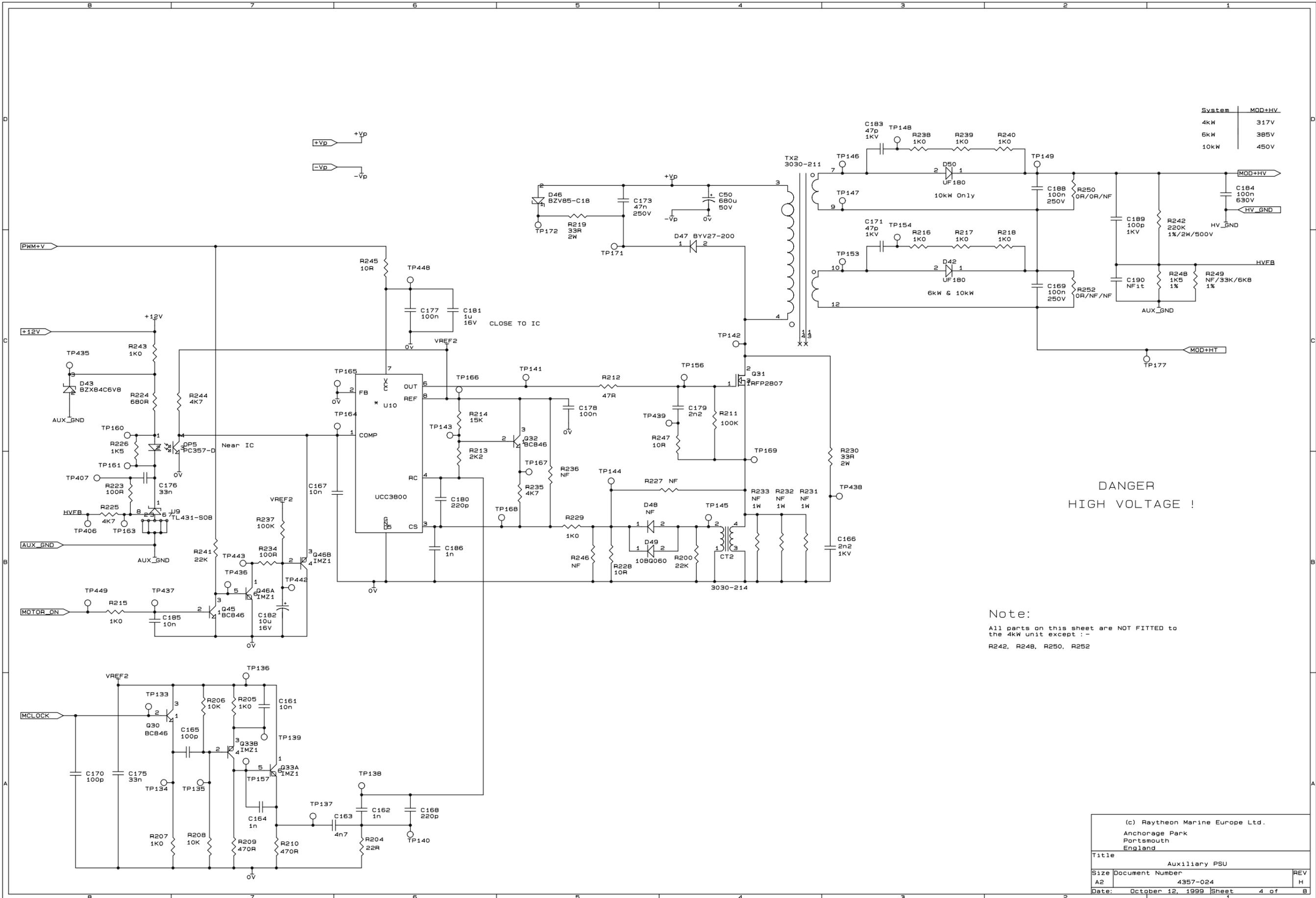


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Title: Main PSU (Open Array)

Size	Document Number	REV
A2	4357-024	H

Date: October 15, 1999 Sheet 3 of 8

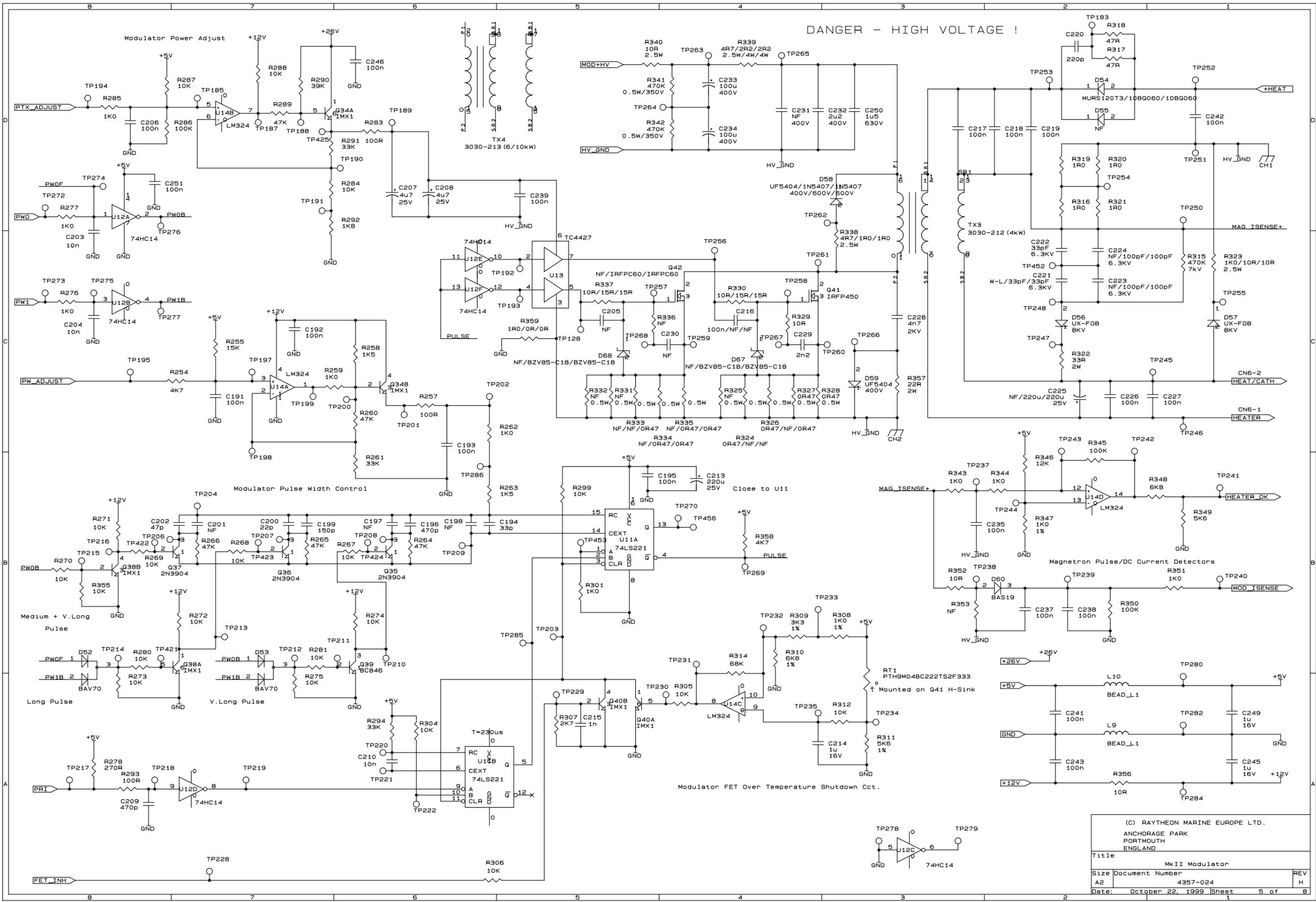


System	MOD+HV
4kW	317V
6kW	385V
10kW	450V

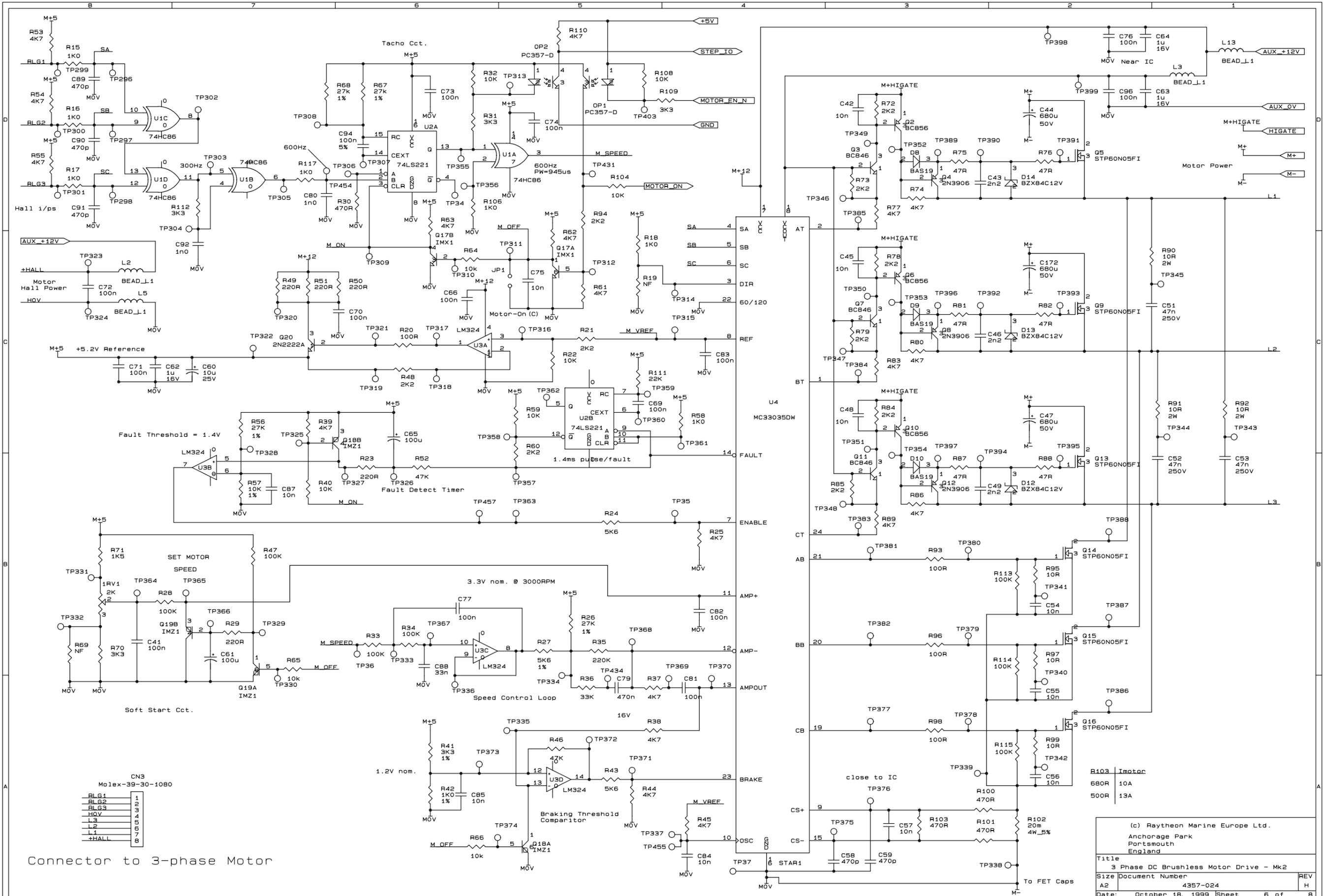
**DANGER
HIGH VOLTAGE !**

Note:
All parts on this sheet are NOT FITTED to the 4kW unit except :-
R242, R248, R250, R252

(c) Raytheon Marine Europe Ltd. Anchorage Park Portsmouth England		
Title	Auxiliary PSU	
Size	Document Number	REV
A2	4357-024	H
Date:	October 12, 1999	Sheet 4 of 8

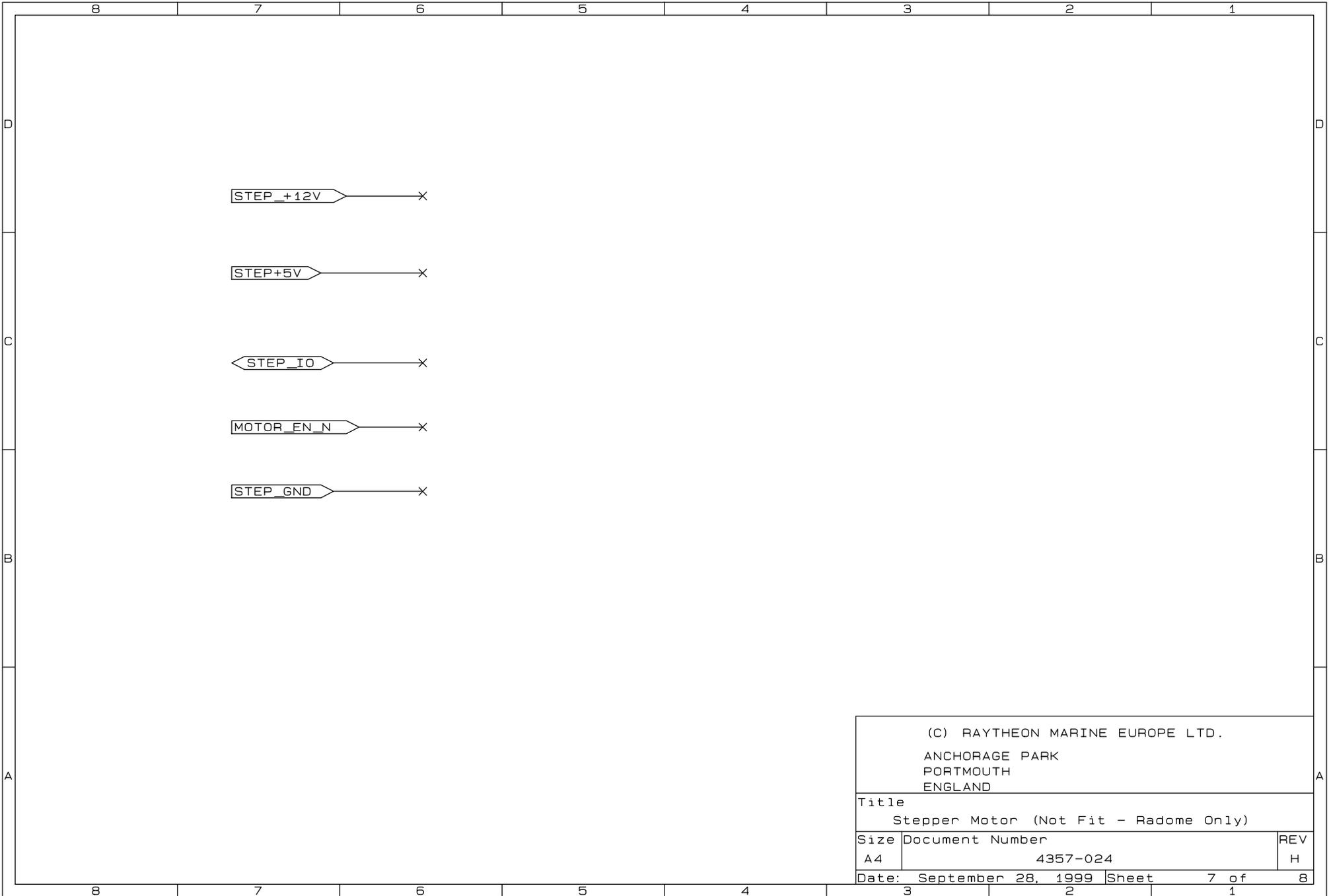


(C) RAYTHEON MARINE EUROPE LTD. ANCHORAGE PARK PORTMOUTH ENGLAND		
Title	MkII Modulator	
Size	Document Number	REV
A2	4357-024	H
Date:	October 22, 1999	Sheet 5 of 8



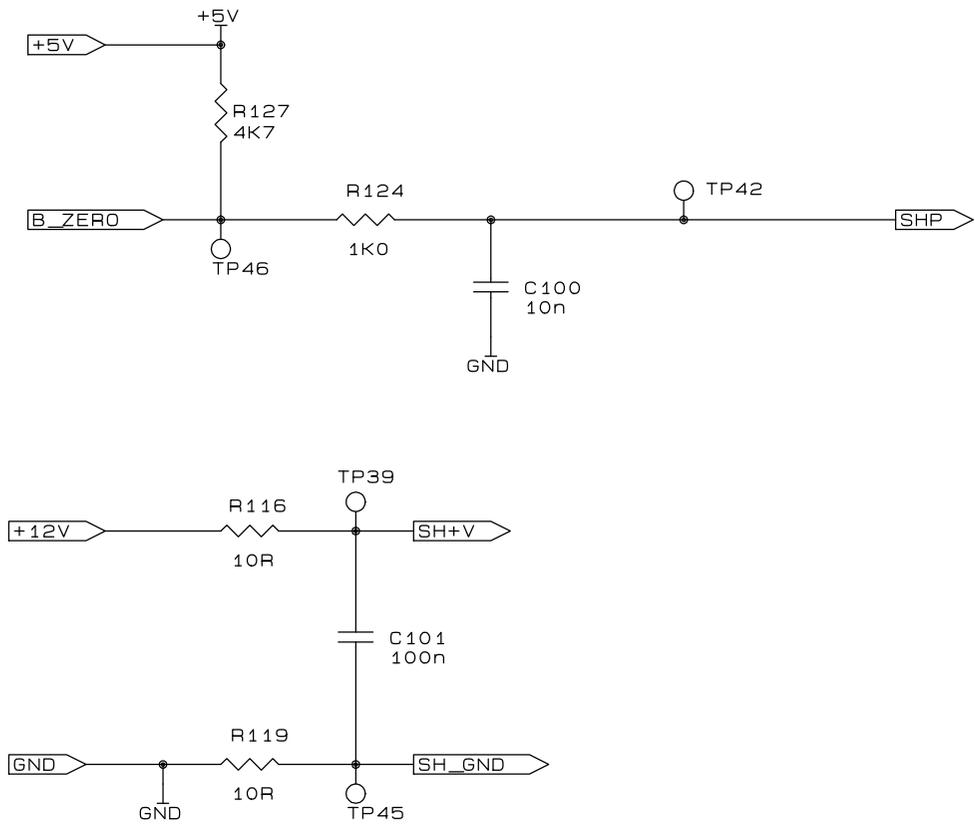
Connector to 3-phase Motor

R103 Motor
 680R 10A
 500R 13A



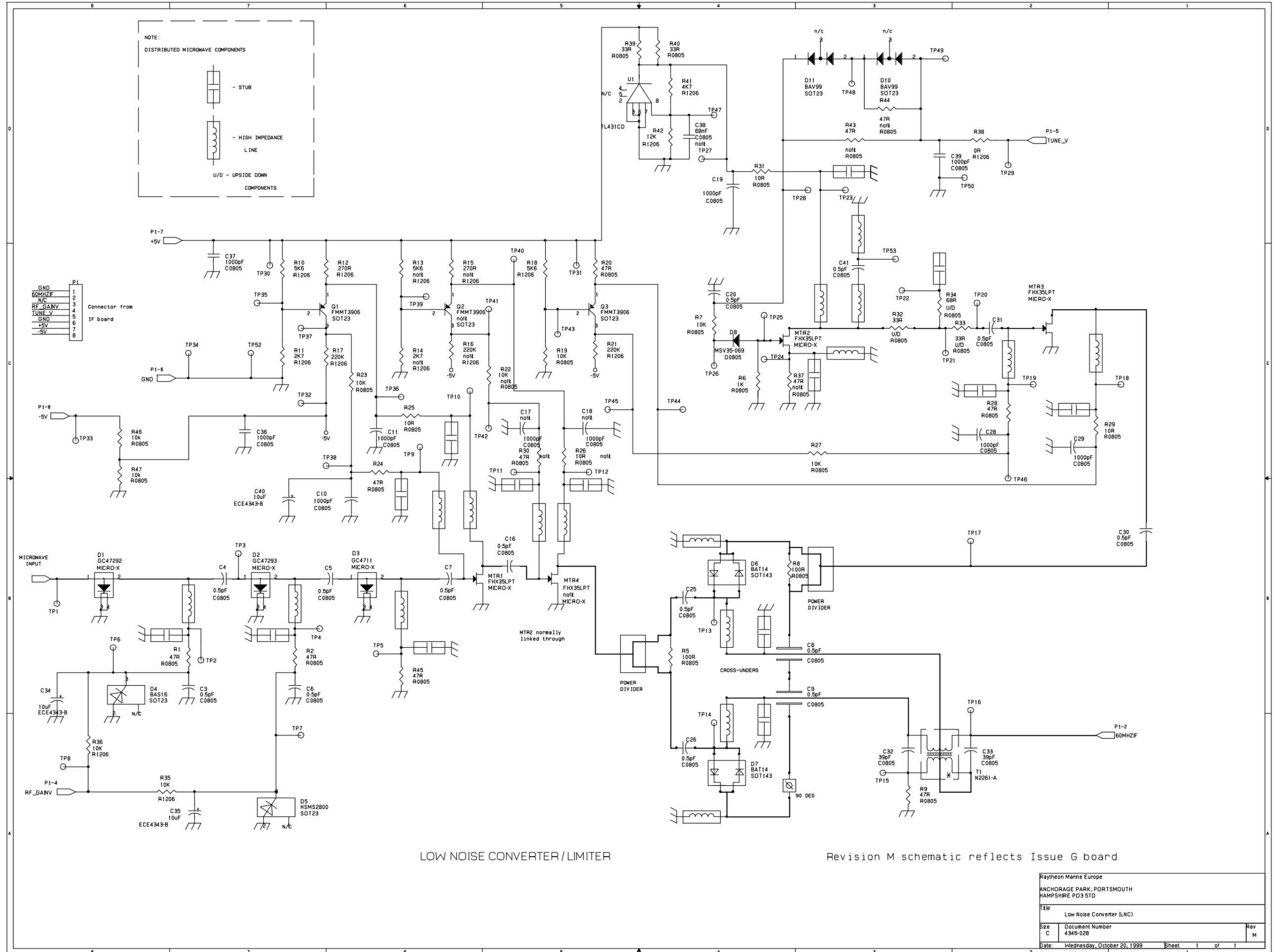
(C) RAYTHEON MARINE EUROPE LTD.
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 ENGLAND

Title		
Stepper Motor (Not Fit - Radome Only)		
Size	Document Number	REV
A4	4357-024	H
Date:	September 28, 1999	Sheet 7 of 8
	3	2 1



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Title			
Ships Heading Interface (Open Array)			
Size	Document Number		REV
A4	4357-024		H
Date:	September 28, 1999	Sheet	8 of 8
	3	2	1



NOTE:
 DISTRIBUTED MICROWAVE COMPONENTS

- STUB

- HIGH IMPEDANCE LINE

U/D - UPSIDE DOWN COMPONENTS

Connector from IF board

P1

1 GND

2 60MHZIF

3 N/C

4 RF_GANV

5 TUNE_V

6 GND

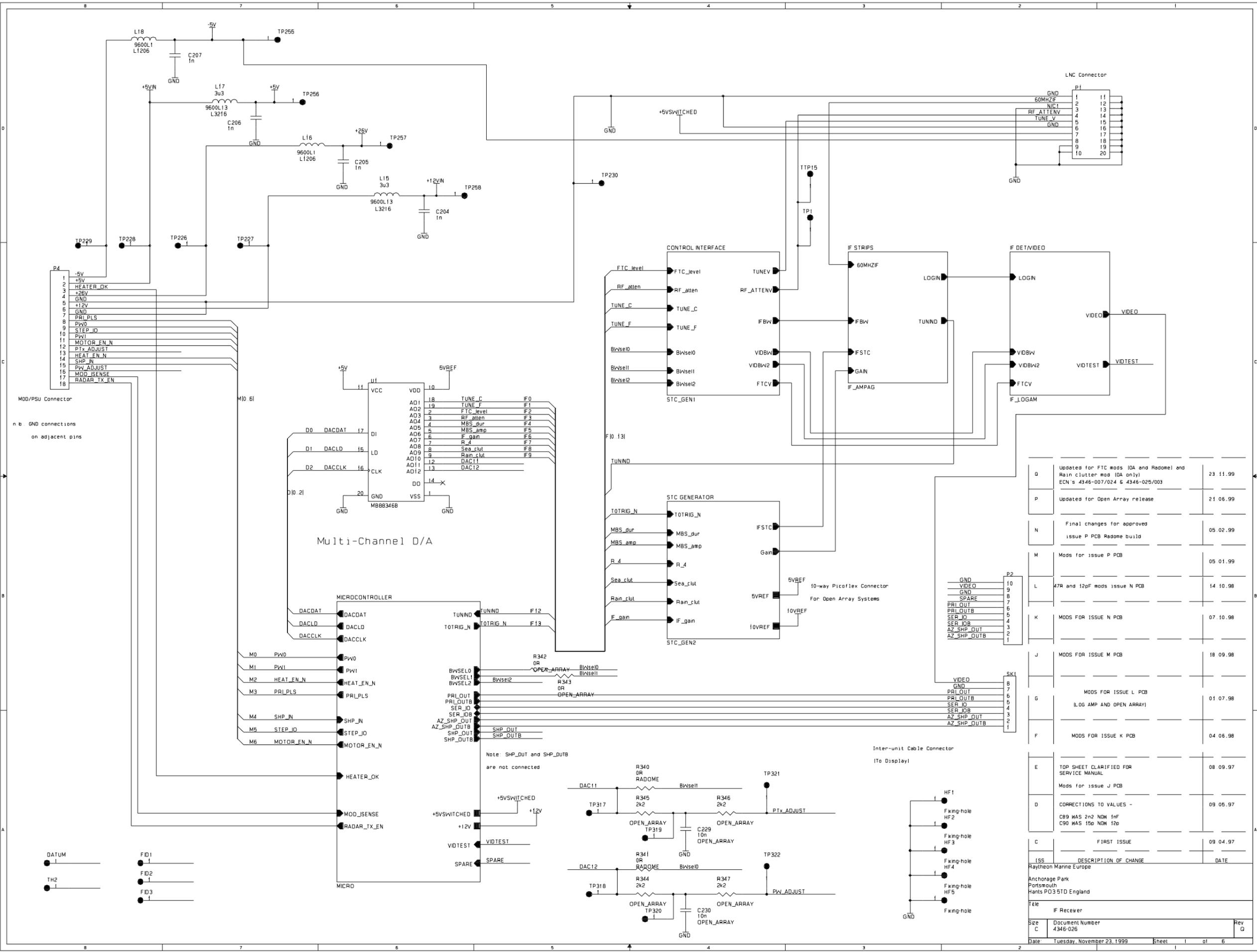
7 +5V

8 -5V

LOW NOISE CONVERTER/LIMITER

Revision M schematic reflects Issue G board

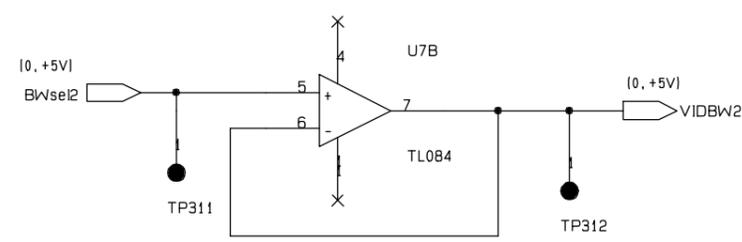
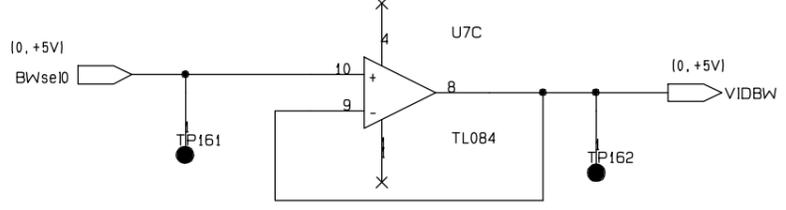
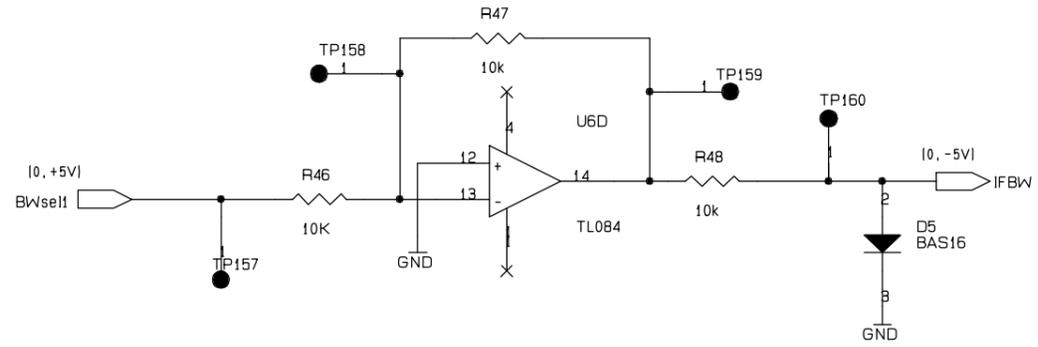
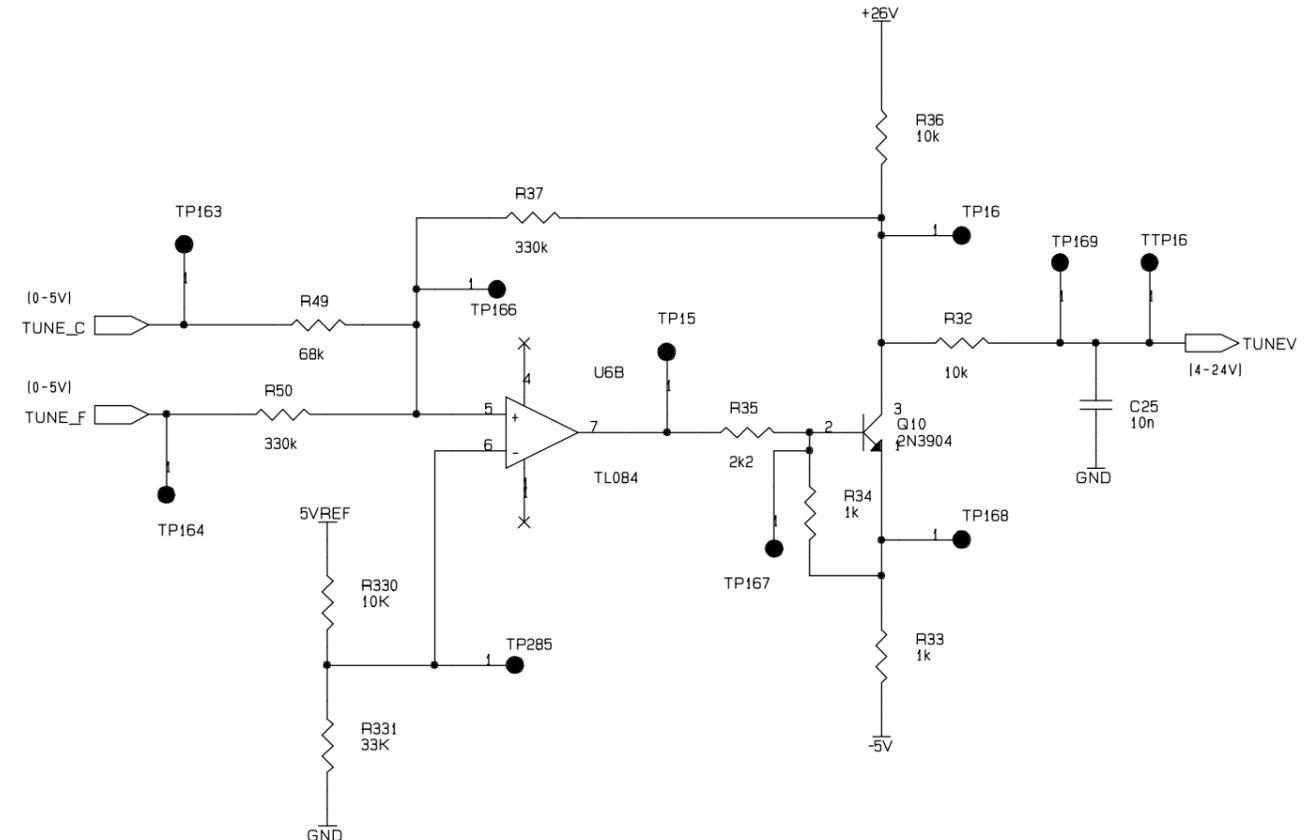
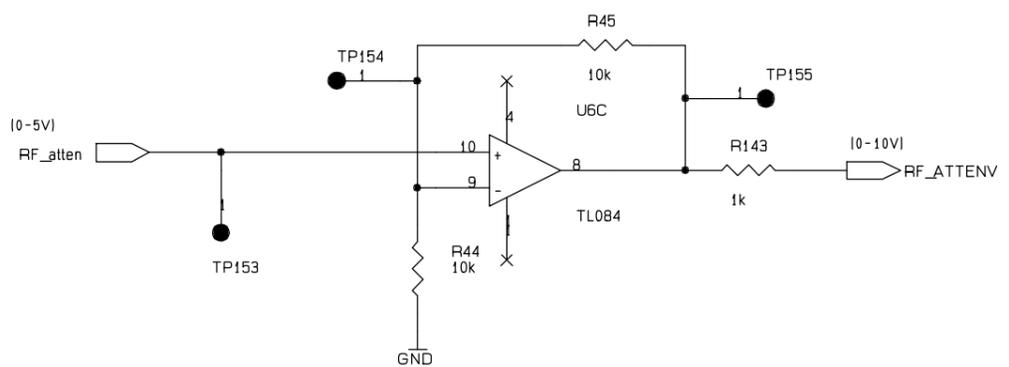
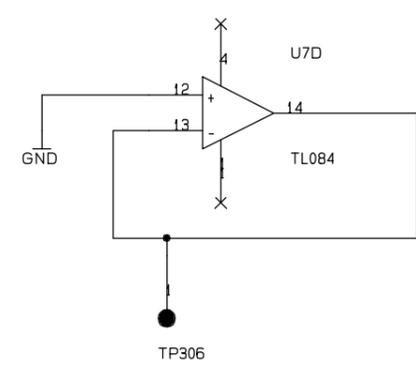
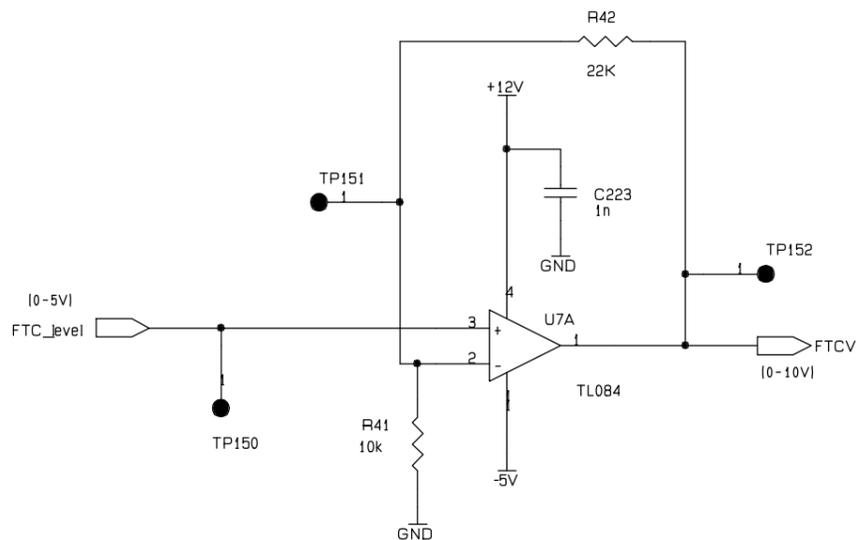
Raytheon Marine Europe		
ANCHORAGE PARK, PORTSMOUTH		
HAMPSHIRE PO3 5TD		
File Low Noise Converter (LNC)		
Size C	Document Number 4346-028	Rev M
Date: Wednesday, October 20, 1999	Sheet 1	of 1



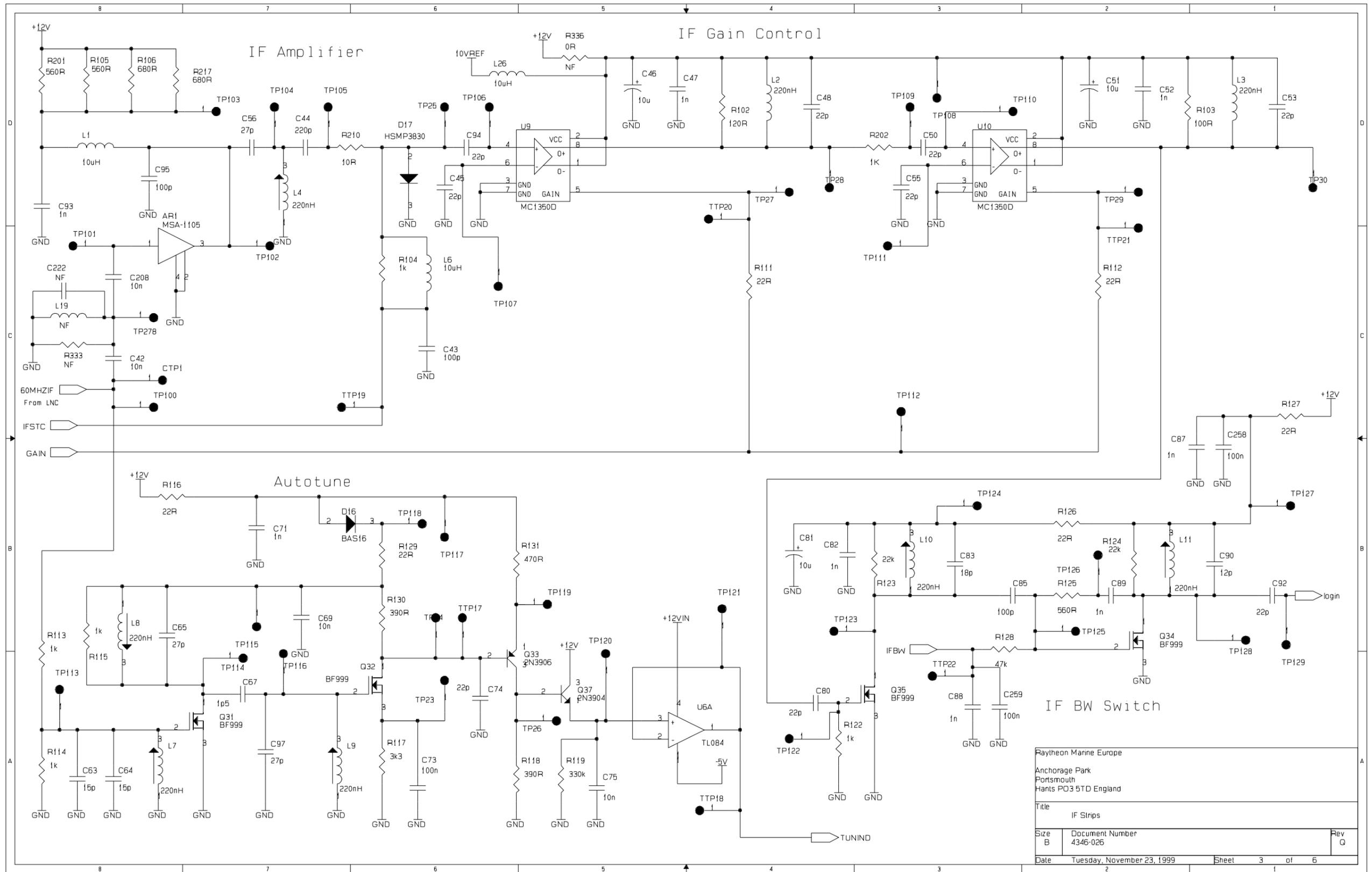
ISS	DESCRIPTION OF CHANGE	DATE
Q	Updated for FTC mods (DA and Radome) and Rain clutter mod (DA only) ECN's 4346-007/024 & 4346-025/003	23.11.99
P	Updated for Open Array release	21.06.99
N	Final changes for approved issue P PCB Radome build	05.02.99
M	Mods for issue P PCB	05.01.99
L	47R and 12pF mods issue N PCB	14.10.98
K	MODS FOR ISSUE N PCB	07.10.98
J	MODS FOR ISSUE M PCB	18.09.98
G	MODS FOR ISSUE L PCB (LOG AMP AND OPEN ARRAY)	01.07.98
F	MODS FOR ISSUE K PCB	04.06.98
E	TOP SHEET CLARIFIED FOR SERVICE MANUAL Mods for issue J PCB	08.09.97
D	CORRECTIONS TO VALUES - C89 WAS 2n2 NOW 1nF C90 WAS 150 NOW 120	09.05.97
C	FIRST ISSUE	09.04.97

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Anchorage Park
Portsmouth
Hants PO3 5TD England

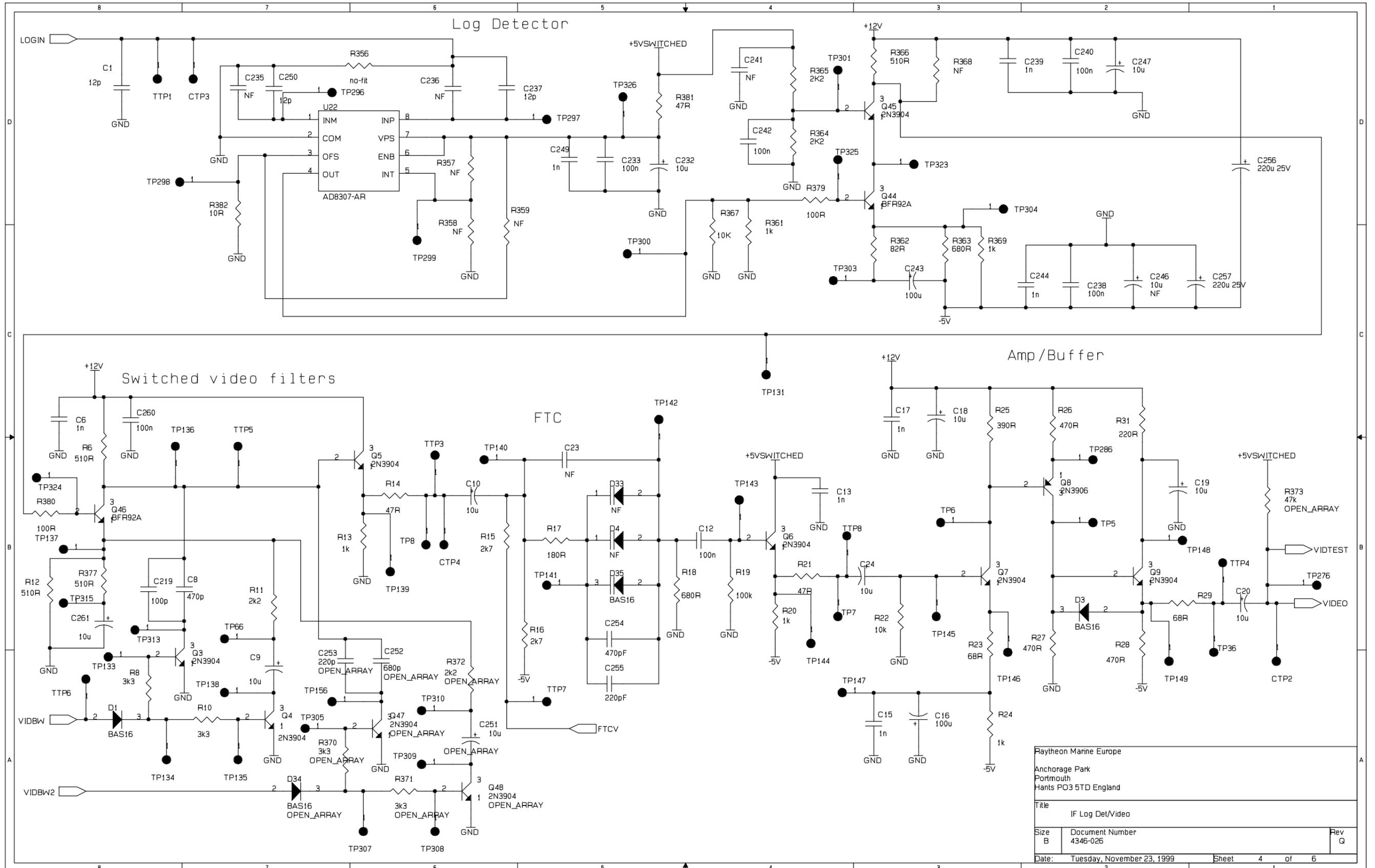
File: F Receiver
See C Document Number: 4346-026
Date: Tuesday, November 23, 1999 Sheet: 1 of 6



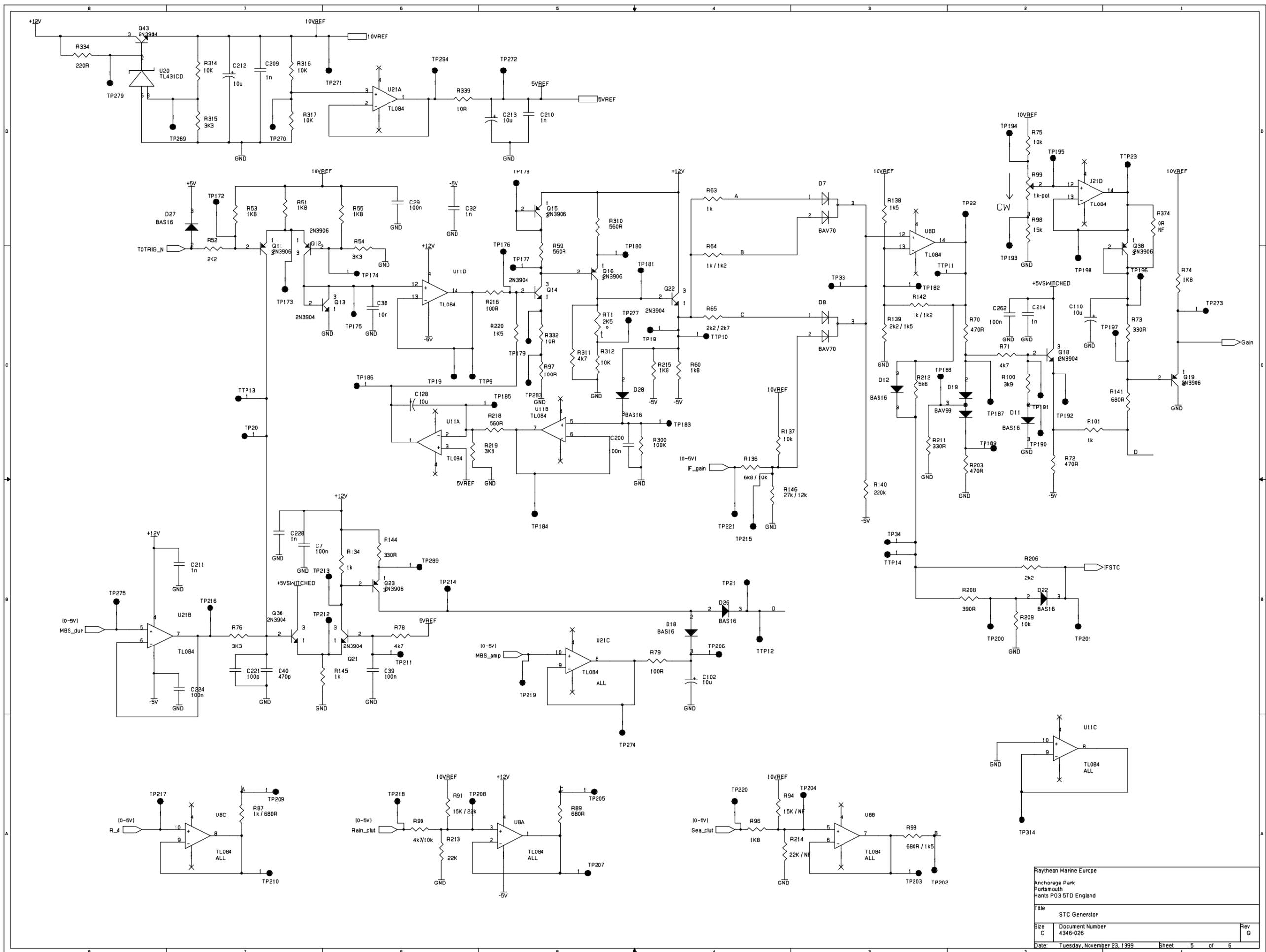
Raytheon Marine Europe		
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Title Control Interface		
Size B	Document Number 4346-026	Rev Q
Date: Tuesday, November 23, 1999	Sheet 2	of 6



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Anchorage Park Portsmouth Hants PO3 5TD England		
Title IF Strips		
Size B	Document Number 4346-026	Rev Q
Date Tuesday, November 23, 1999	Sheet 3 of 6	



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Title IF Log Det/video		
Size B	Document Number 4346-026	Rev G
Date: Tuesday, November 23, 1999	Sheet 4	of 6



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Title: STC Generator

Size: C Document Number: 4346-026 Rev: Q

Date: Tuesday, November 23, 1999 Sheet: 5 of 6

