Service Manual

DT81

Issue 1.0

DiVA DT81
Digital Radio Tuner

ARCAM

Contents List

- **Contents list**
- **Circuit description**
- **Service guide**
- **Circuit diagrams**
- **Component overlays**
- **Circuit board parts list**
- **General assembly parts list**

DT81 Circuit Description

Summary

The L918 forms the basis of the DT81 DAB tuner. All the circuitry of the tuner is on the same board, with the exception of the front panel PCB.
The tuner is based on the Roke Manor gold card which provides the RF receiver and DAB decoding. To accompany this module the DAB motherboard has various power supplies, a Hitachi H8 microcontroller, a D-A converter with output buffer, and an SPDIF transmitter.

Power supplies and muting

The mains transformer T1 is used for 230V and 115V operation, the voltage selection is done by fitting different fuses. F1 160mA is fitted for 230V and F2 250mA for 115V.
The front panel board is powered from the 7.5V unregulated supply (it has its own regulator). The digital supplies are switched by SW3, while the analogue supplies are on all the time while the mains is connected.

Regulated supplies

P15V, N15V. +/-15V for the output buffer and DAC 5V regulator.
P5VDAC. +5V supply for DAC.
P5VDAB. 5V supply for DAB module.
P5V. +5V supply for digital circuits - Micro and SPDIF transmitter.
P10V. +10V supply for DAB module.
P7V5_UR. Unregulated 7.5V supply goes to front panel.

Z9 is a Toshiba TA7317. This controls the muting/bypass relay. The same relay is used for power on/off muting and also FM tuner bypass mode.
The muting circuit has a time constant of 2.5 seconds, so there is always a 2.5 second delay when un-muting the output.
The FM tuner bypass switch is shown on this sheet (SW2) and is accessed from the front of the unit.

Micro, DAB module, SPDIF

Z204 is a Hitachi H8/3048F 16 bit microcontroller. It has FLASH program memory, and is programmed via header SK1. Z202 is a 64kbit parallel EEPROM used for storing multiplex data. this is where the system stores data about the multiplexes it finds when it does a search, and other information (presets, compression level, sort type, display mode).
Z205 is a 3 pin reset generator IC. SW1 is a latching push switch accessed from the rear of the unit. If the switch is pushed in, RDI_ON will be low. This has the effect of removing data services from the list of services. If the switch is left out, RDI_ON will be high and the data services can be seen.
SK3 is used to connect to the front panel, communication is done via the I2C bus. Power for the front panel comes in the form of P7V5_UR. Note that although P5V connects to the front panel, it is not used for power. Its purpose is to light the front panel LED green.
DAB module: JP1 is a 50 way SAMTEC connector which provides the interface to the Roke DAB module. All the I/O to the module is on this connector apart from the aerial input which has a cable going straight from the rear panel to the module.
Communication between the micro and the DAB module is done via the serial port of each device on TX_DAB/RX_DAB.
The digital audio output from the module comprise of MCLK (12.288MHz master clock), LRCK (48kHz left/right clock), SCLK (serial data clock) and SDATA (serial data).
These signals go to the D-A converter, and also to the SPDIF transmitter Z201.

Z201 is the SPDIF transmitter. Each one of the differential ouputs is used separately. SPDIF_OP is for the optical output, SPDIF_CX is for the coax output.

DAC

Z101 is a CS4327 D-A converter, followed by filter/buffer Z102. This is followed by ac coupling capacitors. The relay RLY1 is the last stage before the phono output connectors. 2 stereo outputs are provided on SK101. SK102 is an input which gets routed through the relay when the relay is off.
An external FM tuner can be connected to this, in order to avoid taking up an extra input on the amplifier. When the tuner is off or in bypass mode, the FM tuner is routed to the output.

The digital audio outputs are also shown on this sheet. TX101 and associated components provide an isolated unbalanced SPDIF output on SK103, and Z4 produces an optical output.

Software notes

The system has non volatile storage in the form of the EEPROM, Z202. The following information is stored there and is remembered at power up:-
Service data - all the IDs and static prog types of the services available in the ensembles found in the last search. This is the information viewed when turning the knob.
Service selected - last service selected.
Display mode - prog type, dynamic label, data rate or signal quality.
Display brightness - off, dim or bright.
Compression level - off or 1-5.
The following parameters are NOT remembered:-
Engineering mode. If the unit is turned off while in engineering mode (or test mode), it will default back to user mode on power up.
Bypass mode - the unit will always power up not in bypass mode.
Secondary services - if a secondary service is selected when it is switched off, it will power up with the parent service selected.
Erasing the EEPROM - to erase the EEPROM, go into engineering mode (SELECT +8), then hold down preset buttons 1,4,5,8. The display will say ‘ERASING EEPROM’ followed by ‘PASSED EEPROM TEST’ then ‘EEPROM ERASED’. If you switch the power off and on again, it will come on with all the parameters reset.

Display mode - prog type
Display brightness - bright
Compression - off.
Selection Mode – manual

Test mode

If you hold in the bypass button while powering up, this will put the unit in test mode. When the bypass button is released, the software version will be displayed. Pressing the front panel buttons will cause a message to be displayed. Turning the knob clockwise or anticlockwise will cause a message to be displayed. Any RC5 remote commands will also be displayed, with command and system codes, and an asterisk for the toggle bit.

Fault mode

On switch on if the Roke module is not fitted, or if there is a problem with the RX or TX communication signal between the module and the H8, the unit displays ‘ERROR CIP FAILURE’.

DT81 Service Guide

Fault diagnostics

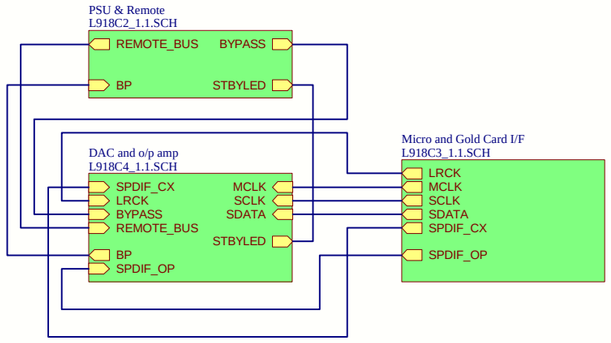
Fault	Action
No power	Check mains fuse Check power supply rails
No Audio output	Check for digital output Check analogue power supply voltages Check DAC IC
Fails to respond to commands	Check supply voltages Check DAB module
No Display	Check flex foil cable Check for dry joints on micro and display
Spurious display readout	Check for dry joints on display board
Display reads "ERROR CIP FAILURE"	DAB module not communicating with main micro – replace DAB module
Display reads "NO SERVICE FOUND"	DAB module not receiving signal – check connections to DAB module/ replace DAB module

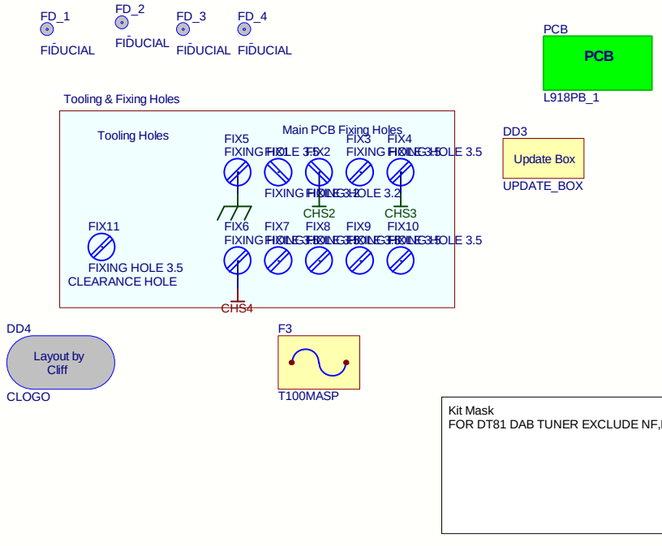
Power supply test points

Position	Voltage
TP1	0 volt reference
TP2	+5 volts - DAB module
TP3	+10 volts - DAB module
TP4	+5 volts - DAC
TP5	+15 volts
TP6	-15 volts
TP7	+5 volts

Hints & tips

- No analogue signal - measure between the junction of D10, D11 and D8, D9 for the secondary supply feed from the transformer, this should be 40 VAC. If this is low or missing the transformer will require replacing.
- Not responding to front panel controls – check the processor is ok by pressing the bypass button, if the bypass relay functions then check the DAB module supplies are ok. If ok then replace the DAB module.
- Please note that there are no serviceable parts within the DAB module.





DRAWING TITLE

DIVA DT81 DAB Tuner - Project Sheet

ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE	ISSUE
01_1106	PG	8/6/01	ROKE MODULE V1.7 + changed R67 & R68	1.1
01_1076	CL	19/03/01	PRODUCTION RELEASE	1.0
	CL	22/01/01	PROTOTYPE (NEW DAC & TOSLINK)	B.0
	CL	03/10/00	INITIAL PROTOTYPE	A.0

A & R Cambridge Ltd.
Pembroke Avenue
Denny Industrial Centre
Waterbeach
Cambridge CB5 9PB

Circuit Diagram

Notes:

Filename: J:\ECO_wip\01_1106 new 1.7 roak module\L918_1.1\L918_1.1.DDB - L918c1_1.1.prj

Date Printed: 11-Jun-2001

Drawn by: CL

Sheet 1 of 4

DRAWING NO. L918C1

POWER SUPPLIES

Analogue and Digital grounds are joined at the DAC, Z10

Connect ground to chassis fixing via decoupling capacitor C32.

DAC Supply

+5V for DAB

+5V for micro

DAB Module Supply +10V

FM Tuner Pass-through
(NOT FITTED ON DT81, USES SWITCH ON DISPLAY BOARD)

DRAWING TITLE: DiVA DT81 DAB Tuner - Power Supplies & Muting					
	01_1106	PG	8/6/01	ROKE MODULE V1.7 + changed R67 & R68	1.1
Circuit Diagram	01_1076	CL	19/03/01	PRODUCTION RELEASE	1.0
		CL	22/01/01	PROTOTYPE (NEW DAC & TOSLINK	B.0
		CL	03/10/00	INITIAL PROTOTYPE	A.0
	ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE	ISSUE

A & R Cambridge Ltd.
Pembroke Avenue
Denny Industrial Centre
Waterbeach
Cambridge CB5 9PB

Notes:

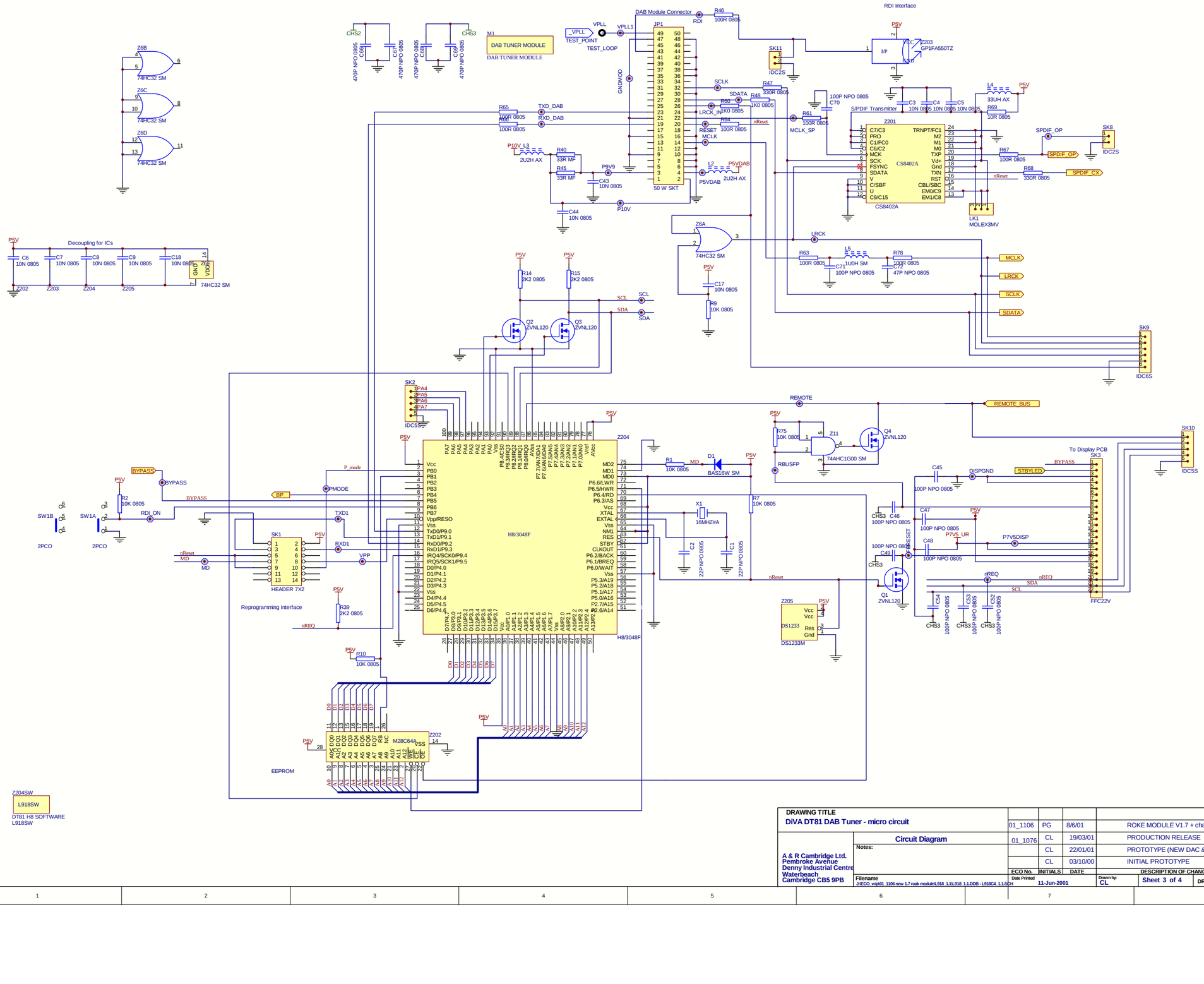
Filename: J:\ECO_wip\01_1106 new 1.7 roak module\L918_1.1\L918_1.1.DDB - L918C2

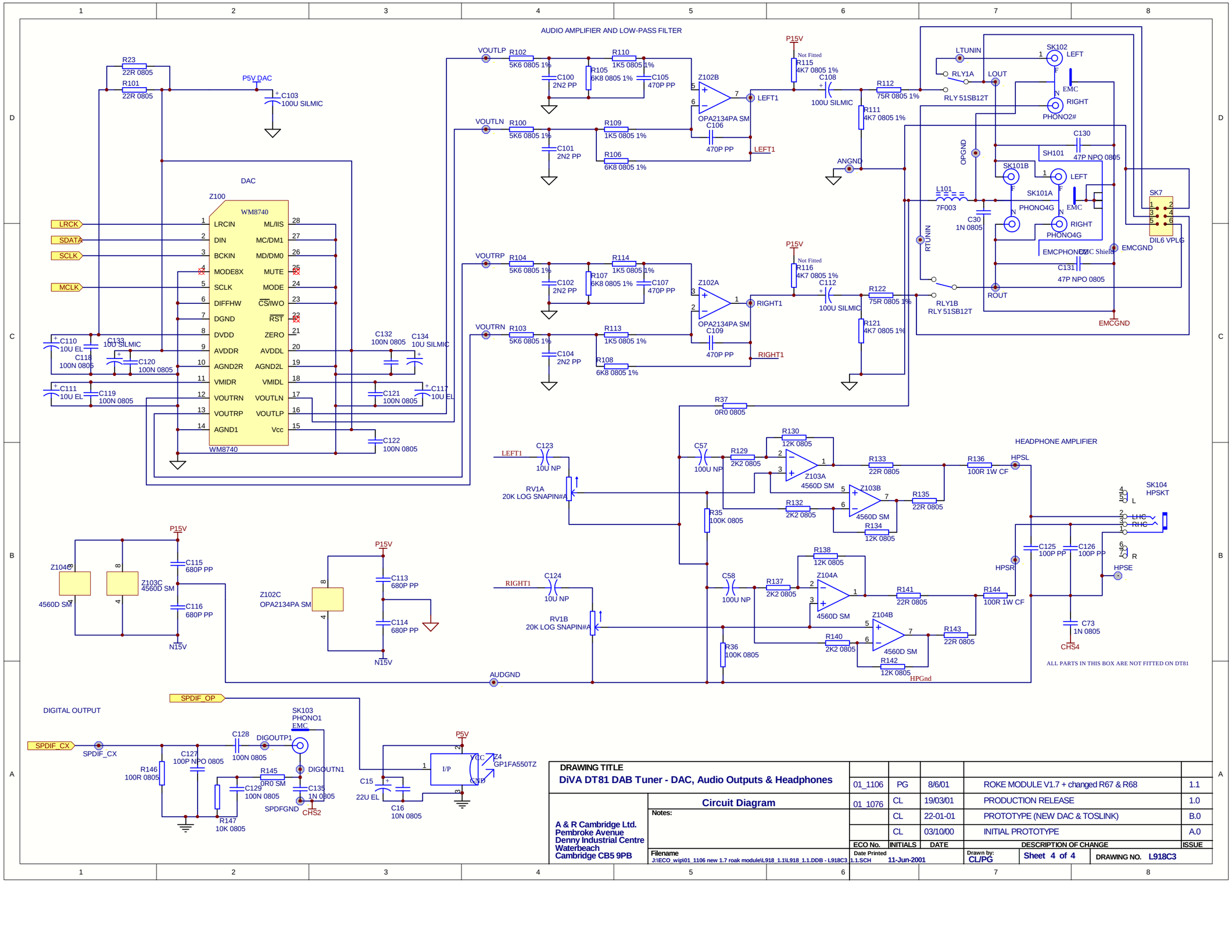
Date Printed: 1.1.SCH 11-Jun-2001

Drawn by: CL

Sheet 2 of 4

DRAWING NO. L918C2

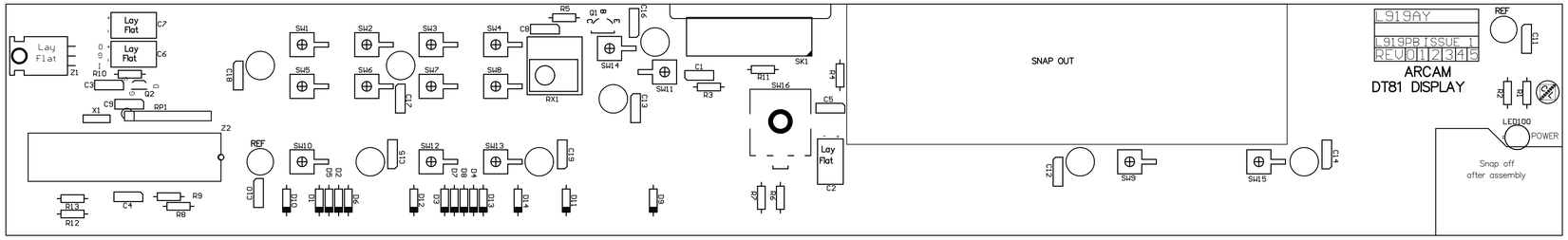

DAB TUNER MODULE
DAB TUNER MODULE
TEST_LOOP
DAB Module Connector
RDI Interface
H8/3048F
50 W SKT
S/PDIF Transmitter
CS8402A
Decoupling for ICs
74HC32 SM
HEADER 7X2
Reprogramming Interface
EEPROM
M28C64A
IDC6S
IDC2S
IDC5S
FFC22V
MOLEX3MV
To Display PCB
DS1233M
2PCO
DTB1 H8 SOFTWARE
L918SW
DRAWING TITLE
DiVA DT81 DAB Tuner - micro circuit
Circuit Diagram
A & R Cambridge Ltd.
Pembroke Avenue
Denny Industrial Centre
Waterbeach
Cambridge CB5 9PB
ROKE MODULE V1.7 + changed R67 & R68
PRODUCTION RELEASE
PROTOTYPE (NEW DAC & TOSLINK)
INITIAL PROTOTYPE
DRAWING NO. L918C4



DRAWING TITLE DiVA DT81 DAB Tuner - DAC, Audio Outputs & Headphones	01_1106	PG	8/6/01	ROKE MODULE V1.7 + changed R67 & R68	1.1
Circuit Diagram	01_1076	CL	19/03/01	PRODUCTION RELEASE	1.0
Notes:		CL	22-01-01	PROTOTYPE (NEW DAC & TOSLINK)	B.0
		CL	03/10/00	INITIAL PROTOTYPE	A.0
	ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE	ISSUE

A & R Cambridge Ltd.
Pembroke Avenue
Denny Industrial Centre
Waterbeach
Cambridge CB5 9PB

Filename: J:\ECO_wip\01_1106 new 1.7 roak module\L918_1.1\L918_1.1.DDB - L918C3 1.1.SCH
Date Printed: 11-Jun-2001
Drawn by: CL/PG
Sheet 4 of 4
DRAWING NO. L918C3



MECHANICAL DATA
LAYER STACKUP
L919pb_1.GTO Top Overlay

MATERIAL	FR4
COPPER WEIGHT	1oz
HOLE SIZES	FINISHED (SEE NOTE 2)
ROUTING	SEE NOTE 3
COPPER LAYERS	TWO
MINIMUM WIDTH	8 MIL
MINIMUM GAP	10 MIL
RESIST	GREEN
IDENT	WHITE
VENDOR CODES	SEE NOTE 4
FINISH	HASL
SCORING	SEE NOTE 5

NOTES:-

1/ Manufacture in accordance with IPC-A-600F Class 1.
2/ Always use NC drill file as reference.
3/ All routing 2.0mm unless otherwise shown on drill drawing.
4/ Mark month/year of manufacture on ident layer.
5/ Scoring denoted by ->>>- on drill drawing.

GENERAL TOLERANCES
PCB Dims. +/- 0.2mm
Routing +/- 0.1mm
All holes +/-0.08mm
ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED

DRAWING TITLE: DT81 DISPLAY BOARD
Top Overlay

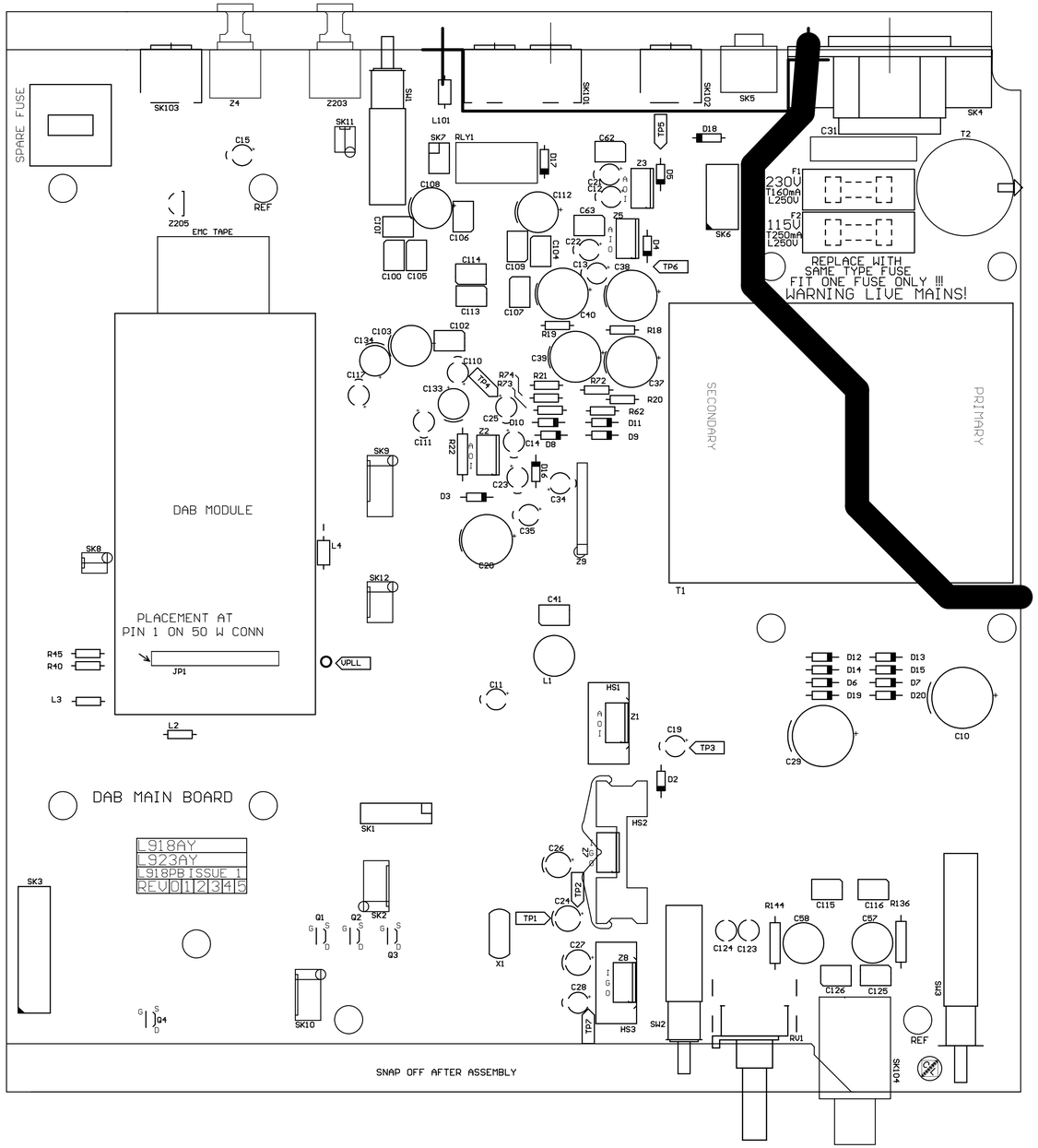
ARCAM

A & R Cambridge Ltd.
Pembroke Avenue
Waterbeach
Cambridge CB5 9PB

Filename: L919pb_1.pcb
DRAWING NO. L919PB
Contact Engineer: Cliff Lawrence

E.C.O. No.	INITIALS	DATE	DESCRIPTION OF CHANGE	ISSUE
01_1077	CL	04/04/01	PRODUCTION RELESE (FM BYPASS MODFIED)	1
	CL	07/02/01	MECHANICAL MODS	B
	CL	06/10/00	INITIAL PROTOTYPE	A

Contact Tel: +44 (0) 1223 203294 | Printed: 24-Apr-2001 | Sheet 2 of 6



MECHANICAL DATA

LAYER STACKUP	
L918PB_1.GTO	Top Overlay

MATERIAL	FR4
COPPER WEIGHT	1oz
HOLE SIZES	FINISHED (SEE NOTE 2)
ROUTING	SEE NOTE 3
COPPER LAYERS	TWO
MINIMUM WIDTH	8 MIL
MINIMUM GAP	8 MIL
RESIST	GREEN
IDENT	WHITE
VENDOR CODES	SEE NOTE 4
FINISH	SILVER
SCORING	SEE NOTE 5

NOTES:–

1/ Manufacture in accordance with IPC–A–600F Class 1.
2/ Always use NC drill file as reference.
3/ All routing 2.0mm unless otherwise shown on drill drawing.
4/ Mark month/year of manufacture on ident layer.
5/ Scoring denoted by –>>>– on drill drawing.

GENERAL TOLERANCES
PCB Dims. +/– 0.2mm
Routing +/– 0.1mm
All holes +/–0.08mm
ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED

DRAWING TITLE DT81 DAB TUNER MAIN BOARD					
Top Overlay					
ARCAM	Filename: L918PB_1.pcb	01_1076	CL	19/03/01	PRODUCTION RELEASE 1
	DRAWING NO.		CL	27/02/01	PROTOTYPE (NEW DAC & TOSLINK) B
	L918PB		CL	03/10/00	INITIAL PROTOTYPE A
		E.C.O. No.	INITIALS	DATE	DESCRIPTION OF CHANGE ISSUE

A & R Cambridge Ltd.
Pembroke Avenue
Waterbeach
Cambridge CB5 9PB

Contact Engineer: Cliff Lawrence | Contact Tel: +44 (0) 1223 203294 | Printed: 24–Apr–2001 | Sheet 2 of 8

DT81 Display Board L919_1.1

Reference	Description	Part Number
C1	CERD 100N 63V 20% RA	2A410
C2	ELST 220U 16V	2N722
C3-C5	CERD 100N 63V 20% RA	2A410
C6,C6	ELST 220U 16V	2N722
C8	CERD 100N 63V 20% RA	2A410
C9-C19	CERD 1N0 63V 20% RA	2A210
D1-D14	SSDIODE 1N4148 75V	3A4148
LED100	LED RED/GREEN 3MM L-93WEGW	3D006
M1	NORITAKE ITRON CU20025RCPB-U1J	B1010
PCB	PRINTED CIRCUIT BOARD	L919PB_1
Q1	TRANS LF SS P BC557B	4A557
Q2	TRANS MOSFET SW ZVNL120A	4K120
R1	RES MF W4 150R 1%	1H115
R2	RES MF W4 1% 1K0	1H210
R3	RES MF FU W3 3R3R 5% NFR25	1G833
R4,R5	RES MF W4 4K7 1%	1H247
R6,R7	RES MF W4 10K 1%	1H310
R8,R9	RES MF W4 4K7 1%	1H247
R10	RES MF W4 10K 1%	1H310
R11-R13	RES MF W4 100R 1%	1H110
RP1	RES NETWORK 100Kx8 COMMON	1V410
RX1SP	IR RX SUPPORT PAD	E822AP
RX1	REMOTE RX PIC-26043TM2 38KHZ	B2107
SK1	22-WAY FFC CONN HORIZ	8K8122
SW1-SW15	TACT SWITCH 2-PIN LOW PROF 9.5mm ACTUATOR SKHVPH	A1508
SW16	EC16B2414	A1211
X1	CER RESON 4.00MHz	7W005
Z1	IC VREG POS 7805	5D7805
Z2SW	DT81 DISPLAY SOFTWARE	L919SW
Z2	40 PIN IC SOCKET	8S040
Z2	IC CMOS MICRO PIC16C65	5H16C65

DT81 Main Board L918_1.1

Reference	Description	Part Number
C1,C2	MLC 22P 100V NPO 5% 0805	2L022
C3-C9	MLC 10N 50V X7R 10% 0805	2J310
C10	ELST 3M3 25V	2N833
C11	ELST 10U 50V	2N610
C12,C13	ELST 100U 25V	2N710
C14	ELST 10U 50V	2N610
C15	ELST 22U 63V	2N622
C16-C18	MLC 10N 50V X7R 10% 0805	2J310
C19	ELST 100U 25V	2N710
C20	ELST 1M0 25V	2N810
C21-C23	ELST 100U 25V	2N710
C24	ELST 220U 16V	2N722
C25	ELST 22U 63V	2N622
C26,C27	ELST 220U 16V	2N722
C28	ELST 100U 25V	2N710
C29	ELST 3M3 25V	2N833
C30	MLC 1N 50V X7R 10% 0805	2J210
C31	220NF CLASS X2 CAP 275VRMS	2D422
C32	MLC 10N 50V X7R 10% 0805	2J310
C33	MLC 10N 50V X7R 10% SM	2C310
C34,C35	ELST 1U0 50V 20% RA	2N510
C36	MLC 100P 100V NPO 5% 0805	2L110
C37-C40	ELST 1M0 35V	2N810C
C41	PPRO 680P 5% 63V RA	2D168
C42	MLC 100P 100V NPO 5% 0805	2L110
C43,C44	MLC 10N 50V X7R 10% 0805	2J310
C45-C49	MLC 100P 100V NPO 5% 0805	2L110
C50	MLC 10N 50V X7R 10% 0805	2J310
C51	MLC 10N 50V X7R 10% 0805	2J310
C52-C54	MLC 100P 100V NPO 5% 0805	2L110
C55	MLC 470P 100V NPO 5% 0805	2L147
C59	MLC 10N 50V X7R 10% 0805	2J310
C60,C61	MLC 470P 100V NPO 5% 0805	2L147
C62,C63	PPRO 1N0 5% 63V RA	2D210
C64-C71	MLC 470P 100V NPO 5% 0805	2L147
C72	MLC 47P 100V NPO 5% 0805	2L047
C73	MLC 1N 50V X7R 10% 0805	2J210
C100-C102	PPRO 2N2 5% 63V RA	2D222
C103	ELEC 100U 25V SILMIC	2P710AS
C104	PPRO 2N2 5% 63V RA	2D222
C105-C107	PPRO 470P 63V 5% RA	2D147N
C108	ELEC 100U 25V SILMIC	2P710AS
C109	PPRO 470P 63V 5% RA	2D147N
C110,C111	ELST 10U 50V	2N610
C112	ELEC 100U 25V SILMIC	2P710AS
C113,C114	PPRO 680P 5% 63V RA	2D168
C117	ELST 10U 50V	2N610
C118-C122	MLC 100N 50V X7R 10% 0805	2J410
C127	MLC 100P 100V NPO 5% 0805	2L110
C128,C129	MLC 100N 50V X7R 10% 0805	2J410
C130,C131	MLC 47P 100V NPO 5% 0805	2L047
C132	MLC 100N 50V X7R 10% 0805	2J410
C133,C134	ELEC 10U 25V SILMIC	2P610CS
C135	MLC 1N 50V X7R 10% 0805	2J210
D1	DIODE SS SM BAS16W	3AS16W
D2-D5	RECTIFIER 1N4003F 1A 200V	3B4003
D6-D16	ULTRAFAST RECTIFIER DIODE UF4003 1A	3B4003F
D17	SSDIODE 1N4148 75V	3A4148
D18	ZENER 4V7 400MW	3C04704
D19,D20	ULTRAFAST RECTIFIER DIODE UF4003 1A	3B4003F
F1	FUSECLIP	C11166
F1	FUSEHOLDER 20mm PCB	8S004
F1	INS COVER PCB FUSEHOLDER	F022
F2	FUSEHOLDER 20mm PCB	8S004
F2	INS COVER PCB FUSEHOLDER	F022
F3	FUSECLIP	C11166
F3	SPARE FUSEHOLDER	F062
HS1	HEATSINK TO220 CLIP 30	F007
HS2	HEATSINK TO220 8.6 DEGC/W	F008
HS2	HEATSINK CLIP TO220 13/8.6 DC/W	F006
HS3	HEATSINK TO220 CLIP 30	F007
JP1	CONN 50 WAY FW-25-04-L-D-350-065	8K2001
L1	27mH INDUCTOR	7D327
L2,L3	2U2H INDUCTOR	7D922

L4	33UH IND 34-48330	7D033
L5	1UH0 IND SM NL322522T-1R0J	7B810
L101	FERRITE BEAD SINGLE AXIAL TAPED 2K BOX	7F003
M1	DAB TUNER MODULE 1.7	B012
PCB	PRINTED CIRCUIT BOARD	L918PB_1
Q1-Q4	TRANS MOSFET SW ZVNL120A	4K120
R1-R7	RES SM 0805 10K	1M310
R9,R10	RES SM 0805 10K	1M310
R12-R15	RES SM 0805 8K2	1M282
R16	RES SM 0805 330R	1M133
R17	RES SM 0805 390R	1M139
R18,R19	RES MF FU W3 3R3 5% NFR25	1G833
R20,R21	RES MF FU W3 1R0 5% NFR25	1G810
R22	RES CF 1W 100R 5%	1E110
R23	RES SM 0805 22R	1M022
R24	RES SM 0805 1K8	1M218
R25	RES SM 0805 100R	1M110
R26	RES SM 0805 0R0	1M000
R27	RES SM 0805 33K	1M333
R28,R29	RES SM 0805 47K	1M347
R30	RES SM 0805 10K	1M310
R31,R32	RES SM 0805 47K	1M347
R33	RES SM 0805 10K	1M310
R34	RES SM 0805 47K	1M347
R35,R36	RES SM 0805 100K	1M410
R37	RES SM 0805 0R0	1M000
R39	RES SM 0805 2K2	1M222
R40	RES MF W4 33R 1%	1H033
R41-R43	RES SM 0805 1K0	1M210
R44	RES SM 0805 4K7	1M247
R45	RES MF W4 33R 1%	1H033
R46	RES SM 0805 100R	1M110
R47	RES SM 0805 330R	1M133
R48	RES SM 0805 1K0	1M210
R49,R50	RES SM 0805 100K	1M410
R51	RES SM 0805 1K5	1M215
R52,R53	RES SM 0805 1K8	1M218
R54,R55	RES SM 0805 2K4	1M224
R56,R57	RES SM 0805 220R	1M122
R58	RES SM 0805 0.1% 2K7	1L227
R60	RES SM 0805 1K0	1M210
R61	RES SM 0805 100R	1M110
R62	RES MF FU W3 1R0 5% NFR25	1G810
R63-R67	RES SM 0805 100R	1M110
R68	RES SM 0805 330R	1M133
R69	RES SM 0805 10R	1M010
R70	RES SM 0805 47K	1M347
R71	RES SM 0805 10K	1M310
R72-R74	RES MF FU W3 1R0 5% NFR25	1G810
R75	RES SM 0805 10K	1M310
R76	RES SM 0805 22R	1M022
R77	RES SM 0805 10K	1M310
R78	RES SM 0805 100R	1M110
R100	RES SM 0805 5K6	1M256
R101	RES SM 0805 22R	1M022
R102-R104	RES SM 0805 5K6	1M256
R105-R108	RES SM 0805 6K8	1M268
R109,R110	RES SM 0805 1K5	1M215
R111	RES SM 0805 4K7	1M247
R112	RES SM 0805 75R	1M075
R113,R114	RES SM 0805 1K5	1M215
R121	RES SM 0805 4K7	1M247
R122	RES SM 0805 75R	1M075
R129	RES SM 0805 2K2	1M222
R130	RES SM 0805 12K	1M312
R132	RES SM 0805 2K2	1M222
R133	RES SM 0805 22R	1M022
R134	RES SM 0805 12K	1M312
R135	RES SM 0805 22R	1M022
R137	RES SM 0805 2K2	1M222
R138	RES SM 0805 12K	1M312
R140	RES SM 0805 2K2	1M222
R141	RES SM 0805 22R	1M022
R142	RES SM 0805 12K	1M312
R143	RES SM 0805 22R	1M022
R145	RES SM W4 1% 0R0 1206	1A000
R146	RES SM 0805 100R	1M110
R147	RES SM 0805 10K	1M310
RLY1	RELAY 960 OHM 51SB12T	A205
SH101	PHONO EMC SHIELD	E825MC
SK1	14 WAY DIL HEADER	8K6314
SK3	22-WAY FFC CONN	8K8022
SK4	IEC MAINS 2-PIN PCB	8A014
SK5	MIN JACK DUAL 3.5mm HSJ1002-01-1020	8D302
SK101	PHONO SKT 4-WAY EMC GOLD	8D225
SK102	PHONO SKT 2-WAY EMC	8D229
SK103	PHONO SKT SINGLE EMC	8D220
SW1	SW PUSH 2PCO	A1008
SW3	SW PUSH 4PCO PBT	A1014
T1	DAB TUNER TX	L848TX
T2	Mains common mode choke	7E030
X1	CRYSTAL 16.MHz PARALLEL	7X021
Z1-Z3	IC VREG POS LM317T	5D317T
Z4	SPDIF OPTICAL TRANSMITTER	5TG550T
Z5	IC VREG POS LM337T	5D337
Z6	IC HCMOS SM 74HC32	5K7432
Z7	IC VREG POS 7805	5D7805
Z8	IC VREG POS 7805	5D7805
Z9	IC COMPARITOR TA7317P	5M7317
Z10	IC COMPARITOR SM DUAL LM393A	5M393AD
Z11	IC AHC SN74AHC1G00	5KA100
Z100	Wolfson 192K 24bit DAC	5A8740
Z102	IC OPAMP DUAL SM OPA2134PA	5B2134
Z201	IC CMOS CS8402 SPDIF TX	5G8402
Z202	8192 X 8-BIT ELECTRICALLY ERASABLE PROM M28C64C-150 MS1	5H2864
Z203	SPDIF OPTICAL TRANSMITTER	5TG550T
Z204SW	DT81 DAB TUNER SOFTWARE	L918SW
Z204	H8/3048 128K FLASH MICROCONTROLLER	5H3048
Z205	IC MICRO RESET DS1233M	5H1233

DT81 General Assembly Parts List

ITEM	230V	115V	100V	SILVER	BLACK	DESCRIPTION	WHERE USED	QTY
	L813RC					REMOTE CONTROL		1
	8H016					DAB AERIAL		1
				E828CP	E827CP	COVER PLATE		1
				E972AY	E985AY	DT81 FACIA ASSY.		1
				HA4V06S	HA4V06B	M4X6MM SCREW	COVER TO CHASSIS	4
	5H16C65					LOADED WITH L919SW	FIT ON L919AY AT Z2	1
	B012					DAB TUNER MODULE 1.7	L918AY M1	1
	C11166 160mA T	C11256 250Ma T				FUSE 20mm	L918AY F1 F2	2
	E028AY					DIVA DT81 REAR PANEL ASSY		1
	E806MI					MAINS INSULATOR		1
	E810CH					CHASSIS		1
	E815SP					SUB PANEL		1
	E859PM					STORE BUTTON		8
	E870PM					POWER BUTTON		1
	E879PM					DIVA RANGE FOOT		4
	E879SL					PRODUCT CONFIGURATION LABEL		1
	E886PM					DT81 CONFIRM BUTTON		6
	E891PM					DIVA AMP MEDIUM KNOB PLAIN		1
	E896PM					SELECT BUTTON		1
	F022					INS COVER PCB FUSEHOLDER	L918AY F1 F2	2
	F062					SPARE FUSE HOLDER	L918AY F3	1
	F164					TAPE BK 3M TESA. 6MM WIDE		008
	H026					HEX PILLAR M3X11 BRASS	DAB MODULE TO MOTHERBOARD	4
	HA3V06A					M/C TORX P/H M3X6 ST ZP		8
	HA3V10A					M3 X 10	PCB TO CHASSIS	16
	HE6V06B					No.6 X 6	FRONT PANEL TO CHASSIS	6
	HF4V09B					No.4 X 9	SUB PANEL, REAR PANEL	23
	HL3AB					M3 WASHER	BETWEEN DAB MODULE SUPPORT PILLARS AND PCB	4
	K5408					LIGHT PIPE SLEEVING (6mm)		1
	L801CA					22-WAY FLEX-FOIL	DISPLAY MODULE TO MOTHER PCB	1
	L842CA					AERIAL LEAD ASSEMBLY	DAB MODULE TO REAR PANEL	1
	L848TX					DAB TUNER TX	L918AY T1	1
	L918AY					DT81 MAIN BOARD ASSY.		1
	L918SW					H8 SOFTWARE	L918AY Z204	1
	L919AY					DT81 DISPLAY BOARD ASSY.		1
	E803MI					DAVM PHONO SHIELD INSULATOR	STICK ON EMC SHIELD BEHIND PHONO SKT	1