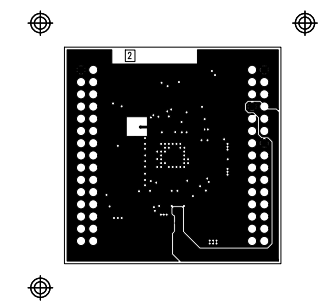
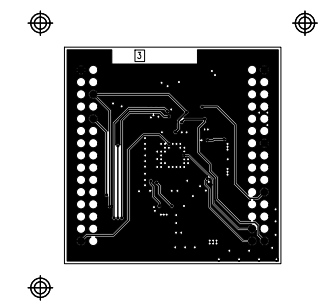



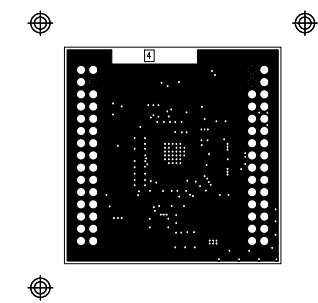
	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C1
LAYER	TOP SIDE TRACK




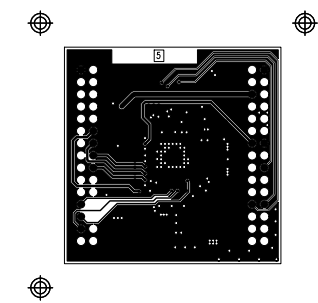
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	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C2
LAYER	INNER LAYER 2




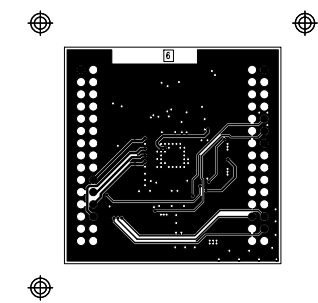
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	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A C3
LAYER	INNER LAYER 3




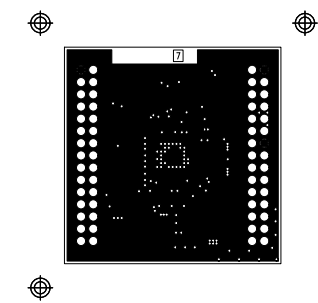
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	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C4
LAYER	INNER LAYER 4



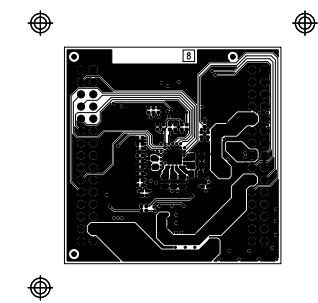
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	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C5
LAYER	INNER LAYER 5




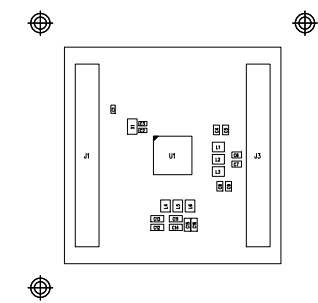
	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C6
LAYER	INNER LAYER 6




	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C7
LAYER	INNER LAYER 7

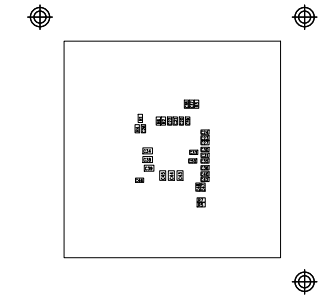


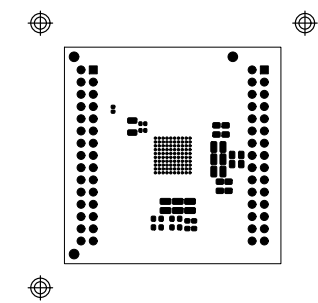
	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A_C8
LAYER	BOTTOM SIDE TRACK




	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A TA
LAYER	TOP ASSEMBLY DRAWING

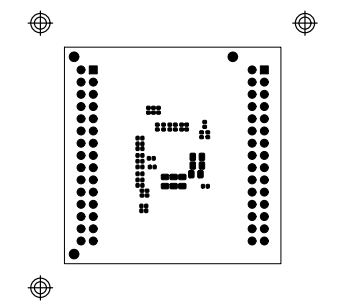
LAYER	BOTTOM ASSEMBLY DRAWING
DRAWING NUMBER	176-11-A_BA
	
DWA0023 PERP. BOARD	
PROJECT	




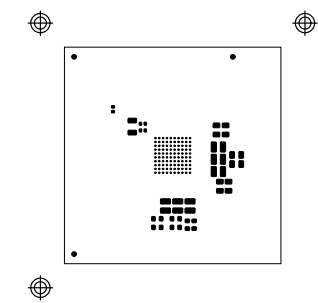



	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A TR
LAYER	TOP SOLDER RESIST

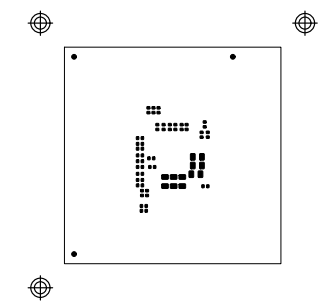
PROJECT




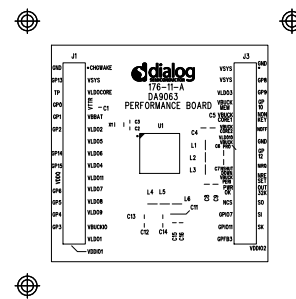
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DRAWING NUMBER	176-11-A BR
LAYER	BOTTOM SOLDER RESIST



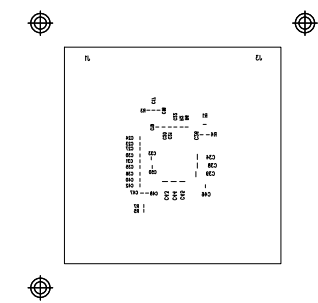
	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A TP
LAYER	TOP SOLDER PASTE



	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A BP
LAYER	BOTTOM SOLDER PASTE

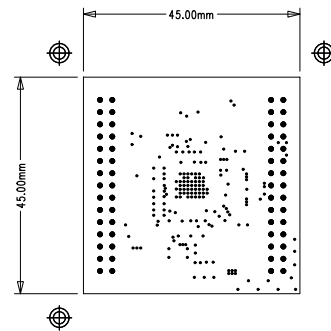


	PROJECT
	DA9063 PERF BOARD
DRAWING NUMBER	176-11-A_1S
LAYER	TOP SILKSCREEN

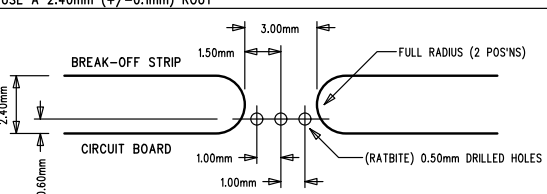
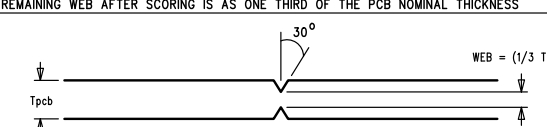


	PROJECT
	DA9063 PERF BOARD
	DRAWING NUMBER 176-11-A BS
LAYER	BOTTOM SILKSCREEN

IF IN DOUBT ASK!






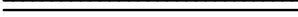




	PROJECT
	DA9063 PERF BOARD
DRAWING NUMBER	176-11-A_MC
LAYER	MANUFACTURE DETAIL

PREFERRED PANELISATION REQUIREMENTS	
REFER TO THE PANEL DRAWING IF SUPPLIED OTHERWISE USE DETAILS BELOW	
PRINTED CIRCUIT BOARDS THAT REQUIRE PANELISATION	
01	ANY PCB THAT DOES NOT HAVE A 5mm CLEARANCE FROM PCB EDGE TO COPPER/COMPONENTS ALONG THE LONGEST PARALLEL EDGES
02	ANY 'ODD' SHAPE PCB e.g. ROUND
PANEL SIZE, WASTE EDGE (BORDER) AND WEBBING	
01	PREFERRED PANEL SIZE TO BE 300mm X 230mm (MAXIMUM 450mm SQUARE)
02	PANEL BORDER TO BE 10mm ON ALL SIDES, FULLY CROSS HATCHED IN COPPER ON BOTH SIDES
03	BOARD EDGE TO BOARD EDGE INTERNAL WEBBING TO BE 10mm
TOOLING HOLES	
01	ADD 3 TOOLING HOLES 2.5mm \pm -0.05 DIA. TO PANEL BORDER 5mm FROM BORDER EDGE FIDUCIALS
02	ADD 3 FIDUCIALS ON BOTH SIDES (1mm DIA./2mm DIA. CLEARANCE) 5mm FROM PANEL EDGE
RATBITES (FOR REFERENCE SEE ROUTING DETAIL BELOW)	
01	ADD RATBITES IN SAFE AREAS AWAY FROM TRACKS, TOOLING HOLES, SM PADS, VIAS, TEST PADS, GROUND PLANES, VITAL SILKSCREEN, THROUGH HOLES, OVERHANGING COMPONENTS ETC.
02	USE LOCATIONS SHOWN BY '***' IF PRESENT
03	THERE MUST BE SUFFICIENT RATBITES TO ENSURE PCB STABILITY
04	THE SPACING BETWEEN RATBITES SHOULD BE BETWEEN 40mm TO 50mm
PREFERRED ROUTING / V-SCORING REQUIREMENTS	
ROUTING	REQUIRED
01	USE A 2.40mm (\pm -0.1mm) ROUT
	
V-SCORING	NOT REQUIRED
WHEN V-SCORING IS APPLIED TO THE BOARD AS A METHOD OF REMOVING THE BREAK-OFF STRIPS THE FOLLOWING RULES ARE TO BE APPLIED	
01	SOLDER MASK TO EDGE CLEARANCE = 0.50mm (20thou)
02	COPPER TO EDGE CLEARANCE (ON ALL LAYERS) = 1.00mm (40thou)
03	SCORE ANGLE = 30 deg
04	REMAINING WEB AFTER SCORING IS AS ONE THIRD OF THE PCB NOMINAL THICKNESS
	

NOTES	
01	BOARD TO BE MANUFACTURED TO IPC-A-600 CLASS 2
02	BOARD IS TO MEET UL94V0 APPROVAL
03	ALL BOARD'S MUST BE 100% TESTED FOR ELECTRICAL CONTINUITY AND ISOLATION
04	NO REPAIRS MAY BE PERFORMED ON ANY IMPEDANCE CRITICAL TRACKS (WHERE APPLICABLE)
05	ALIGNMENT OF ALL LAYERS TO BE SUCH THAT NO BREAKOUT OCCURS
06	SUPPLIER'S UL IDENTIFICATION MARK, FLAMMABILITY RATING AND DATECODE MUST BE APPLIED TO THE BOARD
07	VARIATION IN TRACK WIDTH AND GAP TO MEET IMPEDANCE REQUIREMENTS ARE PERMISSIBLE, SO LONG AS THESE ARE MINIMAL, AND THE OVERALL BOARD THICKNESS IS NOT COMPROMISED.
08	MATERIAL TO BE ROHS COMPLIANT FR4, SUITABLE FOR LEAD-FREE PROCESSING
09	BOW AND TWIST TO BE NO GREATER THAN 0.75% ACROSS DIAGONALS
10	NON-FUNCTIONAL PADS MAY BE REMOVED FROM INTERNAL LAYERS (WHERE APPLICABLE)
11	ALL STUBS MAY BE REMOVED
12	REMOVE SILKSCREEN FROM EXPOSED COPPER (WHERE APPLICABLE)
13	CHECK BUILD ORDER AGAINST PLOTS
14	ALL DIMENSIONS IN mm (UNLESS STATED)
15	FINISHED BOARD THICKNESS
16	SURFACE FINISH
17	SOLDER RESIST
18	SILKSCREEN COLOUR
19	MINIMUM TRACK WIDTH
20	MINIMUM GAP
21	MINIMUM P.T.H. PAD SIZE
22	MINIMUM PITCH OF SURFACE MOUNT PADS
23	No. TOP SIDE SURFACE MOUNT PADS
24	No. BOTTOM SIDE SURFACE MOUNT PADS
ADDITIONAL NOTES	

PCB LAYER	MANUFACTURING DETAIL	GERBER FILES
	TOP SILKSCREEN	176-11-A_TS.GER
	TOP RESIST	176-11-A_TR.GER
LAYER 1	TOP SIDE TRACK	176-11-A_C1.GER
LAYER 2	INNER LAYER 2	176-11-A_C2.GER
LAYER 3	INNER LAYER 3	176-11-A_C3.GER
LAYER 4	INNER LAYER 4	176-11-A_C4.GER
LAYER 5	INNER LAYER 5	176-11-A_C5.GER
LAYER 6	INNER LAYER 6	176-11-A_C6.GER
LAYER 7	INNER LAYER 7	176-11-A_C7.GER
LAYER 8	BOTTOM SIDE TRACK	176-11-A_C8.GER
	BOTTOM RESIST	176-11-A_BR.GER
	BOTTOM SILKSCREEN	176-11-A_BS.GER
	CNC DRILL FILE (PLATED/NON-PLATED THROUGH HOLE)	176-11-A.DRT
	CNC DRILL TOOLING (PLATED/NON-PLATED THRU HOLE)	176-11-A.TOL
	MANUFACTURE DETAIL	176-11-A_MC.GER

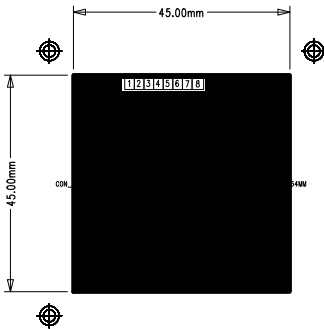
LAYER/ LAYER TYPE	BOARD STACK	COPPER WEIGHT
01 MIXED		305g/m
02 GROUND		152g/m
03 MIXED		152g/m
04 MIXED		152g/m
05 MIXED		152g/m
06 MIXED		152g/m
07 GROUND		152g/m
08 MIXED		305g/m

[illegible]

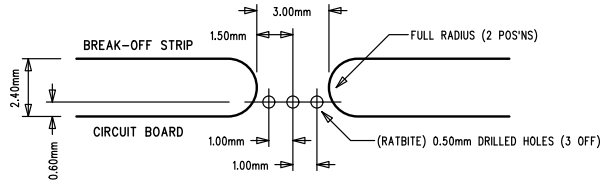
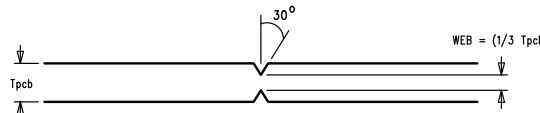
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TOLERANCES UNLESS OTHERWISE STATED 0 PLACE DECIMALS +/- 1 1 PLACE DECIMALS +/- 0.5 2 PLACE DECIMALS +/- 0.1	DRAWN BY IW	DATE 12/11/2013	DIALOG SEMICONDUCTOR UK LTD 2 MULTREES WALK EDINBURGH EH1 3DQ	© COPYRIGHT 2012	REV A
	CHK'D BY FG	DATE 12/11/2013		TITLE MANUFACTURE DETAIL DA9063 PERFORMANCE BOARD	DRAWING NUMBER 176-11-A

IF IN DOUBT ASK!





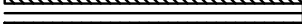



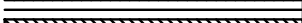
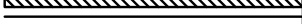
	PROJECT DA9063 PERF BOARD
DRAWING NUMBER	176-11-A
LAYER	DA9063 PERFORMANCE BOARD

PREFERRED PANELISATION REQUIREMENTS	
REFER TO THE PANEL DRAWING IF SUPPLIED OTHERWISE USE DETAILS BELOW	
PRINTED CIRCUIT BOARDS THAT REQUIRE PANELISATION	
01	ANY PCB THAT DOES NOT HAVE A 5mm CLEARANCE FROM PCB EDGE TO COPPER/COMPONENTS ALONG THE LONGEST PARALLEL EDGES
02	ANY 'ODD' SHAPE PCB e.g. ROUND
PANEL SIZE, WASTE EDGE (BORDER) AND WEBBING	
01	PREFERRED PANEL SIZE TO BE 300mm X 230mm (MAXIMUM 450mm SQUARE)
02	PANEL BORDER TO BE 10mm ON ALL SIDES, FULLY CROSS HATCHED IN COPPER ON BOTH SIDES
03	BOARD EDGE TO BOARD EDGE INTERNAL WEBBING TO BE 10mm
TOOLING HOLES	
01	ADD 3 TOOLING HOLES 2.5mm +/-0.05 DIA. TO PANEL BORDER 5mm FROM BORDER EDGE
FIDUCIALS	
01	ADD 3 FIDUCIALS ON BOTH SIDES (1mm DIA./2mm DIA. CLEARANCE) 5mm FROM PANEL EDGE
RATBITES (FOR REFERENCE SEE ROUTING DETAIL BELOW)	
01	ADD RATBITES IN SAFE AREAS AWAY FROM TRACKS, TOOLING HOLES, SM PADS, VIAS, TEST PADS, GROUND PLANES, VITAL SILKSCREEN, THROUGH HOLES, OVERHANGING COMPONENTS ETC.
02	USE LOCATIONS SHOWN BY '+' IF PRESENT
03	THERE MUST BE SUFFICIENT RATBITES TO ENSURE PCB STABILITY
04	THE SPACING BETWEEN RATBITES SHOULD BE BETWEEN 40mm TO 50mm
PREFERRED ROUTING / V-SCORING REQUIREMENTS	
ROUTING	REQUIRED
01	USE A 2.40mm (+/-0.1mm) ROUT
	
V-SCORING	NOT REQUIRED
WHEN V-SCORING IS APPLIED TO THE BOARD AS A METHOD OF REMOVING THE BREAK-OFF STRIPS THE FOLLOWING RULES ARE TO BE APPLIED	
01	SOLDER MASK TO EDGE CLEARANCE = 0.50mm (20thou)
02	COPPER TO EDGE CLEARANCE (ON ALL LAYERS) = 1.00mm (40thou)
03	SCORE ANGLE = 30 deg
04	REMAINING WEB AFTER SCORING IS AS ONE THIRD OF THE PCB NOMINAL THICKNESS
	

DRILL DETAIL NOTES		
ALL PLATED HOLES ARE FINISHED SIZES WITH +/-0.075mm TOLERANCE		
ALL NON-PLATED HOLES ARE FINISHED SIZES WITH +/-0.050mm TOLERANCE		
ALL VIAS ARE DRILLED SIZES WITH +0/-DRILL TOLERANCE		
TOTAL PLATED HOLE QTY	248	
TOTAL NON-PLATED HOLE QTY	0	

NOTES		
01	BOARD TO BE MANUFACTURED TO IPC-A-600 CLASS 2	
02	BOARD IS TO MEET UL94V0 APPROVAL	
03	ALL BOARD'S MUST BE 100% TESTED FOR ELECTRICAL CONTINUITY AND ISOLATION	
04	NO REPAIRS MAY BE PERFORMED ON ANY IMPEDANCE CRITICAL TRACKS (WHERE APPLICABLE)	
05	ALIGNMENT OF ALL LAYERS TO BE SUCH THAT NO BREAKOUT OCCURS	
06	SUPPLIER'S UL IDENTIFICATION MARK, FLAMMABILITY RATING AND DATECODE MUST BE APPLIED TO THE BOARD	
07	VARIATION IN TRACK WIDTH AND GAP TO MEET IMPEDANCE REQUIREMENTS ARE PERMISSABLE, SO LONG AS THESE ARE MINIMAL, AND THE OVERALL BOARD THICKNESS IS NOT COMPROMISED.	
08	MATERIAL TO BE RoHS COMPLIANT FR4, SUITABLE FOR LEAD-FREE PROCESSING	
09	BOW AND TWIST TO BE NO GREATER THAN 0.75% ACROSS DIAGONALS	
10	NON-FUNCTIONAL PADS MAY BE REMOVED FROM INTERNAL LAYERS (WHERE APPLICABLE)	
11	ALL STUBS MAY BE REMOVED	
12	REMOVE SILKSCREEN FROM EXPOSED COPPER (WHERE APPLICABLE)	
13	CHECK BUILD ORDER AGAINST PLOTS	
14	ALL DIMENSIONS IN mm (UNLESS STATED)	
15	FINISHED BOARD THICKNESS	1.60mm +/-10%
16	SURFACE FINISH	ELECTROLESS NICKEL/IMMERSION GOLD
17	SOLDER RESIST	BLUE PHOTO-IMAGEABLE
18	SILKSCREEN COLOUR	WHITE
19	MINIMUM TRACK WIDTH	0.100mm
20	MINIMUM GAP	0.100mm
21	MINIMUM P.T.H. PAD SIZE	0.450mm
22	MINIMUM PITCH OF SURFACE MOUNT PADS	0.800mm
23	No. TOP SIDE SURFACE MOUNT PADS	
24	No. BOTTOM SIDE SURFACE MOUNT PADS	
ADDITIONAL NOTES		

PCB LAYER	MANUFACTURING DETAIL	GERBER FILES
	TOP SILKSCREEN	176-11-A_TS.GER
	TOP RESIST	176-11-A_TR.GER
LAYER 1	TOP SIDE TRACK	176-11-A_C1.GER
LAYER 2	INNER LAYER 2	176-11-A_C2.GER
LAYER 3	INNER LAYER 3	176-11-A_C3.GER
LAYER 4	INNER LAYER 4	176-11-A_C4.GER
LAYER 5	INNER LAYER 5	176-11-A_C5.GER
LAYER 6	INNER LAYER 6	176-11-A_C6.GER
LAYER 7	INNER LAYER 7	176-11-A_C7.GER
LAYER 8	BOTTOM SIDE TRACK	176-11-A_C8.GER
	BOTTOM RESIST	176-11-A_BR.GER
	BOTTOM SILKSCREEN	176-11-A_BS.GER
	CNC DRILL FILE (PLATED/NON-PLATED THROUGH HOLE)	176-11-A.DRT
	CNC DRILL TOOLING (PLATED/NON-PLATED THRU HOLE)	176-11-A.TOL
	MANUFACTURE DETAIL	176-11-A_MC.GER

LAYER/ LAYER TYPE	BOARD STACK	COPPER WEIGHT
01 MIXED		305g/m
02 GROUND		152g/m
03 MIXED		152g/m
04 MIXED		152g/m
05 MIXED		152g/m
06 MIXED		152g/m
07 GROUND		152g/m
08 MIXED		305g/m

IMPEDANCE REQUIREMENTS (NO REQUIREMENT)										
REQ NO	Zo	TOLERANCE	LAYERS	TRACE WIDTH	TRACE SEPARATION	PLANE SEPARATION	REFERENCE LAYERS	METHOD	TEST COUPON REQUIRED	SEE NOTES



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TOLERANCES UNLESS OTHERWISE STATED
0 PLACE DECIMALS +/- 1
1 PLACE DECIMALS +/- 0.5
2 PLACE DECIMALS +/- 0.1

DRAWN BY
IW
CHK'D BY
FG

DATE
12/11/2013
DATE
12/11/2013

DIALOG SEMICONDUCTOR UK LTD
2 MULTREES WALK
EDINBURGH
EH1 3DQ

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TITLE MANUFACTURE DETAIL
DA9063 PERFORMANCE BOARD

REV A

DRAWING NUMBER
176-11-A