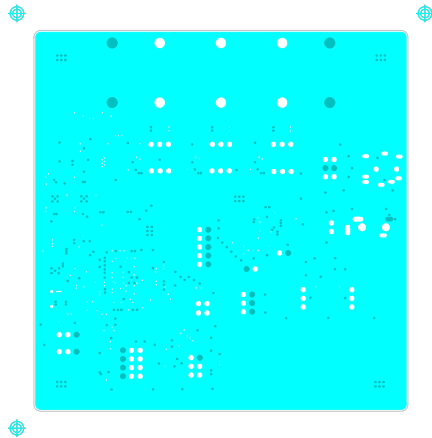
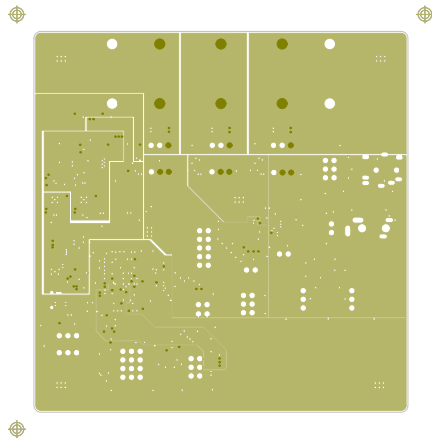


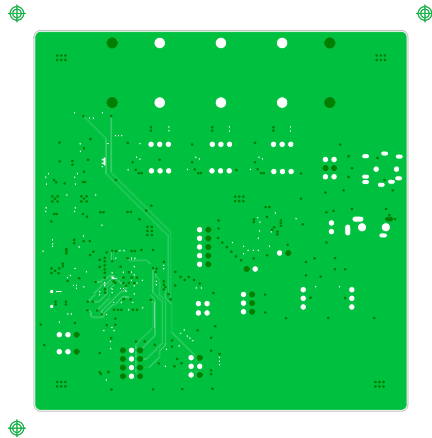
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	DRAWING NUMBER 284-02-C_C1
LAYER	TOP SIDE TRACK



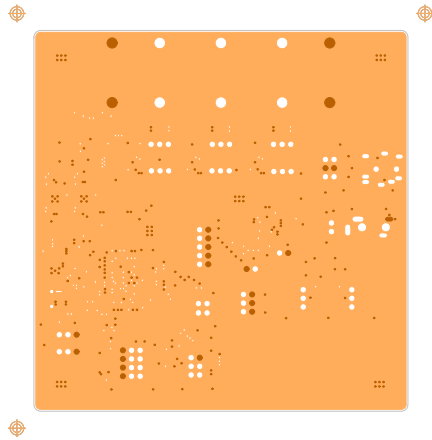
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	Codie Performance Board
	DRAWING NUMBER 284-02-C_02
LAYER	INNER LAYER 2



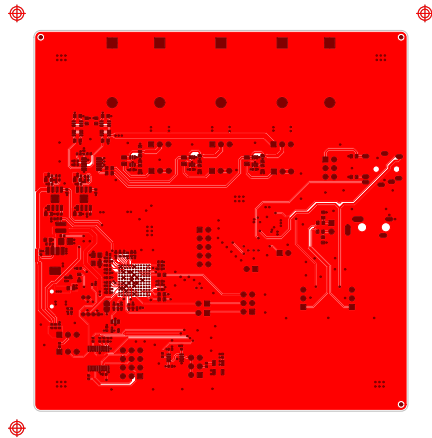
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DRAWING NUMBER	284-02-C_C3
LAYER	INNER LAYER 3



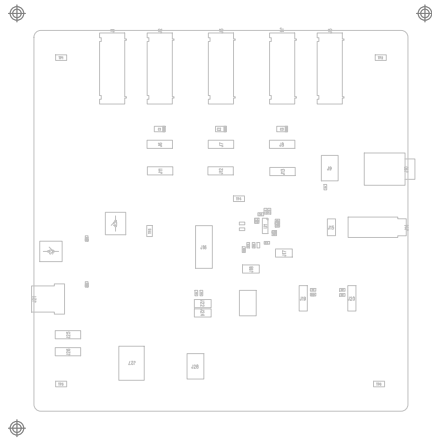
	PROJECT
	Codie Performance Board
	DRAWING NUMBER 284-02-C_C4
LAYER	INNER LAYER 4



	PROJECT
	Codie Performance Board
	DRAWING NUMBER 284-02-C_05
LAYER	INNER LAYER 5



	PROJECT
	Cadie Performance Board
DRAWING NUMBER 284-Q2-C_C6	
LAYER	BOTTOM SIDE TRACK

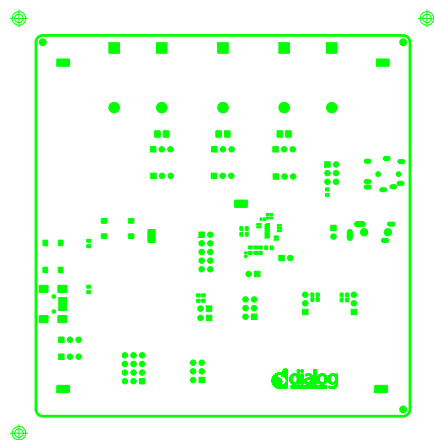


	PROJECT
	Codie Performance Board
	DRAWING NUMBER 284-02-C-TA
LAYER	TOP ASSEMBLY DRAWING

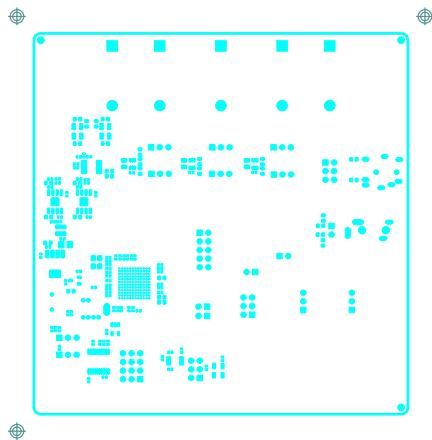


	PROJECT
	Cadie Performance Board
DRAWING NUMBER 284-02-C_BA	
LAYER	BOTTOM ASSEMBLY DRAWING

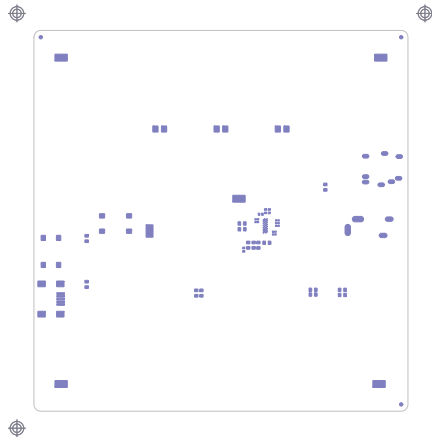




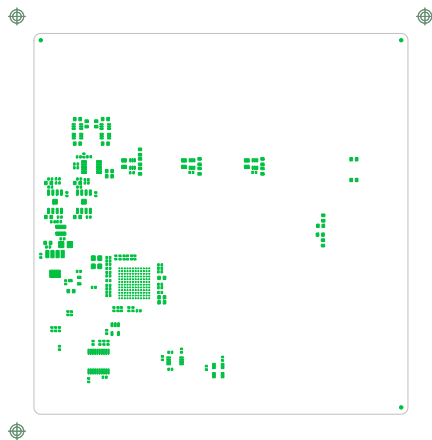
PROJECT  
Cadie Performance Board  
DRAWING NUMBER 284-02-C\_TR  
LAYER TOP SOLDER RESIST



	PROJECT Cadie Performance Board
DRAWING NUMBER	284-02-C_BR
LAYER	BOTTOM SOLDER RESIST

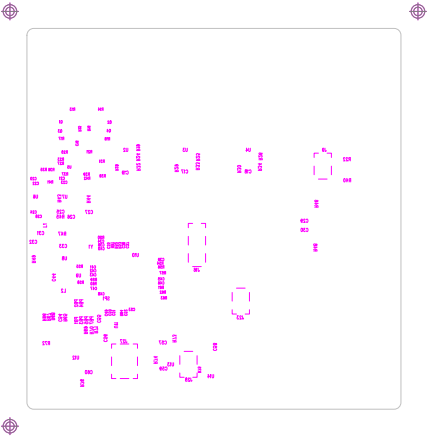


	PROJECT
	Codie Performance Board
	DRAWING NUMBER 284-Q2-C-TP
LAYER	TOP SOLDER PASTE

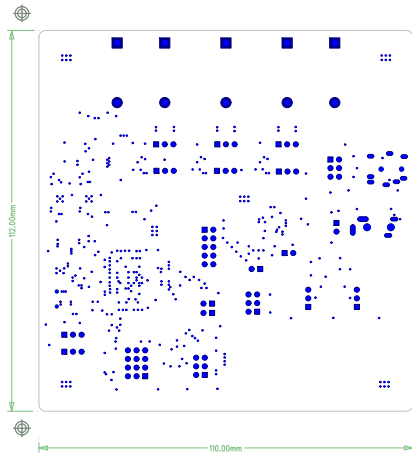


	PROJECT
	Codie Performance Board
DRAWING NUMBER 284-02-C_BP	
LAYER	BOTTOM SOLDER PASTE





IF IN DOUBT ASK!



	PROJECT
	Cadie Performance Board
	DRAWING NUMBER 284-02-C_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 ASSEMBLY PANEL TO BE A 2X1, 2UP ARRAY	
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	
04 MAXIMUM PANEL SIZE NOT TO EXCEED 380mm X 440mm	
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 BREAKOUTS (FOR REFERENCE SEE ROUTING DETAIL BELOW)	
01 ADD BREAKOUTS IN SAFE AREAS AWAY FROM TRACKS, TOOLING HOLES, SW PADS, VIAS, TEST PADS, GROUND PLANES, VITAL SILKSCREEN, THROUGH HOLES, OVERHANGING COMPONENTS ETC.	
02 USE LOCATIONS SHOWN BY '+' IF PRESENT	
03 AT LEAST TWO BREAKOUTS MUST BE ADDED ALONG THE EDGE OF A CIRCUIT IF GREATER THAN 75MM IN LENGTH	
04 AT LEAST ONE BREAKOUT MUST BE ADDED ALONG THE EDGE OF A CIRCUIT IF LESS THAN 75MM IN LENGTH	
05 THE SPACING BETWEEN BREAKOUTS SHOULD BE BETWEEN 40mm TO 50mm	
06 BREAKOUTS TO BE POSITIONED AT LEAST 12MM FROM CIRCUIT CORNER TO ALLOW CUTOUT ACCESS	
07 STEPPED GERBERS MUST BE SENT TO THE PCB DESIGNER FOR VERIFICATION BEFORE MANUFACTURE COMMENCES	
08 IF ANY OF THIS SECTION CANNOT BE ADHERED TO THEN PLEASE CONSULT THE PCB DESIGNER	
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 +/-0.0950mm TOLERANCE	
ALL VIAS ARE DRILLED SIZES WITH +0/-DRILL TOLERANCE	
TOTAL PLATED HOLE QTY	505
TOTAL NON-PLATED HOLE QTY	6

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	SUPPLIERS UL IDENTIFICATION MARK, FLAMMABILITY RATING AND DATECODE MUST BE APPLIED TO THE BOARD - BOTTOM SIDE ONLY	
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	BLACK GLOSS PHOTO-IMAGABLE
18	SILKSCREEN COLOUR	WHITE
19	MINIMUM TRACK WIDTH	0.100mm
20	MINIMUM GAP	0.160mm
21	MINIMUM P.T.H. PAD SIZE	0.450mm
22	MINIMUM PITCH OF SURFACE MOUNT PADS	0.650mm
23	No. TOP SIDE SURFACE MOUNT PADS	116
24	No. BOTTOM SIDE SURFACE MOUNT PADS	502
ADDITIONAL NOTES		

PCB LAYER	MANUFACTURING DETAIL	GERBER FILES
	TOP SILKSCREEN	284-02-C_TS.GER
	TOP RESIST	284-02-C_TR.GER
LAYER 1	TOP SIDE TRACK	284-02-C_C1.GER
LAYER 2	INNER LAYER 2	284-02-C_C2.GER
LAYER 3	INNER LAYER 3	284-02-C_C3.GER
LAYER 4	INNER LAYER 4	284-02-C_C4.GER
LAYER 5	INNER LAYER 5	284-02-C_C5.GER
LAYER 6	BOTTOM SIDE TRACK	284-02-C_C6.GER
	BOTTOM RESIST	284-02-C_BR.GER
	BOTTOM SILKSCREEN	284-02-C_BS.GER
	CNC DRILL FILE (PLATED/NON-PLATED THROUGH HOLE)	284-02-C.DRT
	CNC DRILL TOOLING (PLATED/NON-PLATED THRN HOLE)	284-02-C.REP
	MANUFACTURE DETAIL	284-02-C_MC.GER

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



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

DRAWN BY	DATE
BL	13/10/2015
CHK'D BY	DATE
CM	13/10/2015

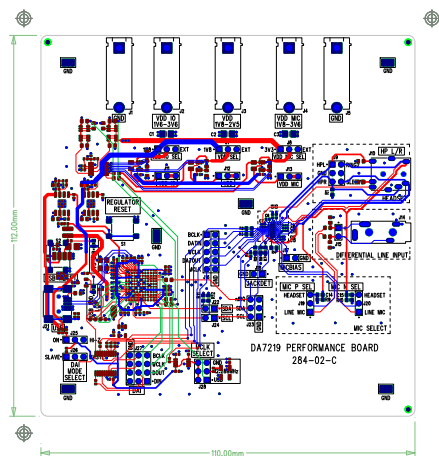
DIALOG SEMICONDUCTOR UK LTD  
2 MULTREES WALK  
EDINBURGH  
EH1 3DQ

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TITLE MANUFACTURE DETAIL  
DA7218 Cadie Performance Board

DRAWING NUMBER  
284-02-C

IF IN DOUBT ASK!



	PROJECT Cadie Performance Board
DRAWING NUMBER 284-02-C TS	
LAYER	TOPUSILKSCREENETAIL

### PREFERRED PANELISATION REQUIREMENTS

**REFER TO THE PANEL DRAWING IF SUPPLIED OTHERWISE USE DETAILS BELOW**

**PRINTED CIRCUIT BOARDS THAT REQUIRE PANELISATION**

- ANY PCB THAT DOES NOT HAVE A 5mm CLEARANCE FROM PCB EDGE TO COPPER/COMPONENTS ALONG THE LONGEST PARALLEL EDGES
- ANY 'ODD' SHAPE PCB e.g. ROUND
- PANEL SIZE, WASTE EDGE (BORDER) AND WEBBING
- ASSEMBLY PANEL TO BE A 2X1, 2UP ARRAY
- PANEL BORDER TO BE 10mm ON ALL SIDES, FULLY CROSS HATCHED IN COPPER ON BOTH SIDES
- BOARD EDGE TO BOARD EDGE INTERNAL WEBBING TO BE 10mm
- MAXIMUM PANEL SIZE NOT TO EXCEED 380mm X 440mm

**TOOLING HOLES**

- ADD 3 TOOLING HOLES 2.5mm  $\varnothing$  +0.05 DIA. TO PANEL BORDER 5mm FROM BORDER EDGE

**FIDUCIALS**

- ADD 3 FIDUCIALS ON BOTH SIDES (1mm DIA./2mm DIA. CLEARANCE) 5mm FROM PANEL EDGE

**BREAKOUTS (FOR REFERENCE SEE ROUTING DETAIL BELOW)**

- ADD BREAKOUTS IN SAFE AREAS AWAY FROM TRACKS, TOOLING HOLES, SM PADS, VIAS, TEST PADS, GROUND PLANES, VITAL SILKSREEN, THROUGH HOLES, OVERHANGING COMPONENTS ETC.
- USE LOCATIONS SHOWN BY '\*' IF PRESENT
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- AT LEAST ONE BREAKOUT MUST BE ADDED ALONG THE EDGE OF A CIRCUIT IF LESS THAN 75MM IN LENGTH
- THE SPACING BETWEEN BREAKOUTS SHOULD BE BETWEEN 40mm TO 50mm
- BREAKOUTS TO BE POSITIONED AT LEAST 12MM FROM CIRCUIT CORNER TO ALLOW CUTOUT ACCESS
- STEPPED GERBERS MUST BE SENT TO THE PCB DESIGNER FOR VERIFICATION BEFORE MANUFACTURE COMMENCES
- IF ANY OF THIS SECTION CANNOT BE ADHERED TO THEN PLEASE CONSULT THE PCB DESIGNER













**PREFERRED ROUTING / V-SCORING REQUIREMENTS**

ROUTING	REQUIRED
01	USE A 2.40mm (+/-0.1mm) ROUT

V-SCORING	NOT REQUIRED
01	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 DATACODE MUST BE APPLIED TO THE BOARD - BOTTOM SIDE ONLY	
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	
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11	ALL STUBS MAY BE REMOVED	
12	REMOVE SILKSREEN 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	BLACK GLOSS PHOTO-IMAGABLE
18	SILKSREEN COLOUR	WHITE
19	MINIMUM TRACK WIDTH	0.100mm
20	MINIMUM GAP	0.160mm
21	MINIMUM P.T.H. PAD SIZE	0.450mm
22	MINIMUM PITCH OF SURFACE MOUNT PADS	0.650mm
23	No. TOP SIDE SURFACE MOUNT PADS	116
24	No. BOTTOM SIDE SURFACE MOUNT PADS	502
ADDITIONAL NOTES		

PCB LAYER	MANUFACTURING DETAIL	GERBER FILES
	TOP SILKSCREEN	284-02-C_15.GER
	TOP RESIST	284-02-C_TR.GER
LAYER 1	TOP SIDE TRACK	284-02-C_C1.GER
LAYER 2	INNER LAYER 2	284-02-C_C2.GER
LAYER 3	INNER LAYER 3	284-02-C_C3.GER
LAYER 4	INNER LAYER 4	284-02-C_C4.GER
LAYER 5	INNER LAYER 5	284-02-C_C5.GER
LAYER 6	BOTTOM SIDE TRACK	284-02-C_C6.GER
	BOTTOM RESIST	284-02-C_BR.GER
	BOTTOM SILKSCREEN	284-02-C_BS.GER
	CNC DRILL FILE (PLATED/NON-PLATED THROUGH HOLE)	284-02-C.DRT
	CNC DRILL TOOLING (PLATED/NON-PLATED THRU HOLE)	284-02-C.REP
	MANUFACTURE DETAIL	284-02-C_MC.GER

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



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TOLERANCES UNLESS OTHERWISE STATED 0 PLACE DECIMALS +/- 1 1 PLACE DECIMALS +/- 0.5 2 PLACE DECIMALS +/- 0.1	DRAWN BY BL	DATE 13/10/2015	DIALOG SEMICONDUCTOR UK LTD 2 MURTEES WALK EDINBURGH EH1 3DQ	© COPYRIGHT 2015	
	CHK'D BY CM	DATE 13/10/2015		TITLE MANUFACTURE DETAIL DA7218 Cadie Performance Board	DRAWING NUMBER 284-02-C