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Orderable:	Designed for: Public Release	Mod. Date: 3/29/2019
TID #: N/A	Project Title: Liteon SSD ref_des	
Number: TIDA-050044   Rev. E1	Sheet Title:	
SVN Rev. Not in version control	Assembly Variant: [No Variations]	Sheet 1 of 2
Drawn By: Sabrina Ramalingam	File: TIDA-050044_liteon SSD_ref_des.SchDoc	Size: B
Engineer: Dorian Brillet de Candè	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	



FID1 FID2 FID3

PCB Number: TIDA-050044  
PCB Rev: E1



PCB LOGO  
FCC disclaimer

PCB LOGO  
WEEE logo

ZZ1  
Label Assembly Note  
This Assembly Note is for PCB labels only

ZZ2  
Assembly Note  
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3  
Assembly Note  
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4  
Assembly Note  
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Orderable:	Designed for: Public Release	Mod. Date: 7/2/2020
TID #:	Project Title: Liteon SSD_ref_des	
Number: TIDA-050044   Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: [No Variations]	Sheet 2 of 2
Drawn By: Sabrina Ramalingam	File: TIDA-050044_liteon SSD_ref_des Hardware.Sch	Scale: B
Engineer: Dorian Brillet de Cande	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

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Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.50mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	7.00mil	4.2	
5	Signal Layer 1	Copper	1.40mil		
6	Dielectric 2	FR-4	14.00mil	4.2	
7	Signal Layer 2	Copper	1.40mil		
8	Dielectric 4	FR-4	11.00mil	4.2	
9	Signal Layer 3	Copper	1.40mil		
10	Dielectric 5	FR-4	14.00mil	4.2	
11	Signal Layer 4	Copper	1.40mil		
12	Dielectric 3	FR-4	7.00mil	4.2	
13	Bottom Layer	Copper	1.40mil		
14	Bottom Solder	Solder Resist	0.50mil	3.5	
15	Bottom Overlay				

**DESIGN INFORMATION**

MIN. TRACK WIDTH: 7.874 MIL  
 MIN. CLEARANCE: 4.7 MIL  
 MIN. VIA PAD SIZE: 24 MIL

MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL  
 PER IPC-D-275 CLASS 2 LEVEL C  
 REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL  
 HOLE SIZE TOLERANCE (UNLESS OTHERWISE SPECIFIED): +/- 3 MIL

**MATERIAL:**  
 FR-408  FR-4 High Tg  OTHER \_\_\_\_\_  
 THICKNESS:  62 MIL (1.6mm) +/-10%  OTHER \_\_\_\_\_  
 TOLERANCE:  ANSI IPC-6012 TYPE 3 CLASS 2  
 OTHER +/- \_\_\_\_\_  
 BOW & TWIST:  ANSI IPC-6012 TYPE 3 CLASS 2  
 OTHER +/- \_\_\_\_\_

**DRILLING:**  
 REFERENCE:  AS SHOWN  NC\_DRILL FILES  
 PTH COPPER THICKNESS:  20-30 um  OTHER \_\_\_\_\_

**BOARD FINISH:**  
 SILKSCREEN:  TOP  BOTTOM  
 SILKSCREEN COLOR:  WHITE  OTHER \_\_\_\_\_  
 SOLDER RESIST COLOR:  GREEN  OTHER \_\_\_\_\_  
 MATTIE  SEMI-GLOSS

**SURFACE FINISH:**  IMMERSION GOLD (ENG)  ENERP  
 IMM. TIN/SILVER OR EQUIV  OTHER \_\_\_\_\_

**ARRAY/PANEL:**  CUT AND TRIM PER M1 BOARD OUTLINE  
 N.C. ROUTE  V. SCORE

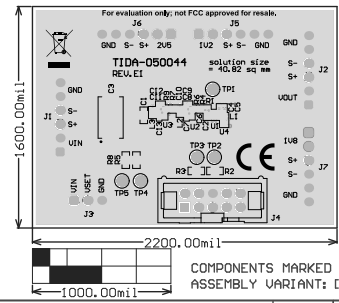
**CERTIFICATION:** MATERIALS AND WORKMANSHIP FOR ALL PCBs  
 TO MEET OR EXCEED THE REQUIREMENTS OF:  
 ANSI IPC-A-600F CLASS ->  1  2  3  
 RoHS  OTHER PER ORDER

ALL BOARDS MUST MEET OR EXCEED UL94-V0 REQUIREMENTS.  
 PCB MUST BEAR THE UL94V-0 UL REGISTERED MATERIAL ID NUMBER

**ADDITIONAL REQUIREMENTS:**  
 MICROSECTION:  YES

**BARE BOARD ELEC. TEST:**  NONE  REQUIRED  PER ORDER  
 XX MIL VIAS REQUIRE NON-CONDUCTIVE FILL AND PLANARIZE  
 XX MIL VIAS REQUIRE CONDUCTIVE FILL AND PLANARIZE  
 OUTER XX MIL TRACES REQUIRE 50 OHM SINGLE-ENDED IMPEDANCE  
 LAYER 2 & 3 (INNER LAYERS) XX MIL WIDE, XX MIL SPACE  
 TRACES REQUIRE 100 OHM DIFFERENTIAL IMPEDANCE

221 ■ Install label in silkscreened box after final wash. Text shall be 8 pt font. Text shall be per the Label Table in the PDF schematic.  
 222 ■ These assemblies are ESD sensitive. ESD precautions shall be observed.  
 223 ■ These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.  
 224 ■ These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.



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**PROJECT TITLE:**  
Liteon\_SSD\_ref\_des

**DESIGNED FOR:**  
Public Release

**FILE NAME:**  
TIDA-050044\_liteon\_SSD\_ref\_des.PcbDoc

**ENGINEER:**  
Dorian, Brillet de Caillat

**LAYOUT BY:**  
Fred Illguth

**SCALE:** 1.00

**ALTIUM DESIGNER VERSION:**  
18.1.9.240

ADG HAS BEEN REVISED FOR BOARD 13  
 LAYER NAME = TOP OVERLAY  
 PLOT NAME = Top Overlay Composite 30:01

BOARD #: 0070A050044  
 TID #: N/A A N  
 GENERATOR: 7/22/2013 10:06:08 AM

DESIGNED BY: [Name]  
 CHECKED BY: [Name]

Comment	Description	Designator	Footprint	LibRef	Quantity
Printed Circuit Board	Printed Circuit Board	!PCB1		CMP-0003618-2	1
GRM188D71A106MA73D	CAP, CERM, 10 uF, 10 V, +/- 20%, X7T, 0603	C1	0603	CMP-0007298-4	1
GRM155R60J226ME11D	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0402	C2, C4, C5	0402S	CMP-0006545-2	3
Cap_Polarized	CAP, TA, 68 uF, 20 V, +/- 10%, 0.15 ohm, SMD	C3	7343-31	CMP-0011790-2	1
GRM033R71E121KA01D	CAP, CERM, 120 pF, 25 V, +/- 10%, X7R, 0201	C6, C10	0201	CMP-0009765-1	2
GRM155R60J106ME47D	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X5R, 0402	C7, C8, C9, C11, C12, C13	0402S	CMP-0078624-1	6
Fiducial	Fiducial mark. There is nothing to buy or mount.	FID1, FID2, FID3	Fiducial10-20	CMP-0077181-1	3
TSW-106-07-G-S	Header, 100mil, 6x1, Gold, TH	J1, J2, J5, J6, J7	TSW-106-07-G-S	CMP-0075413-2	5
TSW-103-07-G-S	Header, 100mil, 3x1, Gold, TH	J3	TSW-103-07-G-S	CMP-0075407-2	1
N2510-6002-RB	Header (shrouded), 100mil, 5x2, High-Temperature, Gold, TH	J4	CONN_2510-6002	CMP-0055448-2	1
DFE18SANR24MG0L	Inductor, Multilayer, Metal Composite, 240 nH, 3.5 A, 0.03 ohm, SMD	L1, L2, L3	DFE18_G	CMP-0078404-1	3
Resistor	RES, 86.6, 1%, 0.05 W, 0201	R1	0201	CMP-0027902-1	1
RC0603FR-072KL	RES, 2.00 k, 1%, 0.1 W, 0603	R2, R3	0603	CMP-0023000-5	2
CRCW0201100KFKED	RES, 100 k, 1%, 0.05 W, 0201	R4, R6	0201	CMP-0027261-3	2
Resistor	RES, 100 k, 1%, 0.1 W, 0603	R5, R8	0603	CMP-0022735-5	2
RC0201FR-07324KL	RES, 324 k, 1%, 0.05 W, 0201	R7	0201	CMP-0027604-1	1
ERJ-1GEF1023C	RES, 102 k, 1%, 0.05 W, 0201	R9	0201	CMP-0027287-2	1
5002	Test Point, Miniature, White, TH	TP1, TP2, TP3, TP4, TP5	Keystone5002	CMP-0055139-1	5
TPS628660AYCGR	6-A Step-Down Converter with I2C Interface and Wide Output Voltage Range, YCG0015ACAC (DSBGA-15)	U1	YCG0015ACAC	CMP-0081129-3	1
TPS62088YFPR	3-A High Efficiency Step-down Converter, YFP0006AAAA (DSBGA-6)	U2, U3	YFP0006AAAA	CMP-0014186-4	2
TLV73318PDQNR	Capacitor-Free, 300-mA, Low-Dropout Regulator with Foldback Current Limit for Portable Devices, DQN0004A (X2SON-4)	U4	DQN0004A	CMP-0066776-1	1

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