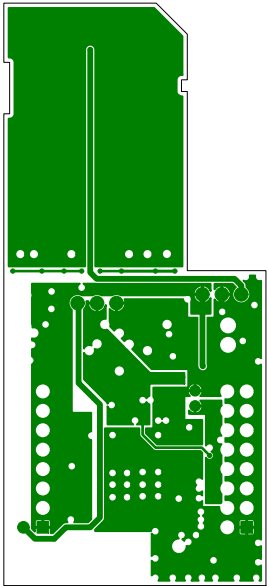


REVISION RECORD		
REV.	DESCRIPTION:	DATE:
1.0	ECN 121-2016 INITIAL RELEASE	7/21/16



W66N220
Commerce Court
Cedarburg
WI 53012

DRAWN BY: PCS	DATE: 7/21/16	TITLE: Sterling-LWB and LWB5 SD Card Dev. Board
CHECKED BY: CMH	DATE: 7/21/16	PROJECT: Sterling-LWB - COPPER, LAYER 1, TOP
APPROVED BY: JMB	DATE: 7/21/16	SIZE: A
		DRAWING NO: 750-00960
		REV: 1.0
FILENAME:		SCALE: 1 TO 1
		SHEET: OF

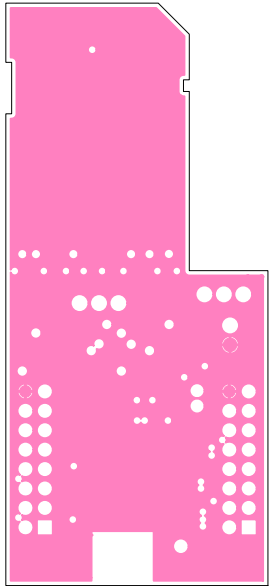


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W66N220
Commerce Court
Cedarburg
WI 53012

DRAWN BY:	PCS	DATE:	7/21/16	TITLE:	Sterling-LWB and LWB5 SD Card Dev. Board		
CHECKED BY:	CMH	DATE:	7/21/16	PROJECT:	Sterling-LWB - COPPER LAYER 2		
APPROVED BY:	JMB	DATE:	7/21/16	SIZE:	A	DRAWING NO:	750-00960
						REV:	1.0
FILENAME:				SCALE: 1 TO 1		SHEET: OF	

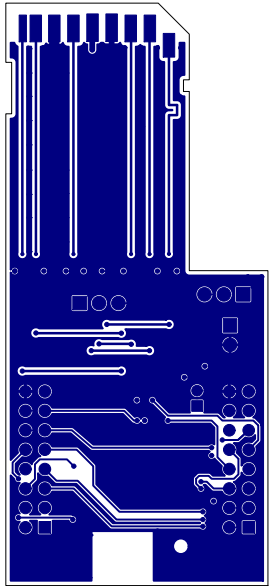


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CHECKED BY:	CMH	DATE:	7/21/16	PROJECT:	Sterling-LWB - COPPER LAYER 3		
APPROVED BY:	JMB	DATE:	7/21/16	SIZE:	A	DRAWING NO:	750-00960
						REV:	1.0
FILENAME:				SCALE: 1 TO 1		SHEET: OF	

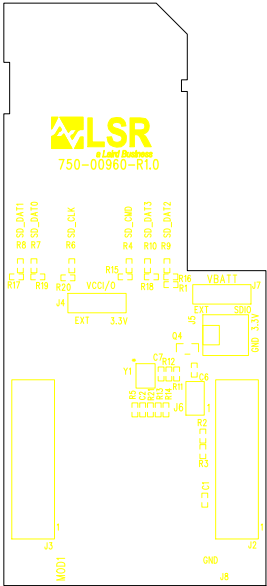


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CHECKED BY:	CMH	DATE:	7/21/16	PROJECT:	Sterling-LWB - COPPER, LAYER 4, BOTTOM		
APPROVED BY:	JMB	DATE:	7/21/16	SIZE:	A	DRAWING NO:	750-00960
						REV:	1.0
FILENAME:				SCALE: 1 TO 1		SHEET: OF	



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DRAWN BY: PCS		DATE: 7/21/16	TITLE: Sterling-LWB and LWB5 SD Card Dev. Board	
CHECKED BY: CMH		DATE: 7/21/16	PROJECT: Sterling-LWB - TOP SILKSCREEN	
APPROVED BY: JMB		DATE: 7/21/16	SIZE: A	DRAWING NO: 750-00960
FILENAME:		SCALE: 1 TO 1	SHEET: OF	REV: 1.0



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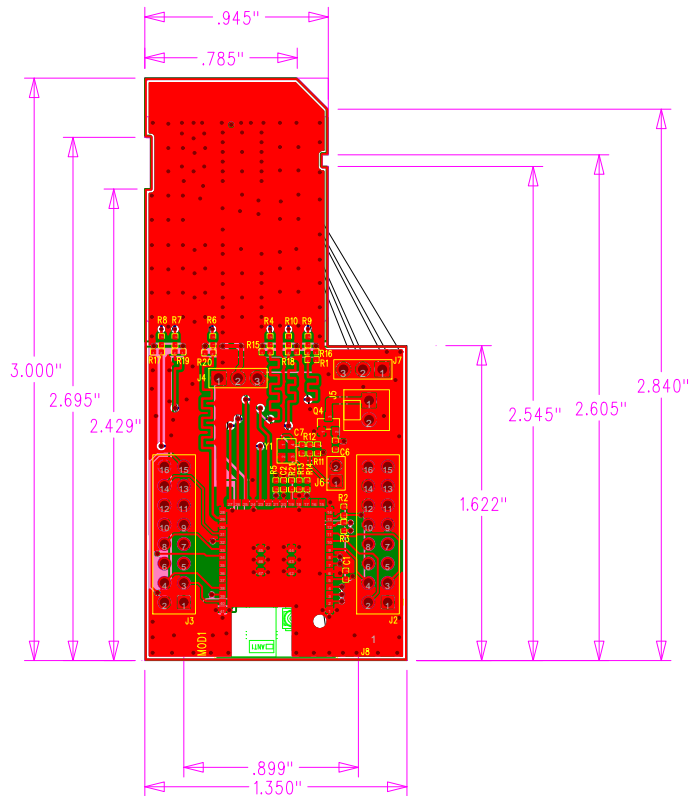


CMD	MYKE BI DEA
BI K12	OM BI REC
M/C	OM MG REC
BI BXD	BCN ONI
BI 1XD	BCN IM
BI C12	2AKC BCN
BCN CGK	MYKE BI HOZ
ADD TO	ACC

СИД	И\С
И\С	И\С
И\С	И\С
СЮЮт	СFK 23KH2
СЮЮ2	ВОО11
СЮЮ2	ВОО10
СЮЮ3	МVKE МГ НО21
СЮЮ1	ACC

15

DRILL CHART



ARTWORK/FABRICATION FILES

TOP - COPPER ROUTING - COPPER1.PHO
LAYER 2 - GND PLANE - COPPER2.PHO
LAYER 3 - POWER PLANE - COPPER3.PHO
BOTTOM - COPPER ROUTING - COPPER4.PHO
TOP SIDE SOLDERMASK - TOPMASK.PHO
BOTTOM SIDE SOLDERMASK - BOTTOMMASK.PHO
TOP SIDE SILK SCREEN - TOPSILK.PHO
TOP SIDE SOLDER PASTE MASK - TOPPASTE.PHO
NC DRILL FILE - NCDRILL.DRL

FABRICATION NOTES:

- BOARD FABRICATION AND QUALITY ACCEPTANCE PER IPC-6012B, CLASS 2. THESE DETAILED NOTES AND INSTRUCTIONS MAY SUPERSEDE IPC REQUIREMENTS.
- ALL BOARD DIMENSIONS IN INCHES. TOLERANCE = ± 0.004 " UNLESS NOTED OTHERWISE.
- MATERIAL - FR-4 GRADE GLASS EPOXY, LEAD-FREE COMPLIANT.
CTE Z-AXIS EXPANSION $\leq 3.5\%$, Td >320 DEG C, Tg >140 DEG C.
MINIMUM FLAMMABILITY RATING UL 94V-0
- HOLE WALL PLATING OF 0.5 MILS MINIMUM FOR BURIED OR BLIND VIAS AND 0.7 MILS MINIMUM FOR THROUGH VIAS.
- FINISH-2-10 μ IN IMMERSION GOLD PLATING OVER 50-200 μ IN ELECTROLESS NICKEL (ENIG).
EVERYWHERE EXCEPT EDGE FINGERS. NO EXPOSED BARE COPPER PERMITTED.
EDGE FINGERS - 30 μ IN MINIMUM HARD GOLD, OVER 100 μ IN MINIMUM NICKEL PLATE, BOTTOM SIDE.
- SOLDER MASK OVER BARE COPPER, LPI, PER IPC-SM-840, REGISTRATION ± 0.003 ", GREEN.
NO COVERAGE ON SOLDER PADS PERMITTED.
- SILK SCREEN BOTH SIDES WITH WHITE EPOXY NON-CONDUCTIVE INK.
SILKSCREEN SHOULD BE TRIMMED OFF ANY SOLDERED ENTITY.
- HOLE SIZE TOLERANCE = ± 0.003 " UNLESS NOTED OTHERWISE.
- HOLE CENTERS AND PAD CENTERS TO BE CONCENTRIC WITHIN 0.003"
- COPPER ADDITION (THIEVING, CROSSHATCH, ETC) IS NOT PERMITTED ON ANY LAYERS UNLESS OTHERWISE SPECIFIED. COPPER ADDITION IN BREAKAWAY AREAS FOR PANEL FORMS IS ACCEPTABLE.
- LAMINATION, STACKUP, COPPER PLATING, AND ETCHING TO BE CLOSELY MONITORED TO ENSURE PRODUCT MEETS DESIGN INTENT. NO CHANGES TO MATERIALS AND/OR GERBER FILES ARE PERMITTED WITHOUT WRITTEN APPROVAL.
- UL DATE/LOGO AND/OR VENDOR INFORMATION CAN BE IN SILKSCREEN NOMENCLATURE WHERE SPACE PERMITS, UNLESS OTHERWISE SPECIFIED. NO ADDITIONAL COPPER, LOGOS, OR TEXT OF ANY KIND IN COPPER LAYERS.

59.2 mil $\pm 10\%$	---	L1: TOP - COPPER 1.4 mil (1 OZ)
	---	DIELECTRIC - FR-4 - 7.5 mil
	---	L2: - COPPER .7 mil (.5 OZ)
	---	DIELECTRIC - FR-4 - 40 mil
	---	L3: - COPPER .7 mil (.5 OZ)
	---	DIELECTRIC - FR-4 - 7.5 mil
	---	L4: BOTTOM - COPPER 1.4 mil (1 OZ)

Note: Material dielectric thickness may need to be adjusted to meet total thickness requirement.

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APPROVED BY:	JMB	DATE:	7/21/16	SIZE:	A	DRAWING NO:	750-00960
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