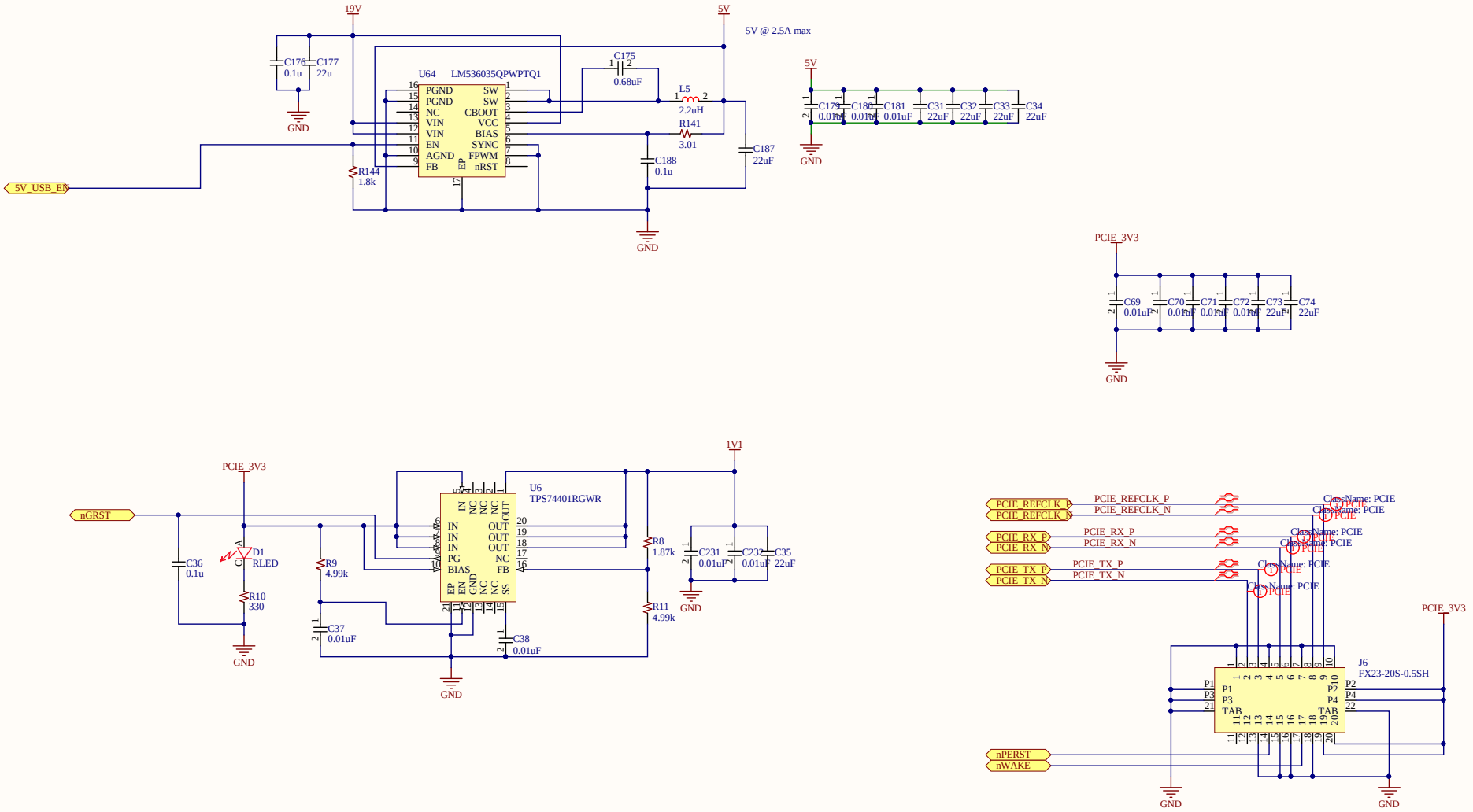

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Date: 9/27/2017	Sheet of	
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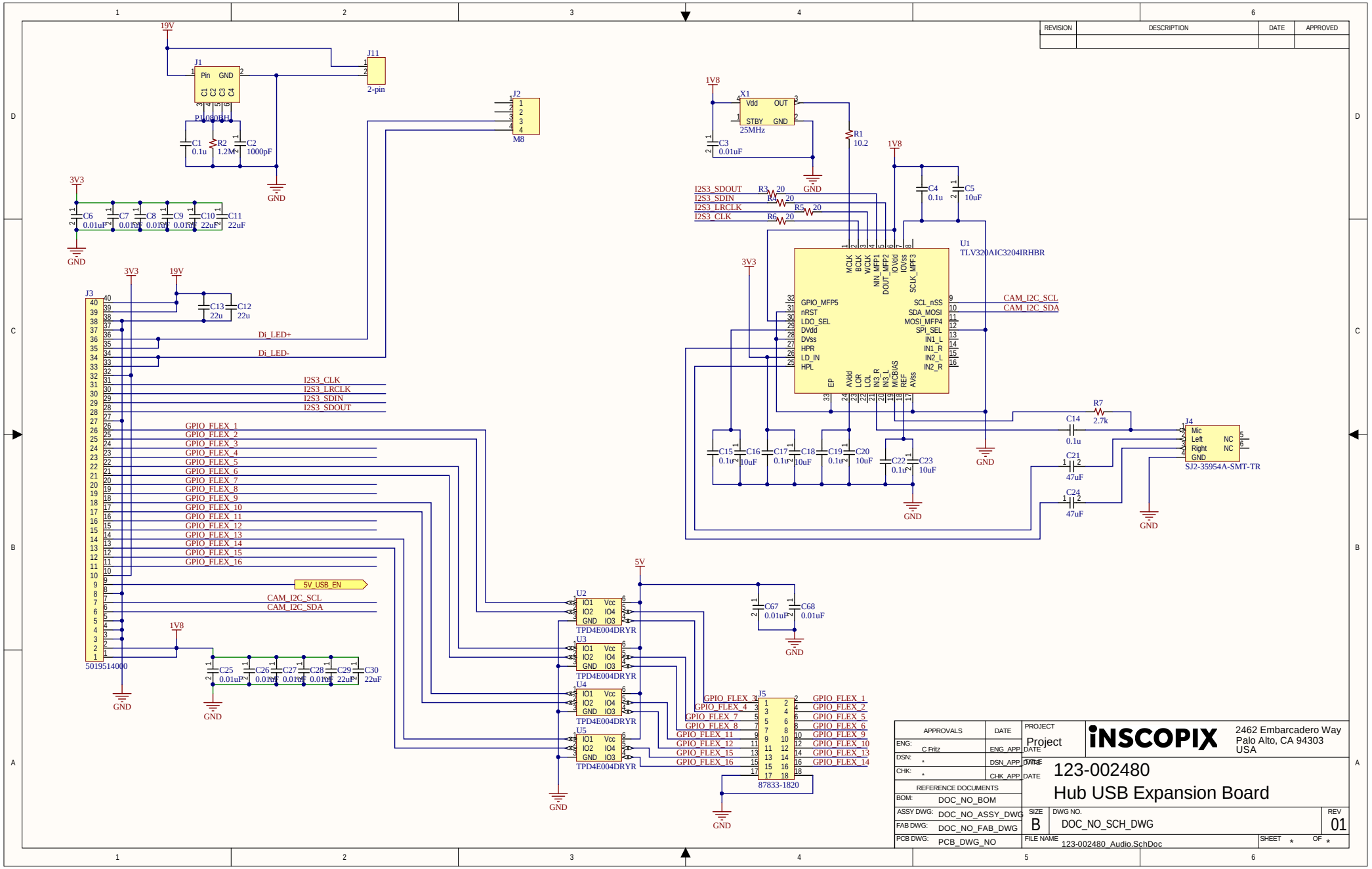
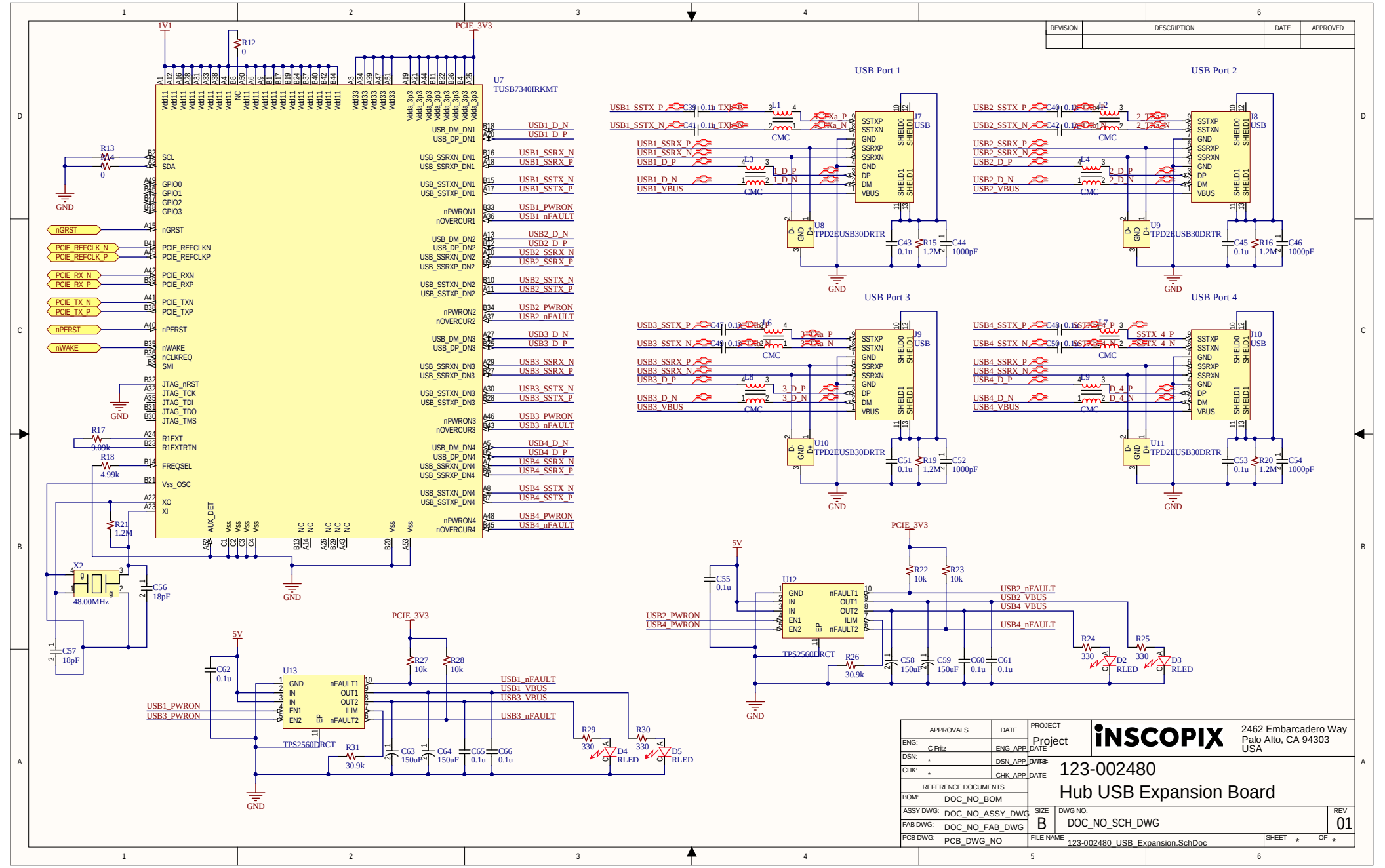

REVISION
DESCRIPTION
DATE
APPROVED
J1
J11
2-pin
J2
M8
J3
5019514000
J4
SJ2-35954A-SMT-TR
J5
87833-1820
U1
TLV320AIC3204IRHBR
U2
U3
U4
U5
TPD4E004DRYR
X1
25MHz
19V
3V3
1V8
5V
GND
I2S3_SDOUT
I2S3_SDIN
I2S3_LRCLK
I2S3_CLK
Di_LED+
Di_LED-
5V_USB_EN
CAM_I2C_SCL
CAM_I2C_SDA
GPIO_FLEX_1
GPIO_FLEX_2
GPIO_FLEX_3
GPIO_FLEX_4
GPIO_FLEX_5
GPIO_FLEX_6
GPIO_FLEX_7
GPIO_FLEX_8
GPIO_FLEX_9
GPIO_FLEX_10
GPIO_FLEX_11
GPIO_FLEX_12
GPIO_FLEX_13
GPIO_FLEX_14
GPIO_FLEX_15
GPIO_FLEX_16
APPROVALS
DATE
ENG: C Fritz
DSN: *
CHK: *
REFERENCE DOCUMENTS
BOM: DOC_NO_BOM
ASSY DWG: DOC_NO_ASSY_DWG
FAB DWG: DOC_NO_FAB_DWG
PCB DWG: PCB_DWG_NO
PROJECT
Project
iNSCOPIX
2462 Embarcadero Way
Palo Alto, CA 94303
USA
123-002480
Hub USB Expansion Board
SIZE
B
DWG NO.
DOC_NO_SCH_DWG
REV
01
FILE NAME
123-002480_Audio.SchDoc
SHEET * OF *


REVISION
DESCRIPTION
DATE
APPROVED
USB Port 1
USB Port 2
USB Port 3
USB Port 4
U7
TUSB7340IRKMT
U8
TPD2EUSB30DRTR
U9
TPD2EUSB30DRTR
U10
TPD2EUSB30DRTR
U11
TPD2EUSB30DRTR
U12
TPS2560DRCT
U13
TPS2560DRCT
1V1
PCIE_3V3
5V
GND
48.00MHz
APPROVALS
DATE
ENG: C Fritz
DSN: *
CHK: *
REFERENCE DOCUMENTS
BOM: DOC_NO_BOM
ASSY DWG: DOC_NO_ASSY_DWG
FAB DWG: DOC_NO_FAB_DWG
PCB DWG: PCB_DWG_NO
PROJECT
Project
iNSCOPIX
2462 Embarcadero Way
Palo Alto, CA 94303
USA
123-002480
Hub USB Expansion Board
SIZE
B
DWG NO.
DOC_NO_SCH_DWG
REV
01
FILE NAME
123-002480_USB_Expansion.SchDoc
SHEET * OF *

NOTES:		
1	SPECIFICATIONS	
	1.1	FABRICATE PER ANSI/IPC-ML-950 CLASS 2 (GENERAL INDUSTRY)
	1.2	INSCOPIX MUST BE ADVISED IN WRITING IN ADVANCE OF MANUFACTURING OF ANY CHANGES, REVISIONS, OR CORRECTIONS MADE OR RECOMMENDATIONS TO ENSURE CONFORMANCE TO INSCOPIX STANDARDS
	1.3	THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE PROVIDED GERBER AND DRILL DATA WHEN APPLICABLE
	1.4	ALL NOTES ARE UNLESS OTHERWISE SPECIFIED
2	MATERIAL	
	2.1	NEMA GRADE FR-4/EPOXY CLASS, FOIL LAMINATION STRUCTURE FOR CORE AND COPPER THICKNESS; TYPE GFN, IAW MIL-P-13949/4,11
	2.2	SEE CROSS SECTION FOR CU FOIL WEIGHTS
	2.3	LAMINATE AND MOLDED PREPREG DIELECTRIC CONSTANTS SHALL BE 4.3 +/- 0.3 AT 1.0 MHZ
	2.4	COLOR TO BE OPAQUE
	2.5	TG TO BE 170 C OR BETTER
3	SOLDERMASK	
	3.1	SOLDER MASK PER IPC-SM-840 CLASS 2 BOTH SIDES WITH (GREEN COLOR) LIQUID PHOTO IMAGEABLE SOLDERMASK
	3.2	SOLDERMASK OVER BARE COPPER
4	DRILLING	
	4.1	ALL HOLES FINISHED SIZE AS SHOWN
	4.2	ALL HOLES TO BE +/- 0.08 MM FROM TRUE POSITION UNLESS OTHERWISE SPECIFIED
	4.3	ALL HOLE DIAMETERS TO BE +/- 0.08 MM UNLESS OTHERWISE SPECIFIED
	4.4	AN NC DRILL FILE HAS BEEN SUPPLIED - SEE HOLE SIZE TABLE
5	FINISH	
		PLATE HOLES THRU WITH COPPER 0.025 MM MIN TO 0.05 MM MAX THICKNESS DRILL SIZE DIMENSIONS APPLY AFTER PLATING
		FINAL FINISH: ELECTROLESS NIKKEL IMMERSION GOLD (ENIG), 100 MICRO INCHES NICKEL MINIMUM, 2 TO 8 MICRO INCHES GOLD, NO METALIC CO-DEPOSITS
6	SILKSCREEN	
	6.1	SILKSCREEN USING WHITE NON-CONDUCTIVE EPOXY OR EQUIVALENT (BOTH SIDES)
	6.2	NO SILKSCREEN ALLOWED ON EXPOSED LANDS OR IN HOLES
	6.3	REGISTRATION TO BE +/- 0.1 MM AND MUST PASS PEEL TEST
7	ELECTRICAL TEST	
	7.1	ALL BOARDS SHALL BE 100% ELECTRICALLY TESTED BY FABRICATOR FOR TRACE CONTINUITY AND PROOF AGAINST TRACE SHORTS.
	7.2	APPLY TEST STAMP IN NON-LEGEND AREA ON SOLDER SIDE OF PCB
	7.3	CERTIFICATION REQUIRED
8	CLEANLINESS	
	8.1	BOARDS SHALL BE FREE OF FIBER GLASS DUST OR ANY OTHER FOREIGN MATERIAL
	8.2	FINISHED BOARDS MUST CONFORM TO 0.01 MG/IN MAX NaCL IONIC CONTAMINATION AS MEASURED BY THE OMEGA METER 600SMD
9	PACKAGING	
	91	THERE SHALL BE A MAXIMUM OF 25 UNITS PER PACKAGE INDIVIDUALLY WRAPPED AND SHIPPED IN CARDBOARD CARTONS WITH SUFFICIENT SURROUNDING MATERIAL TO PREVENT DAMAGE
10	BOW AND TWIST	
	10.1	BOW AND TWIST TO BE 0.007 IN/IN OR 0.090 MAX ACCORDING TO IPC-A-600D
11	INSPECTION	
	11.1	AUTOMATIC OPTICAL INSPECTION OF ALL LAYERS REQUIRED
	11.2	A MICROSECTION EXHIBITING ALL LAYERS IS REQUIRED WITH EACH LOT/DATE CODE
	11.3	A CERTIFICATION OF COMPLIANCE IS REQUIRED WITH EACH SHIPMENT
12	UL RATING	
	12.1	FINISHED BOARD INCLUDING ANY SOLDERMASK OR LEGENDS SHALL HAVE A UL FLAMMABILITY RATING OF 94V-D
	12.2	DATE CODE AND MANUFACTURERS UL SYMBOL/TYPE SHALL BE PERMANENTLY MARKED OR ETCHED SOMEWHERE ON THE BOARD
13	IMPEDANCE	
	13.1	ANY DEVIATION FROM THE STACKUP MUST HAVE INSCOPIX APPROVAL