

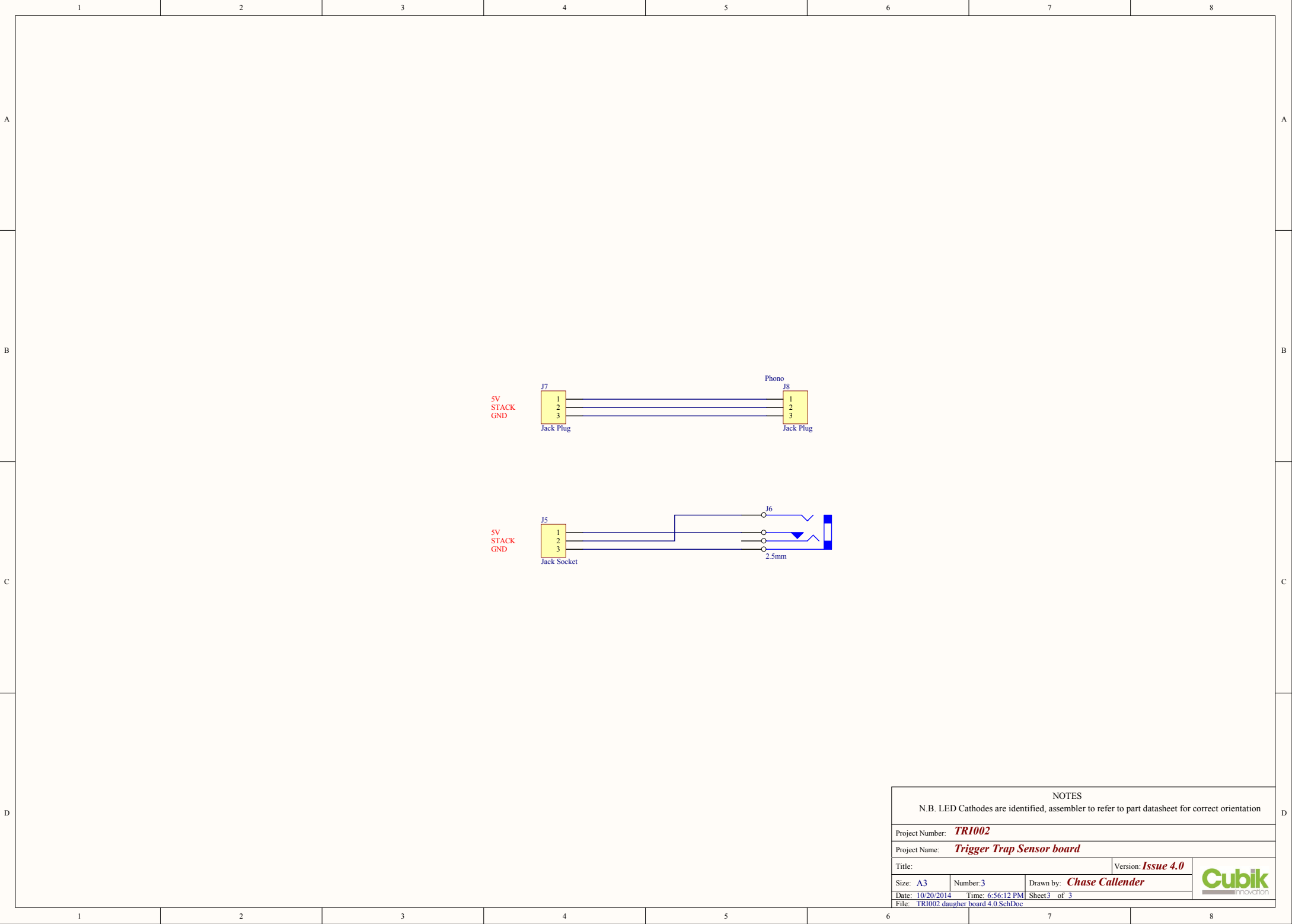
Project Name	Trigger Trap Sensor board
Project Number	TRI002
Project File Name	TRI002 sensor board Issue 4.0.PrjPCB
Project Full Path	G:\Active\Projects\TRI002\TRI002-SensorBoard\Issue 4.0\TRI002 sens
Variant Name	None

Schematic	
Schematic drawn by	Chase Callender
Schematic/BOM Version	Issue 4.0


PCB	
PCB drawn by	Paul Mullen
PCB Name	Sensor board
PCB Version	Issue 4.0

Report Date & Time	10/20/2014 6:56:05 PM
Print Date:	20-Oct-14
Print Time:	6:56:08 PM

	1	2	3	4	5	6	7	8
A	PCB CHECKLIST							
	Test rig fixing holes	NA						
	BOARD MARKER	NA						
	TRACE LABEL							
B	FIDUCIALS							
	PCB THICKNESS [x] mm	1.6mm						
	PCB DIMENSIONS [x] mm X [x] mm	sensor_MASTER_ASSY_check02_14feb_DRG						
	SCOPE GROUND POINT [NET]							
C	ENCLOSURE	NA						
	Mounting holes	Plastic pegs x 2 on main PCB 1 x screw hole on sensor						
	PCB Clearances	NA						
	PCB outline ref doc	sensor_MASTER_ASSY_check02_14feb_DRG						
D	Logo on silkscreen	NA						
	Non PCB Parts	<div><div>Laser Mech1</div><div>BLACK POT SHAFT Mech2</div></div>						
	1	2	3	4	5	6	7	8

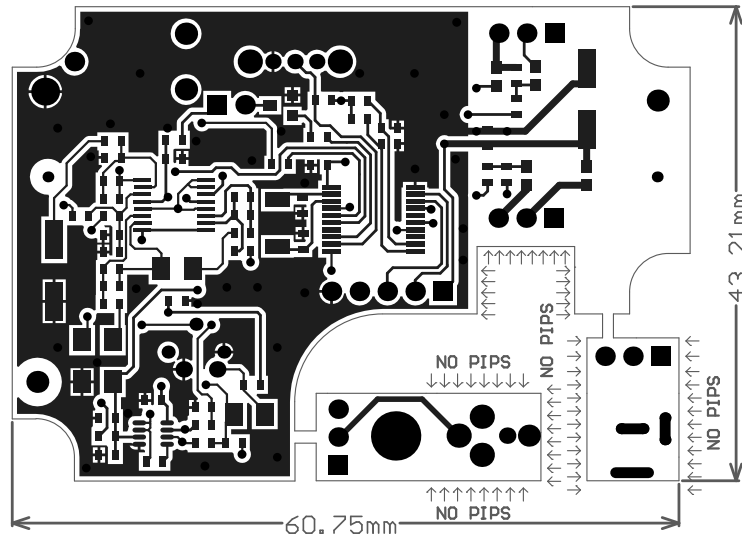


NOTES			
N.B. LED Cathodes are identified, assembler to refer to part datasheet for correct orientation			
Project Number:		TRI002	
Project Name:		Trigger Trap Sensor board	
Title:		Version:	Issue 4.0
Size: A3	Number: 3	Drawn by: Chase Callender	
Date: 10/20/2014	Time: 6:56:12 PM	Sheet 3 of 3	
File: TRI002 daughter board 4.0 SchDoc			





[No Variations]



Manufacturing Notes

Finished Board Thickness 1.6mm
Board to be FR4 Material
Board is 2 layer
Double sided resist in GREEN
2 Idents
Copper weight to be 1 oz finished
All Holes PTH
Please ignore all items outside MECH 1
Finish HASL Lead Free

Build notes

LED Cathodes are identified, assembler to refer to part datasheet for correct orientation.

Layout by:

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Email: paul.mullen@cubik-innovation.co.uk

Layer

Mechanical 1 Multi-Layer
Mechanical 2
Top Layer

Drawn by

Paul Mullen

Date

20/10/2014

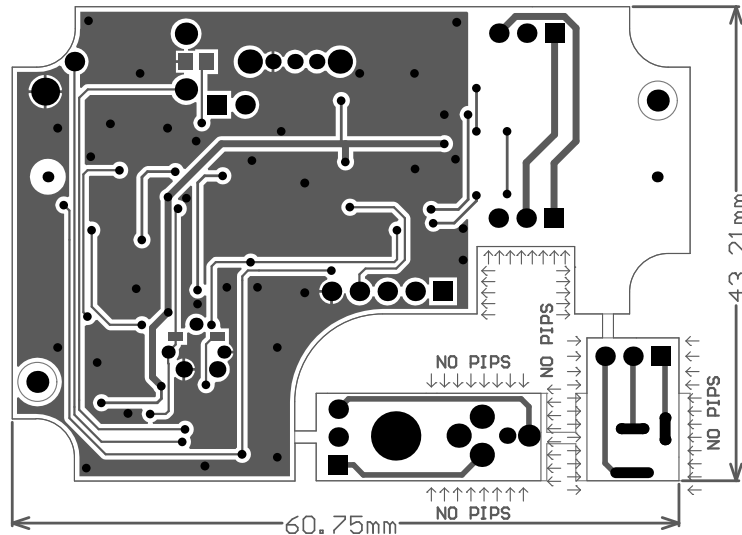
Issue

Issue 4.0

Document Name

TRI002_Sensor_issue 4.0.PcbDoc

[No Variations]



Manufacturing Notes

Finished Board Thickness 1.6mm
Board to be FR4 Material
Board is 2 layer
Double sided resist in GREEN
2 Idents
Copper weight to be 1 oz finished
All Holes PTH
Please ignore all items outside MECH 1
Finish HASL Lead Free

Build notes

LED Cathodes are identified, assembler to refer to part datasheet for correct orientation.

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Layer

Mechanical 1
Mechanical 2

Keep-Out Layer

Bottom Layer

Drawn by

Paul Mullen

Date

20/10/2014

Issue

Issue 4.0

Document Name

TRI002_Sensor_issue 4.0.PcbDoc

Finished Board Thickness 1.6mm
Board to be FR4 Material
Board is 2 layer
Double sided resist in GREEN
2 Idents
Copper weight to be 1 oz finished
All Holes PTH
Please ignore all items outside MECH 1
Finish HASL Lead Free

LED Cathodes are identified, assembler to refer to part datasheet for correct orientation.

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Mechanical 1
Mechanical 2
Top Overlay

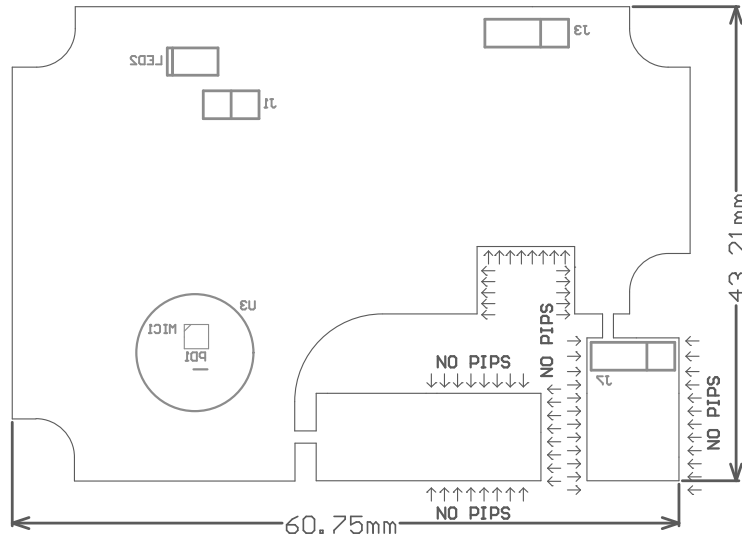
Paul Mullen

20/10/2014

Issue 4.0

TRI002_Sensor_issue 4.0.PcbDoc

[No Variations]



Manufacturing Notes

Finished Board Thickness 1.6mm
Board to be FR4 Material
Board is 2 layer
Double sided resist in GREEN
2 Idents
Copper weight to be 1 oz finished
All Holes PTH
Please ignore all items outside MECH 1
Finish HASL Lead Free

Build notes

LED Cathodes are identified, assembler to refer to part datasheet for correct orientation.

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Layer

Mechanical 1
Mechanical 2

Bottom Overlay

Drawn by

Paul Mullen

Date

20/10/2014

Issue

Issue 4.0

Document Name

TRI002_Sensor_issue 4.0.PcbDoc

Project TRI002

Variant: LASER Variant of TRI002 sensor board Issue 4.0

Creation I 10/20/2014 6:56:22 PM

Print Date 20-Oct-14 6:56:42 PM

BOM V Issue 4.0

Designator	Fitted	Value	Voltage	Footprint	Quantity	Supplier	Part No.	Qty to Ord	Manufacturer	Manuf Part #
C1, C2, C15, C16, C22	Fitted	10nF	50V	C0603	5	Rapid	71-1964		MULTICOMP	MCCA000238
C11, C20	Fitted	18pF	50V	C0603	2	FEC	1414620		KEMET	C0603C180J5GAC
C13, C17, C18, C19	Fitted	100nF	16V	C0603	4	Rapid	71-1974		TruCap	B0603R104
C14	Fitted	47uF	16V	CAP6.8/6.8	1	FEC	8823200		NICHICON	UUT1C470MCL1GS
C21	Fitted	NF		C0603	1					
C8	Fitted	10uF	16V	CASE_A	1	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3
J2	Fitted	ICP		ICP	1	Rapid	22-0510		TruConnect	22-0510
J4	Fitted			3 way sip RA	1					
J5	Fitted			SIP3	1					
J6	Fitted	2.5mm		2.5mm socket TRI001	1	FEC	1280745		PRO SIGNAL	PSG01539
J8	Fitted	Phono		DC_JACK_PCB_MOUNT	1	Rapid	50-1493		BKL	1107002 EAN-13: 2050000222993
L1, L2, L3, L4	Fitted	BLM18EG221TN1D		L0603	4	FEC	1515717		MURATA	BLM18EG221TN1D
LED2	Fitted	MCL-S270GC		LED, GREEN, 0805	1	FEC	1581242		MULTICOMP	MCL-S270GC
Mech1	Fitted	Laser		NON PCB PART	1	http://www.aliexpress.com/item/100pcs-mini-650nm-5mW-3V-Laser-Dot-650nm 5mW 3V Laser Dot Diode			NA	NA

Mech1	Fitted	Laser		NON PCB PART	1	ess.com/item/100-pcs-mini-650nm-5mW-3V-Laser-Diode-Module-Head-WL-Red/896433799.html	650nm 5mW 3V Laser Dot Diode Module Head WL Red		NA	NA	
Mech2	Fitted	BLACK POT SHAFT		NON PCB PART	1	Rapid	67-0480		Iskra	88 131 387	
PD1	Fitted	VEMD2520X01		DOME LENS	1		1870779		VISHAY	VEMD2520X01	
Q1	Fitted	FDN335N		SOT-23	1	FEC	9845348RL		FAIRCHILD SEMICONDUCTOR	FDN335N	
R1, R15, R16, R21	Fitted	1K		R0603	4						
R17	Fitted	PNZ10ZA 1M		preset_Iskra square	1	Rapid	67-0478		Iskra	PNZ10ZA 1M	
R19, R22, R31	Fitted	10k		R0603	3						
R20, R26, R27	Fitted	220R		R0603	3						
R30	Fitted	56R		R0603	1						
R33	Fitted	100k		R0603	1						
R8, R10	Fitted	1M		R0603	2						
S2	Fitted	MFP113D		MFP113D	1	RS	702-3634		KNITTER-SWITCH	MFP113D	
U1	Fitted	TSV6292AILT		SOT23 8 pin	1	FEC	2067873		STMICROELECTRONICS	TSV6292AILT	
U4	Fitted	PIC16F527-I/SS	5V	SSOP20	1	FEC	2301100		MICROCHIP	PIC16F527-I/SS	
X1	Fitted	ABM3-16.000MHZ-B2-T		ABS10	1	FEC	1611806		ABRACON	ABM3-16.000MHZ-B2-T	
C10	Not Fitted	47uF	16V	CAP6.8/6.8	0	FEC	8823200		NICHICON	UUT1C470MCL1GS	
C3, C9	Not Fitted	10nF	50V	C0603	0	Rapid	71-1964		MULTICOMP	MCCA000238	
C4, C5	Not Fitted	47nF	16V	C0603	0	FEC	432027		YAGEO	CC0603KRX7R7BB473	
C6, C12	Not Fitted	10uF	16V	CASE_A	0	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3	
C7	Not Fitted	4.7uF	16V	CASE_A	0	FEC	1754181		VISHAY SPRAGUE	293D475X9016A2TE3	
J1	Not Fitted	SIP 2		SIP2	0						
J3, J7	Not Fitted	NF		sip3	0						
MIC1	Not Fitted	AOM-4542P-R		ECM	0	FEC	1193029		PROJECTS UNLIMITED	AOM-4542P-R	
R12	Not Fitted	15k		R0603	0						
R23, R24, R25	Not Fitted	1k		R0603	0						

		R							UNLIMITED		
R12	Not Fitted	15k		R0603	0						
R23, R24, R29	Not Fitted	1k		R0603	0						
R28	Not Fitted	18k		R0603	0						
R32	Not Fitted	100k		R0603	0						
R5, R13	Not Fitted	47K		R0603	0						
R6	Not Fitted	1M		R0603	0						
R7	Not Fitted	680K		R0603	0						
R9, R11, R18	Not Fitted	10k		R0603	0						
U2	Not Fitted	TSV6295IPT		TSSOP16	0	FEC	1842580		STMICROE LECTRONI CS	TSV6295IPT	
U3	Not Fitted	PIR	2V - 12V	PIR_TO-5	0	FEC	2293504		EXCELITA S TECH	LHI_968	



- Electronic Design
- Prototype
- Production

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Project	TRI002										
Variant:	PIR Variant of TRI002 sensor board Issue 4.0										
Creation	10/20/2014		6:57:04 PM								
Print Date	20-Oct-14		6:58:02 PM								
BOM Version	Issue 4.0										
Designator	Fitted	Value	Voltage	Footprint	Quantity	Supplier	Part No.	Qty to Ord	Manufacturer	Manufacturer Part #	
C1, C2, C3, C9, C15, C16, C22	Fitted	10nF	50V	C0603	7	Rapid	71-1964		MULTICOMP	MCCA000238	
C10, C14	Fitted	47uF	16V	CAP6.8/6.8	2	FEC	8823200		NICHICON	UUT1C470MCL1GS	
C13, C17, C18, C19	Fitted	100nF	16V	C0603	4	Rapid	71-1974		TruCap	B0603R104	
C4, C5	Fitted	47nF	16V	C0603	2	FEC	432027		YAGEO	CC0603KRX7R7BB473	
C6, C8	Fitted	10uF	16V	CASE_A	2	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3	
C7	Fitted	4.7uF	16V	CASE_A	1	FEC	1754181		VISHAY SPRAGUE	293D475X9016A2TE3	
J2	Fitted	ICP		ICP	1	Rapid	22-0510		TruConnect	22-0510	
J4	Fitted			3 way sip RA	1						
J5	Fitted			SIP3	1						
J6	Fitted	2.5mm		2.5mm socket TRI001	1	FEC	1280745		PRO SIGNAL	PSG01539	
J8	Fitted	Phono		DC_JACK_PCB_MOUNT	1	Rapid	50-1493		BKL	1107002 EAN-13: 2050000222993	
L1, L2, L3, L4	Fitted	BLM18EG221TN1D		L0603	4	FEC	1515717		MURATA	BLM18EG221TN1D	
LED2	Fitted	MCL-S270GC		LED, GREEN, 0805	1	FEC	1581242		MULTICOMP	MCL-S270GC	
R12	Fitted	15k		R0603	1						
R20, R26,	Fitted	220R		R0603	3						

	Fitted	MSE 027000		REL, CRLE4, 0000	1	FEC	1001242		P	MSE 027000	
R12	Fitted	15k		R0603	1						
R20, R26, R27	Fitted	220R		R0603	3						
R23, R24, R29	Fitted	1k		R0603	3						
R28	Fitted	18k		R0603	1						
R32	Fitted	100k		R0603	1						
R5, R13	Fitted	47K		R0603	2						
R6, R8, R10	Fitted	1M		R0603	3						
R7	Fitted	680K		R0603	1						
R9, R11	Fitted	10k		R0603	2						
U2	Fitted	TSV6295IPT		TSSOP16	1	FEC	1842580		STMICROELECTRONICS	TSV6295IPT	
U3	Fitted	PIR	2V - 12V	PIR_TO-5	1	FEC	2293504		EXCELITAS TECH	LHI_968	
U4	Fitted	PIC16F527-I/SS	5V	SSOP20	1	FEC	2301100		MICROCHIP	PIC16F527-I/SS	
C11, C20	Not Fitted	18pF	50V	C0603	0	FEC	1414620		KEMET	C0603C180J5GAC	
C12	Not Fitted	10uF	16V	CASE_A	0	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3	
C21	Not Fitted	N/F		C0603	0						
J1	Not Fitted	SIP 2		SIP2	0						
J3, J7	Not Fitted	N/F		sip3	0						
Mech1	Not Fitted	Laser		NON PCB PART	0	http://www.aliexpress.com/item/100pcs-mini-650nm-5mW-3V-Laser-Dot-Diode-Module-Head-WL-Red/896433799.html			NA	NA	
Mech2	Not Fitted	BLACK POT SHAFT		NON PCB PART	0	Rapid	67-0480		Iskra	88 131 387	
MIC1	Not Fitted	AOM-4542P-R		ECM	0	FEC	1193029		PROJECTS UNLIMITED	AOM-4542P-R	
PD1	Not Fitted	VEMD2520X01		DOME LENS	0		1870779		VISHAY	VEMD2520X01	
Q1	Not Fitted	FDN335N		SOT-23	0	FEC	9845348RL		FAIRCHILD SEMICONDUCTOR	FDN335N	
R1, R15, R16, R21	Not Fitted	1K		R0603	0						
R17	Not Fitted	PNZ10ZA 1M		preset_Iskra square	0	Rapid	67-0478		Iskra	PNZ10ZA 1M	
R18, R19, R22, R31	Not Fitted	10k		R0603	0						
R30	Not Fitted	56R		R0603	0						

R18, R19, R22, R31	Not Fitted	10k		R0603	0						
R30	Not Fitted	56R		R0603	0						
R33	Not Fitted	100k		R0603	0						
S2	Not Fitted	MFP113D		MFP113D	0	RS	702-3634		KNITTER-SWITCH	MFP113D	
U1	Not Fitted	TSV6292AILT		SOT23 8 pin	0	FEC	2067873		STMICROELECTRONICS	TSV6292AILT	
X1	Not Fitted	ABM3-16.000MHZ-B2-T		ABS10	0	FEC	1611806		ABRACON	ABM3-16.000MHZ-B2-T	



- Electronic Design
- Prototype
- Production

Bristol & Bath Science Park
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Project TRI002

Variant: SOUND Variant of TRI002 sensor board Issue 4.0

Creation I 10/20/2014 6:58:24 PM

Print Date 20-Oct-14 6:59:22 PM

BOM V Issue 4.0

Designat or	Fitted	Value	Voltage	Footprint	Quantity	Supplier	Part No.	Qty to Ord	Manufactu	Manuf Part #
C1, C2, C15, C16, C22	Fitted	10nF	50V	C0603	5	Rapid	71-1964		MULTICOM P	MCCA000238
C13, C17, C18, C19	Fitted	100nF	16V	C0603	4	Rapid	71-1974		TruCap	B0603R104
C14	Fitted	47uF	16V	CAP6.8/6.8	1	FEC	8823200		NICHICON	UUT1C470MCL 1GS
C21	Fitted	NF		C0603	1					
C8, C12	Fitted	10uF	16V	CASE_A	2	FEC	1754182		VISHAY SPRAGUE	293D106X901 6A2TE3
J2	Fitted	ICP		ICP	1	Rapid	22-0510		TruConnec t	22-0510
J4	Fitted			3 way sip RA	1					
J5	Fitted			SIP3	1					
J6	Fitted	2.5mm		2.5mm socket TRI001	1	FEC	1280745		PRO SIGNAL	PSG01539
J8	Fitted	Phono		DC_JACK_PCB_MOU NT	1	Rapid	50-1493		BKL	1107002 EAN- 13: 205000022299 3
L1, L2, L3, L4	Fitted	BLM18EG221 TN1D		L0603	4	FEC	1515717		MURATA	BLM18EG221T N1D
LED2	Fitted	MCL-S270GC		LED, GREEN, 0805	1	FEC	1581242		MULTICOM P	MCL-S270GC
Mech2	Fitted	BLACK POT SHAFT		NON PCB PART	1	Rapid	67-0480		Iskra	88 131 387
MIC1	Fitted	AOM-4542P- R		ECM	1	FEC	1193029		PROJECTS UNLIMITED	AOM-4542P-R
R1, R16, R23	Fitted	1K		R0603	3					

MIC1	Fitted	R		ECM	1	FEC	1193029		UNLIMITED	AOM-4542P-R	
R1, R16, R23	Fitted	1K		R0603	3						
R17	Fitted	PNZ10ZA 1M		preset_Iskra square	1	Rapid	67-0478		Iskra	PNZ10ZA 1M	
R18, R22, R31	Fitted	10k		R0603	3						
R20, R26, R27	Fitted	220R		R0603	3						
R33	Fitted	100k		R0603	1						
R8, R10	Fitted	1M		R0603	2						
U1	Fitted	TSV6292AILT		SOT23 8 pin	1	FEC	2067873		STMICROELECTRONICS	TSV6292AILT	
U4	Fitted	PIC16F527-I/SS	5V	SSOP20	1	FEC	2301100		MICROCHIP	PIC16F527-I/SS	
C10	Not Fitted	47uF	16V	CAP6.8/6.8	0	FEC	8823200		NICHICON	UUT1C470MCL1GS	
C11, C20	Not Fitted	18pF	50V	C0603	0	FEC	1414620		KEMET	C0603C180J5GAC	
C3, C9	Not Fitted	10nF	50V	C0603	0	Rapid	71-1964		MULTICOMP	MCCA000238	
C4, C5	Not Fitted	47nF	16V	C0603	0	FEC	432027		YAGEO	CC0603KRX7R7BB473	
C6	Not Fitted	10uF	16V	CASE_A	0	FEC	1754182		VISHAYSPRAGUE	293D106X9016A2TE3	
C7	Not Fitted	4.7uF	16V	CASE_A	0	FEC	1754181		VISHAYSPRAGUE	293D475X9016A2TE3	
J1	Not Fitted	SIP 2		SIP2	0						
J3, J7	Not Fitted	N/F		sip3	0						
Mech1	Not Fitted	Laser		NON PCB PART	0	http://www.aliexpress.com/item/100pcs-mini-650nm-5mW-3V-Laser-Dot-Diode-Module-Head-WL-Red/896433799.html		650nm 5mW 3V Laser Dot Diode Module Head WL Red	NA	NA	
PD1	Not Fitted	VEMD2520X01		DOME LENS	0		1870779		VISHAY	VEMD2520X01	
Q1	Not Fitted	FDN335N		SOT-23	0	FEC	9845348RL		FAIRCHILD SEMICONDUCTOR	FDN335N	
R12	Not Fitted	15k		R0603	0						
R15, R21, R24, R29	Not Fitted	1k		R0603	0						
R28	Not Fitted	18k		R0603	0						
R30	Not Fitted	56R		R0603	0						
R32	Not Fitted	100k		R0603	0						
R5, R13	Not Fitted	47K		R0603	0						
R3	Not Fitted	1M		R0603	0						

R32	Not Fitted	100k		R0603	0						
R5, R13	Not Fitted	47K		R0603	0						
R6	Not Fitted	1M		R0603	0						
R7	Not Fitted	680K		R0603	0						
R9, R11, R19	Not Fitted	10k		R0603	0						
S2	Not Fitted	MFP113D		MFP113D	0	RS	702-3634		KNITTER-SWITCH	MFP113D	
U2	Not Fitted	TSV6295IPT		TSSOP16	0	FEC	1842580		STMICROELECTRONICS	TSV6295IPT	
U3	Not Fitted	PIR	2V - 12V	PIR_TO-5	0	FEC	2293504		EXCELITAS TECH	LHI_968	
X1	Not Fitted	ABM3-16.000MHZ-B2-T		ABS10	0	FEC	1611806		ABRACON	ABM3-16.000MHZ-B2-T	

Project	TRI002									
Variant:	LIGHT Variant of TRI002 sensor board Issue 4.0									
Creation	10/20/2014		6:59:44 PM							
Print Date	20-Oct-14		7:00:42 PM							
BOM Version	Issue 4.0									
Designator	Fitted	Value	Voltage	Footprint	Quantity	Supplier	Part No.	Qty to Ord	Manufacturer	Manuf Part #
C1, C2, C15, C16, C22	Fitted	10nF	50V	C0603	5	Rapid	71-1964		MULTICOMP	MCCA000238
C13, C17, C18, C19	Fitted	100nF	16V	C0603	4	Rapid	71-1974		TruCap	B0603R104
C14	Fitted	47uF	16V	CAP6.8/6.8	1	FEC	8823200		NICHICON	UUT1C470MCL1GS
C21	Fitted	NF		C0603	1					
C8	Fitted	10uF	16V	CASE_A	1	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3
J2	Fitted	ICP		ICP	1	Rapid	22-0510		TruConnect	22-0510
J4	Fitted			3 way sip RA	1					
J5	Fitted			SIP3	1					
J6	Fitted	2.5mm		2.5mm socket TRI001	1	FEC	1280745		PRO SIGNAL	PSG01539
J8	Fitted	Phono		DC_JACK_PCB_MOUNT	1	Rapid	50-1493		BKL	1107002 EAN-13: 2050000222993
L1, L2, L3, L4	Fitted	BLM18EG221TN1D		L0603	4	FEC	1515717		MURATA	BLM18EG221TN1D
LED2	Fitted	MCL-S270GC		LED, GREEN, 0805	1	FEC	1581242		MULTICOMP	MCL-S270GC
Mech2	Fitted	BLACK POT SHAFT		NON PCB PART	1	Rapid	67-0480		Iskra	88 131 387
PD1	Fitted	VEMD2520X01		DOME LENS	1		1870779		VISHAY	VEMD2520X01
R1, R15, R24	Fitted	1K		R0603	3					

	Fitted	1		OME LENS	1		1870779		VISHAY	VEMD2520X01	
R1, R15, R24	Fitted	1K		R0603	3						
R17	Fitted	PNZ10ZA 1M		preset_Iskra square	1	Rapid	67-0478		Iskra	PNZ10ZA 1M	
R19, R22, R31	Fitted	10k		R0603	3						
R20, R26, R27	Fitted	220R		R0603	3						
R33	Fitted	100k		R0603	1						
R8, R10	Fitted	1M		R0603	2						
S2	Fitted	MFP113D		MFP113D	1	RS	702-3634		KNITTER-SWITCH	MFP113D	
U1	Fitted	TSV6292AILT		SOT23 8 pin	1	FEC	2067873		STMICROELECTRONICS	TSV6292AILT	
U4	Fitted	PIC16F527-I/SS	5V	SSOP20	1	FEC	2301100		MICROCHIP	PIC16F527-I/SS	
C10	Not Fitted	47uF	16V	CAP6.8/6.8	0	FEC	8823200		NICHICON	UUT1C470MCL1GS	
C11, C20	Not Fitted	18pF	50V	C0603	0	FEC	1414620		KEMET	C0603C180J5GAC	
C3, C9	Not Fitted	10nF	50V	C0603	0	Rapid	71-1964		MULTICOMP	MCCA000238	
C4, C5	Not Fitted	47nF	16V	C0603	0	FEC	432027		YAGEO	CC0603KRX7R7BB473	
C6, C12	Not Fitted	10uF	16V	CASE_A	0	FEC	1754182		VISHAY SPRAGUE	293D106X9016A2TE3	
C7	Not Fitted	4.7uF	16V	CASE_A	0	FEC	1754181		VISHAY SPRAGUE	293D475X9016A2TE3	
J1	Not Fitted	SIP 2		SIP2	0						
J3, J7	Not Fitted	NF		sip3	0						
Mech1	Not Fitted	Laser		NON PCB PART	0	http://www.aliexpress.com/item/100pcs-mini-650nm-5mW-3V-Laser-Dot-Diode-Module-Head-WL-Red/896433799.html			NA	NA	
MIC1	Not Fitted	AOM-4542P-R		ECM	0	FEC	1193029		PROJECTS UNLIMITED	AOM-4542P-R	
Q1	Not Fitted	FDN335N		SOT-23	0	FEC	9845348RL		FAIRCHILD SEMICONDUCTOR	FDN335N	
R12	Not Fitted	15k		R0603	0						
R16, R21, R23, R29	Not Fitted	1k		R0603	0						
R28	Not Fitted	18k		R0603	0						
R30	Not Fitted	56R		R0603	0						
R32	Not Fitted	100k		R0603	0						

R28	Not Fitted	18k		R0603	0						
R30	Not Fitted	56R		R0603	0						
R32	Not Fitted	100k		R0603	0						
R5, R13	Not Fitted	47K		R0603	0						
R6	Not Fitted	1M		R0603	0						
R7	Not Fitted	680K		R0603	0						
R9, R11, R18	Not Fitted	10k		R0603	0						
U2	Not Fitted	TSV6295IPT		TSSOP16	0	FEC	1842580		STMICROE LECTRONI CS	TSV6295IPT	
U3	Not Fitted	PIR	2V - 12V	PIR_TO-5	0	FEC	2293504		EXCELITA S TECH	LHI_968	
X1	Not Fitted	ABM3- 16.000MHZ- B2-T		ABS10	0	FEC	1611806		ABRA CON	ABM3- 16.000MHZ-B2- T	