NOTES – UNLESS OTHERWISE SPECIFIED:

FABRICATE TO MEET OR EXCEED THE REQUIREMENTS OF
IPC–6012 FOR CLASS 2 AS DEFINED IN IPC–6011.
MINIMUM TRACE WIDTH .008, MINIMUM CLEARANCE .008 mil

MATERIAL: LAMINATE FLAME RETARDANT EPOXY–GLASS
PER IPC–4101/126, 170 DEGREE C MINIMUM Tg,
DECOMPOSITION TEMPERATURE 340 DEGREES C MINIMUM,
T288 DELAMINATION TIME OF 35 MINUTES MINIMUM,
MAXIMUM THICKNESS EXPANSION OF 3% FROM 50–260
DEGREES C.
PREPREG MATERIALS PER /126 SHALL MEET THE SAME
REQUIREMENTS.
INNER LAYER FOIL PER IPC–4562, TYPE E, GRADE 3,
CLASS 2.

PLATING: ELECTRO–DEPOSITED COPPER, HOLE WALL
PLATING AVERAGE MINIMUM .001, NO LESS THAN .00098

FINISH: ENIG (Electroless Nickel / Immersion Gold)
125–200 micro inches nickel/2–5 micro inches gold.

REGISTRATION: MINIMUM ANNULAR RING .001, NO
BREAKOUT ALLOWED, TEARDROPPING ALLOWED IF MIN
CLEARANCE MAINTAINED.

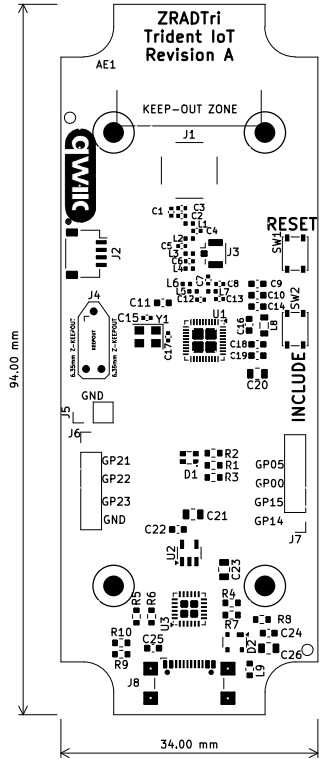
FABRICATION: NON–FUNCTIONAL INNER–LAYER PADS
SHALL NOT BE REMOVED FROM LAYERS 1, 2, 3, N–2,
N–1, AND N.
THIEVING IS ALLOWED IF 0.1 MINIMUM CLEARANCE
TO CONDUCTIVE FEATURES IS MAINTAINED

SOLDER MASK: LPI BOTH SIDES OVER BARE COPPER
PER IPC–SM–840, CLASS T, .0005" THICK, COLOR:
MATTE GREEN. ALL FIDUCIALS, LANDS AND HOLES,
EXCEPT VIAS, SHALL BE FREE OF MASK MATERIAL.

SILKSCREEN: WHITE NON–CONDUCTIVE EPOXY. INK
MUST WITHSTAND PEAK TEMPERATURE OF 260 DEGREES
C 60 SECONDS, 3 CYCLES WITHOUT DISCOLORATION.

MARKING: VENDOR LOGO FOLLOWED BY 94V–0 AND
FOUR–DIGIT DATE CODE.

ITAR not required. IPC–A–610 Class 2.
This is a cost sensitive consumer product.



Do NOT Populate:
SW1, SW2, AE1, J1–J7
NE,NW,SE,SW, FUD1, FUD2
C1, C2, C3

PCB Thickness .062" nominal

	LAYER STACKUP	File Name
	Silkscreen TOP	*.GTO
	Solder Mask TOP	*.GTS
1	Signal Layer TOP 1.0 OZ Cu	*.GTL
	CORE - 0.059" +/-.004"	
2	Signal Layer BOT 1.0 OZ Cu	*.GBL
	Solder Mask BOT	*.GBS
	Silkscreen Bottom	*.GBO
	Stencil TOP	*.GTP
	Edge Cuts	*.GM1
	Excellon Drill File	*.DRL
	Component Position File	*.POS

Trident IoT CZ20 version of the ZRADmini

Eric Ryherd – DrZWave@drzwave.blog

Sheet:
File: ZRADTri.kicad_pcb

Title: ZRADmini Z–Wave Reference Application Design

Size: A	Date: 2025–04–15	**Rev: A**
KiCad E.D.A. 9.0.1		Id: 1/1