

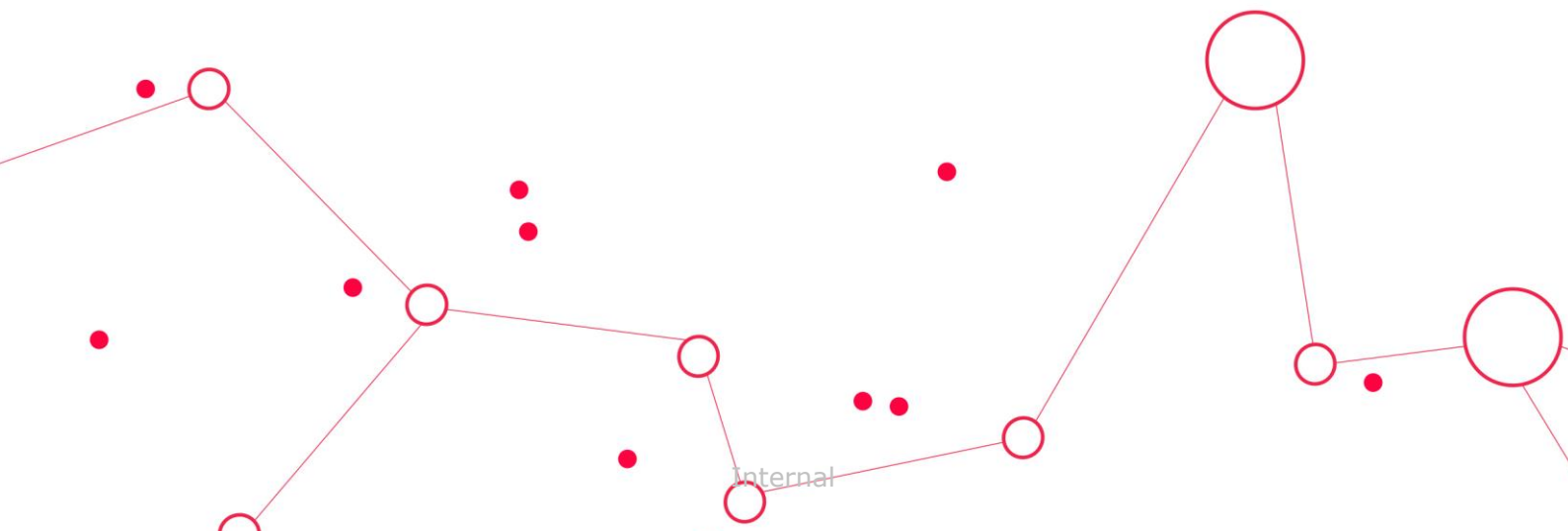


20251015 DER Antenna (Inverted F)

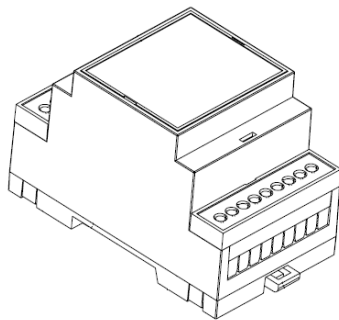


FECHA: 15/10/2025

RESPONSABLE: Alberto Peñas



Model:DERXxXBF7O
FCC ID 2ASEQDERXXXBF7O
Energy saver mounted on DIN rail



The **iSWITCH energy saver** is an electronic control device designed to optimize and manage electrical energy usage in **residential and hotel environments**. Its main function is to regulate the availability of electrical power within a room, enabling it **only after receiving activation signals from connected sensors** (e.g., door sensors, motion detectors...). The device features **wireless communication** based on the **IEEE 802.15.4 standard** at 2.4 GHz,

Top View of Control Board (Altium 3D Render)

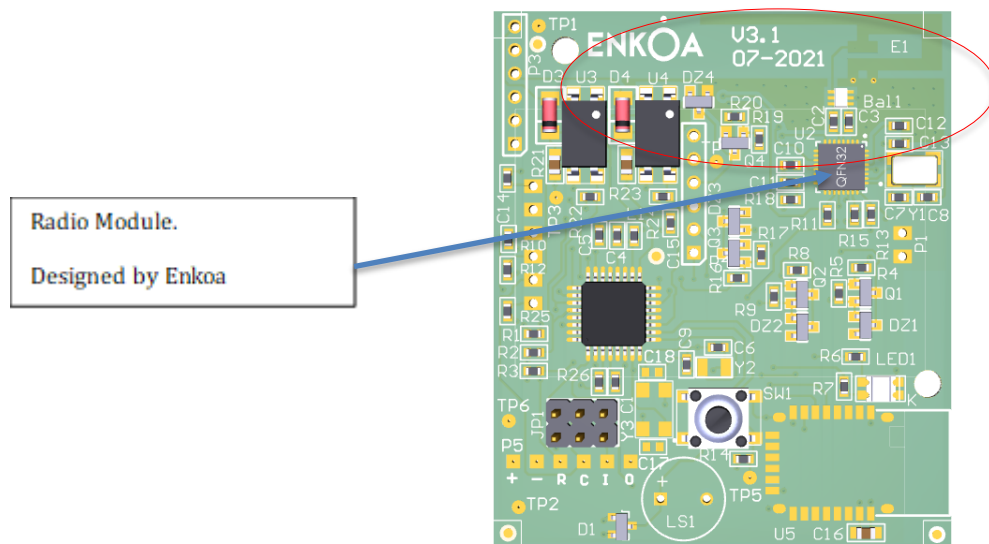


The **control board** contains the **radio system**, whereas the **power supply board** does not have a radio system.

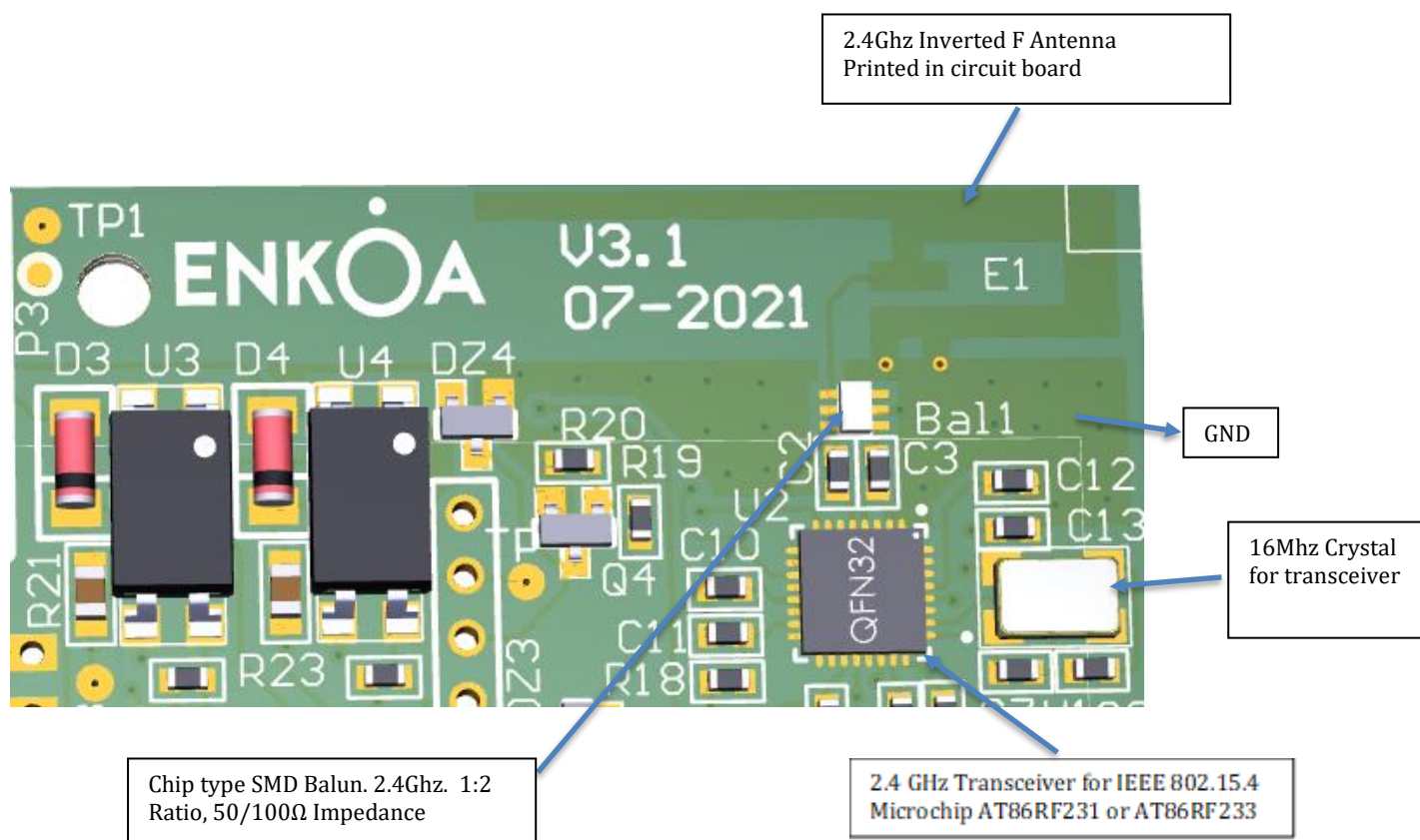
Control Board

The radio circuit is mounted on the 4-layer control board.

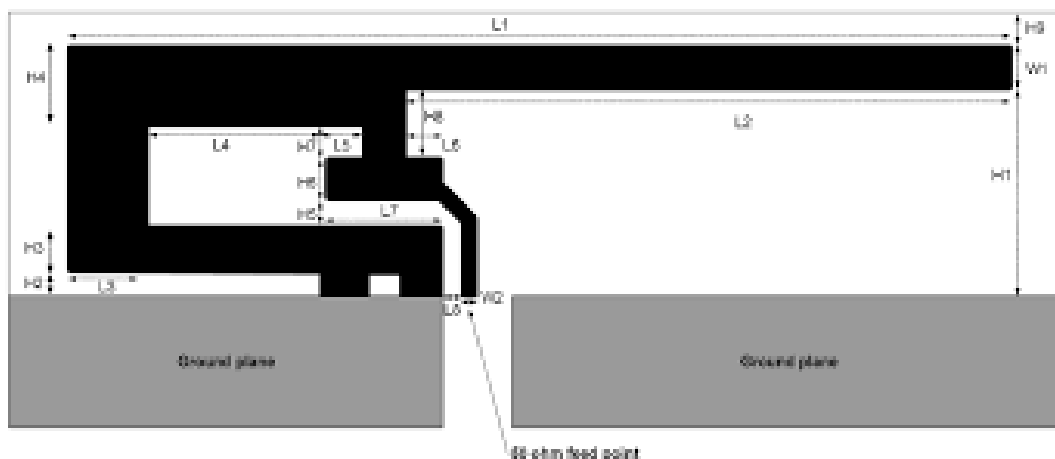
4 layer PCB / FR4 / 1.6mm



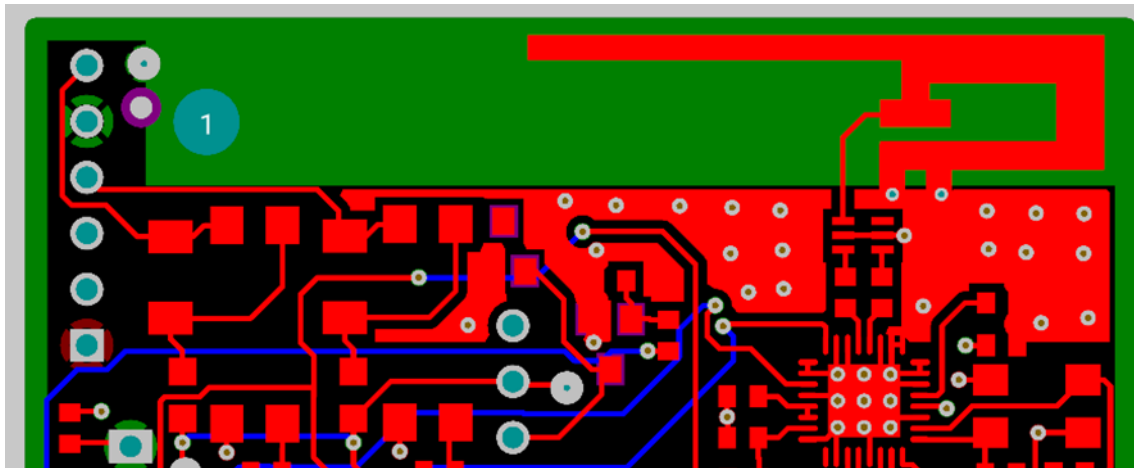
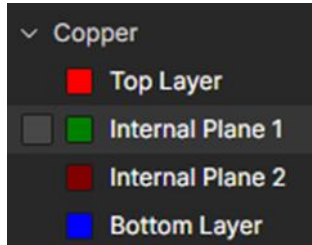
TOP VIEW



The antenna is an inverted F antenna routed on the same PCB.



Ground Plane



The antenna design is based on the attached application note from the manufacturer Texas Instruments.

swru120d Application Report 2.4-GHz Inverted F Antenna TI.pdf