Antenna and flex pack: Theory of Operation

ANT | Blaide product line | 17 November 2026 | Design only: nothing built or tested

A flat spiral's inductance follows from its size and turn count; the generator picks the turn count that resonates with the chip's capacitance at 13.56 MHz. The inner end of a spiral has to cross the turns to get back to the chip, so a patch of dielectric is printed over the turns and a second silver line bridges across it. Printed silver is more resistive than copper, so the quality factor is modest and must be measured.

Design

- Generator picks the turn count for the chip's capacitance
- Three print layers: silver coil and chip pads; dielectric patch; silver bridge from the inner end back to the chip
- Tune on the ZA-1: measure inductance, adjust turns or add the trim capacitor value the generator reports