4.1 Mechanical details

Power Transmitter design A2 includes a single Primary Coil as defined in Section 4.1.1, *Primary Coil*, Shielding as defined in Section 4.1.2, *Shielding*, an Interface Surface as defined in Section 4.1.3, *Interface Surface*, and a positioning stage as defined in Section 4.1.4, *Positioning stage*.

4.1.1 Primary Coil

The Primary Coil is of the wire-wound type, and consists of litz wire having 30 strands of 0.1 mm diameter, or equivalent. As shown in Figure 3, the Primary Coil has a circular shape and consists of multiple layers. All layers are stacked with the same polarity. Table 4 lists the dimensions of the Primary Coil.

Figure 3. Primary Coil of Power Transmitter design A2

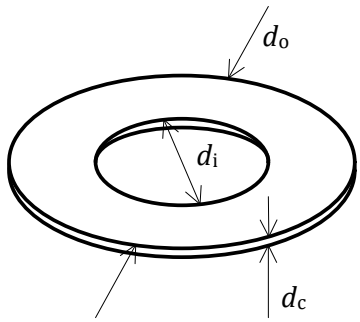

Table 4: Primary Coil parameters of Power Transmitter design A2

Parameter	Symbol	Value
Outer diameter	d_o	$40^{\pm 1}$ mm
Inner diameter	d_i	$19^{\pm 1}$ mm
Thickness	d_c	$2^{+0.2}$ mm
Number of turns per layer	N	10
Number of layers	–	2