

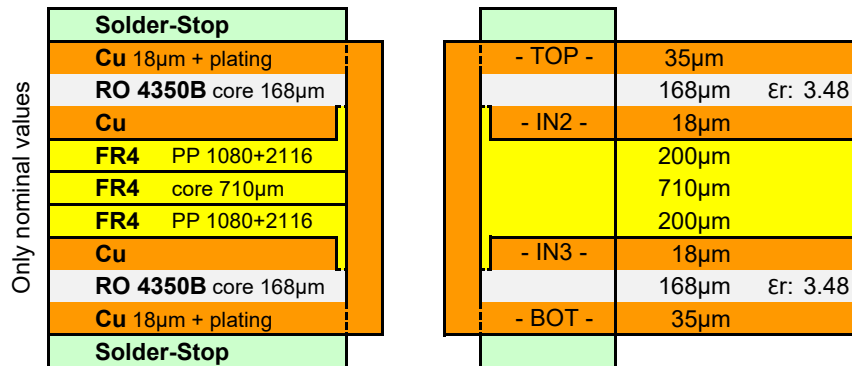
## Defined hybrid layer buildup Rogers 4350B / FR4 - layout examples for impedance

All values given are average values based on our many years of experience and serve as a basic orientation.

The actual values depend on the individual PCB layout and the chosen manufacturing technology.

Specified prepreg thicknesses: after pressing, at approx. 80% copper utilisation on the inner layers. On request, we can manufacture your PCB with impedance control (+/- 10% or +/- 5%).

### 4 layers 1.55mm: Type 4L-H01 (Hybrid Rogers 4350B 168µm core)



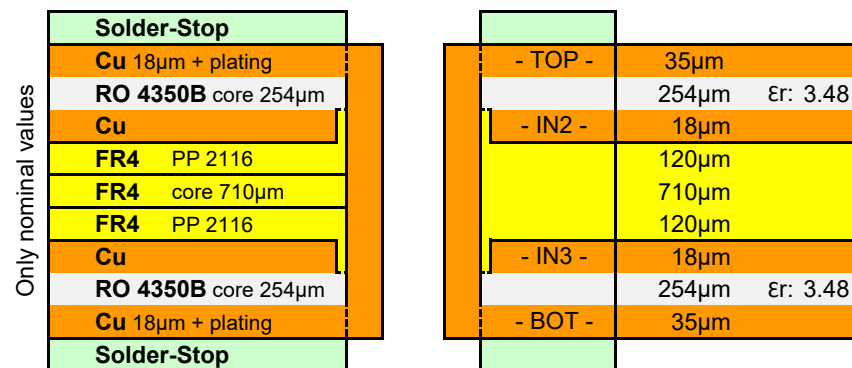
Estimated final thickness (+/- 10%): **1.55mm**

### Layout examples impedance

	Ohm	signal layer	reference layer	width space width
<b>Single ended (SE)</b>	50 Ω	TOP	IN2	350µm   -   -
<b>SE Coplanar</b>	50 Ω	TOP	IN2	315µm   gap = 185µm
<b>Differential pairs</b>	90 Ω	TOP	IN2	315µm   265µm   315µm
<b>Differential pairs</b>	100 Ω	TOP	IN2	230µm   210µm   230µm
<b>Single ended (SE)</b>	50 Ω	BOT	IN3	350µm   -   -
<b>SE Coplanar</b>	50 Ω	BOT	IN3	315µm   gap = 185µm
<b>Differential pairs</b>	90 Ω	BOT	IN3	315µm   265µm   315µm
<b>Differential pairs</b>	100 Ω	BOT	IN3	230µm   210µm   230µm

Loss Tangent / Dissipation factor (Df): ca. 0.0037

### 4 Lagen 1.55mm: Type 4L-H02 (Hybrid Rogers 4350B 254µm core)



Estimated final thickness (+/- 10%): **1.55mm**

	Ohm	signal layer	reference layer	width space width
<b>Single ended (SE)</b>	50 Ω	TOP	IN2	550µm   -   -
<b>SE Coplanar</b>	50 Ω	TOP	IN2	510µm   gap = 320µm
<b>Differential pairs</b>	90 Ω	TOP	IN2	520µm   440µm   520µm
<b>Differential pairs</b>	100 Ω	TOP	IN2	410µm   370µm   410µm
<b>Single ended (SE)</b>	50 Ω	BOT	IN3	550µm   -   -
<b>SE Coplanar</b>	90 Ω	BOT	IN3	510µm   gap = 320µm
<b>Differential pairs</b>	100 Ω	BOT	IN3	520µm   440µm   520µm
<b>Differential pairs</b>	100 Ω	BOT	IN3	410µm   370µm   410µm

Loss Tangent / Dissipation factor (Df): ca. 0.0037