

Parlex Technology Roadmap for Single & Double-sided FPC (as of Feb 2009)

METRIC	Driver	Standard User	Advanced User	Future	Long Term
Time Frame		Today	Limited Production	1-3 years	≥ 4 years
<u>Key Parameters</u>					
• Minimum Line & Space (mm)	Portable electronics	0.1/0.1	0.075/0.075	0.05/0.05	0.025/0.05
• Hole diameter D/S (mm, plated through hole)	Portable electronics, displays	0.25	0.2, 0.05 roll-roll	0.04 roll-roll	<0.04 roll-roll
• Hole diameter- roll-roll D/S (mm)	Displays, portable electronics, Smart Cards	0.10	0.05	0.04	0.025
• ZIF finger outline accuracy (mm)	Camera phones, readers	0.1	0.1	0.075	0.05
• Annular ring (mm)	Portable electronics, displays	0.25	0.25	0.15	0.05
• Soldermask registration (mm)	Camera phones, ECUs	0.1	0.075	0.05	0.025
• Coverlay registration (mm)	Camera phones, printers	0.25	0.2	0.15	0.125
• Copper thickness (mm)	Displays, ECU's, TCU's	0.018-0.070	0.010-0.018	<0.01	<0.005
<u>Functionality & Materials</u>					
• Surface finish	Technology, Customers, Environmental & RoHS	OSP, Au Immersion, Au/Sn/Ag	OSP, Au Immersion, Au/Sn/Ag	RoHS Compliance	Compliance to future regulations
• Substrates	Cost, signal, speed, RoHS	PI, PET Adhesive	PI, PEN, PET, adhesiveless, PALFLEX® roll-roll	In development	In development
• Material thickness (mm)	Displays, flexibility	0.05-0.10	0.025-0.05	0.012	In development