

# InP Substrate Wafers

We provide high quality Indium Phosphide (InP) wafers as a key semiconductor material used in the fields of telecommunications and microelectronics. InP can operate at high powers and temperatures. InP is used in Optical Fiber Communication, Wireless Network (WLAN), Mobile Handsets, Blue Tooth Communication, Satellite Communications, Monolithic Microwave Integrated Circuit (MMIC), as well as Radio Frequency Integrated Circuit (RFIC), etc.

Item	Unit	Semi-insulating Specifications	Semi-conduct Specifications		
			(n-type)	(p-type)	
Conduct Type			(n-type)	(p-type)	
Crystal Growth Method		VGF	VGF		
Dopant		Fe	S,Sn	Undoped	Zn
Diameter	inch	2", 3", 4"	2", 3", 4"		
Wafer Orientation*		(100)±0.5°	(100)±0.5°		
OF/IF		US,EJ	US,EJ		
Resistivity(at RT)	ohm.cm	≥0.5×10 <sup>7</sup>	-		
Carrier Concentration	cm <sup>-3</sup>	-	(0.8-8)×10 <sup>18</sup>	(1-10)×10 <sup>15</sup>	(0.8-8)×10 <sup>18</sup>
Mobility	cm <sup>2</sup> /v.s	≥1000	1000-2500	3000-5000	50-100
Etch Pit Density(EPD)	/cm <sup>2</sup>	≤5000	≤5000	≤5000	≤500
Laser Marking		Upon request	Upon request		
Thickness*	μm	(350-675) ±25	(350-675) ±25		
TTV(P/P)	μm	≤10	≤10		
TTV(P/E)	μm	≤15	≤15		
Warp	μm	≤15	≤15		
Surface	Side1	Polished/Etched	Polished/Etched		
	Side2	Polished/Etched	Polished/Etched		
Epi-ready		Yes	Yes		
Package		Cassette or single wafer container	Cassette or single wafer container		

\* Wafer Orientation and Thickness are available upon request

## Vital Advanced Materials Co.,Ltd

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