



IC Knowledge – 2009 IC Cost Model Supported Processes List

May 18, 2009 the following processes are included in the 2009 IC Cost Model. The syntax is: wafer size (mm) – linewidth (nm) – process type and or company – polysilicon layers – metal layers and type. Processes are in order of wafer size (smallest to largest), linewidth (largest to smallest), process type and or company (alphabetical order), poly layers (least to most) and metal layers (least to most)

1. 100mm - 3.0 μ m - Bipolar - 2 layer aluminum
2. 100mm - 3.0 μ m - CMOS - 1 layer poly - 1 layer aluminum
3. 100mm - 2.0 μ m - CMOS - 1 layer poly - 2 layer aluminum
4. 100mm - 2.0 μ m - NMOS - 1 layer poly - 2 layer aluminum
5. 125mm - 3.0 μ m - Bipolar - 2 layer aluminum
6. 125mm - 2.0 μ m - NXP - Bipolar - 2 layer aluminum
7. 125mm - 2.0 μ m - CMOS - 1 layer poly - 2 layer aluminum
8. 125mm - 1.2 μ m - BiCMOS - 1 layer poly - 2 layer aluminum
9. 125mm - 1.0 μ m - NXP - BCDMOS - 2 layer aluminum
10. 150mm - 5.0 μ m - Infineon - Bipolar - 2 layer aluminum
11. 150mm - 4.0 μ m - Polar Fab - BP14 Bipolar - 1 layer aluminum
12. 150mm - 4.0 μ m - Polar Fab - BP14 Bipolar - 2 layer aluminum
13. 150mm - 3.0 μ m - Bipolar - 2 layer aluminum
14. 150mm - 3.0 μ m - Denso - BiCMOS on SOI - 3 layer aluminum
15. 150mm - 2.5 μ m - X-Fab - DIMOST 500V SOI BCD - 1 poly layer - 2 aluminum layers
16. 150mm - 2.0 μ m - Bipolar - 2 layer aluminum
17. 150mm - 2.0 μ m - CMOS logic - 1 layer poly - 2 layer aluminum
18. 150mm - 1.5 μ m - CMOS - 1 layer poly - 2 layer aluminum
19. 150mm - 1.5 μ m - Polar Fab - PBC3 60V BCDMOS - 1 layer poly - 2 layer aluminum
20. 150mm - 1.25 μ m - Polar Fab - BP30 30V Bipolar - 1 layer aluminum
21. 150mm - 1.25 μ m - Polar Fab - BP30 30V Bipolar - 2 layer aluminum
22. 150mm - 1.2 μ m - AMI - CA BiCMOS - 1 layer poly - 2 layer aluminum
23. 150mm - 1.2 μ m - Bosch - BCDMOS - 1 layer poly - 3 layer aluminum.
24. 150mm - 1.2 μ m - Bosch - BCDMOS - 2 layer poly - 3 layer aluminum.
25. 150mm - 1.2 μ m - Bosch - CMOS - 1 layer poly - 3 layer aluminum.
26. 150mm - 1.2 μ m - CMOS logic - 1 layer poly - 2 layer aluminum
27. 150mm - 1.2 μ m - Denso - BiCMOS on SOI - 3 layer aluminum
28. 150mm - 1.0 μ m - Bosch - BCDMOS - 1 layer poly - 3 layer aluminum.
29. 150mm - 1.0 μ m - Bosch - BCD3s BCDMOS - 2 layer poly - 3 layer aluminum.
30. 150mm - 1.0 μ m - Bosch - CMOS - 1 layer poly - 3 layer aluminum.
31. 150mm - 1.0 μ m - STMicro - BCDMOS - 1 layer poly - 3 layer aluminum.
32. 150mm - 1.0 μ m - STMicro - CMOS - 1 layer poly - 2 layer aluminum.
33. 150mm - 1.0 μ m - Tower - TS100 CMOS logic - 1 layer poly - 2 layer aluminum
34. 150mm - 1.0 μ m - X-Fab - XD10H 650V SOI BCD - 3 layer poly - 3 layer aluminum
35. 150mm - 1.0 μ m - X-Fab - XC10 Mixed Signal CMOS - 2 layer poly - 2 layer aluminum - pressure sensor
36. 150mm - 800nm - ASMC - BiCMOS - 1 layer poly - 3 layer aluminum

37. 150mm - 800nm - Bosch - BCDMOS - 1 layer poly - 3 layer aluminum.
38. 150mm - 800nm - Bosch - CMOS - 1 layer poly - 3 layer aluminum
39. 150mm - 800nm - CMOS logic - 1 layer poly - 2 layer aluminum
40. 150mm - 800nm - CMOS logic - 1 layer poly - 3 layer aluminum
41. 150mm - 800nm - Freescale - SMOS5 - 1 layer poly - 2 layer aluminum
42. 150mm - 800nm - Polar Fab - ABC3 BiCMOS - 1 layer poly - 2 layer aluminum
43. 150mm - 800nm - Polar Fab - ABC3 BiCMOS - 1 layer poly - 3 layer aluminum
44. 150mm - 800nm - Polar Fab - RFBC RF BiCMOS - 2 layer poly - 2 layer aluminum
45. 150mm - 800nm - Polar Fab - RFBC RF BiCMOS - 2 layer poly - 3 layer aluminum
46. 150mm - 800nm - STMicro - BCDMOS - 1 layer poly - 3 layer aluminum.
47. 150mm - 800nm - STMicro - CMOS - 1 layer poly - 3 layer aluminum.
48. 150mm - 800nm - Tower - TS80M CMOS logic - 2 layer poly - 3 layer aluminum
49. 150mm - 800nm - X-Fab - CX08 Mixed Signal HV CMOS w EEPROM - 2 layer poly - 3 layer aluminum
50. 150mm - 700nm - AMI - I2T30 30V BICMOS - 1 layer poly - 2 layer aluminum
51. 150mm - 700nm - AMI - I2T30E 30V BICMOS - 2 layer poly - 2 layer aluminum
52. 150mm - 700nm - AMI - I2T60 60V BICMOS - 2 layer poly - 2 layer aluminum
53. 150mm - 700nm - AMI - I2T100 100V BICMOS - 2 layer poly - 2 layer aluminum
54. 150mm - 700nm - Bosch - HC65 DOT BCDMOS - 2 layer poly - 3 layer aluminum.
55. 150mm - 600nm - ADI - EP135 - CBiCMOS - poly-poly cap - 3 layer aluminum with thin film resistor
56. 150mm - 600nm - ST Micro - 80V BCD5 - 2 layer poly - 3 layer aluminum
57. 150mm - 600nm - Tower - TS60M CMOS logic - 2 layer poly - 3 layer aluminum
58. 150mm - 600nm - X-Fab - CX06 CMOS logic - 1 layer poly - 3 layer aluminum
59. 150mm - 600nm - X-Fab - XB06 BiCMOS - 2 layer poly - 3 layer aluminum
60. 150mm - 600nm - X-Fab - XC06 HV CMOS with Flash - 2 layer poly - 3 layer aluminum
61. 150mm - 500nm - Polar Fab - PBC4 40V BCDMOS - 2 layer poly - 2 layer aluminum
62. 150mm - 500nm - Polar Fab - PBC4 40V BCDMOS - 2 layer poly - 3 layer aluminum
63. 150mm - 500nm - TI - BiCMO2 - CBiCMOS - 3 layer aluminum with thin film resistors
64. 150mm - 500nm - Tower - TS50 CMOS Logic - 2 layer poly - 3 layer aluminum
65. 150mm - 450nm - NXP - BiMOS3 - 1 layer poly - 2 layer aluminum
66. 150mm - 350nm - AMI - I3T50 BCDMOS - 1 layer poly - 3 layer aluminum - MIM cap
67. 150mm - 350nm - AMI - I3T50 BCDMOS - 1 layer poly - 4 layer aluminum - MIM cap
68. 150mm - 350nm - AMI - I3T50 BCDMOS - 1 layer poly - 5 layer aluminum - MIM cap
69. 150mm - 350nm - Tower - TS35 CMOS Logic - 2 layer poly - 4 layer aluminum
70. 200mm - 800nm - CMOS logic - 1 layer poly - 2 layer aluminum
71. 200mm - 800nm - CMOS logic - 1 layer poly - 3 layer aluminum
72. 200mm - 800nm - Maxim - CB4 - CBiCMOS - vanadium schottky - 3 layer gold with thin film resistors
73. 200mm - 700nm - CMOS logic - 1 layer poly - 3 layer aluminum
74. 200mm - 700nm - TI - LBC4 - 2 layer poly - 3 layer aluminum
75. 200mm - 600nm - Chartered - Analog CMOS - 2 layer poly - 3 layer aluminum
76. 200mm - 600nm - Chartered - BiCMOS - 2 layer poly - 2 layer aluminum
77. 200mm - 600nm - Chartered - BiCMOS - 2 layer poly - 3 layer aluminum
78. 200mm - 600nm - Chartered - Digital CMOS - 1 layer poly - 3 layer aluminum
79. 200mm - 500nm - BiCMOS - 1 layer poly - 3 layer aluminum
80. 200mm - 500nm - Chartered - CMOS - 1 layer poly - 3 layer aluminum
81. 200mm - 500nm - CMOS logic - 1 layer poly - 2 layer aluminum
82. 200mm - 500nm - CMOS logic - 1 layer poly - 3 layer aluminum
83. 200mm - 500nm - CMOS logic - 1 layer poly - 4 layer aluminum

84. 200mm - 500nm - Freescale - dual gate ox CMOS Logic w Flash - 2 layer poly - 2 layer aluminum
85. 200mm - 500nm - Micronas - RFCMOS - 2 layer poly - 2 layer aluminum
86. 200mm - 500nm - Polar Fab - PBC4 40V BCDMOS - 2 layer poly - 2 layer aluminum
87. 200mm - 500nm - Polar Fab - PBC4 40V BCDMOS - 2 layer poly - 3 layer aluminum
88. 200mm - 500nm - TSMC - CMOS - 1 poly layer - 3 aluminum layers
89. 200mm - 350nm - BiCMOS logic - 1 layer poly - 5 layer aluminum
90. 200mm - 350nm - BiCMOS logic - 1 layer poly - 6 layer aluminum
91. 200mm - 350nm - Chartered - CMOS logic - 1 layer poly - 4 layer aluminum
92. 200mm - 350nm - Chartered - dual gate ox CMOS logic- 1 layer poly - 3 layer aluminum
93. 200mm - 350nm - Chartered - dual gate ox CMOS logic- 1 layer poly - 4 layer aluminum
94. 200mm - 350nm - Chartered - dual gate ox mixed signal CMOS - 2 layer poly - 4 layer aluminum
95. 200mm - 350nm - CMOS logic - 1 layer poly - 3 layer aluminum
96. 200mm - 350nm - CMOS logic - 1 layer poly - 4 layer aluminum
97. 200mm - 350nm - CMOS logic - 1 layer poly - 5 layer aluminum
98. 200mm - 350nm - CMOS logic - 1 layer poly - 6 layer aluminum
99. 200mm - 350nm - DRAM - 4 layer poly - 2 layer aluminum
100. 200mm - 350nm - Freescale - SMOS7 - 1 layer poly - 3 aluminum layers
101. 200mm - 350nm - Intel - BiCMOS logic - 1 layer poly - 4 layer aluminum
102. 200mm - 350nm - Intel - CMOS logic - 1 layer poly - 4 layer aluminum
103. 200mm - 350nm - NXP - CMOS logic with Flash - 2 layer poly - 5 layer aluminum
104. 200mm - 350nm - Polar Fab - BiCMOS Polar 35 - 2 layer poly - 2 layer aluminum
105. 200mm - 350nm - Polar Fab - BiCMOS Polar 35 - 2 layer poly - 3 layer aluminum
106. 200mm - 350nm - STMicro - BCD6 - 1 layer poly - 3 layer aluminum
107. 200mm - 350nm - STMicro - BCD6 - 1 layer poly - 4 layer aluminum
108. 200mm - 350nm - STMicro - BCD6 - 1 layer poly - 5 layer aluminum
109. 200mm - 350nm - TI - CMOS logic with Flash - 2 layer poly - 3 layer aluminum
110. 200mm - 350nm - TI - LBC5 - 2 layer poly - 3 layer aluminum
111. 200mm - 350nm - TSMC - CMOS - 1 layer poly - 4 layer aluminum
112. 200mm - 350nm - X-Fab - LV CMOS with EEPROM and Schottky - 2 layer poly - 4 layer aluminum
113. 200mm - 350nm - X-Fab - Mixed Signal CMOS - 2 layer poly - 4 layer aluminum
114. 200mm - 300nm to 350nm - SRAM - 2 layer poly - 2 layer aluminum
115. 200mm - 300nm to 350nm - SRAM - 4 layer poly - 2 layer aluminum
116. 200mm - 250nm - Chartered - dual gate oxide CMOS logic - 1 layer poly - 5 layer aluminum
117. 200mm - 250nm - DRAM - 4 layer poly - 2 layer aluminum
118. 200mm - 250nm - Freescale - CMOS logic with Flash - 2 poly layers - 3 aluminum layers
119. 200mm - 250nm - Freescale - CMOS logic with Flash - 2 poly layers - 4 aluminum layers
120. 200mm - 250nm - Freescale - SMOS8 - 1 poly layer - 4 aluminum layers
121. 200mm - 250nm - Infineon - SiGe - 2 layer poly - 3 layer aluminum with MIM capacitors
122. 200mm - 250nm - Intel - CMOS logic - 1 layer poly - 5 layer aluminum
123. 200mm - 250nm - Intel - ETOX VI Flash - 2 layer poly - 2 layer aluminum
124. 200mm - 250nm - Qimonda trench DRAM - 1 tungsten plus 2 alminum layers
125. 200mm - 250nm - RFCMOS - 1 layer poly - 4 layer aluminum with MIM capacitor
126. 200mm - 250nm - SRAM - 5 layer poly - 3 layer aluminum
127. 200mm - 250nm - Toshiba - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
128. 200mm - 250nm - TSMC - single gate ox CMOS logic - 1 layer poly - 3 layer aluminum
129. 200mm - 250nm - TSMC - dual gate ox CMOS logic - 1 layer poly - 4 layer aluminum
130. 200mm - 250nm - TSMC - dual gate ox CMOS logic - 1 layer poly - 5 layer aluminum

131. 200mm - 250nm - TSMC - single gate ox CMOS logic - 1 layer poly - 6 layer aluminum
132. 200mm - 220nm - Infineon - dual gate ox CMOS logic - 2 layer poly - 5 layer aluminum with Flash
133. 200mm - 180nm - Chartered - dual gate oxide CMOS logic - 1 layer poly - 6 layer aluminum
134. 200mm - 180nm - Chartered - Mixed Signal RF CMOS - 1 layer poly - 6 layer aluminum
135. 200mm - 180nm - DRAM - 4 layer poly - 3 layer aluminum
136. 200mm - 180nm - Freescale - dual gate ox RFCMOS - 1 layer poly - 4 layer copper with MIM
137. 200mm - 180nm - Freescale - dual gate ox SOI CMOS - 1 layer poly - 7 layer aluminum
138. 200mm - 180nm - IBM - 7HP SiGe BiCMOS - 6 layer copper with single MIM and TaN resistor
139. 200mm - 180nm - IBM - 7RF RF CMOS - 3 layer Cu + 3 layer Al with single MIM and TaN resistor
140. 200mm - 180nm - IBM - 7SF dual gate ox CMOS Logic - 1 layer poly - 4 layer copper
141. 200mm - 180nm - IBM - 7SF dual gate ox CMOS Logic - 1 layer poly - 5 layer copper
142. 200mm - 180nm - IBM - 7SF dual gate ox CMOS Logic - 1 layer poly - 6 layer copper
143. 200mm - 180nm - IBM - 7WL SiGe BiCMOS - 3 layer Cu + 3 layer Al with single MIM and TaN resistor
144. 200mm - 180nm - IBM - eDRAM - 4 layer poly - 5 layer copper
145. 200mm - 180nm - IBM - eDRAM - 4 layer poly - 6 layer copper
146. 200mm - 180nm - Infineon - dual gate ox CMOS Logic - 1 layer poly - 4 layer copper w 1 aluminum layer + fuses
147. 200mm - 180nm - Intel - CMOS Logic - 1 layer poly - 6 layer aluminum - FSG ILD
148. 200mm - 180nm - Intel - ETOX VII Flash - 2 layer poly - 3 layer aluminum
149. 200mm - 180nm - NEC - dual gate ox CMOS logic - 1 layer poly - 5 aluminum layers
150. 200mm - 180nm - NXP - dual gate ox CMOS Logic - 1 poly layer - 1 tungsten and 6 aluminum layers
151. 200mm - 180nm - Renesas - CMOS Logic with Flash - 2 poly layers - 4 aluminum layers
152. 200mm - 180nm - Samsung - SRAM - 1 poly layer - 4 aluminum layers
153. 200mm - 180nm - SMIC - dual gate ox CMOS Logic - 1 layer poly - 6 layer aluminum - FSG ILD
154. 200mm - 180nm - SRAM - 5 layer poly - 3 layer aluminum
155. 200mm - 180nm - SSMC - dual gate ox CMOS logic - 1 poly layer - 6 aluminum layers - FSG ILD
156. 200mm - 180nm - STMicro - BCD8 - 1 layer poly - 4 aluminum layers - FSG
157. 200mm - 180nm - STMicro - BCD8 - 1 layer poly - 5 aluminum layers - FSG
158. 200mm - 180nm - STMicro - BCD8 - 1 layer poly - 6 aluminum layers - FSG
159. 200mm - 180nm - TI - CMOS Logic with Flash - 2 layer poly - 4 layer aluminum - FSG ILD
160. 200mm - 180nm - TI - CMOS Logic - 1 layer poly - 5 layer aluminum - FSG ILD
161. 200mm - 180nm - TI - CMOS Logic - 1 layer poly - 5 layer copper - FSG ILD
162. 200mm - 180nm - Toshiba - dual gate oxide CMOS logic - 1 layer poly - 4 layer aluminum
163. 200mm - 180nm - Tower - TS18SL dual gate oxide CMOS logic - 1 layer poly - 6 layer aluminum - FSG ILD
164. 200mm - 180nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 5 layer aluminum - FSG ILD
165. 200mm - 180nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer aluminum - FSG ILD
166. 200mm - 180nm - TSMC - dual gate ox CMOS Logic with FLASH - 1 layer poly - 6 layer aluminum - FSG ILD

167. 200mm - 180nm - TSMC - dual gate RFCMOS - 1 layer poly - 4 layer aluminum - FSG ILD
168. 200mm - 180nm - UMC - dual gate ox CMOS Logic - 1 layer poly - 5 layer aluminum - FSG ILD
169. 200mm - 180nm - UMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer aluminum - FSG ILD
170. 200mm - 170nm - Infineon - NAND Flash - 1 layer poly - 1 tungsten and 2 aluminum layers
171. 200mm - 170nm - Qimonda trench DRAM - 1 tungsten plus 2 aluminum layers
172. 200mm - 170nm - Toshiba - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
173. 200mm - 160nm - SMIC - dual gate ox CMOS Logic - 1 layer poly - 6 layer aluminum - FSG ILD
174. 200mm - 160nm - Tower - dual gate ox CMOS Logic - 1 layer poly - 5 layer aluminum - FSG
175. 200mm - 150nm - Micron - CMOS image sensor - 2 layer poly - 5 aluminum layers
176. 200mm - 150nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 1 aluminum layer
177. 200mm - 150nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 5 layer copper with aluminum bond pads - FSG ILD
178. 200mm - 150nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
179. 200mm - 150nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
180. 200mm - 150nm - UMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer aluminum - FSG ILD
181. 200mm - 140nm - Qimonda Trench DRAM - 1 tungsten and 2 aluminum layers
182. 200mm - 140nm - Toshiba - TC260 dual gate ox CMOS with trench DRAM - 7 layer copper
183. 200mm - 130nm - DRAM - 4 layer poly - 3 layer aluminum
184. 200mm - 130nm - Fujitsu - PLD process - 8 copper layers with 1 aluminum layer
185. 200mm - 130nm - IBM - 8HP SiGe BiCMOS - 6 layer copper with single MIM and TaN resistor
186. 200mm - 130nm - IBM - 8HP SiGe BiCMOS - 7 layer copper with single MIM and TaN resistor
187. 200mm - 130nm - IBM - 8HP SiGe BiCMOS - 8 layer copper with single MIM and TaN resistor
188. 200mm - 130nm - IBM - 8RF RF CMOS - with Cu-Cu-Cu-Al-CU-Al and single MIM and TaN resistor
189. 200mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 6 layer copper
190. 200mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 7 layer copper
191. 200mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 8 layer copper
192. 200mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiLK ILD
193. 200mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiLK ILD
194. 200mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiLK ILD
195. 200mm - 130nm - Infineon - RFCMOS - 1 layer poly - 4 copper and 2 aluminum layers with MIM
196. 200mm - 130nm - Intel - CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
197. 200mm - 130nm - Intel - ETOX VIII Flash - 2 layer poly - 3 layer aluminum
198. 200mm - 130nm - ST Micro - BiCMOS 9 - 7 layer copper - FSG ILD

199. 200mm - 130nm - ST Micro - BiCMOS 9 - 7 layer copper with MIM - FSG ILD
200. 200mm - 130nm - TI - CMOS Logic - 1 layer poly - 5 layer copper - FSG ILD
201. 200mm - 130nm - TI - CMOS Logic - 1 layer poly - 5 layer copper with 1 layer aluminum - FSG ILD
202. 200mm - 130nm - TI - CMOS Logic - 1 layer poly - 6 layer copper with 1 layer aluminum - FSG ILD
203. 200mm - 130nm - Toshiba - NAND Flash - 3 layer poly - 1 tungsten and 2 aluminum layers
204. 200mm - 130nm - Tower - TS13SL dual gate oxide CMOS logic - 1 layer poly - 6 layer copper - FSG ILD
205. 200mm - 130nm - Tower - TS13SL dual gate oxide CMOS logic - 1 layer poly - 7 layer copper - FSG ILD
206. 200mm - 130nm - Tower - TS13SL dual gate oxide CMOS logic - 1 layer poly - 8 layer copper - FSG ILD
207. 200mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
208. 200mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 copper, 1 aluminum layer - FSG ILD
209. 200mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
210. 200mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
211. 200mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
212. 200mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 6 layer copper with 1 aluminum layer - FSG ILD
213. 200mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
214. 200mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
215. 200mm - 120nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 1 aluminum layer
216. 200mm - 120nm - Samsung - SRAM - 1 layer poly - 4 copper layers
217. 200mm - 110nm - Samsung - DRAM - 7 layer poly - 3 layer metal (1W + 2Al)
218. 200mm - 110nm - Toshiba - TC280 dual gate ox CMOS with trench DRAM - 7 layer copper
219. 200mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
220. 200mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
221. 200mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
222. 200mm - 90nm - AMD - dual gate ox strained silicon CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD - SOI
223. 200mm - 90nm - Intel - ETOX IX Flash - 2 layer poly - 3 layer copper with aluminum bond pads
224. 200mm - 90nm - Samsung - DRAM - 7 layer poly - 3 layer metal (1W + 2Al)
225. 200mm - 90nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 1 aluminum layer
226. 200mm - 90nm - Spansion - Floating Gate NOR Flash
227. 200mm - 90nm - Spansion - Mirror Bit NOR Flash
228. 200mm - 90nm - Toshiba - NAND Flash - 3 layer poly - 1 tungsten and 2 aluminum layers
229. 200mm - Flip Chip Bump - electroplated
230. 200mm - SiMOX

231. 300mm - 150nm - Samsung NAND Flash - 7 layer poly - 1 tungsten and 1 aluminum layer
232. 300mm - 150nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
233. 300mm - 150nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
234. 300mm - 150nm - UMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer aluminum - FSG ILD
235. 300mm - 130nm - Chartered - dual gate oxide CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
236. 300mm - 130nm - IBM - 8HP SiGe BiCMOS - 6 layer copper with single MIM and TaN resistor
237. 300mm - 130nm - IBM - 8HP SiGe BiCMOS - 7 layer copper with single MIM and TaN resistor
238. 300mm - 130nm - IBM - 8HP SiGe BiCMOS - 8 layer copper with single MIM and TaN resistor
239. 300mm - 130nm - IBM - 8RF RF CMOS - with Cu-Cu-Cu-Al-CU-Al and single MIM and TaN resistor
240. 300mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 6 layer copper
241. 300mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 7 layer copper
242. 300mm - 130nm - IBM - 8SFG dual gate ox CMOS Logic - 1 layer poly - 8 layer copper
243. 300mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiLK ILD
244. 300mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiLK ILD
245. 300mm - 130nm - IBM - 9S dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiLK ILD
246. 300mm - 130nm - Intel - CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
247. 300mm - 130nm - Renesas - dual gate oxide CMOS Logic - 1 poly layer - 1 tungsten, 5 copper and 1 aluminum layer
248. 300mm - 130nm - TI - CMOS Logic - 1 layer poly - 5 layer copper - FSG ILD
249. 300mm - 130nm - TI - CMOS Logic - 1 layer poly - 5 layer copper with 1 layer aluminum - FSG ILD
250. 300mm - 130nm - TI - CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
251. 300mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
252. 300mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
253. 300mm - 130nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
254. 300mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
255. 300mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
256. 300mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
257. 300mm - 130nm - UMC - L130 dual gate ox CMOS Logic - 1 layer poly - 8 copper and 1 aluminum layers - FSG ILD
258. 300mm - 120nm - Samsung NAND Flash - 4 layer poly - 1 tungsten and 1 aluminum layer
259. 300mm - 110nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
260. 300mm - 110nm - Samsung DRAM - 7 layer poly - 3 layer metal (1W + 2Al)

261. 300mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - FSG ILD
262. 300mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - FSG ILD
263. 300mm - 110nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - FSG ILD
264. 300mm - 90nm - AMD - dual gate ox strained silicon CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD - SOI
265. 300mm - 90nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
266. 300mm - 90nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
267. 300mm - 90nm - Chartered - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
268. 300mm - 90nm - Freescale - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD
269. 300mm - 90nm - Freescale - triple gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD - SOI
270. 300mm - 90nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
271. 300mm - 90nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
272. 300mm - 90nm - IBM - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
273. 300mm - 90nm - IBM - dual gate oxide - 1 layer poly - 9 layer copper - SiOC ILD - SOI
274. 300mm - 90nm - Intel - SiGe Communications process
275. 300mm - 90nm - Intel - Strained Silicon CMOS Logic - 1 layer poly - 7 layer copper - SiOC ILD
276. 300mm - 90nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
277. 300mm - 90nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
278. 300mm - 90nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
279. 300mm - 90nm - Samsung - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
280. 300mm - 90nm - Samsung - DRAM - RCAT - 7 layer poly - 3 layer metal (1W + 2Al)
281. 300mm - 90nm - Samsung - eDRAM - 8 copper layers and 1 aluminum layer
282. 300mm - 90nm - Samsung - NAND Flash - 4 layer poly - 2 tungsten and 1 aluminum layers
283. 300mm - 90nm - SMIC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD
284. 300mm - 90nm - Sony - eDRAM - 4 poly layer - 5 copper and 1 aluminum layer - SiOC/FSG ILD
285. 300mm - 90nm - Sony - eDRAM - 4 poly layer - 11 layer copper - SiOC/FSG ILD
286. 300mm - 90nm - TI - dual gate oxide CMOS Logic - 1 layer poly - 5 layer copper and 1 layer aluminum - SiOC ILD
287. 300mm - 90nm - TI - dual gate oxide CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD
288. 300mm - 90nm - TI - dual gate oxide CMOS Logic - 1 layer poly - 6 layer copper and 1 layer aluminum - SiOC ILD
289. 300mm - 90nm - TI - dual gate oxide CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD

290. 300mm - 90nm - Toshiba - NAND Flash - 4 layer poly - 1 tungsten and 1 aluminum layers
291. 300mm - 90nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper and 1 aluminum layer- SiOC ILD
292. 300mm - 90nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiOC ILD
293. 300mm - 90nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiOC ILD
294. 300mm - 90nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
295. 300mm - 90nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 copper and 1 aluminum layer - SiOC ILD
296. 300mm - 90nm - TSMC - triple gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
297. 300mm - 90nm - TSMC - triple gate ox RFCMOS Logic - 2 layer poly - 9 layer copper - SiOC ILD
298. 300mm - 90nm - UMC - L90 dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiOC ILD
299. 300mm - 90nm - UMC - L90 dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiOC ILD
300. 300mm - 90nm - UMC - L90 dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
301. 300mm - 90nm - UMC - L90 dual gate ox CMOS Logic - 1 layer poly - 9 copper and 1 aluminum layer - SiOC ILD
302. 300mm - 80nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
303. 300mm - 80nm - Samsung - DRAM RCAT + MESH - 7 layer poly - 3 layer metal (1W + 2Al)
304. 300mm - 75nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
305. 300mm - 73nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
306. 300mm - 70nm - Samsung - DRAM - S-RCAT + MESH 7 layer poly - 3 layer metal (1W + 2Al)
307. 300mm - 70nm - Toshiba - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
308. 300mm - 65nm - AMD - Strained Silicon dual gate ox SOI CMOS - 1 layer poly - 10 layer copper - SiOC ILD
309. 300mm - 65nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 7 layer copper - SiOC ILD
310. 300mm - 65nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 8 layer copper - SiOC ILD
311. 300mm - 65nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
312. 300mm - 65nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
313. 300mm - 65nm - Chartered - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
314. 300mm - 65nm - Freescale - dual gate ox CMOS logic - 1 layer poly - 7 layer copper with MIM caps - SiOC ILD
315. 300mm - 65nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
316. 300mm - 65nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
317. 300mm - 65nm - IBM - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD

318. 300mm - 65nm - Intel - Strained Silicon CMOS Logic - 1 layer poly - 8 layer copper - SiOC ILD
319. 300mm - 65nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
320. 300mm - 65nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
321. 300mm - 65nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
322. 300mm - 65nm - Samsung - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
323. 300mm - 65nm - Samsung - DRAM - S-RCAT + MESH 7 layer poly - 3 layer metal (1W + 2Al)
324. 300mm - 65nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
325. 300mm - 65nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD
326. 300mm - 65nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiOC ILD
327. 300mm - 65nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiOC ILD
328. 300mm - 65nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
329. 300mm - 65nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 10 layer copper - SiOC ILD
330. 300mm - 58nm - Qimonda trench DRAM - 1 tungsten and 2 aluminum layers
331. 300mm - 57nm - Samsung - DRAM - U_RCAT + MESH 7 layer poly - 3 layer metal (2Cu + 1Al)
332. 300mm - 56nm - Samsung - DRAM - U_RCAT + MESH 7 layer poly - 3 layer metal (2Al + 1W)
333. 300mm - 56nm - Toshiba - NAND Flash - 4 layer poly - 1 tungsten layer and 2 aluminum layers
334. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 6 layer copper - SiOC ILD
335. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 7 layer copper - SiOC ILD
336. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper - SiOC ILD
337. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 8 layer copper and 1 layer aluminum - SiOC ILD
338. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
339. 300mm - 55nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 10 layer copper - SiOC ILD
340. 300mm - 55nm - STMicro - dual gate ox CMOS logic - 1 layer poly - 7 layer copper with MIM caps - SiOC ILD
341. 300mm - 51nm - Samsung - NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
342. 300mm - 45nm - AMD - Strained Silicon dual gate ox SOI CMOS - 1 layer poly - 10 layer copper - SiOC ILD
343. 300mm - 45nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
344. 300mm - 45nm - Chartered - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD

345. 300mm - 45nm - Chartered - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
346. 300mm - 45nm - Freescale - low power triple gate ox CMOS - 1 layer poly - 9 copper layers - SiOC ILD
347. 300mm - 45nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
348. 300mm - 45nm - IBM - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
349. 300mm - 45nm - IBM - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
350. 300mm - 45nm - IBM - eDRAM on SOI - 9 layer copper - SiOC ILD
351. 300mm - 45nm - IBM - eDRAM on SOI - 10 layer copper - SiOC ILD
352. 300mm - 45nm - IBM - eDRAM on SOI - 11 layer copper - SiOC ILD
353. 300mm - 45nm - Intel - strained silicon high-k with dual metal gate CMOS - 9 layer copper - SiOC ILD
354. 300mm - 45nm - Toshiba - dual gate ox CMOS Logic - 1 layer poly - 10 layer copper - SiOC ILD
355. 300mm - 45nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
356. 300mm - 45nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 10 layer copper - SiOC ILD
357. 300mm - 45nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 11 layer copper - SiOC ILD
358. 300mm - 45nm - TSMC - triple gate ox CMOS Logic - 1 layer poly - 11 layer copper - SiOC ILD
359. 300mm - 43nm - Toshiba - NAND Flash - 4 layer poly with High-k interlevel - 3 layer copper
360. 300mm - 45nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 9 layer copper - SiOC ILD
361. 300mm - 45nm - Samsung - Common Platform - dual gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
362. 300mm - 45nm - Samsung - Common Platform - triple gate ox CMOS logic - 1 layer poly - 10 layer copper - SiOC ILD
363. 300mm - 45nm - Samsung - DRAM - U_RCAT + MESH 7 layer poly - 3 layer metal (2Cu + 1Al)
364. 300mm - 40nm - Samsung - TANOS NAND Flash - 4 layer poly - 1 tungsten and 2 aluminum layers
365. 300mm - 40nm - Toshiba - FPGA process with Flash - 1 layer poly - 11 layer copper - SiOC ILD
366. 300mm - 40nm - UMC - FPGA process with Flash - 1 layer poly - 11 layer copper - SiOC ILD
367. 300mm - 40nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 9 layer copper - SiOC ILD
368. 300mm - 40nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 10 layer copper - SiOC ILD
369. 300mm - 40nm - TSMC - dual gate ox CMOS Logic - 1 layer poly - 11 layer copper - SiOC ILD
370. 300mm - 40nm - TSMC - eDRAM - 9 layer copper - SiOC ILD
371. 300mm - 40nm - TSMC - eDRAM - 10 layer copper - SiOC ILD
372. 300mm - 40nm - TSMC - eDRAM - 11 layer copper - SiOC ILD

373. 300mm - 40nm - TSMC - triple gate ox CMOS Logic - 1 layer poly - 11 layer copper - SiOC ILD
374. 300mm - 40nm - TSMC - FPGA process with Flash - 1 layer poly - 11 layer copper - SiOC ILD
375. 300mm - 32nm - IBM - eDRAM on SOI with dual high-k gate oxides - 9 layer copper - SiOC ILD
376. 300mm - 32nm - IBM - eDRAM on SOI with dual high-k gate oxides - 10 layer copper - SiOC ILD
377. 300mm - 32nm - IBM - eDRAM on SOI with dual high-k gate oxides - 11 layer copper - SiOC ILD
378. 300mm - 32nm - Intel - strained silicon high-k with dual metal gate CMOS - 10 layer copper - SiOC ILD
379. 300mm - 32nm - Samsung - PROJECTED TANOS NAND Flash - 4 layer poly - 3 copper layers
380. 300mm - 32nm - Toshiba - PROJECTED NAND Flash - 4 layer poly with High-k interlevel - 3 layer copper
381. 300mm - 32nm - TSMC - dual gate ox CMOS logic - 9 layer copper - SiOC ILD
382. 300mm - 32nm - TSMC - dual gate ox with High-k CMOS logic - 9 layer copper - SiOC ILD
383. 300mm - 32nm - TSMC - dual gate ox with High-k CMOS logic - 10 layer copper - SiOC ILD
384. 300mm - 32nm - TSMC - dual gate ox with High-k CMOS logic - 11 layer copper - SiOC ILD
385. 300mm - 28nm - TSMC - dual gate ox with High-k CMOS logic - 9 layer copper - SiOC ILD
386. 300mm - 28nm - TSMC - dual gate ox with High-k CMOS logic - 10 layer copper - SiOC ILD
387. 300mm - 28nm - TSMC - dual gate ox with High-k CMOS logic - 11 layer copper - SiOC ILD
388. 300mm - 28nm - TSMC - eDRAM with High-k CMOS logic - 9 layer layer - SiOC ILD
389. 300mm - 28nm - TSMC - eDRAM with High-k CMOS logic - 10 layer layer - SiOC ILD
390. 300mm - 28nm - TSMC - eDRAM with High-k CMOS logic - 11 layer layer - SiOC ILD
391. 300mm - 22nm - Intel - PROJECTED strained silicon high-k with dual metal gate CMOS - 11 layer copper - SiOC ILD
392. 300mm - 22nm - Samsung - PROJECTED TANOS NAND Flash - 4 layer poly - 3 copper layers
393. 300mm - 22nm - TSMC - PROJECTED dual gate ox with High-k CMOS logic - 9 layer copper - SiOC ILD
394. 300mm - 22nm - TSMC - PROJECTED dual gate ox with High-k CMOS logic - 10 layer copper - SiOC ILD
395. 300mm - 22nm - TSMC - PROJECTED dual gate ox with High-k CMOS logic - 11 layer copper - SiOC ILD
396. 300mm - Flip Chip Bump - electroplated
397. 300mm - SiMOX
398. 450mm - 22nm - Intel - PROJECTED strained silicon high-k with dual metal gate CMOS - 11 layer copper - SiOC ILD
399. 450mm - 22nm - Samsung - PROJECTED TANOS NAND Flash - 4 layer poly - 3 copper layers
400. 450mm - SiMOX