

## Imaging Capabilities

### Inner Layer (Print-Etch)

Minimum Line on AW*			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0034	0.0029	0.0025
3/8 oz	0.0036	0.003	0.0026
1/2 oz	0.0038	0.0032	0.0028
1 oz	0.0045	0.0038	0.0034
1/2 oz + (Wrap Cu)	0.0051	0.0042	0.0038
1/2 oz + (Wrap Cu)x2	0.006	0.0049	0.0045
2 oz	0.0061	0.005	0.0046
3 oz	0.0076	0.0062	0.0058

### Inner Layer (Print-Etch)

Minimum Line Finished			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0032	0.0027	0.0023
3/8 oz	0.0033	0.0028	0.0024
1/2 oz	0.0034	0.0028	0.0024
1 oz	0.0038	0.0031	0.0027
1/2 oz + (Wrap Cu)	0.0041	0.0033	0.0029
1/2 oz + (Wrap Cu)x2	0.0046	0.0036	0.0032
2 oz	0.0047	0.0036	0.0032
3 oz	0.0055	0.0041	0.0037

\* must be at least min LW + Etch Factor or the orig AW LW + Etch Factor (which ever is greater)

### Minimum Space on AW

Cu Weight	Standard	High	Advanced
1/4 oz	0.0039	0.0034	0.0029
3/8 oz	0.004	0.0035	0.0031
1/2 oz	0.0043	0.0037	0.0033
1 oz	0.0052	0.0045	0.004
1/2 oz + (Wrap Cu)	0.0058	0.0051	0.0046
1/2 oz + (Wrap Cu)x2	0.0068	0.006	0.0055
2 oz	0.0069	0.0061	0.0056
3 oz	0.0087	0.0077	0.0071

### Minimum Space Finished

Cu Weight	Standard	High	Advanced
1/4 oz	0.0039	0.0034	0.0029
3/8 oz	0.0041	0.0035	0.003
1/2 oz	0.0043	0.0037	0.0032
1 oz	0.0053	0.0045	0.0039
1/2 oz + (Wrap Cu)	0.0059	0.0051	0.0044
1/2 oz + (Wrap Cu)x2	0.0071	0.006	0.0052
2 oz	0.0072	0.0061	0.0053
3 oz	0.0091	0.0077	0.0067

### Minimum Annular Ring on AW (assume .001 finished)

Cu Weight	Standard	High	Advanced
1/4 oz	0.0069	0.0064	0.0059
3/8 oz	0.0071	0.0065	0.006
1/2 oz	0.0073	0.0067	0.0062
1 oz	0.008	0.0075	0.007
1/2 oz + (Wrap Cu)	0.0086	0.008	0.0075
1/2 oz + (Wrap Cu)x2	0.0095	0.0089	0.0084
2 oz	0.0096	0.0089	0.0084
3 oz	0.0111	0.0104	0.0099

PTH to Cu Space on AW *			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0104	0.0094	0.0085
3/8 oz	0.0104	0.0094	0.0085
1/2 oz	0.0103	0.0093	0.0084
1 oz	0.0102	0.0091	0.0082
1/2 oz + (Wrap Cu)	0.01	0.0089	0.008
1/2 oz + (Wrap Cu)x2	0.0098	0.0087	0.0078
2 oz	0.0098	0.0087	0.0078
3 oz	0.0095	0.0082	0.0073

\* assume .004 min spacing per print (finished product)

**Outer Layer or Plated Inner Layer (Print-Plate-Etch)**

Minimum Line on AW*			
Cu Weight	Standard	High	Advanced
1/4 oz	0.005	0.0046	0.0041
3/8 oz	0.0052	0.0047	0.0042
1/2 oz	0.0054	0.0049	0.0044
1 oz	0.0061	0.0056	0.0051
1/2 oz + (Wrap Cu)	0.0067	0.0061	0.0056
1/2 oz + (Wrap Cu)x2	0.0076	0.007	0.0065
2 oz	0.0077	0.0071	0.0066
3 oz	0.0092	0.0085	0.008

**Outer Layer or Plated Inner Layer (Print-Plate-Etch)**

Minimum Line Finished			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0047	0.0043	0.0038
3/8 oz	0.0048	0.0043	0.0038
1/2 oz	0.0048	0.0044	0.0039
1 oz	0.0051	0.0046	0.0041
1/2 oz + (Wrap Cu)	0.0053	0.0047	0.0042
1/2 oz + (Wrap Cu)x2	0.0056	0.0049	0.0044
2 oz	0.0056	0.005	0.0045
3 oz	0.0061	0.0053	0.0048

\* must be at least min LW + Etch Factor or the orig AW LW + Etch Factor (which ever is greater)



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Minimum Space on AW			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0046	0.0042	0.0037
3/8 oz	0.0048	0.0043	0.0039
1/2 oz	0.005	0.0045	0.0041
1 oz	0.0059	0.0054	0.0048
1/2 oz + (Wrap Cu)	0.0065	0.006	0.0054
1/2 oz + (Wrap Cu)x2	0.0076	0.007	0.0063
2 oz	0.0077	0.0071	0.0064
3 oz	0.0096	0.0087	0.0079

Minimum Space Finished			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0047	0.0042	0.0037
3/8 oz	0.0048	0.0043	0.0038
1/2 oz	0.0051	0.0045	0.004
1 oz	0.0061	0.0054	0.0047
1/2 oz + (Wrap Cu)	0.0067	0.006	0.0052
1/2 oz + (Wrap Cu)x2	0.0079	0.007	0.006
2 oz	0.008	0.0071	0.0061
3 oz	0.01	0.0087	0.0075

Minimum Annular Ring on AW *			
Cu Weight	Standard	High	Advanced
1/4 oz	0.0055	0.005	0.0045
3/8 oz	0.0057	0.0051	0.0046
1/2 oz	0.0059	0.0054	0.0049
1 oz	0.0068	0.0063	0.0058
1/2 oz + (Wrap Cu)	0.0074	0.0069	0.0064
1/2 oz + (Wrap Cu)x2	0.0085	0.0079	0.0074
2 oz	0.0086	0.008	0.0075
3 oz	0.0105	0.0098	0.0093

\* assume .002 required Annular Ring Finished and .001 min Cu in hole.