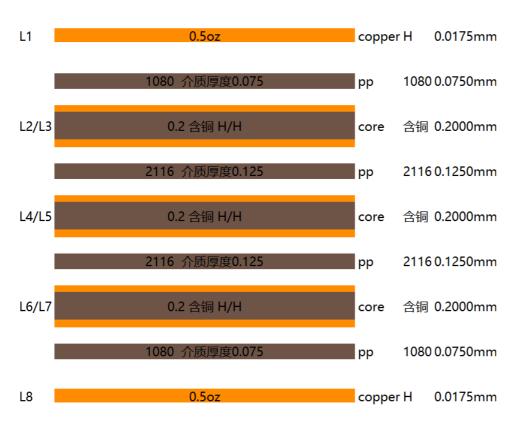
# **Stack Impedance Report**

Layer Count: 8
Stack Design Pictures:



#### **Board Thickness Report**

1	1.6000 (.100)
Pressing Thickness:	1.0035 mm

Impedance List(Line Width, Line Spacing, Distance To Copper Unit:mil)

S/N	Mode	Layer	Upper Refer	Lower Refer	Track Width	Track Spacing	Ground To Strip	Demand(ohm)	Diff(ohm)	Actual (ohm)
1	Outer Single	L1	/	L2	3.64	/	/	50.00	(+/-10%)	50.00
2	Inner Single	L3	L2	L4	3.43	/	/	50.00	(+/-10%)	50.00
3	Inner Single	L6	L5	L7	3.43	/	/	50.00	(+/-10%)	50.00
4	Outer Single	L8	L7	/	3.64	/	/	50.00	(+/-10%)	50.00
5	Outer Single	L1	/	L2	4.97	/	/	43.00	(+/-10%)	43.00
6	Inner Single	L3	L2	L4	4.69	/	/	43.00	(+/-10%)	43.00
7	Inner Single	L6	L5	L7	4.69	/	/	43.00	(+/-10%)	43.00
8	Outer Single	L8	L7	/	4.97	/	/	43.00	(+/-10%)	43.00
9	Outer Diff	L1	/	L2	3.50	4.18	/	90.00	(+/-10%)	90.00
10	Inner Diff	L3	L2	L4	3.50	4.87	/	90.00	(+/-10%)	90.00
11	Inner Diff	L6	L5	L7	3.50	4.87	/	90.00	(+/-10%)	90.00
12	Outer Diff	L8	L7	/	3.50	4.18	/	90.00	(+/-10%)	90.00

#### Impedance List(Line Width, Line Spacing, Distance To Copper Unit:mil)

S/N	Mode	Layer	Upper Refer	Lower Refer	Track Width	Track Spacing	Ground To Strip	Demand(ohm)	Diff(ohm)	Actual (ohm)
13	Outer Diff	L1	/	L2	3.70	3.50	/	85.00	(+/-10%)	85.00
14	Inner Diff	L3	L2	L4	3.50	3.57	/	85.00	(+/-10%)	85.00
15	Inner Diff	L6	L5	L7	3.50	3.57	/	85.00	(+/-10%)	85.00
16	Outer Diff	L8	L7	/	3.70	3.50	/	85.00	(+/-10%)	85.00

Impedance Calculation Diagram				
Calculation Mode	Calculation Paramameter	Impedance Infomation		
CEr + C1 + C2 + T1  H1 Er1 W2  W2  W2  W4  W7	W1:3.64 W2:2.64 H1:2.4705 Er1:4.2000 C1:0.7992 C2:0.5984 CEr:3.5000	Outer Single Control Layer: L1 Reference: &L2 Lower Trace Width:3.64mil Demand Impedance: 50.00 (+/-10%) ohm Actual Impedance: 50.00 ohm		
H2 Er2 T1	W1:3.43 W2:2.93 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Single Control Layer: L3 Reference: L2&L4 Lower Trace Width:3.43mil Demand Impedance: 50.00 (+/-10%) ohm Actual Impedance: 50.00 ohm		
H2 Er2 T1	W1:3.43 W2:2.93 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Single Control Layer: L6 Reference: L5&L7 Lower Trace Width:3.43mil Demand Impedance: 50.00 (+/-10%) ohm Actual Impedance: 50.00 ohm		

Impedance Calculation Diagram				
Calculation Mode	Calculation Paramameter	Impedance Infomation		
CEr	W1: 3.64 W2: 2.64 H1: 2.4705 Er1: 4.2000 C1: 0.7992 C2: 0.5984 CEr: 3.5000	Outer Single Control Layer: L8 Reference: L7& Lower Trace Width:3.64mil Demand Impedance: 50.00 (+/-10%) ohm Actual Impedance: 50.00 ohm		
CEr	W1: 4.97 W2: 3.97 H1: 2.4705 Er1: 4.2000 C1: 0.7992 C2: 0.5984 CEr: 3.5000	Outer Single Control Layer: L1 Reference: &L2 Lower Trace Width:4.97mil Demand Impedance: 43.00 (+/-10%) ohm Actual Impedance: 43.00 ohm		
H2 Er2 T1	W1: 4.69 W2: 4.19 H1: 6.4961 H2: 3.9567 Er1: 4.2000 Er2: 4.2000 T1: 0.6890	Inner Single Control Layer: L3 Reference: L2&L4 Lower Trace Width:4.69mil Demand Impedance: 43.00 (+/-10%) ohm Actual Impedance: 43.00 ohm		
H2 Er2 T1	W1: 4.69 W2: 4.19 H1: 6.4961 H2: 3.9567 Er1: 4.2000 Er2: 4.2000 T1: 0.6890	Inner Single Control Layer: L6 Reference: L5&L7 Lower Trace Width:4.69mil Demand Impedance: 43.00 (+/-10%) ohm Actual Impedance: 43.00 ohm		
CEr	W1: 4.97 W2: 3.97 H1: 2.4705 Er1: 4.2000 C1: 0.7992 C2: 0.5984 CEr: 3.5000	Outer Single Control Layer: L8 Reference: L7& Lower Trace Width:4.97mil Demand Impedance: 43.00 (+/-10%) ohm Actual Impedance: 43.00 ohm		

Impedance Calculation Diagram					
Calculation Mode	Calculation Paramameter	Impedance Infomation			
CEr + C1 + C2 + C3 + T1	W1:3.50 W2:2.50 S1:4.18 H1:2.4705 Er1:4.2000 T1:1.3780 C1:0.7992 C2:0.5984 C3:0.7992 CEr:3.5000	Outer Diff Control Layer: L1 Reference: &L2 Lower Trace Width:3.50mil Trace Separation:4.18mil Demand Impedance: 90.00 (+/-10%) ohm Actual Impedance: 90.00 ohm			
H2 Er2 T1	W1:3.50 W2:3.00 S1:4.87 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Diff Control Layer: L3 Reference: L2&L4 Lower Trace Width:3.50mil Trace Separation:4.87mil Demand Impedance: 90.00 (+/-10%) ohm Actual Impedance: 90.00 ohm			
H2 Er2 T1	W1:3.50 W2:3.00 S1:4.87 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Diff Control Layer: L6 Reference: L5&L7 Lower Trace Width:3.50mil Trace Separation:4.87mil Demand Impedance: 90.00 (+/-10%) ohm Actual Impedance: 90.00 ohm			
CEr	W1:3.50 W2:2.50 S1:4.18 H1:2.4705 Er1:4.2000 T1:1.3780 C1:0.7992 C2:0.5984 C3:0.7992 CEr:3.5000	Outer Diff Control Layer: L8 Reference: L7& Lower Trace Width:3.50mil Trace Separation:4.18mil Demand Impedance: 90.00 (+/-10%) ohm Actual Impedance: 90.00 ohm			

Impedance Calculation Diagram				
Calculation Mode	Calculation Paramameter	Impedance Infomation		
CEr + C1 + C2 + C3 + T1	W1:3.70 W2:2.70 S1:3.50 H1:2.4705 Er1:4.2000 T1:1.3780 C1:0.7992 C2:0.5984 C3:0.7992 CEr:3.5000	Outer Diff Control Layer: L1 Reference: &L2 Lower Trace Width:3.70mil Trace Separation:3.50mil Demand Impedance: 85.00 (+/-10%) ohm Actual Impedance: 85.00 ohm		
H2 Er2 W2 T1	W1:3.50 W2:3.00 S1:3.57 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Diff Control Layer: L3 Reference: L2&L4 Lower Trace Width:3.50mil Trace Separation:3.57mil Demand Impedance: 85.00 (+/-10%) ohm Actual Impedance: 85.00 ohm		
H2 Er2 T1	W1:3.50 W2:3.00 S1:3.57 H1:6.4961 H2:3.9567 Er1:4.2000 Er2:4.2000 T1:0.6890	Inner Diff Control Layer: L6 Reference: L5&L7 Lower Trace Width:3.50mil Trace Separation:3.57mil Demand Impedance: 85.00 (+/-10%) ohm Actual Impedance: 85.00 ohm		
CEr   C1   C2   T1   T1   T1   T1	W1:3.70 W2:2.70 S1:3.50 H1:2.4705 Er1:4.2000 T1:1.3780 C1:0.7992 C2:0.5984 C3:0.7992 CEr:3.5000	Outer Diff Control Layer: L8 Reference: L7& Lower Trace Width:3.70mil Trace Separation:3.50mil Demand Impedance: 85.00 (+/-10%) ohm Actual Impedance: 85.00 ohm		