

CLASS 2 BOARD      PROPOSED ON: 05/28/2010

			GNDS												POSSIBLE VIAS 1808 (.018 PAD .008 HOLE) 2010 (.020 PAD .010 HOLE)		
1	copper	0.0005		.008 hole	.008 hole 1-3u .018 pad	.008 hole 1-5u .018 pad	.008 hole 1 thru 7 .018 pad	.008 hole 1 thru 9 .018 pad	.008 hole 1 thru 10 .018 pad	.008 hole 1 thru 11 .018 pad	.008 hole 1 thru 13 .018 pad	.008 hole 1 thru 15 .018 pad	.008 hole 1 thru 17 .018 pad	.012 hole 1 thru 19 .020 pad	.012hole 1 thru 20 .020 pad	1	SURFACE
	dielectric	0.003		2												GND /PWR PLANE	
2	copper	0.0005	.018 pad													3	Pair Layer (3.5trace---5.5 space)
	dielectric	0.004														4	PLANE
3	copper	0.0007														5	Pair Layer (3.5trace---5.5 space)
	dielectric	0.005														6	PLANE
4	copper	0.0007														7	Pair Layer (3.5trace---5.5 space)
	dielectric	0.004														8	PLANE
5	copper	0.0007														9	Pair Layer (3.5trace---5.5 space)
	dielectric	0.005														10	PLANE
6	copper	0.0005														11	Pair Layer (3.5trace---5.5 space)
	dielectric	0.004														12	GND /PWR PLANE
7	copper	0.0005														13	Pair Layer (3.5trace---5.5 space)
	dielectric	0.005														14	PLANE
8	copper	0.0005														15	Pair Layer (3.5trace---5.5 space)
	dielectric	0.004														16	PLANE
9	copper	0.0005														17	Pair Layer (3.5trace---5.5 space)
	dielectric	0.005														18	PLANE
10	copper	0.0005														19	Pair Layer (3.5trace---5.5 space)
	dielectric	0.004														20	SURFACE/GND
	copper	0.0005															
			0.004 ***plus plating (.001)x4 places on lyrs 2, 6, 7, 11														
thk			0.098														
01-17			0.0798														

1) VIA IN PADS .006 HOLE .011 PADS  
PART # TLK2711JR-ZQE)  
( CELL=BGA80) .01969 PITCH 1/2 MM  
(16 TIMES)

Each set of two connectors has 2 gnds for a total of 8

Test Board  
-Any suggested input

Placement  
Differential pair speeds and groups  
Differential pair layer jumping on slower signals  
Resistors on pairs  
Pin swapping  
mirrored half  
layer stack up

Maximum number of lamination cycle for any set of laminate to experience is 4 times.  
4 mil drill requires 12 mil pad size (minimum); can drill and plate through a maximum 0.040" total board/copper thickness.  
6 mil drill requires 14 mil pad size (minimum); can drill and plate through a maximum 0.060" total board/copper thickness.  
8 mil drill requires 18 mil pad size (minimum); can drill and plate through a maximum 0.080" total board/copper thickness.  
10 mil drill requires 20 mil pad size (minimum); can drill and plate through a maximum 0.110" total board/copper thickness.  
You will have to use 12 mil or larger drill if you need make the board thick than the proposed 20-layer, 0.107" thick board.