Digit 360 ICS CTRL

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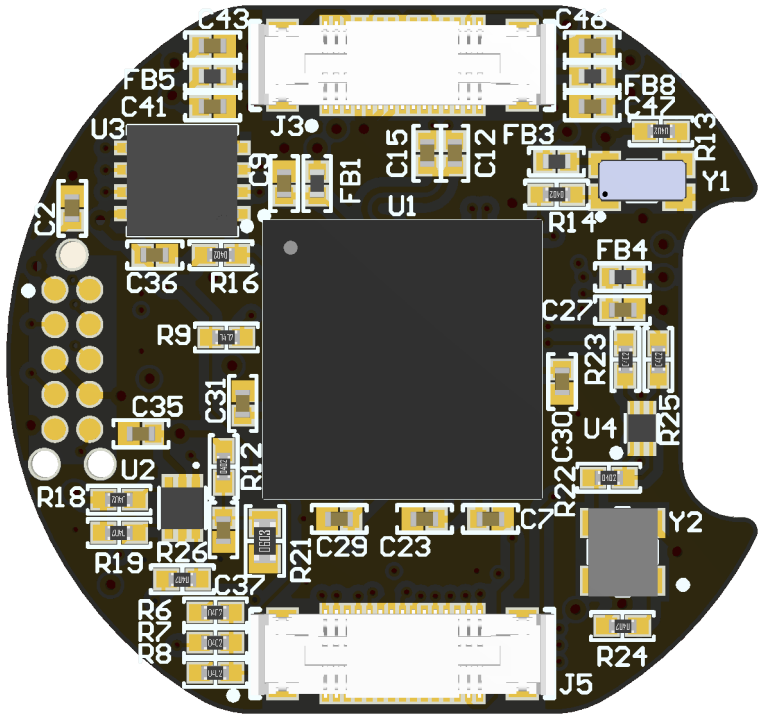
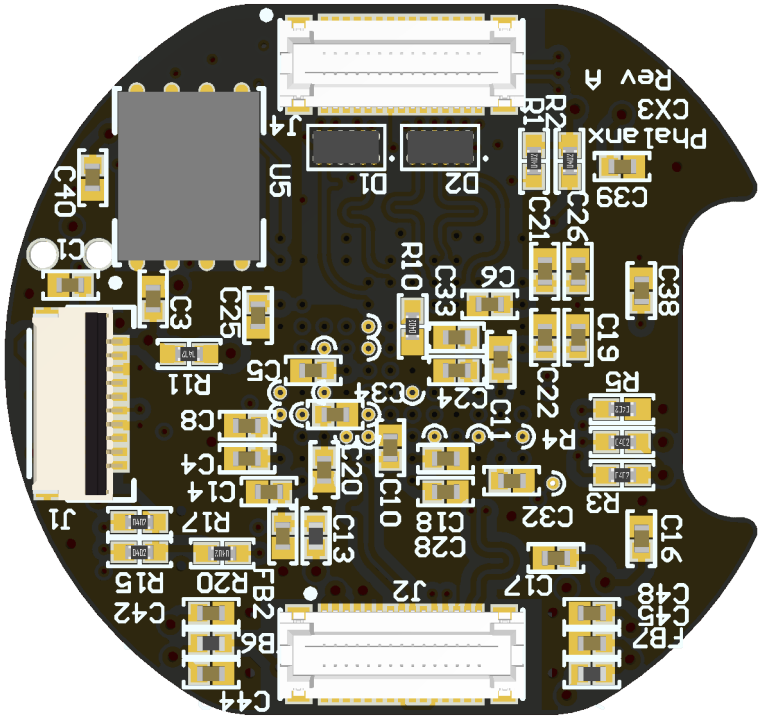
Realistic View



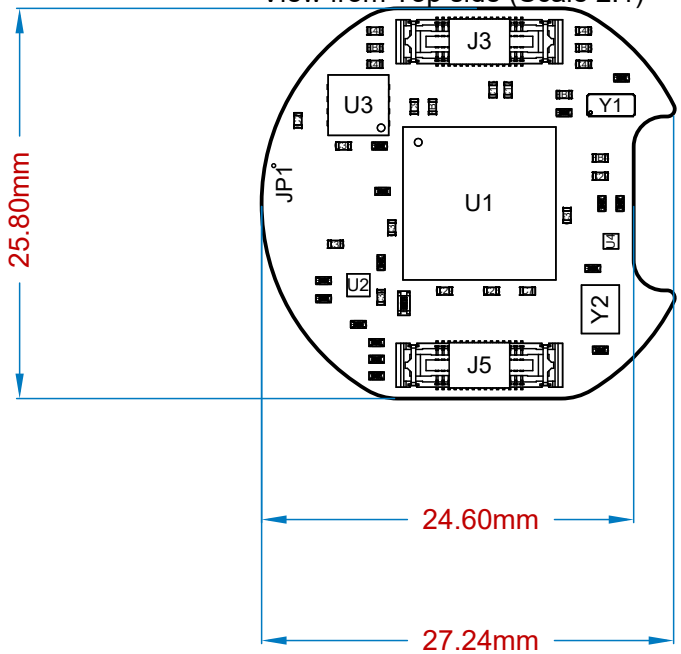
Realistic View



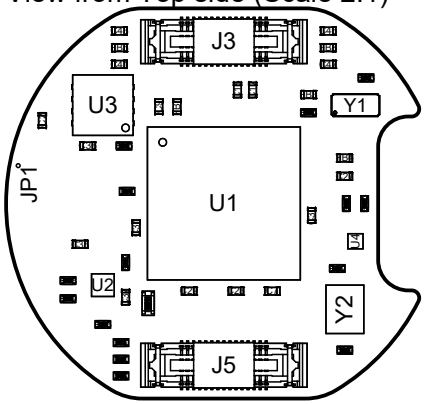
NOTES: UNITS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED

1. INTERPRET THIS DRAWING IN ACCORDANCE WITH IPC-D-325A
2. BOARD FABRICATION AND QUALITY PER IPC-6012, CLASS 2, EXCEPT SPECIFIED HEREIN
3. MUST COMPLY WITH EUROPEAN DIRECTIVE 2002/95/EC (RoHS)
4. DIMENSIONAL LIMITS APPLY AFTER PLATING OR COATING
5. BOW AND TWIST MAXIMUM IS 0.75%
6. MATERIAL: LAMINATE AND PREPREG SHALL BE IN ACCORDANCE WITH IPC-4101/21. 170 DEGREES CELSIUS MINIMUM Tg, UL 94V-0
7. STACKUP SUMMARY:
   A. NUMBER OF COPPER LAYERS: 8
   B. BOARD THICKNESS SHALL BE 62mil +/- 10%
   C. COPPER: See Layer Stack
   D. DEFAULT TRACE/SPACE: 5mil / 5mil
   E. CONDUCTOR WIDTH TOLERANCE = +/- 0.01mm
8. VIPPO (VIA IN PAD PLATED OVER) PER IPC-6012, CURRENT REVISION, CLASS 2, AS STATED IN NOTE 2.
   a. FILL AND CAP All 0.2mm VIA HOLES WITH NON-CONDUCTIVE EPOXY
   b. FILL AND CAP VIAS MUST BE PLANARIZED
9. SURFACE FINISH/PLATING:
   A. BOARD SHALL BE IMMERSION GOLD PLATED (ENIG) ACCORDING TO IPC-4552. THICKNESS SHALL BE A MINIMUM OF 0.05µm GOLD OVER 3-6µm NICKEL
10. SOLDERMASK WITH LIQUID PHOTO IMAGEABLE (LPI) PER IPC-SM-840C, CLASS T. COLOR: MATTE BLACK
11. SILKSCREEN PER SUPPLIED ARTWORK WITH ORGANIC, NON-CONDUCTIVE, EPOXY INK. SILKSCREEN MAY BE TRIMMED OFF ANY SOLDERABLE ENTITY. COLOR: WHITE
12. 100% BARE BOARD ELECTRICAL TEST TO BE DONE WITH REFERENCE TO SUPPLIED NETLIST
13. LOCATE MANUFACTURER'S IDENTIFICATION AND LOT CODE ON PRIMARY SIDE FREE FROM ALL METAL ENTITY RENDERED IN SILKSCREEN.
14. DIFFERENTIAL CONTROLLED IMPEDANCE REQUIRED ON BOARD.
    SEE TABLE : DIFFERENTIAL CONTROLLED IMPEDANCE
    SEE TABLE : SINGLE ENDED CONTROLLED IMPEDANCE
15. DETAILS NOT SPECIFIED ARE AT MANUFACTURER'S OPTION BUT FINAL APPROVAL MUST BE OBTAINED

View from Top side (Scale 2:1)



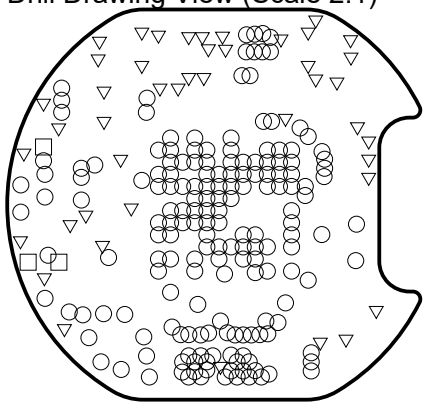
View from Top side (Scale 2:1)



Drill Table

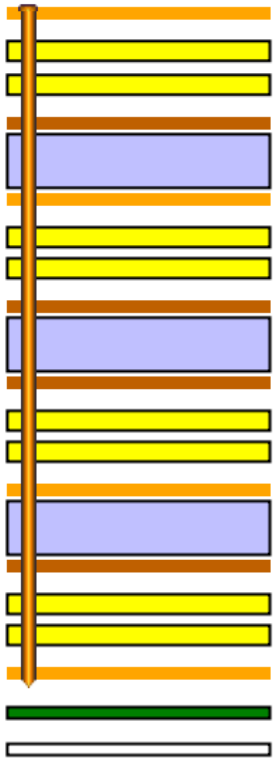
Symbol	Count	Hole Size	Plated	Hole Tolerance
○	179	0.20mm	Plated	
▽	44	0.38mm	Plated	
□	3	0.99mm	Non-Plated	
	226 Total			

Drill Drawing View (Scale 2:1)



Stack-Up (or similar)

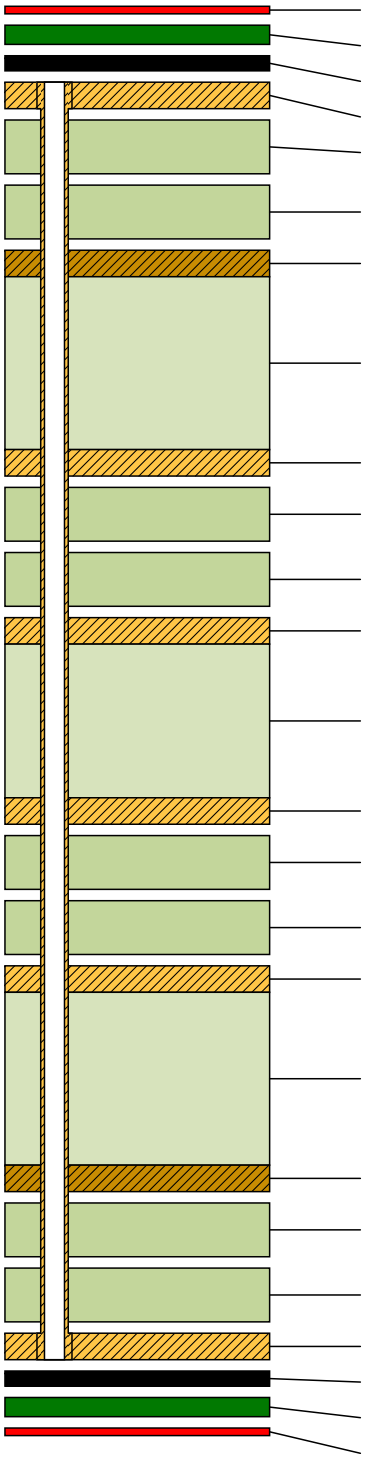
Layer	Base CU / Plt	Thick	Type	Stackup	Subs	Imp	Material	Dk	Df
Silkscreen		0.00					Taiyo-SS - White		
Soldermask		0.60					Taiyo-SM - Green	2.70	0.033
Lyr1	0.5oz / Std	1.80	S						
Prepreg		7.64					370HR - 2x2113	3.99	0.022
Lyr2	1oz	1.20	P						
Core		8.00					370HR - 8.0mils	4.61	0.021
Lyr3	1oz	1.20	S						
Prepreg		6.68					370HR - 2x2113	3.99	0.022
Lyr4	1oz	1.20	P						
Core		8.00					370HR - 8.0mils	4.61	0.021
Lyr5	1oz	1.20	P						
Prepreg		6.68					370HR - 2x2113	3.99	0.022
Lyr6	1oz	1.20	S						
Core		8.00					370HR - 8.0mils	4.61	0.021
Lyr7	1oz	1.20	P						
Prepreg		7.64					370HR - 2x2113	3.99	0.022
Lyr8	0.5oz / Std	1.80	S						
Soldermask		0.60					Taiyo-SM - Green	2.70	0.033
Silkscreen		0.00					Taiyo-SS - White		



Required Thickness

Type	Req. Thick	Tol% +	Tol% -	Act. Thick	Measured
Overall	62.0	10.0	10.0	64.6	
Over lamination	58.4	10.0	10.0	61.0	
Over laminate	57.2	10.0	10.0	59.8	
Over metal	60.8	10.0	10.0	63.4	

Layer Stack Legend



Material	Layer	Type	Gerber
	Top Overlay	Legend	GTO
Surface Material	Top Solder	Solder Mask	GTS
PbSn	Top Surface Finish	Surface Finish	
CF-004	**Top Layer**	**Signal**	**GTL**
Prepreg		*Dielectric*	
Prepreg		*Dielectric*	
CF-004	**Int1 (GND)**	**Internal Plane**	**GP1**
Core		*Dielectric*	
CF-004	**Int2 (Sign)**	**Signal**	**G1**
Prepreg		*Dielectric*	
Prepreg		*Dielectric*	
CF-004	**Int3 (PWR)**	**Signal**	**G2**
Core		*Dielectric*	
CF-004	**Int4 (PWR)**	**Signal**	**G3**
Prepreg		*Dielectric*	
Prepreg		*Dielectric*	
CF-004	**Int5 (Sign)**	**Signal**	**G4**
Core		*Dielectric*	
CF-004	**Int6 (GND)**	**Internal Plane**	**GP2**
Prepreg		*Dielectric*	
Prepreg		*Dielectric*	
CF-004	**Bottom Layer**	**Signal**	**GBL**
PbSn	Bottom Surface Finish	Surface Finish	
Surface Material	Bottom Solder	Solder Mask	GBS
	Bottom Overlay	Legend	GBO

Transmission Line Structure Table

Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Clearance	Target Tolerance
90	90.08	Top Layer	8.00mil	8.00mil	7.00mil	Int1 (GND)	5.00mil	7%
100	100.91	Top Layer	6.00mil	6.00mil	7.00mil	Int1 (GND)	5.00mil	10%
90	90.08	Bottom Layer	8.00mil	8.00mil	7.00mil	Int6 (GND)	5.00mil	7%
100	100.91	Bottom Layer	6.00mil	6.00mil	7.00mil	Int6 (GND)	5.00mil	10%

Acceptable minimum:
10% target tolerance