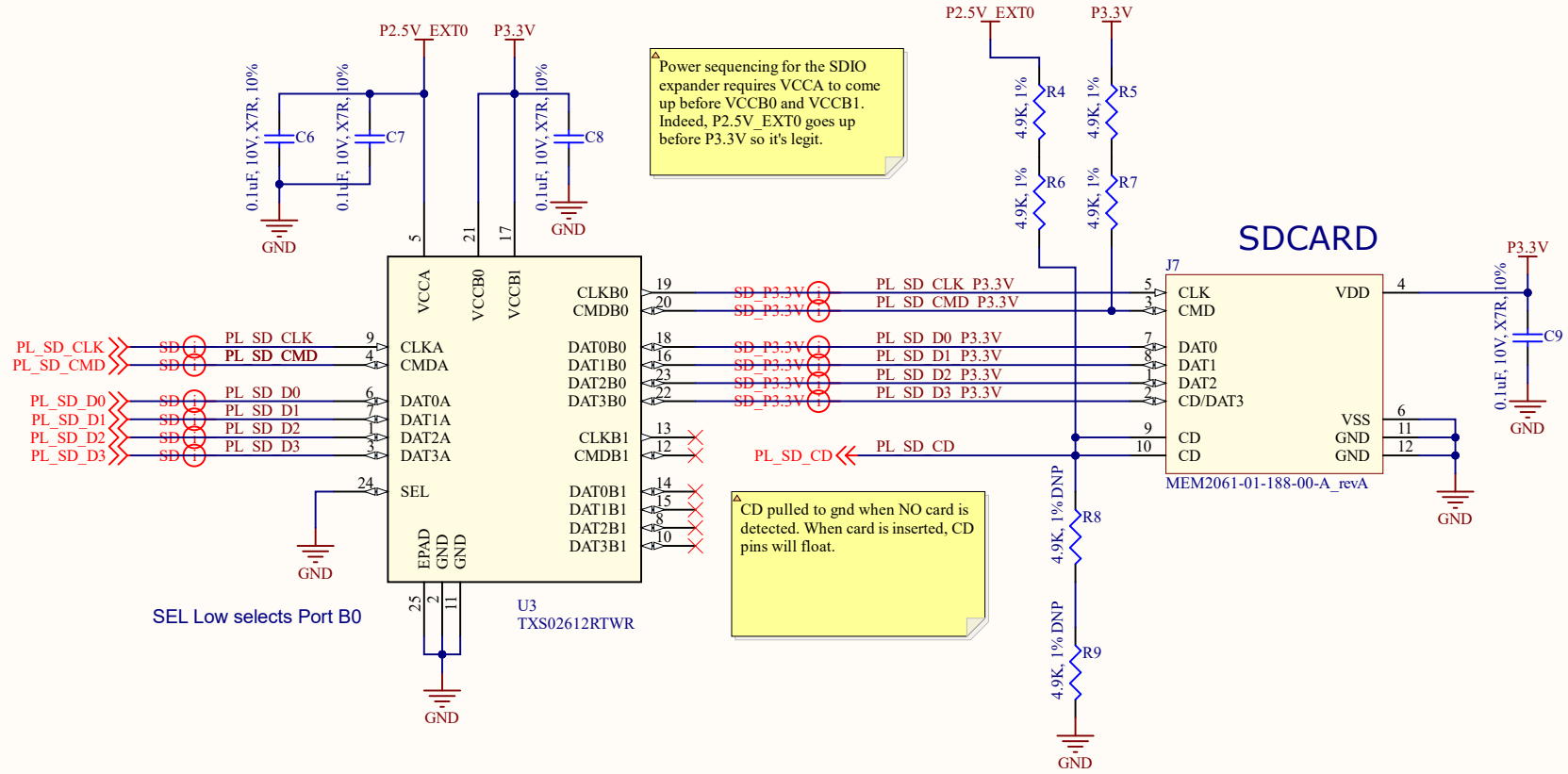
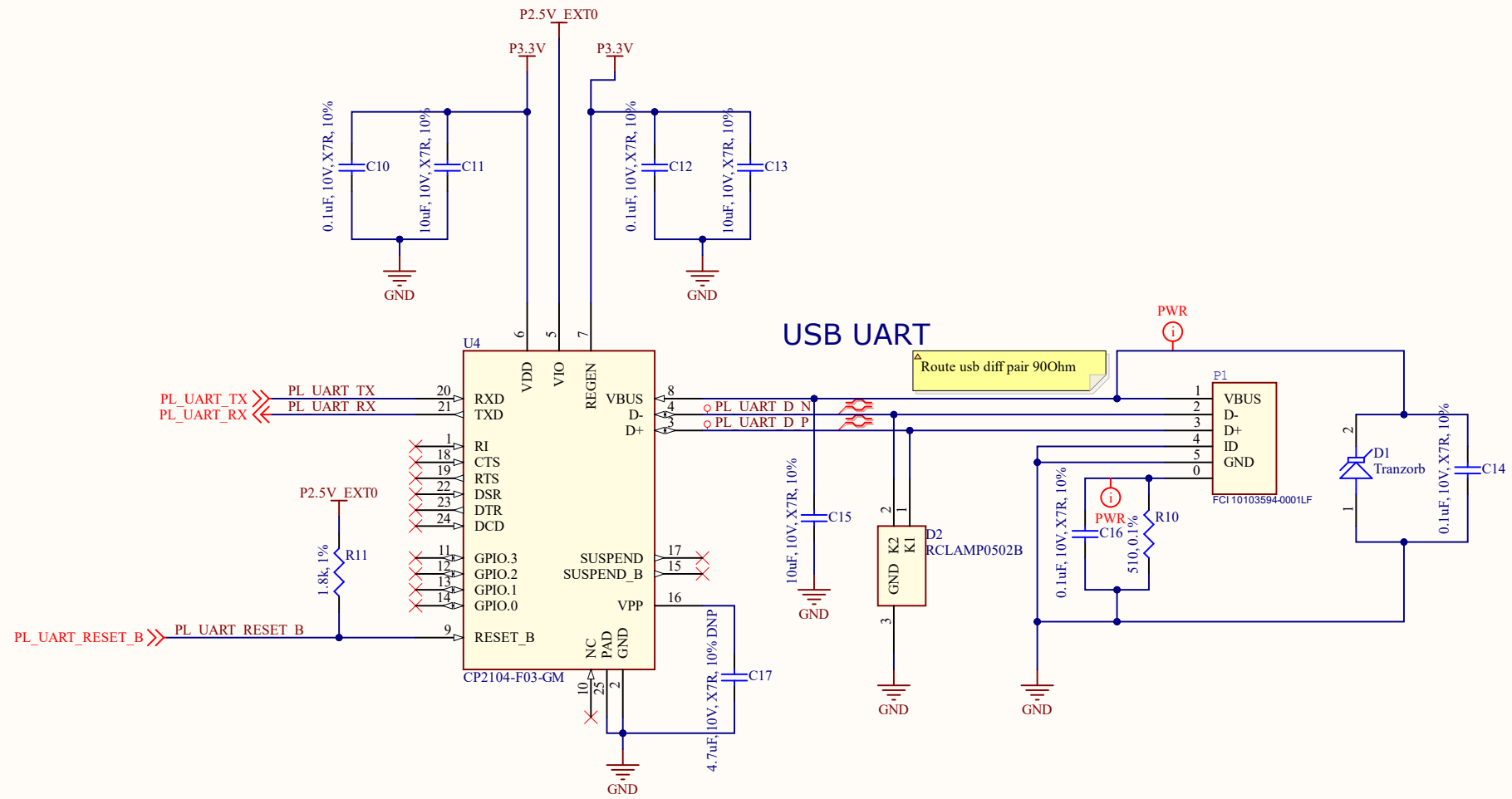


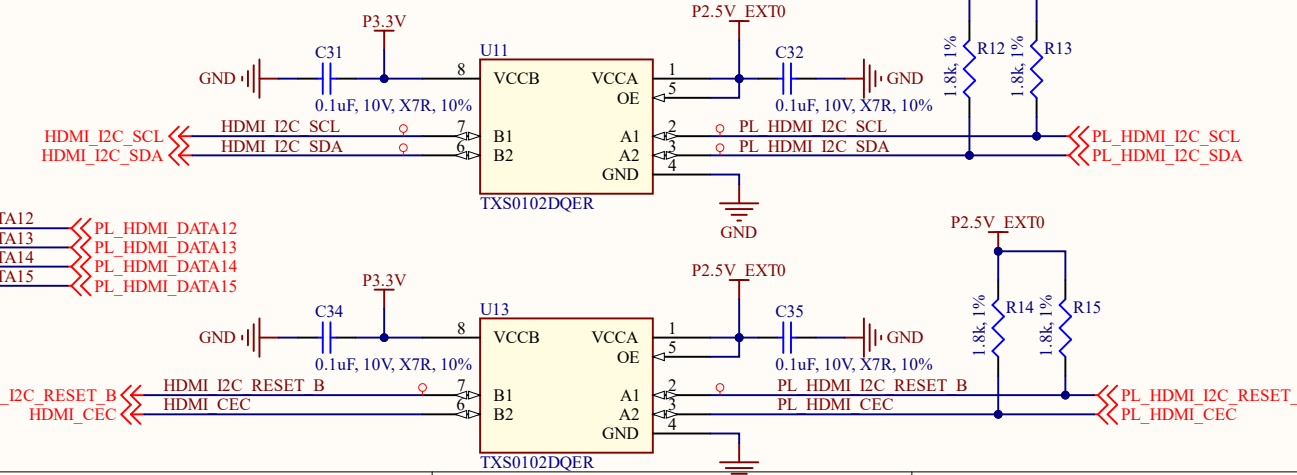
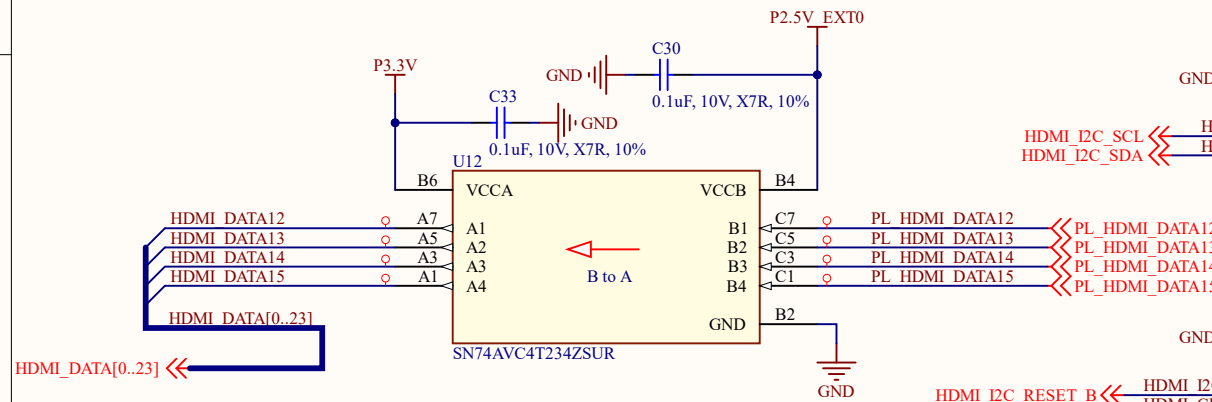
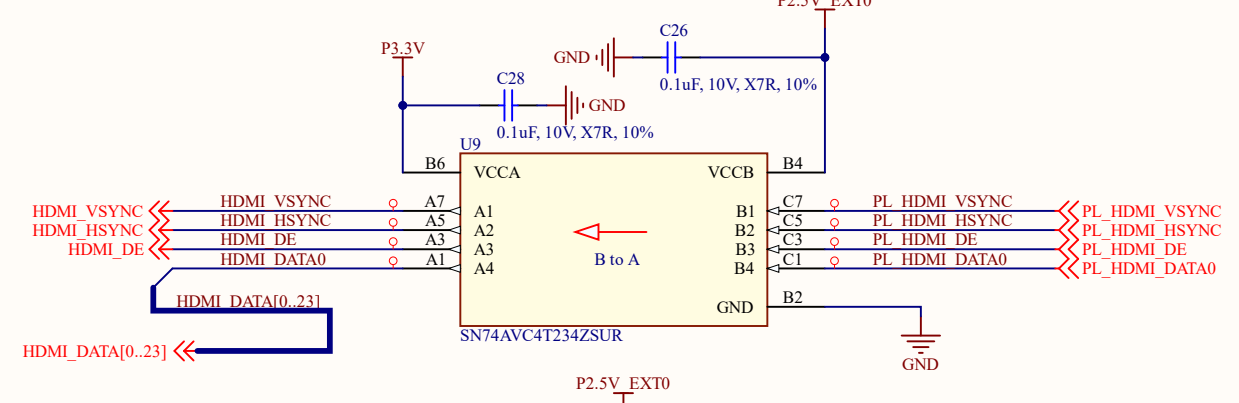
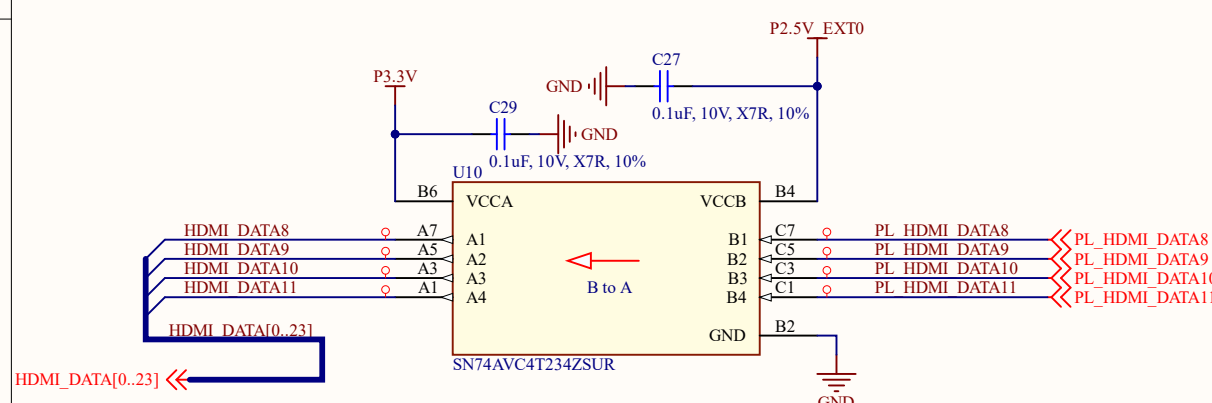
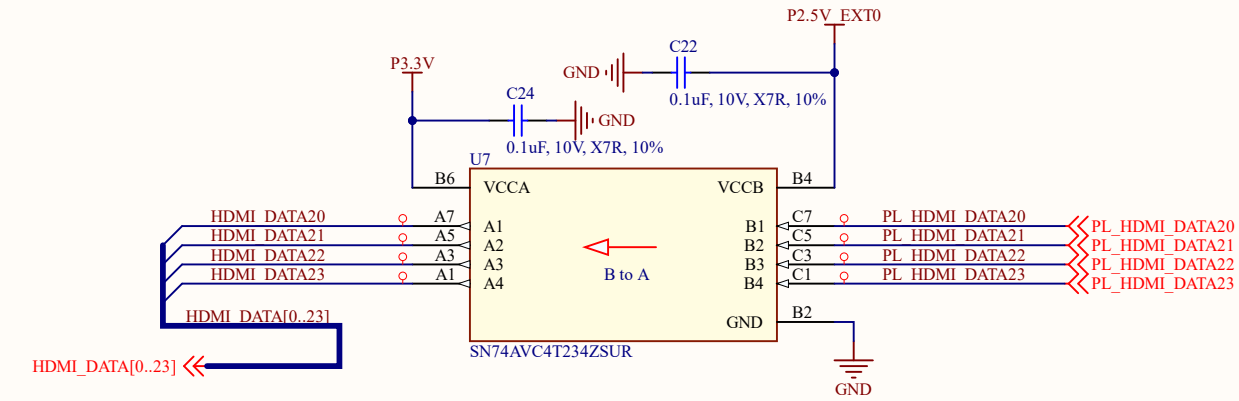
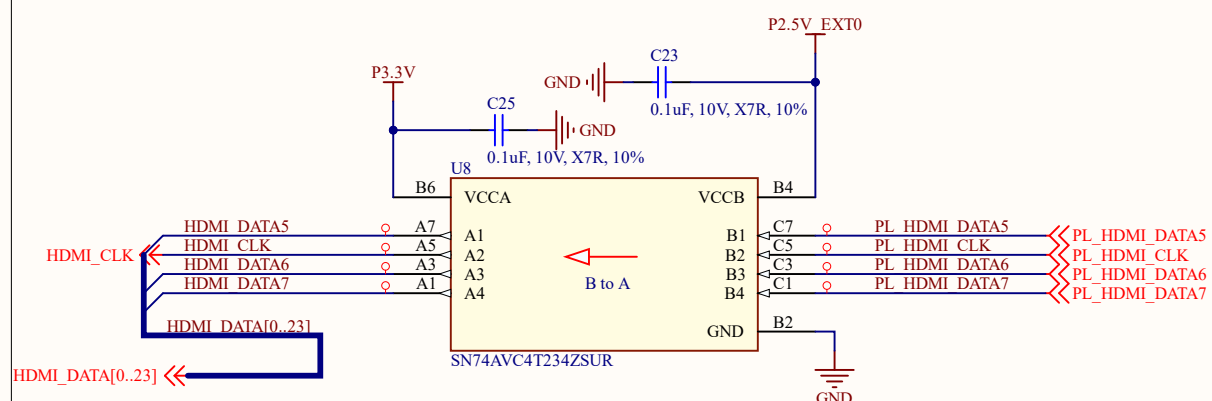
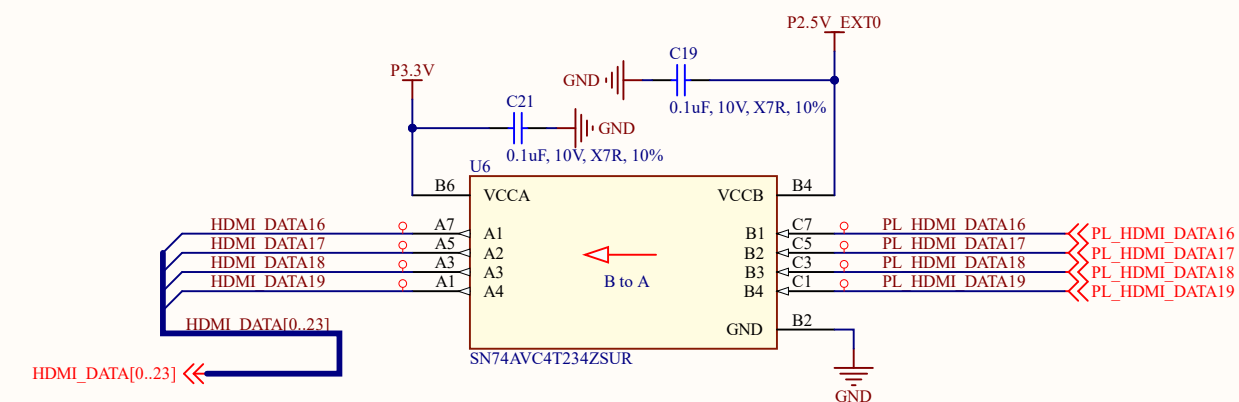
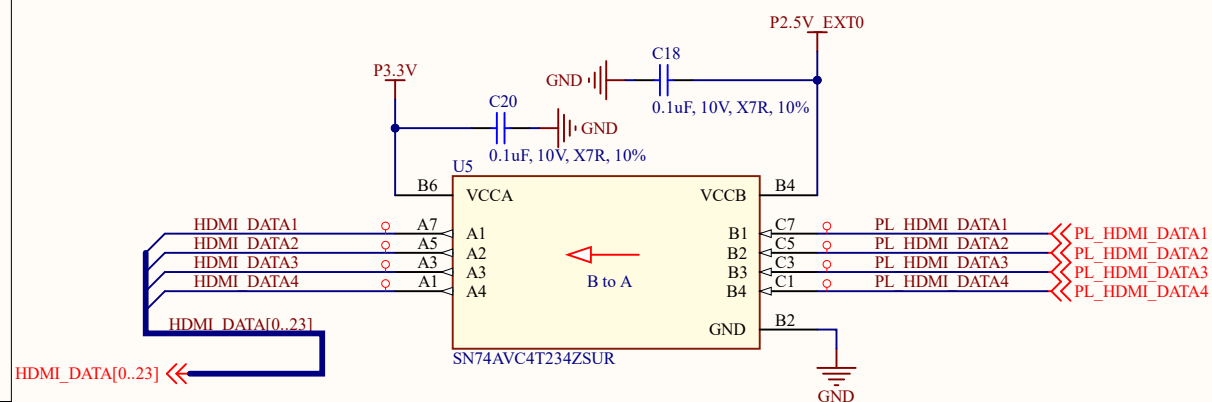
Use LVDS_CK1_N as the sd clk since it connects to an MRCC pin. Trace width is 4.3 mil vs 4 mil for SE so it shouldn't be a problem getting close to 50 ohm.

Use LVDS_CK1_P as for chip detect so we don't waste pins and it's not dynamic sig.

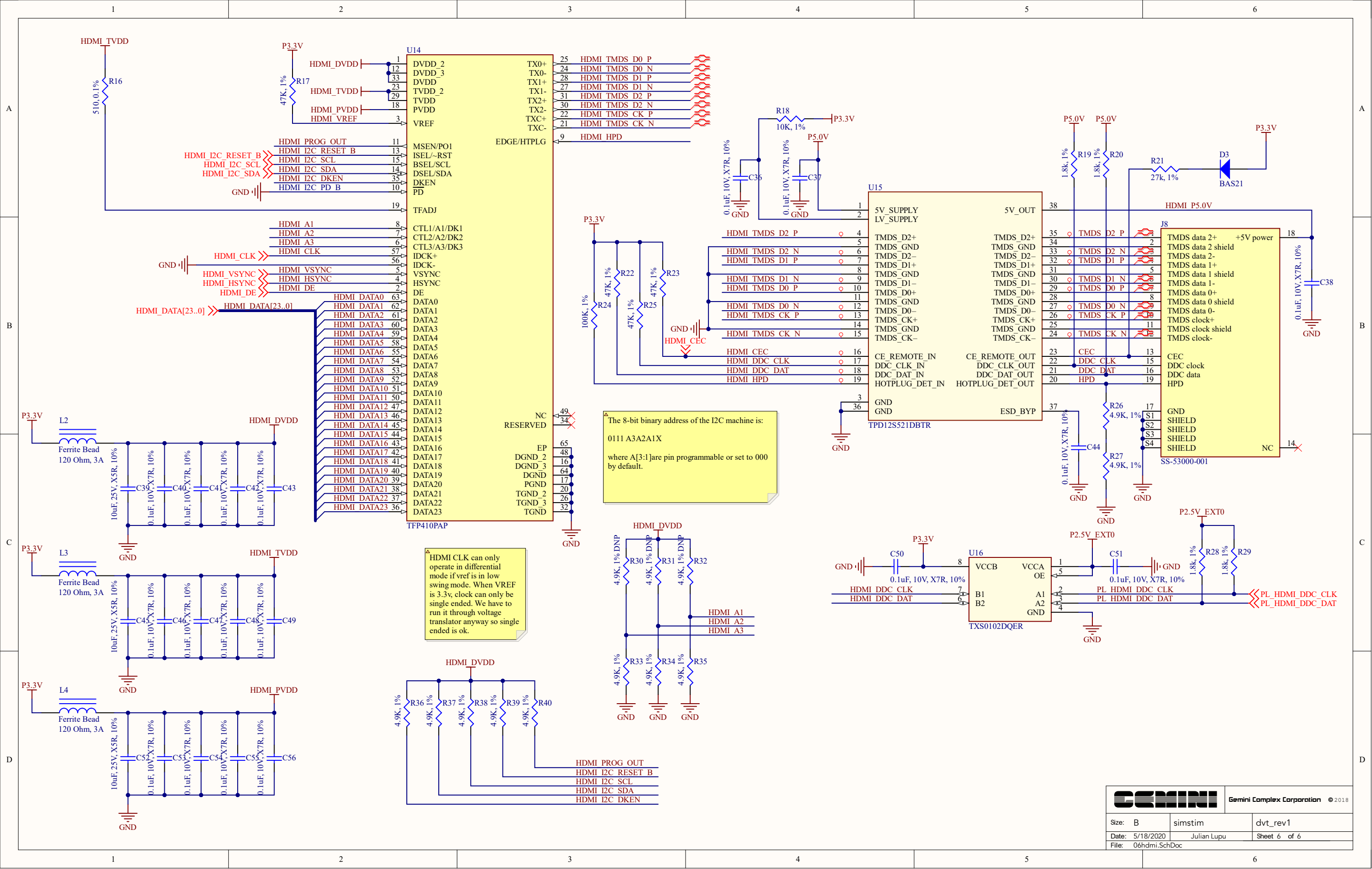
Also route SD sigs using IO 4, 24, 31, 32, 33 and CK1 since all on same layer.







TXS0102DQER:
 $1.65V \leq VCCA \leq 3.6V$ and $VCCA \leq VCCB$
 $2.3V \leq VCCB \leq 5.5V$

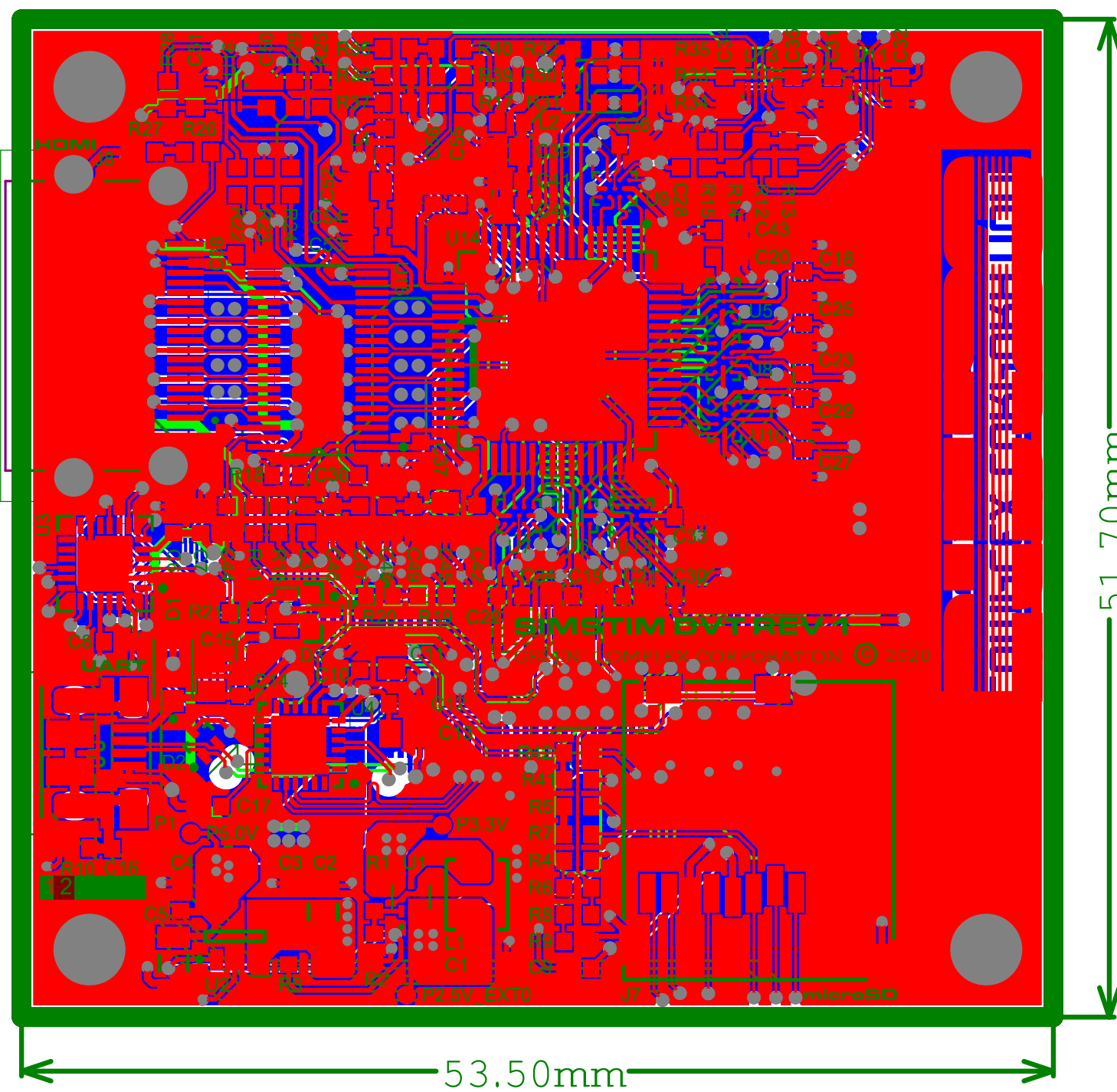
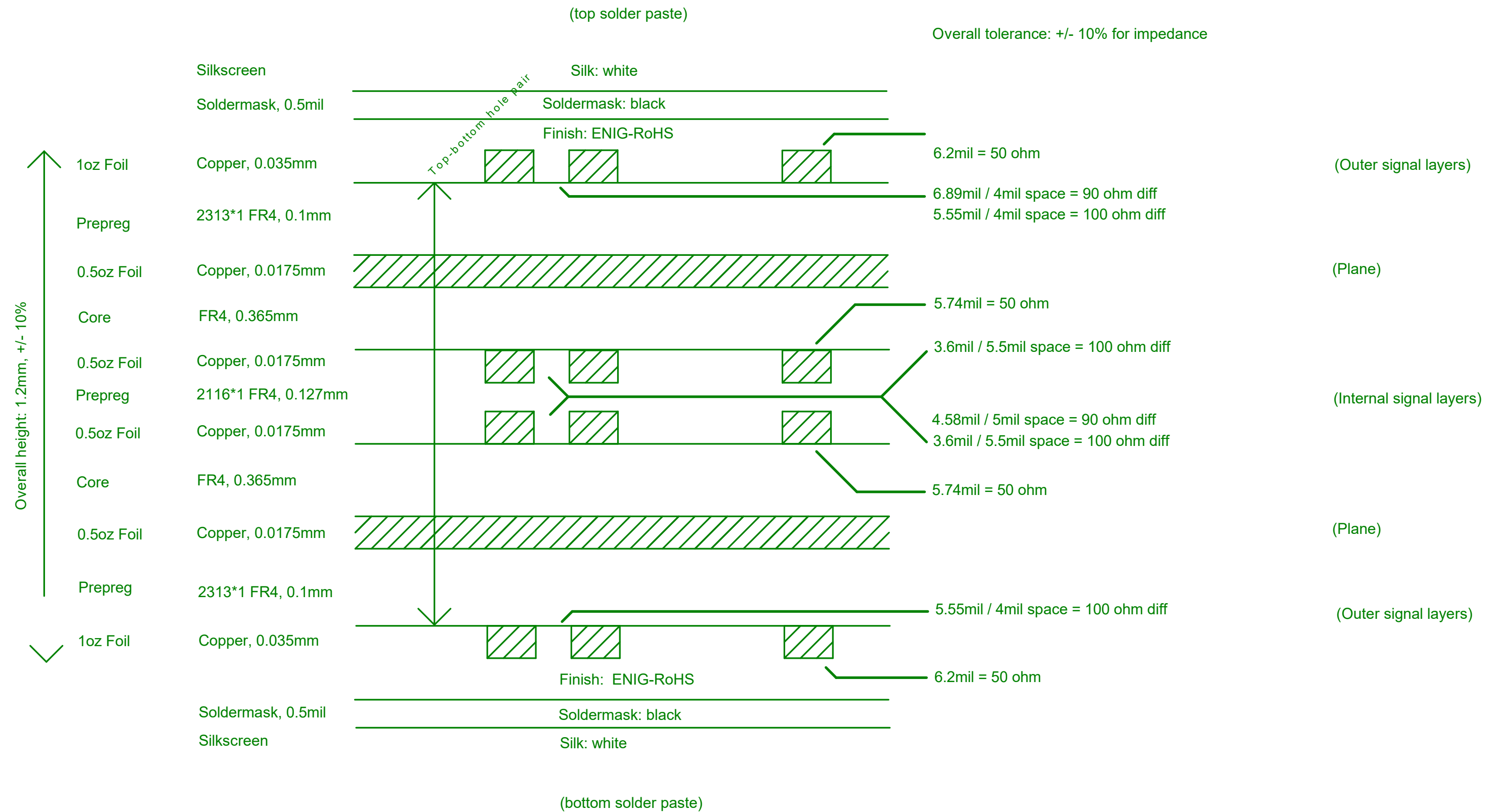


Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

Material and thickness



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

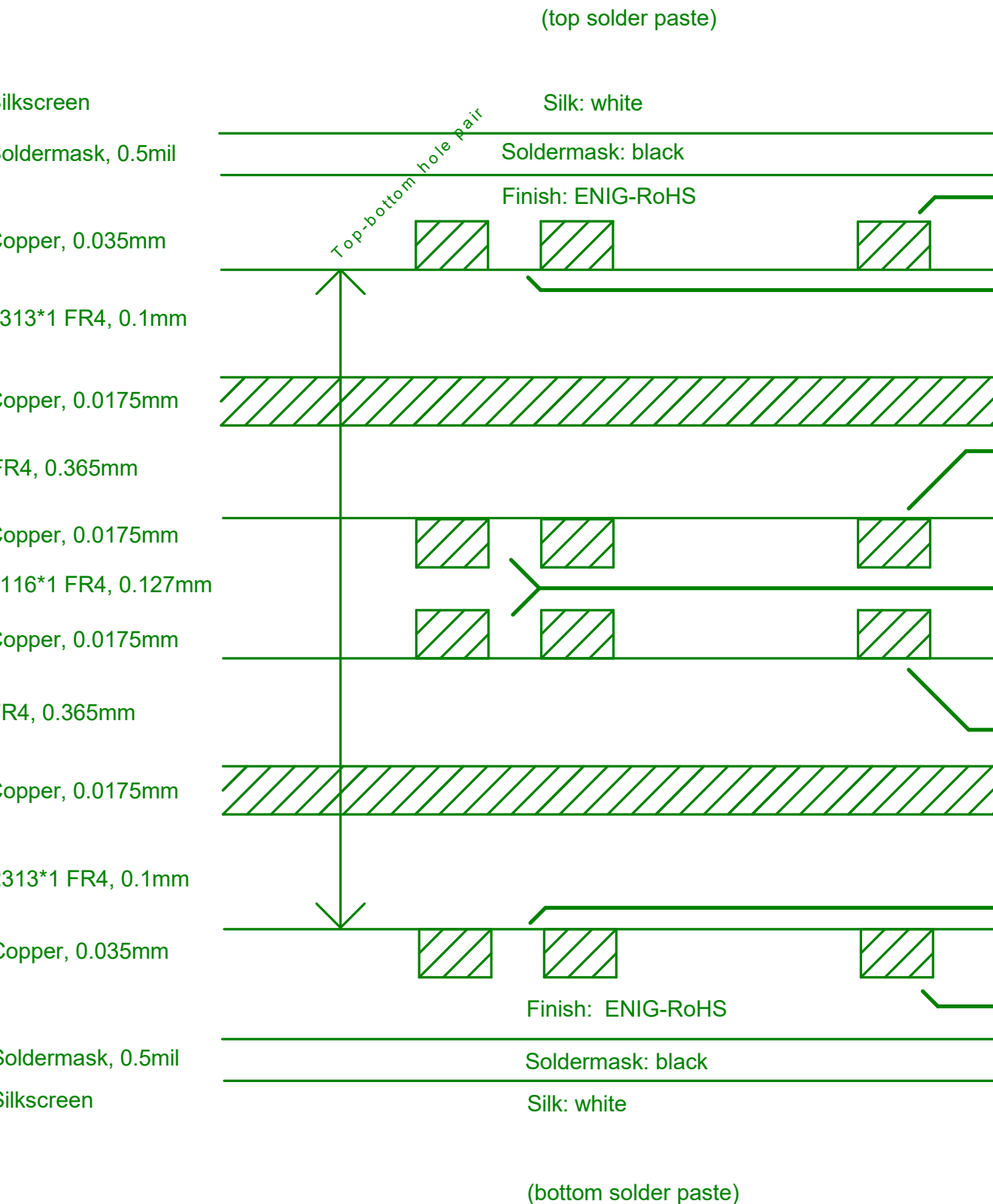
File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

Material and thickness

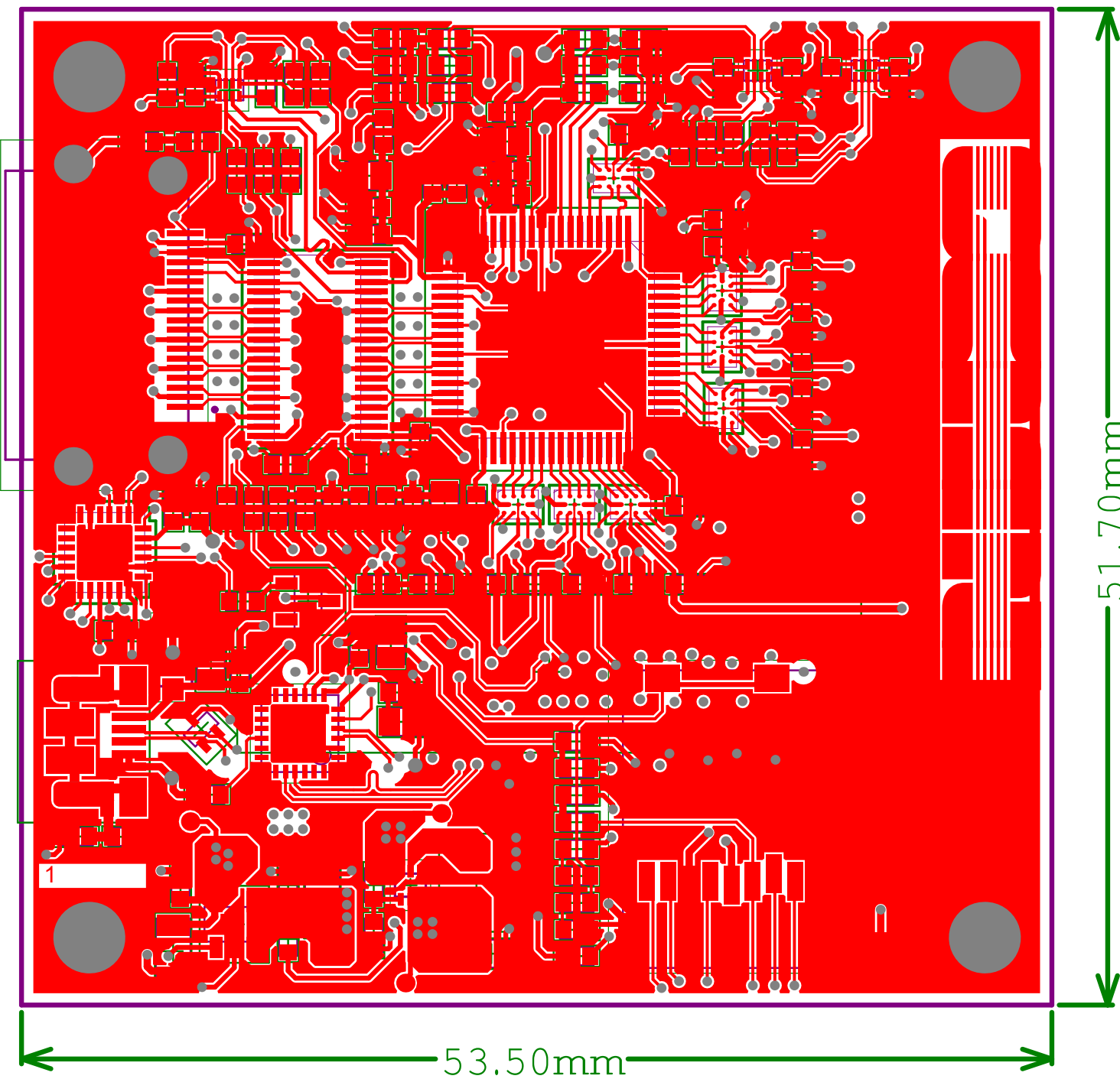
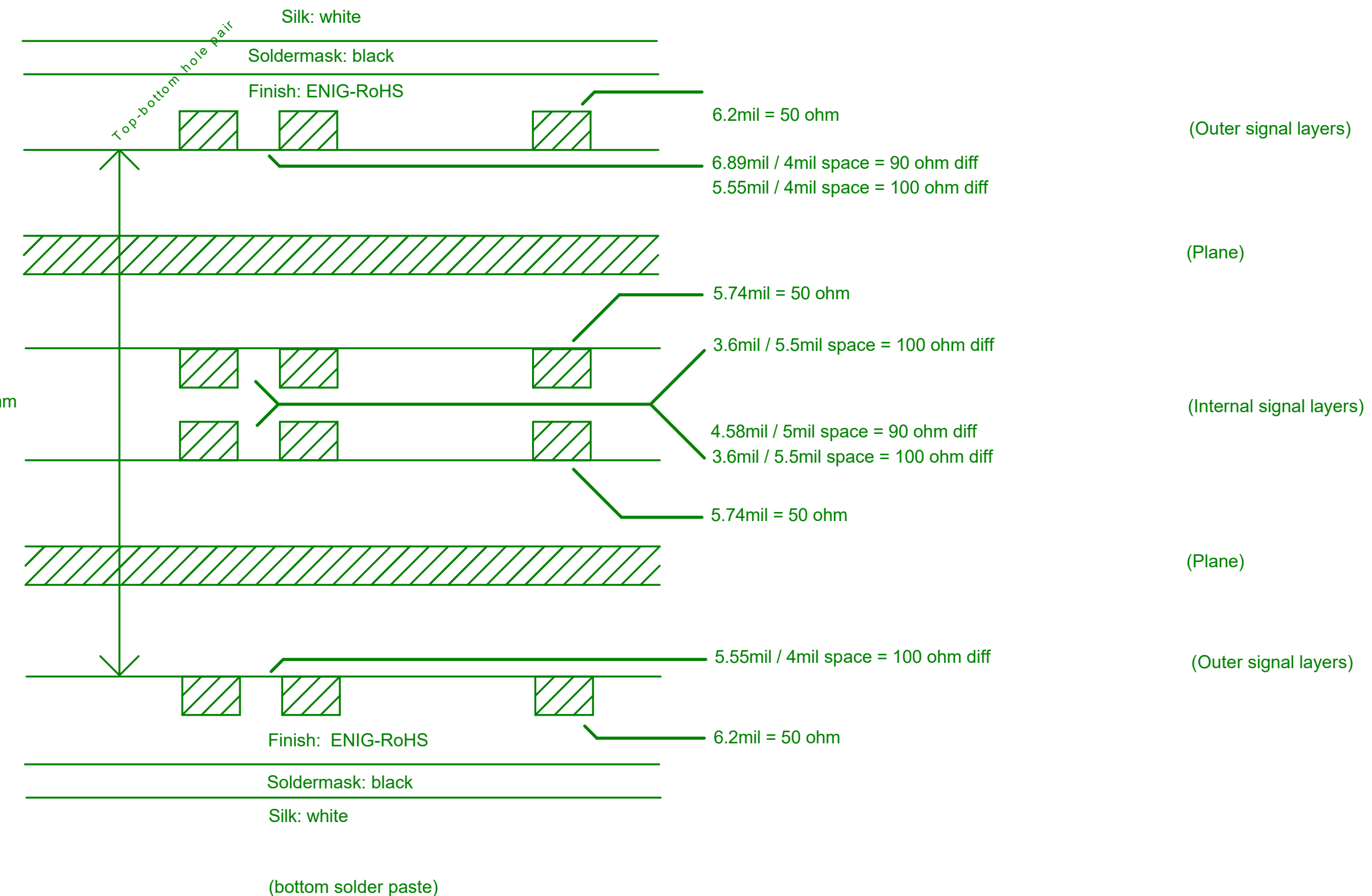
1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Overall height: 1.2mm, +/- 10%



Trace width and impedance

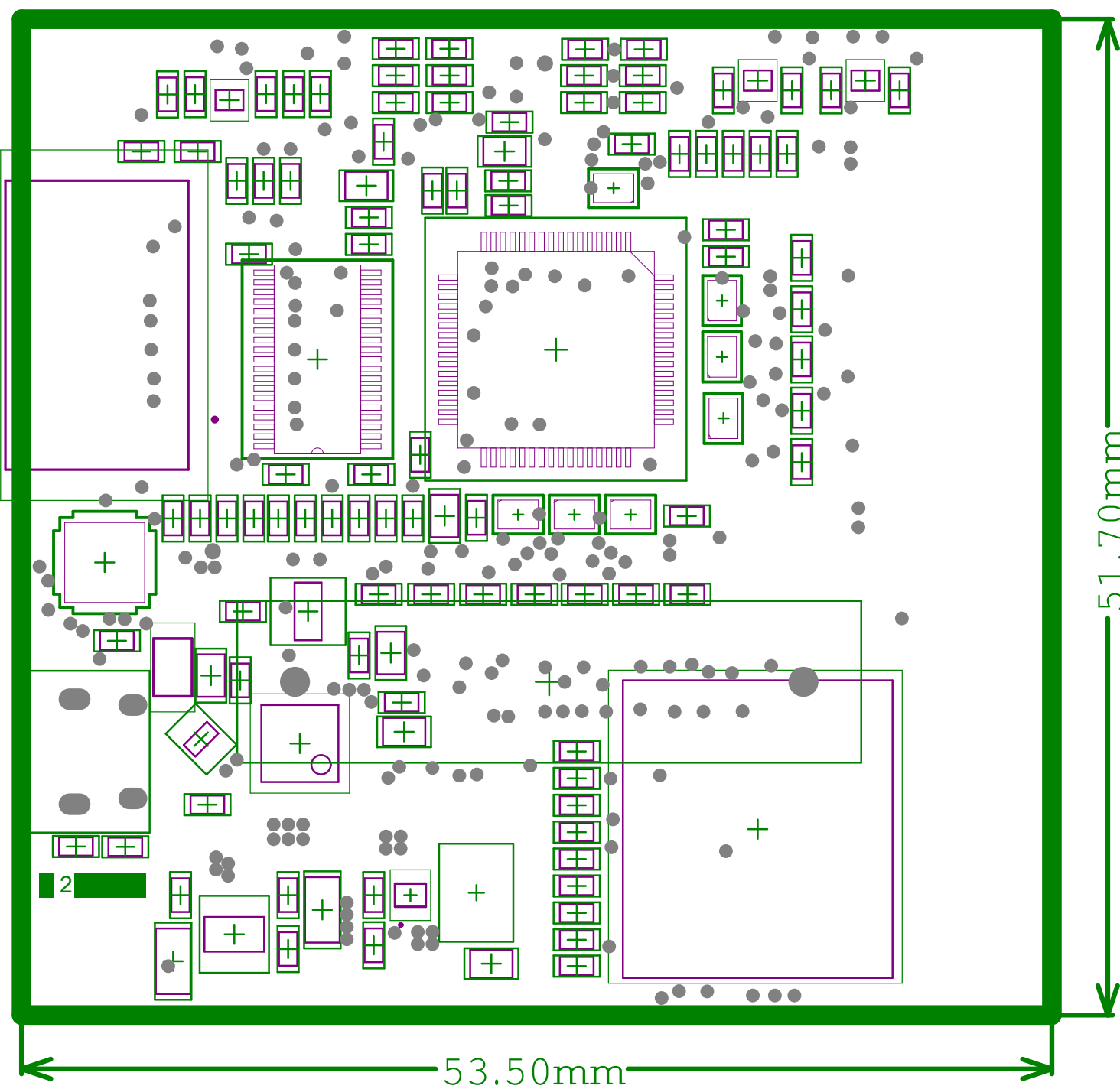
Overall tolerance: +/- 10% for impedance



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

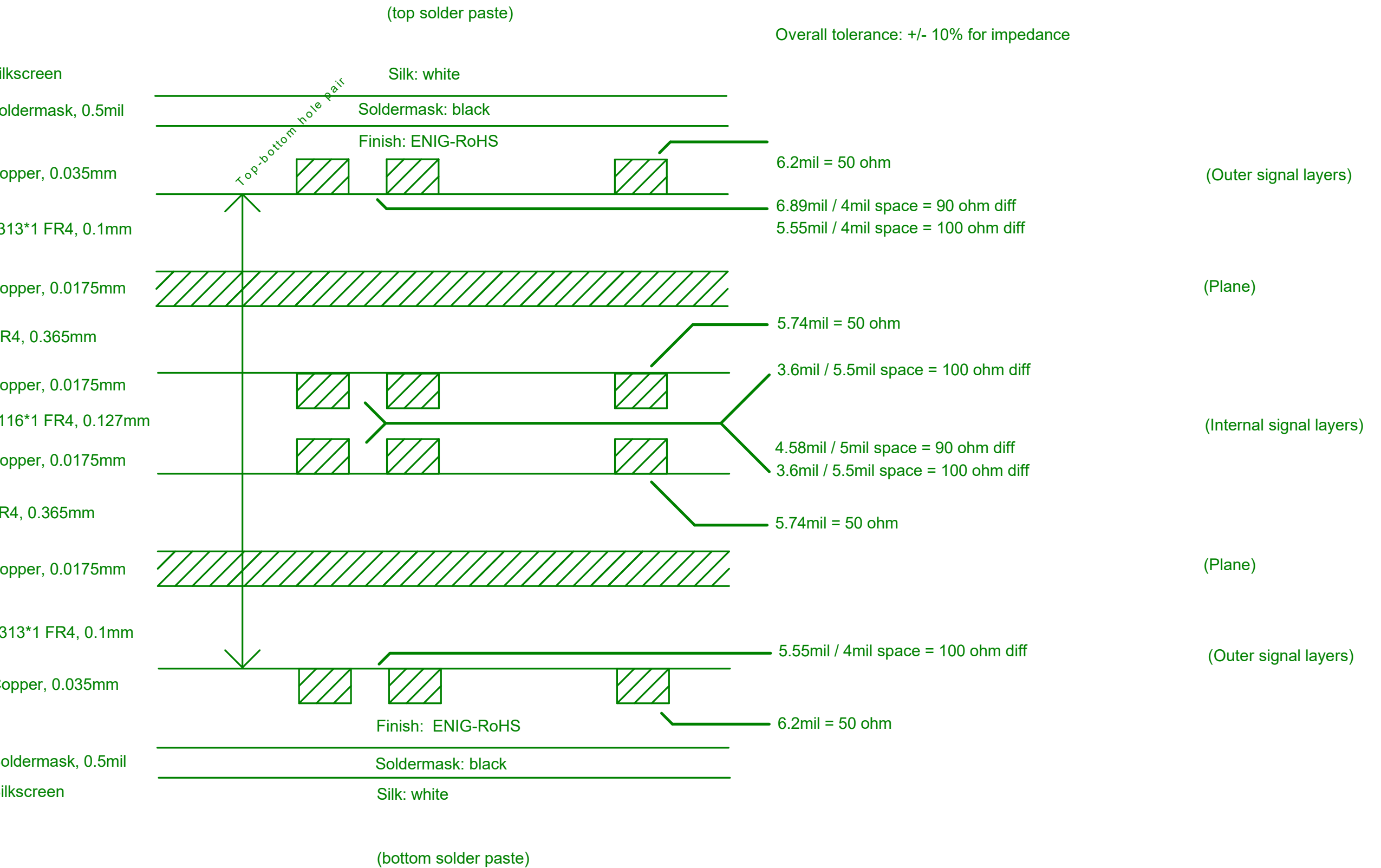
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

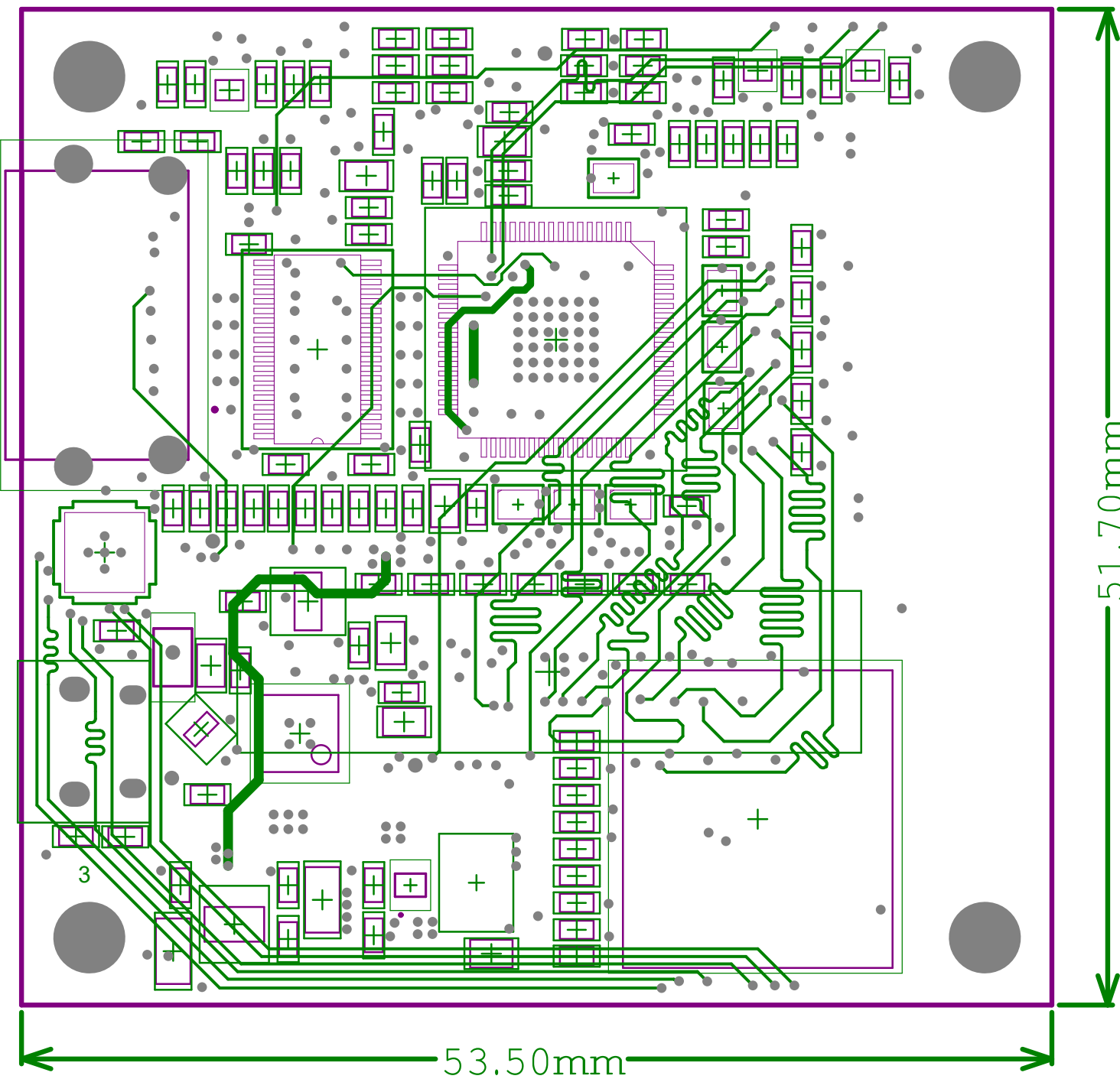
Overall height: 1.2mm, +/- 10%



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

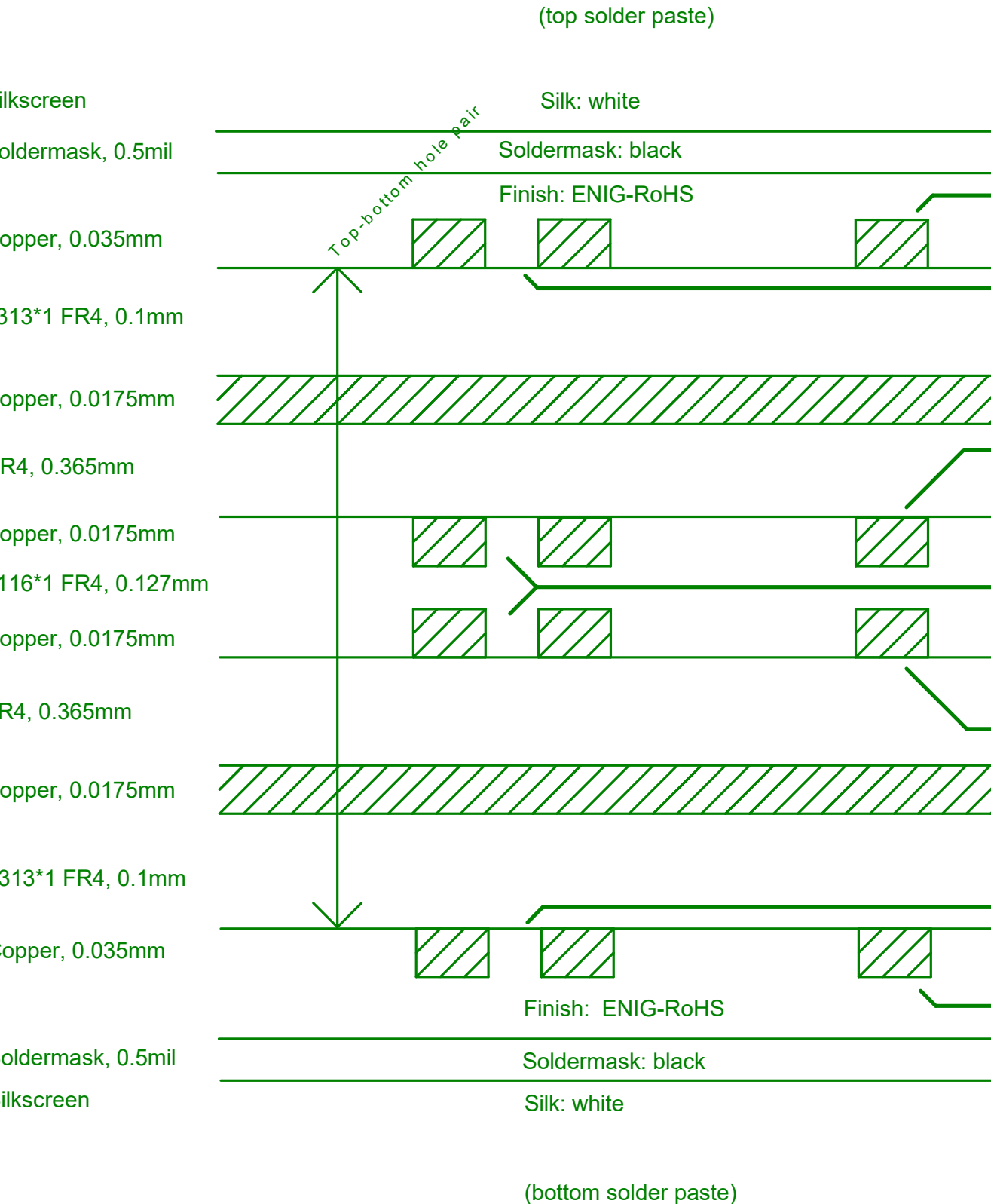
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Overall height: 1.2mm, +/- 10%



Trace width and impedance

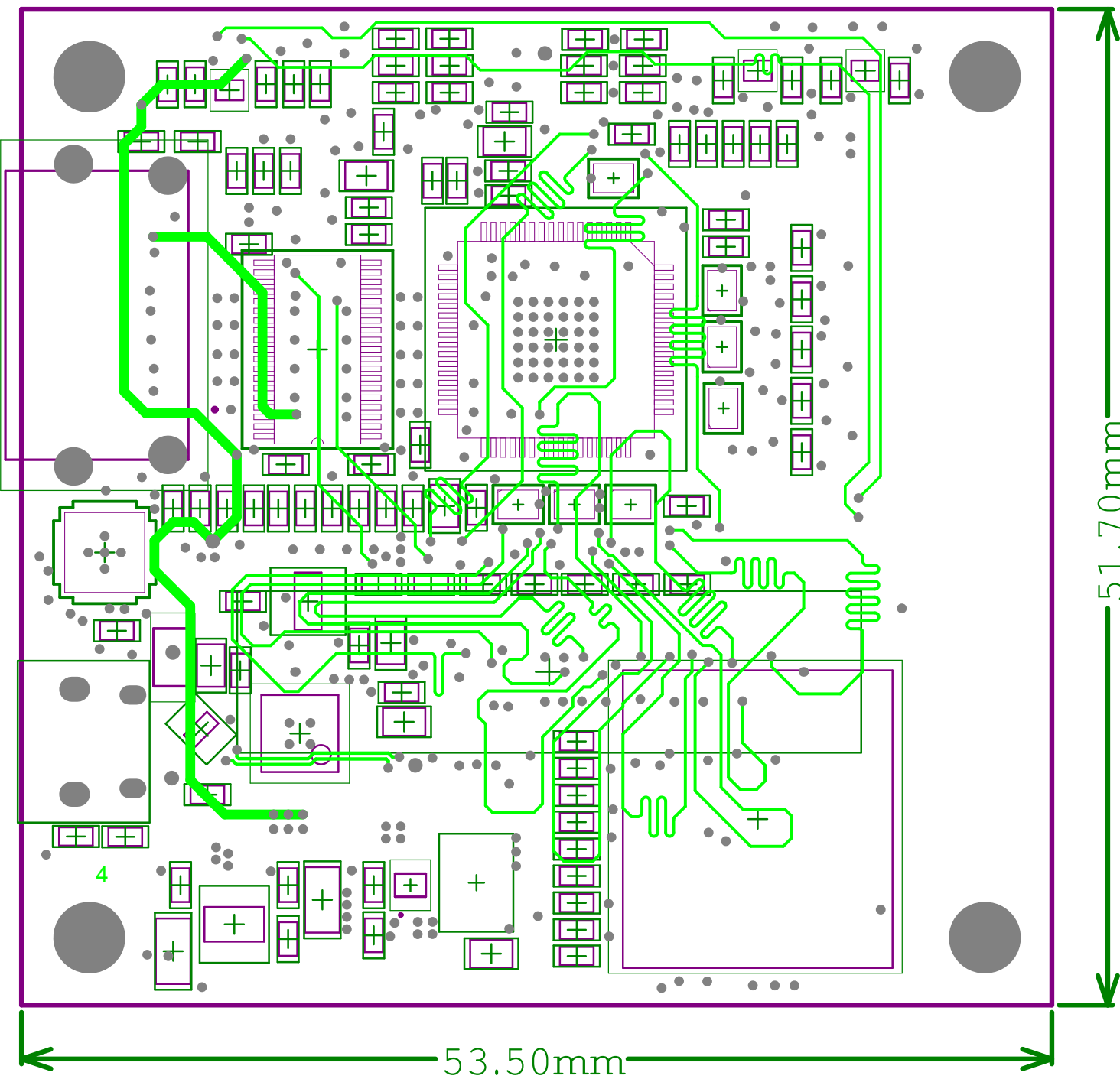
Overall tolerance: +/- 10% for impedance

6.2mil = 50 ohm	(Outer signal layers)
6.89mil / 4mil space = 90 ohm diff	(Plane)
5.55mil / 4mil space = 100 ohm diff	
5.74mil = 50 ohm	(Internal signal layers)
3.6mil / 5.5mil space = 100 ohm diff	
4.58mil / 5mil space = 90 ohm diff	(Plane)
3.6mil / 5.5mil space = 100 ohm diff	
5.74mil = 50 ohm	(Outer signal layers)
5.55mil / 4mil space = 100 ohm diff	
6.2mil = 50 ohm	

Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

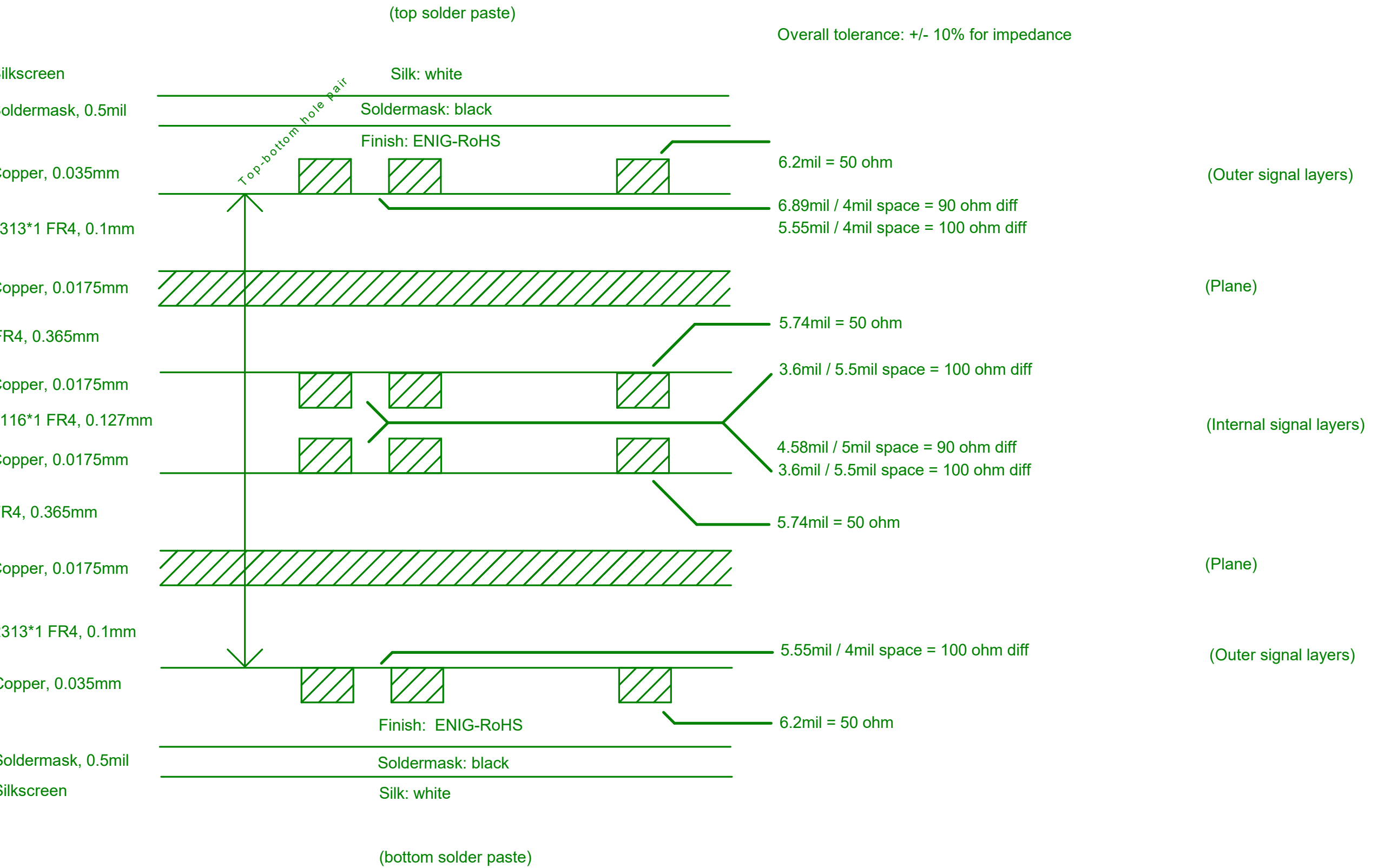
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Overall height: 1.2mm, +/- 10%



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

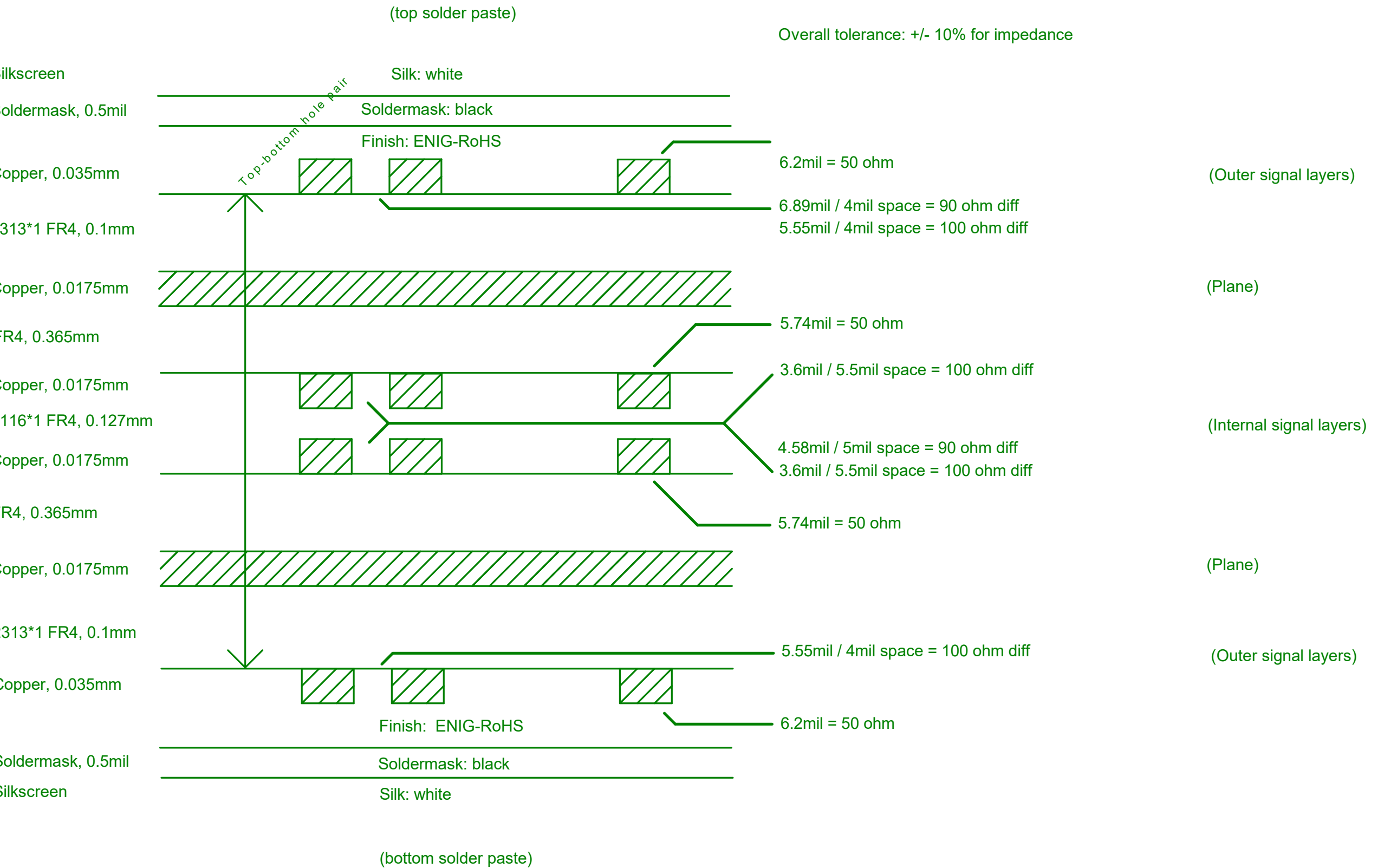
File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

Material and thickness

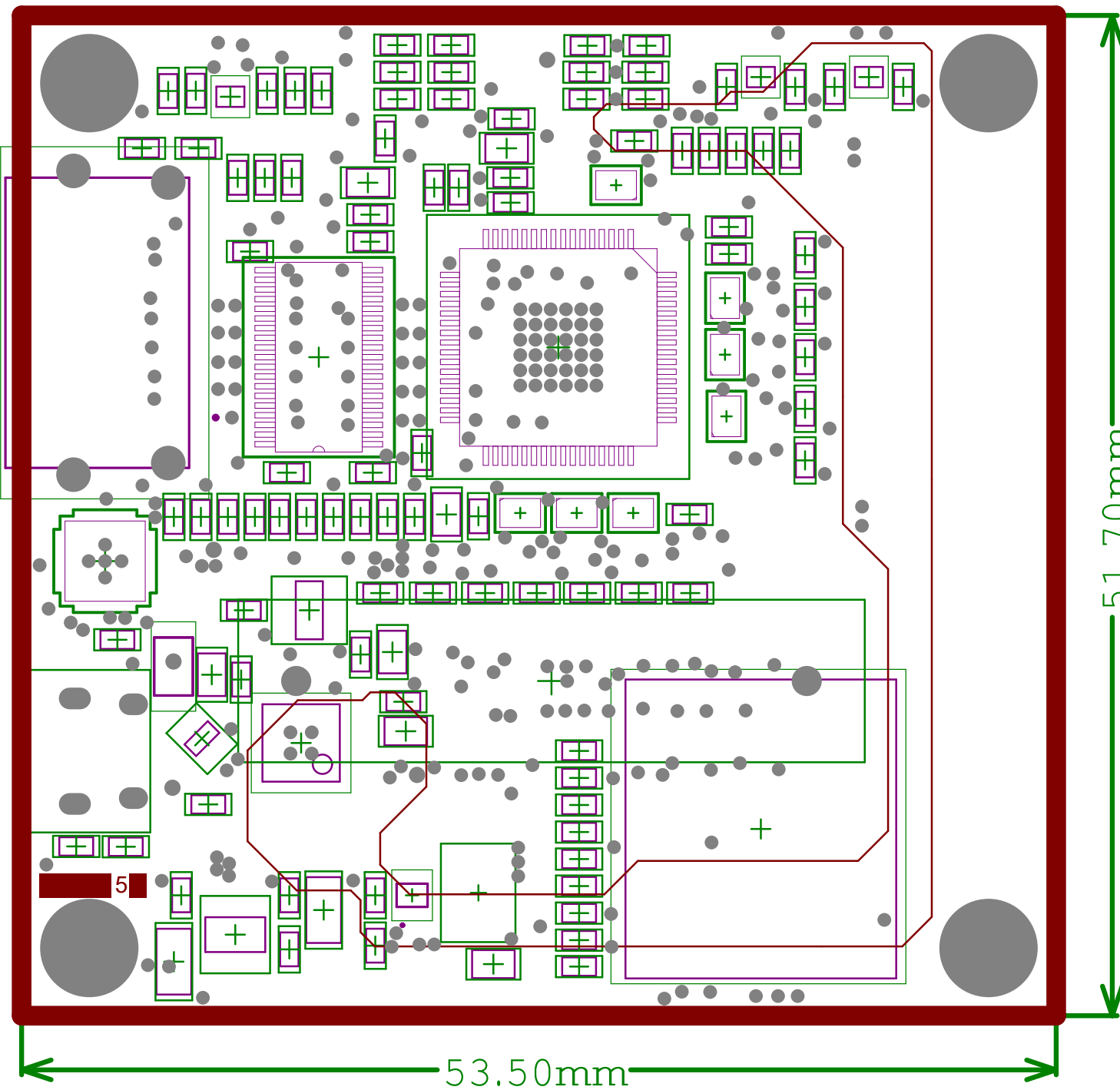
1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Overall height: 1.2mm, +/- 10%



Trace width and impedance

Overall tolerance: +/- 10% for impedance



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL

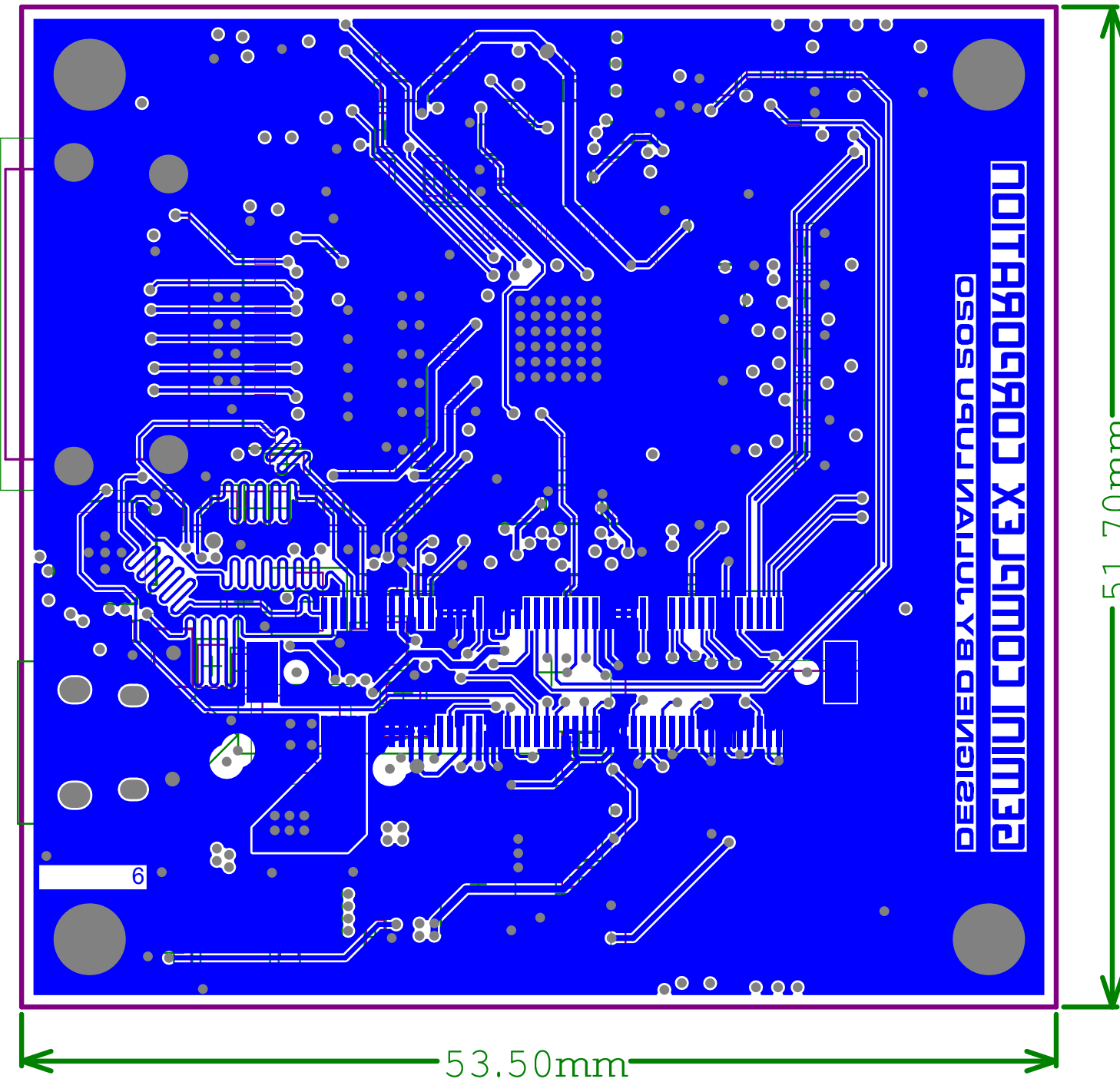
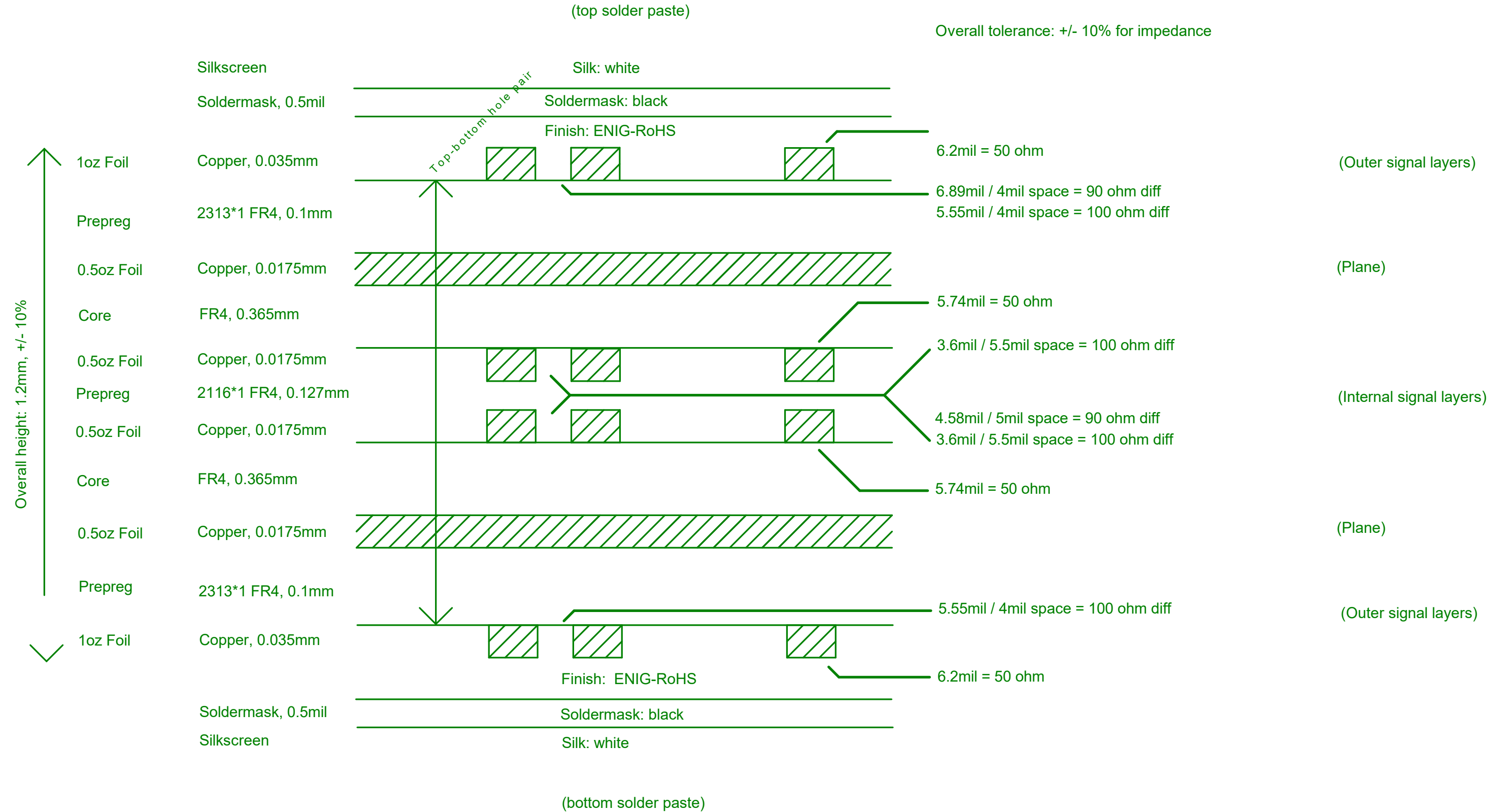
- .GP1

- .G1
- .G2

- .GP2

- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

Material and thickness

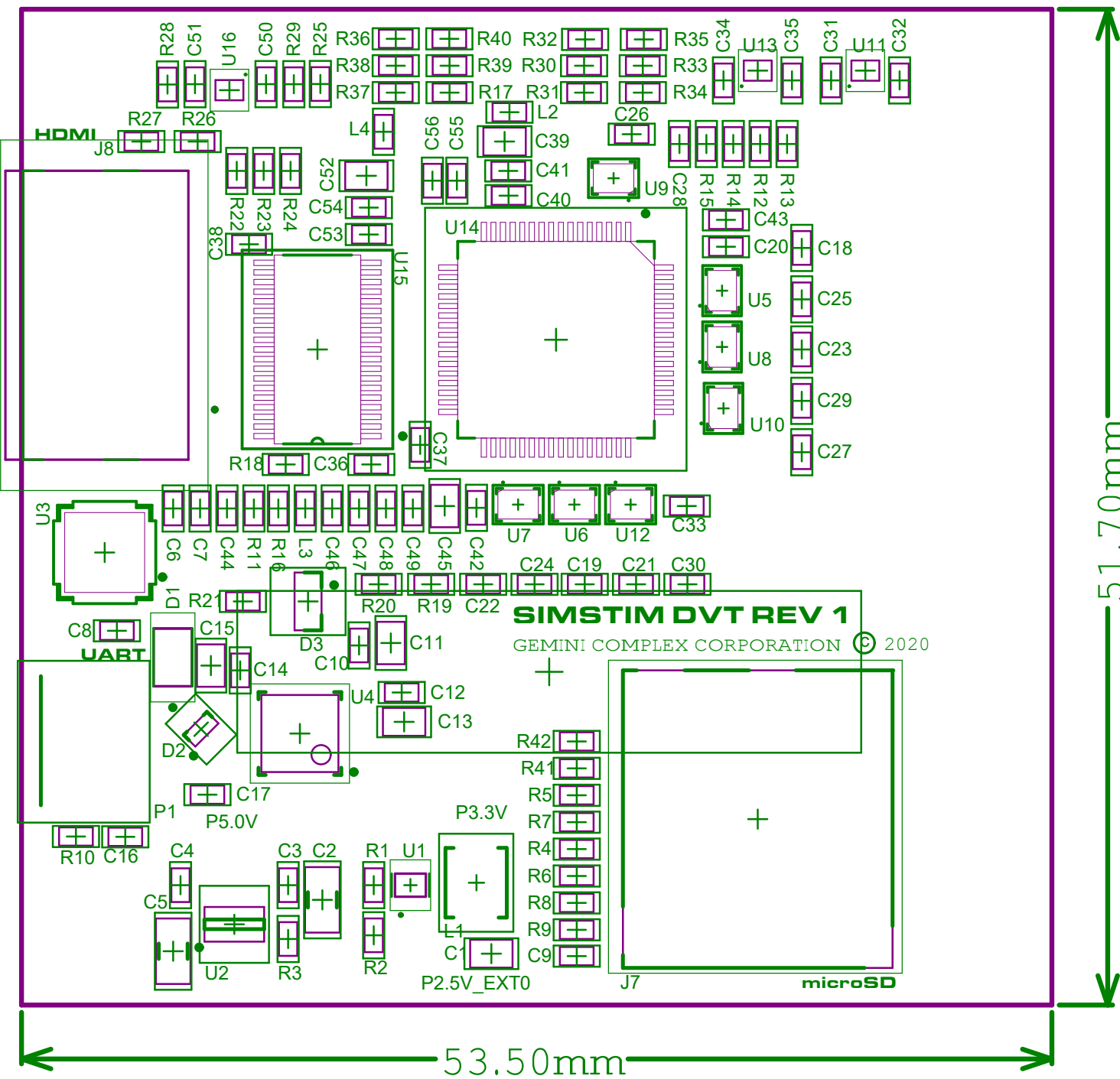


Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

Material and thickness

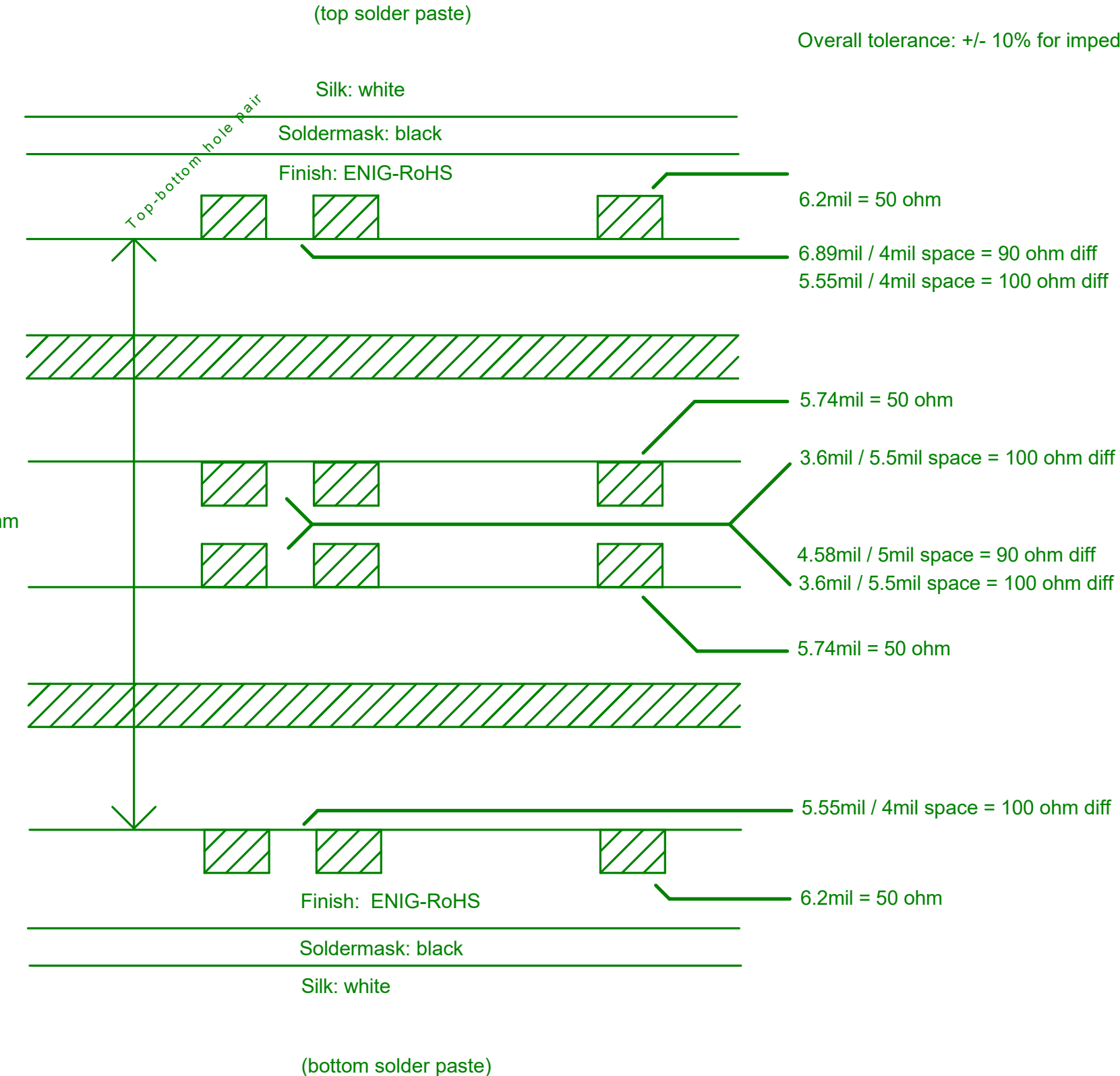
Trace width and impedance



- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

Overall height: 1.2mm, +/- 10%

- 1oz Foil
- Prepreg
- 0.5oz Foil
- Core
- 0.5oz Foil
- Prepreg
- 0.5oz Foil
- Core
- 0.5oz Foil
- Prepreg
- 1oz Foil
- Soldermask, 0.5mil
- Silkscreen



Overall tolerance: +/- 10% for impedance

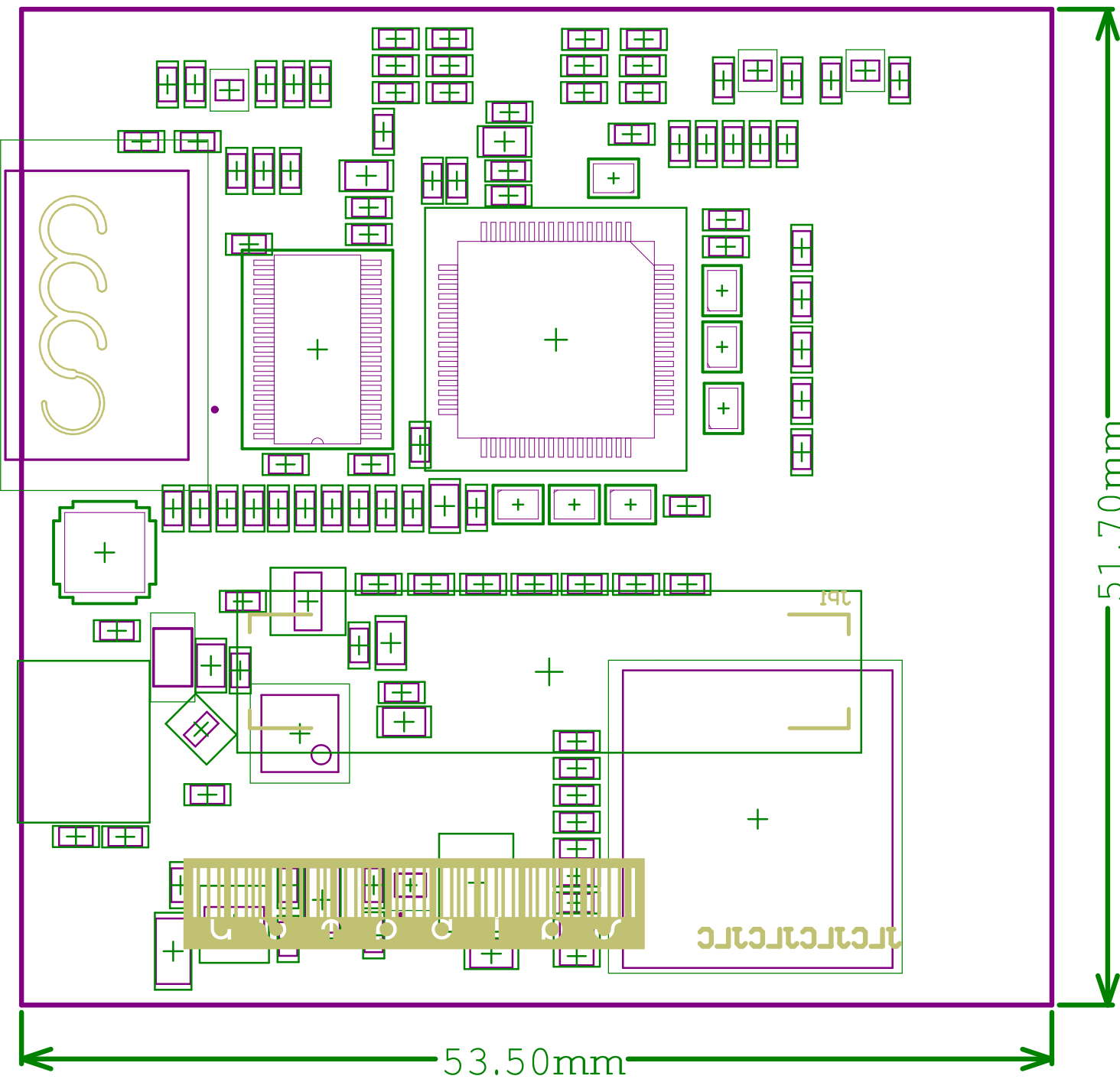
- (Outer signal layers)
- (Plane)
- (Internal signal layers)
- (Plane)
- (Outer signal layers)

(bottom solder paste)

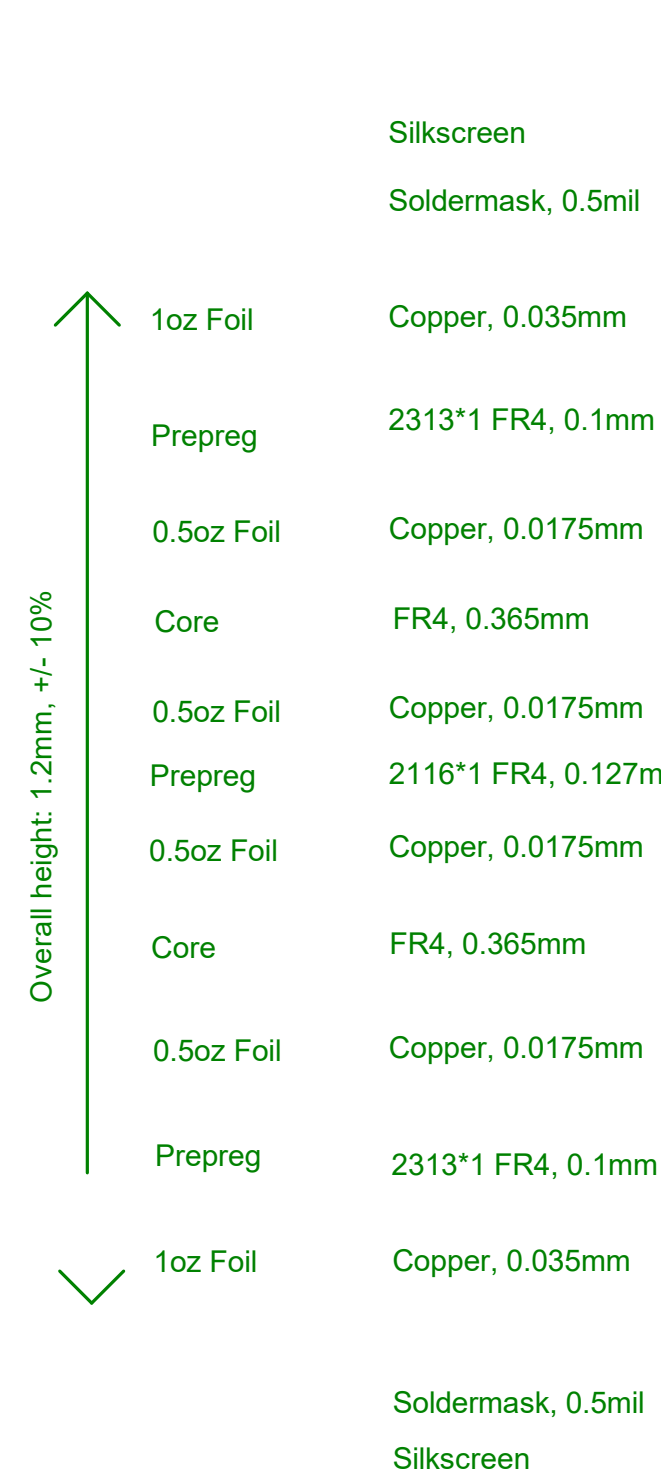
Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

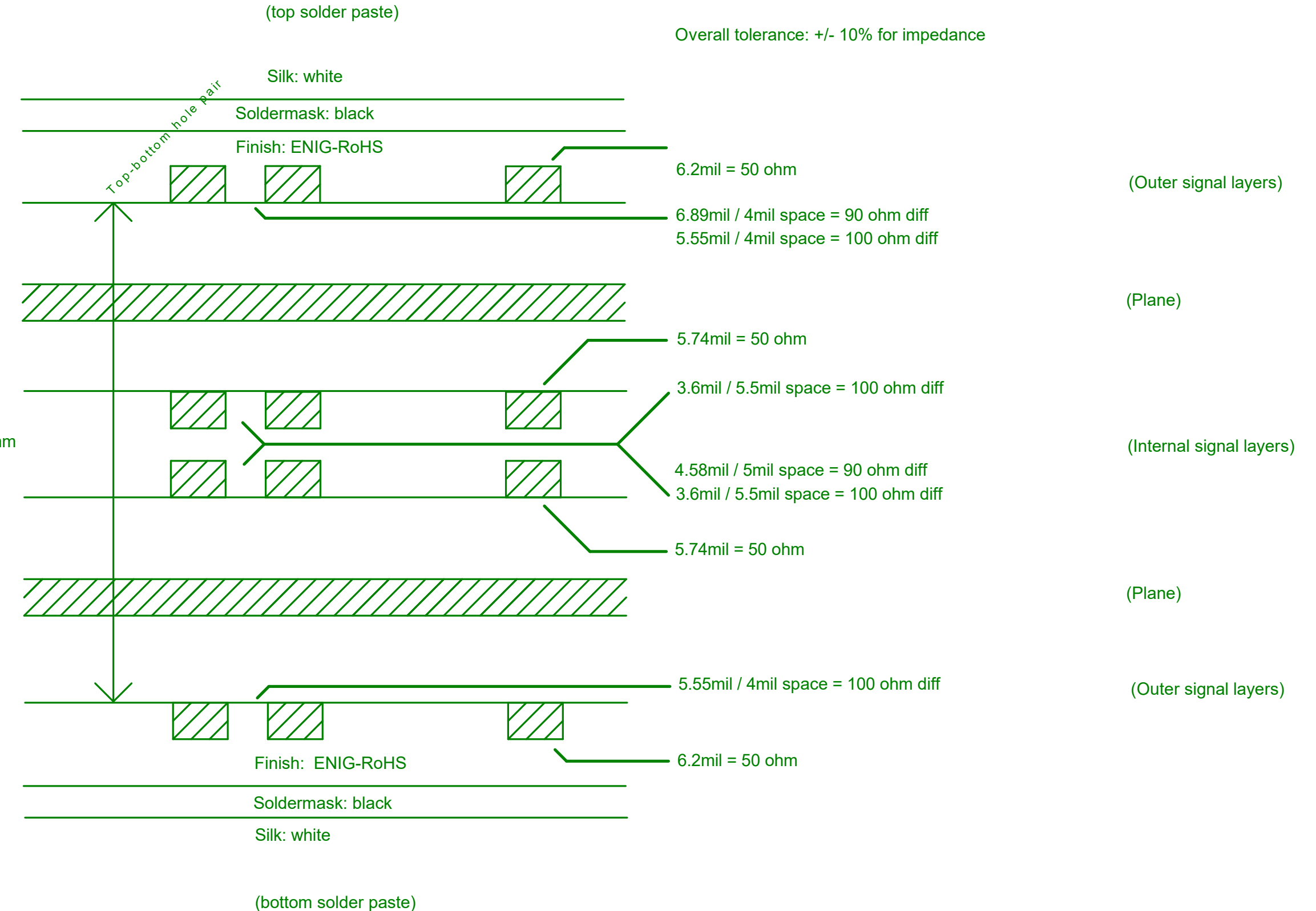


Material and thickness



Silkscreen
 Soldermask, 0.5mil
 Copper, 0.035mm
 2313*1 FR4, 0.1mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 2116*1 FR4, 0.127mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 Prepreg
 2313*1 FR4, 0.1mm
 Copper, 0.035mm
 Soldermask, 0.5mil
 Silkscreen

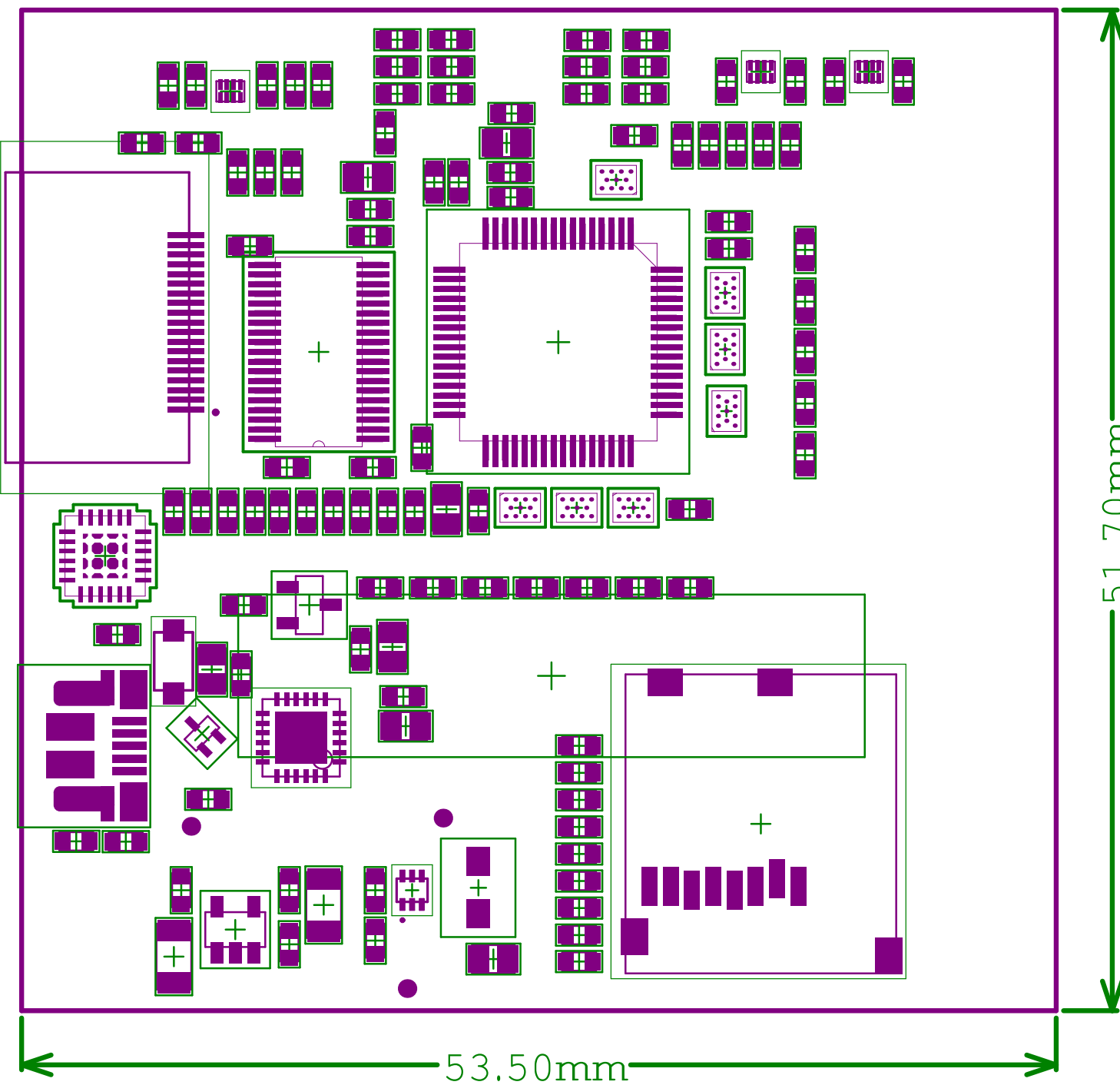
Trace width and impedance



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

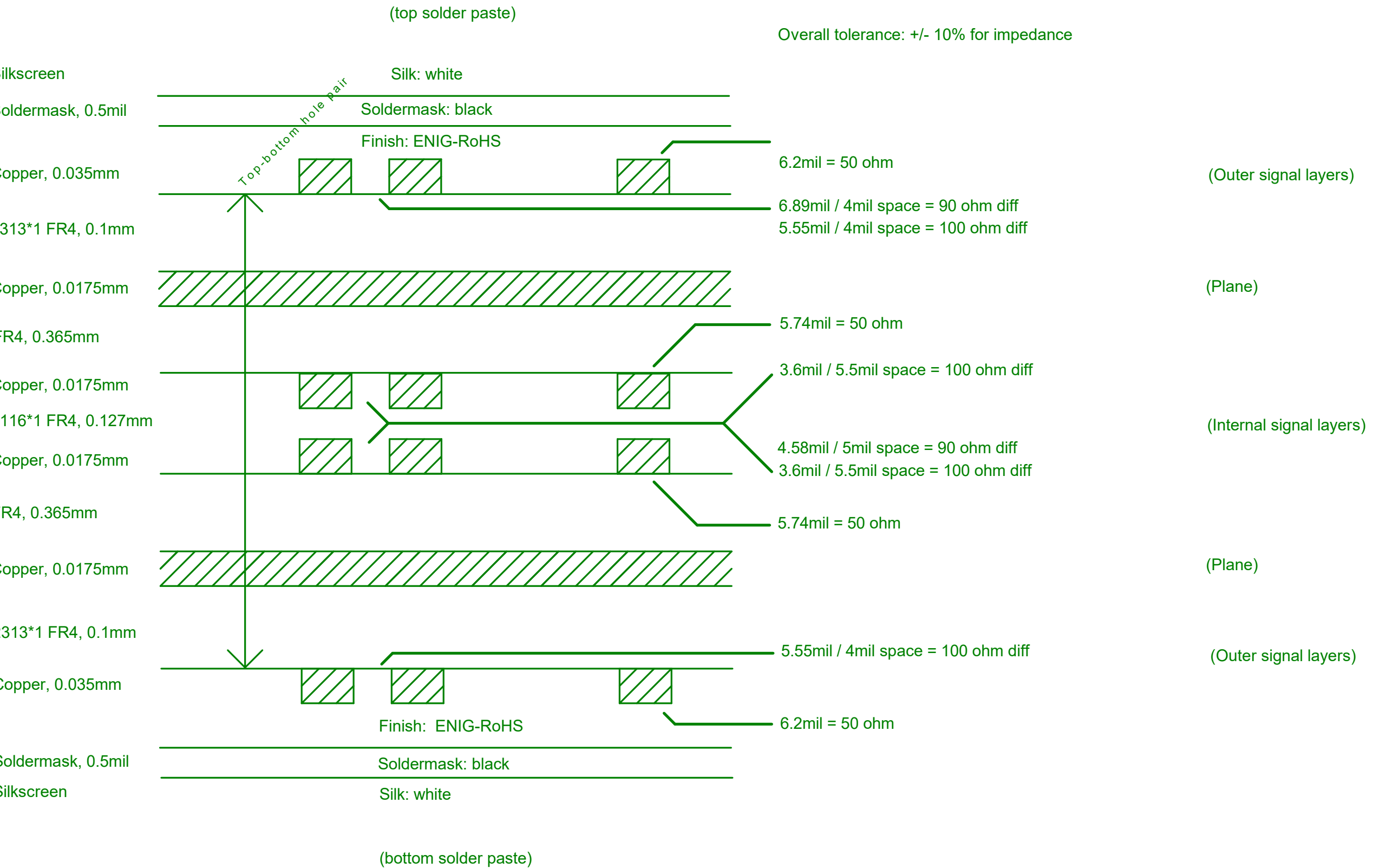
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

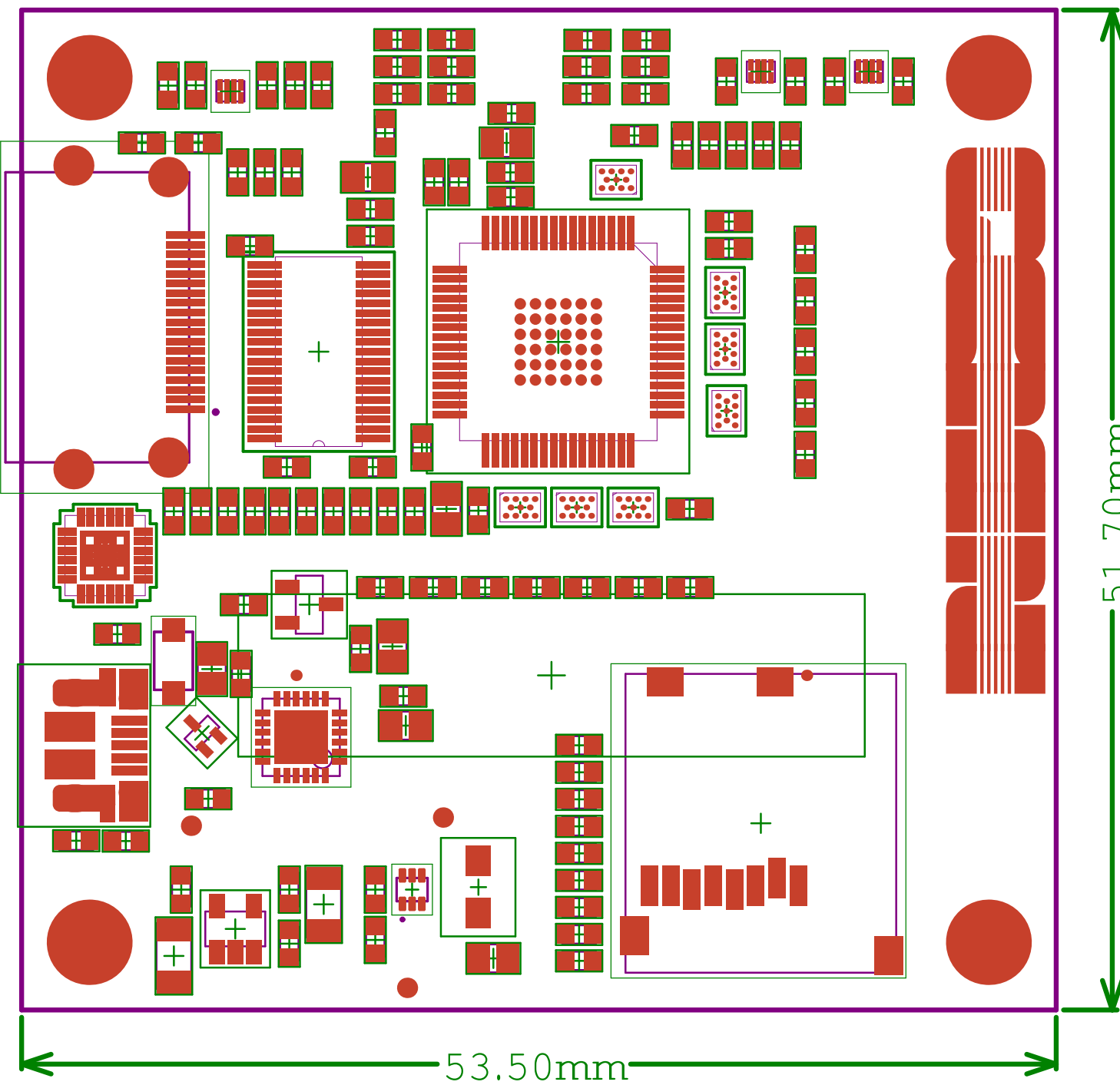
Overall height: 1.2mm, +/- 10%



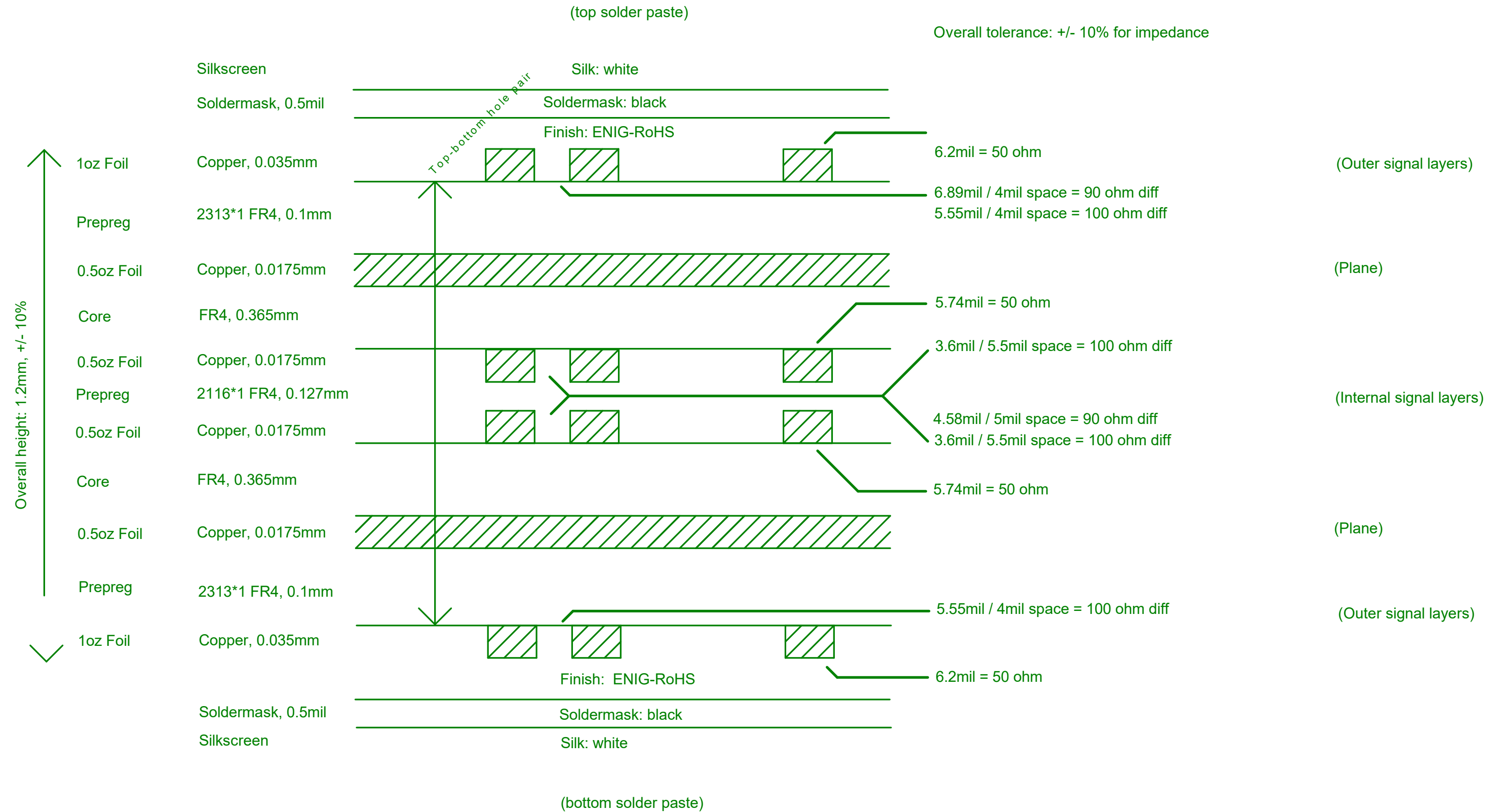
Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

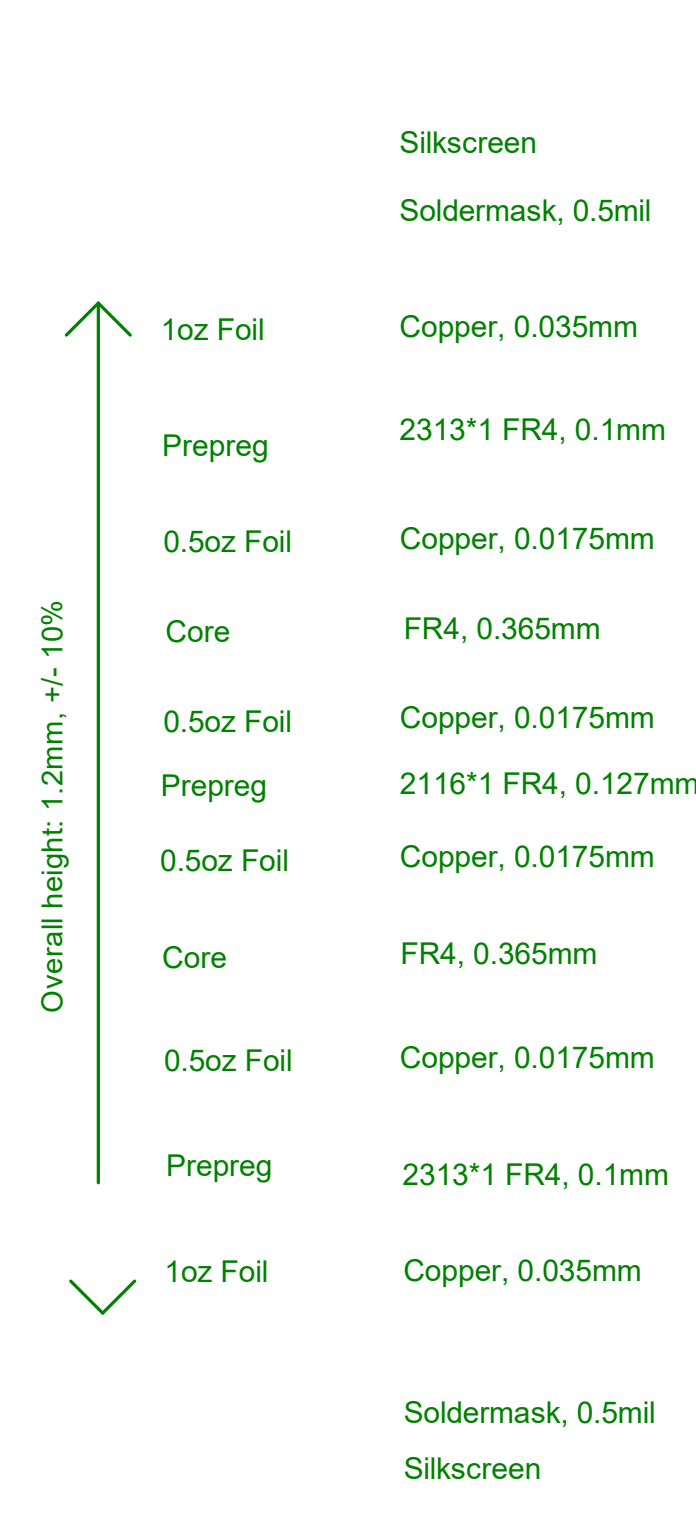


Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

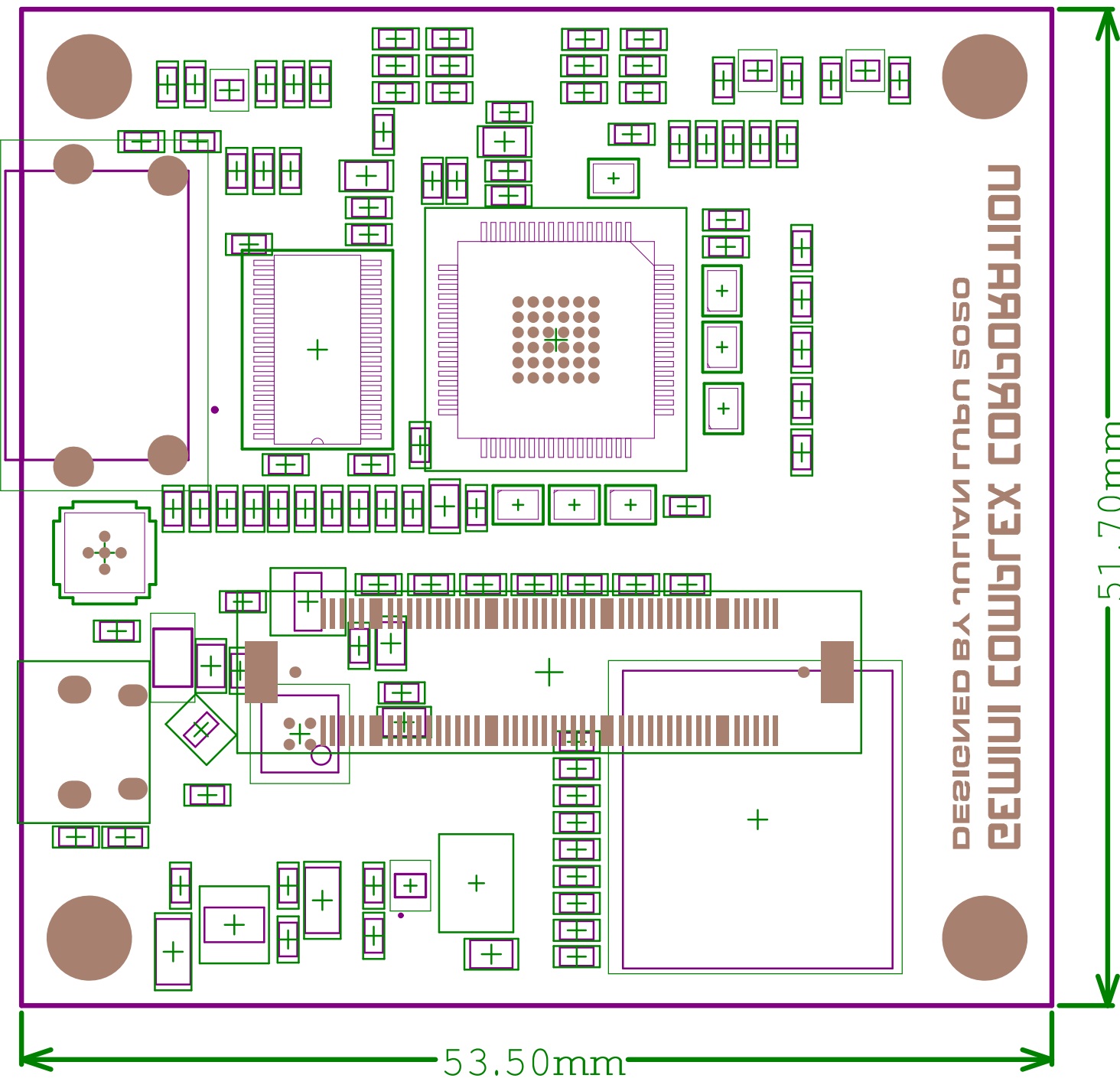
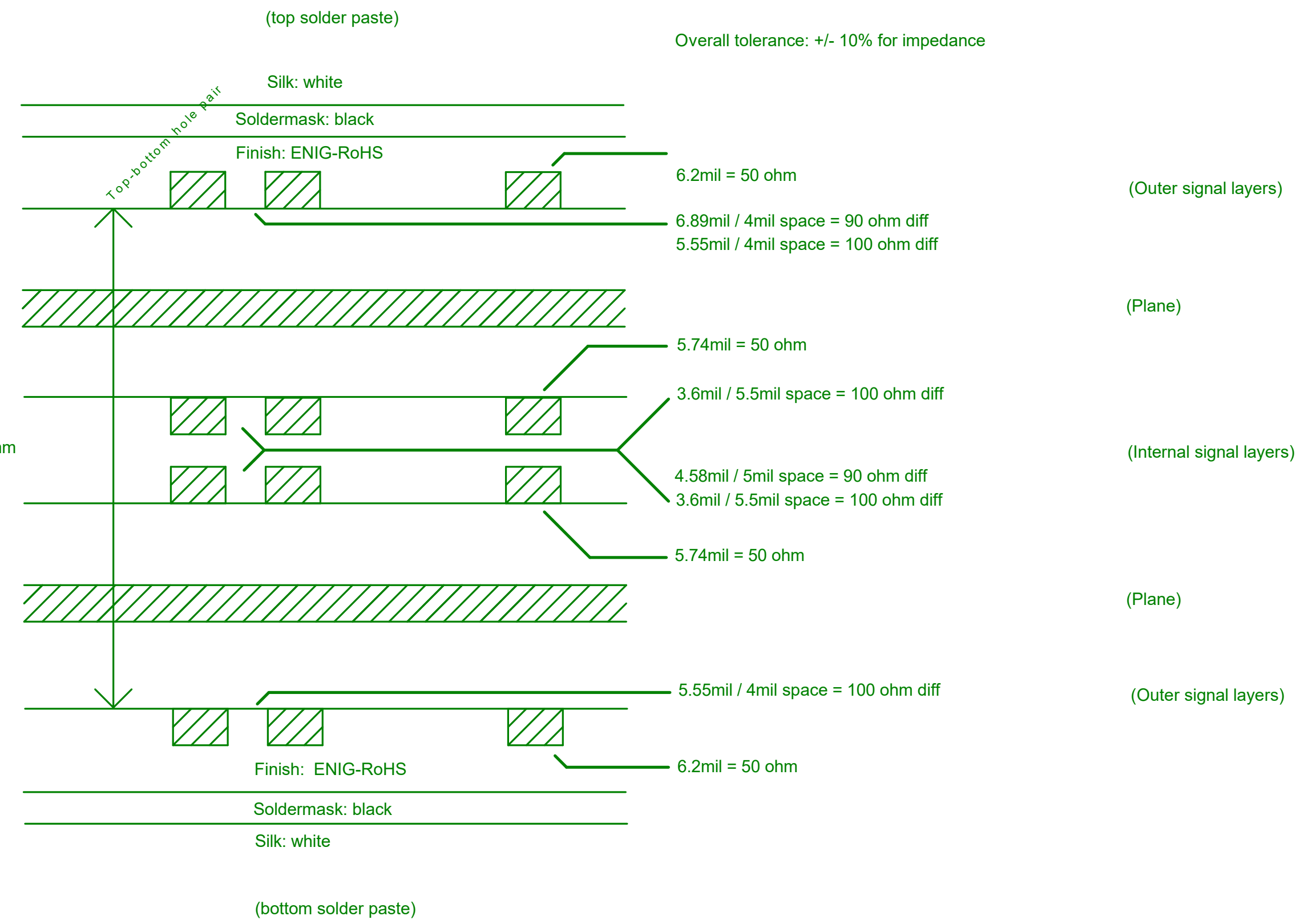
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

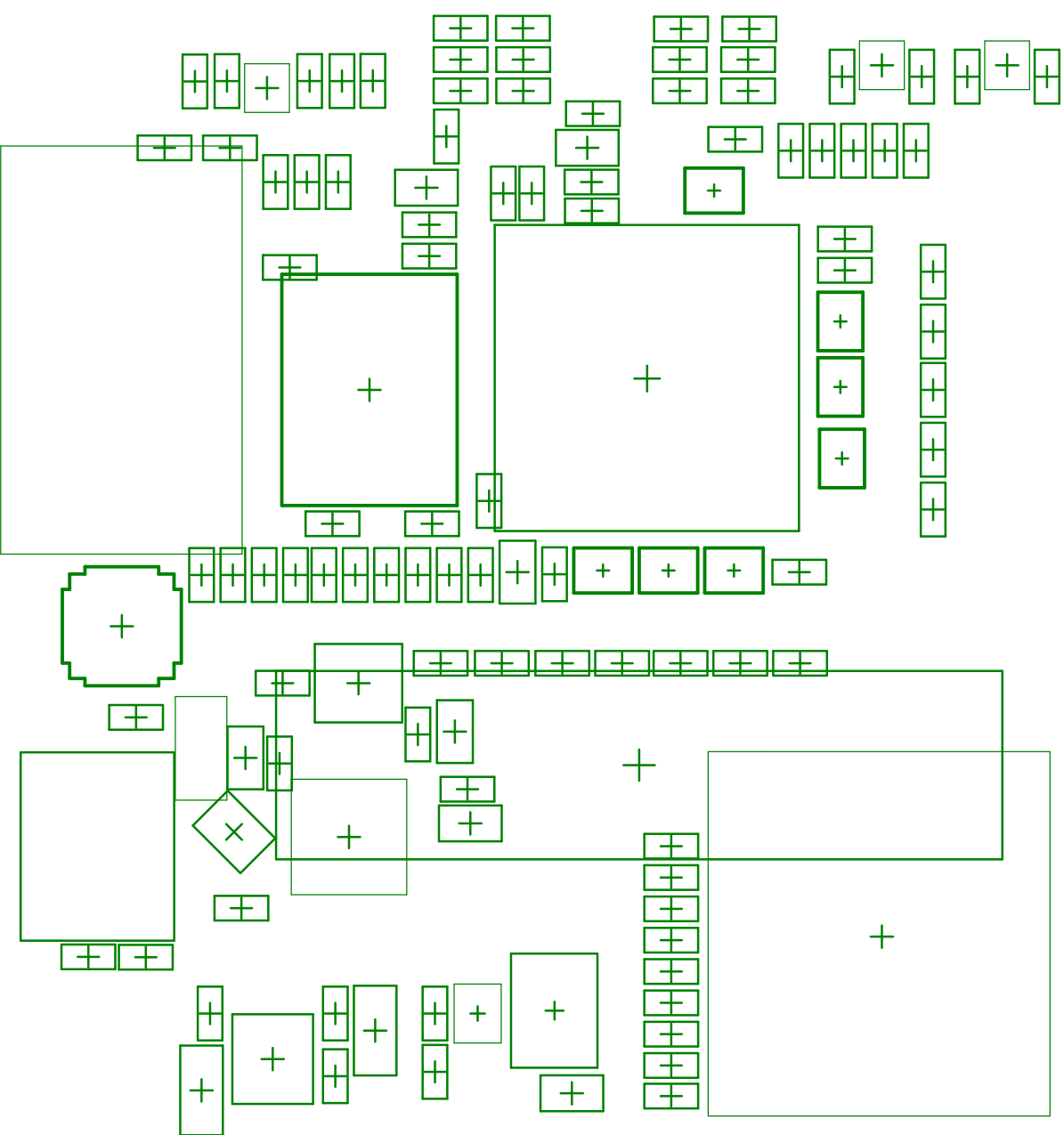
Material and thickness

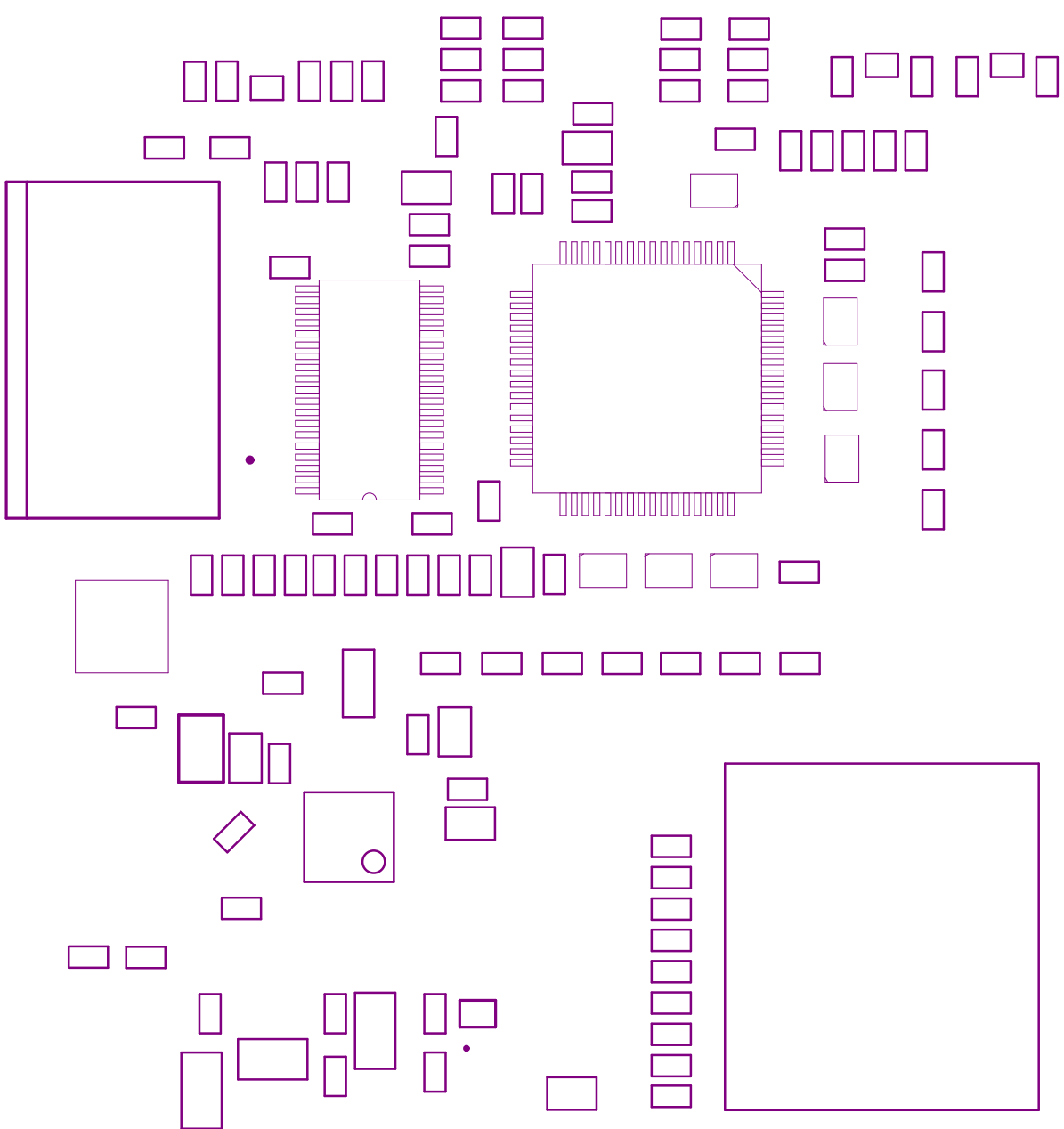


1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Trace width and impedance







Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL

- .GP1

- .G1
- .G2

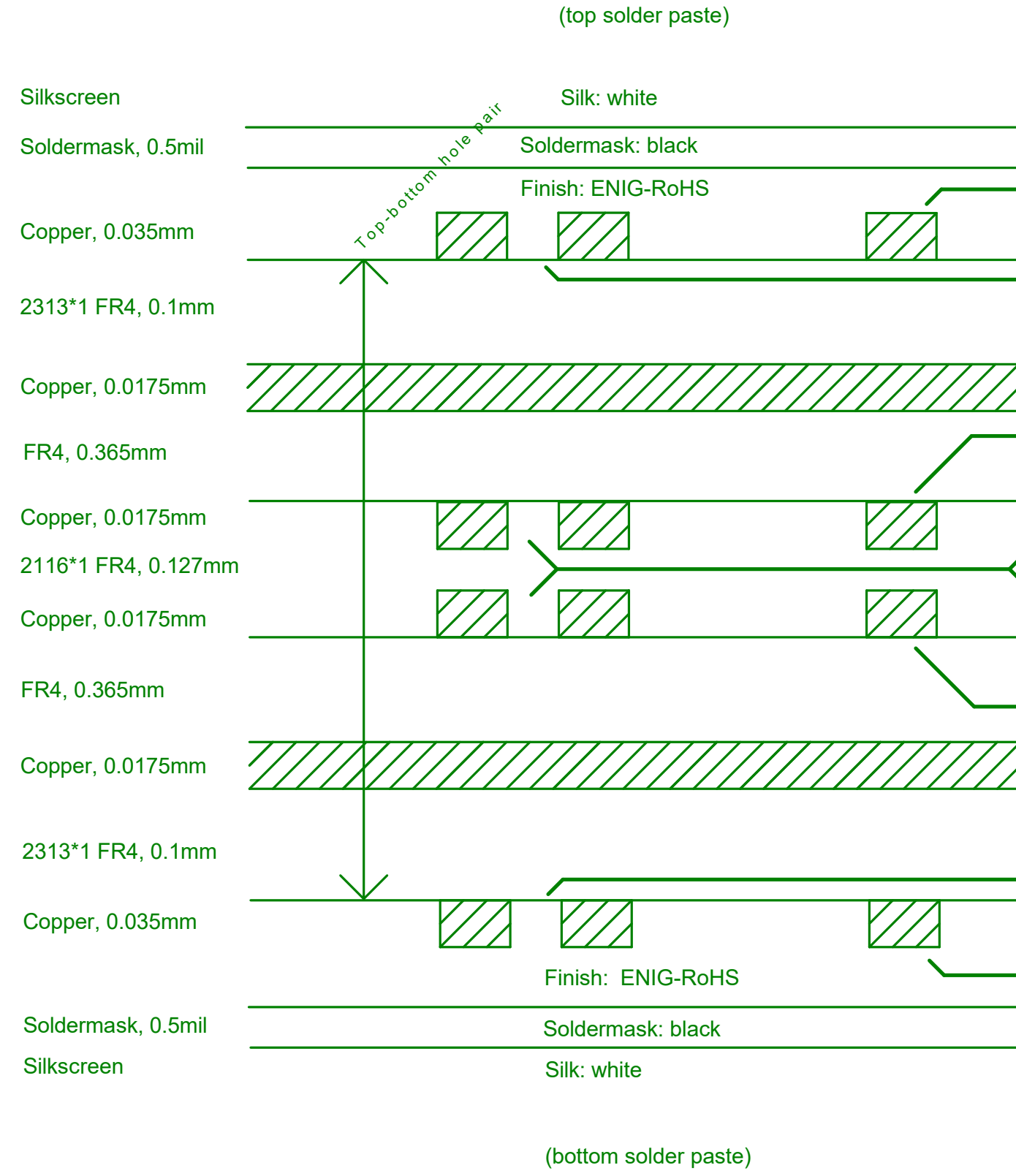
- .GP2

- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



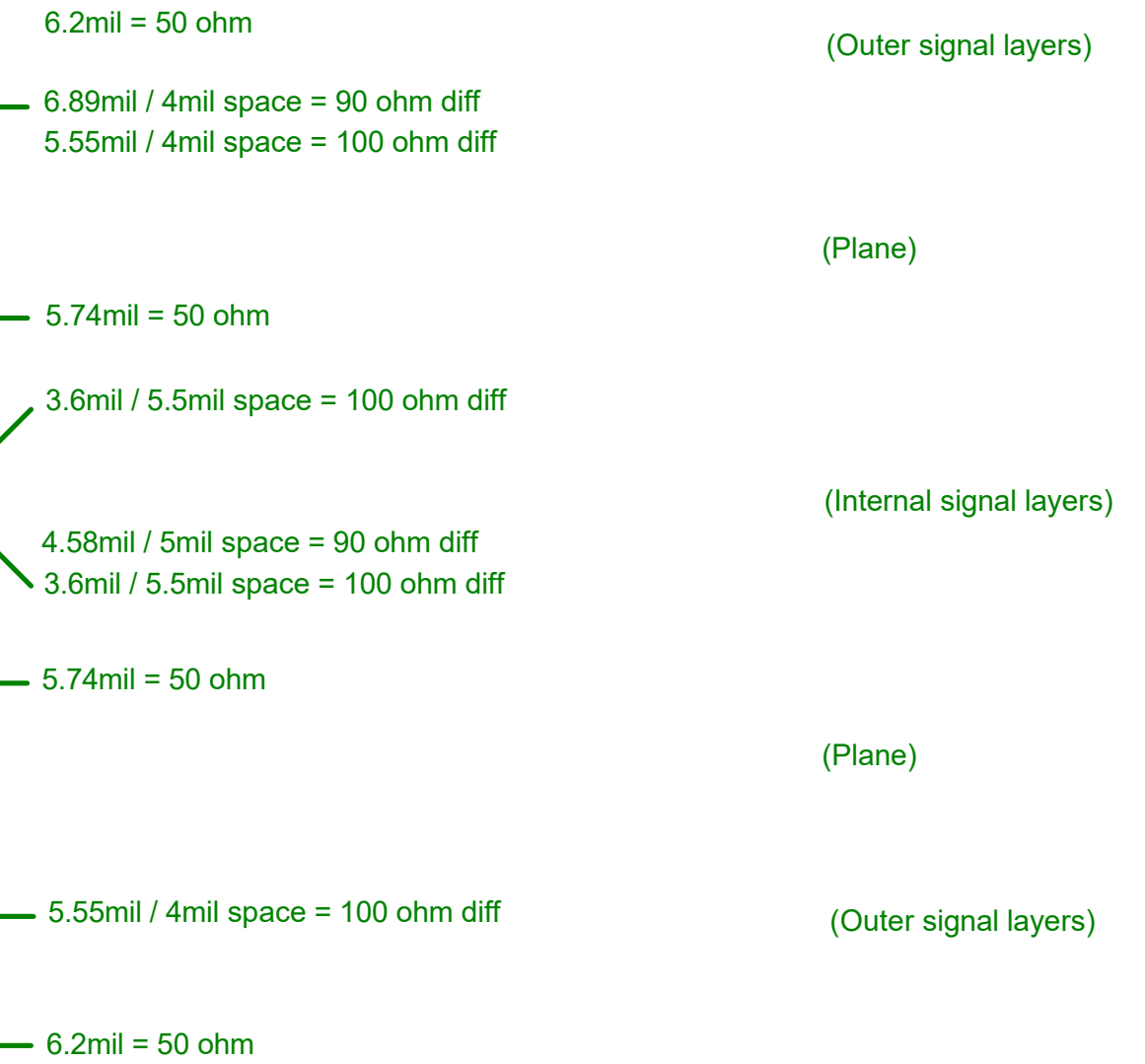
Overall height: 1.2mm, +/- 10%

Material and thickness



Trace width and impedance

Overall tolerance: +/- 10% for impedance



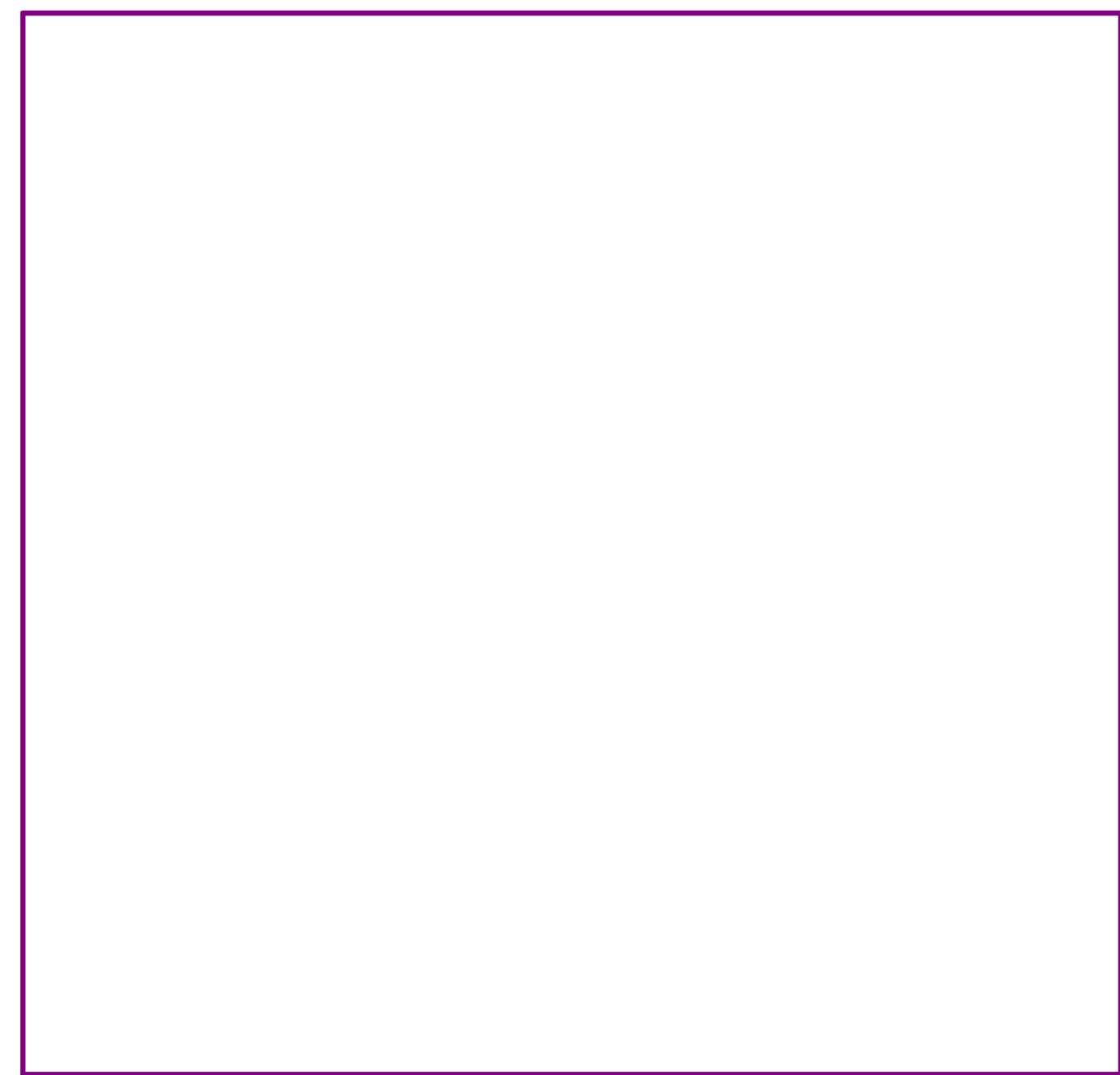
(Outer signal layers)

(Plane)

(Internal signal layers)

(Plane)

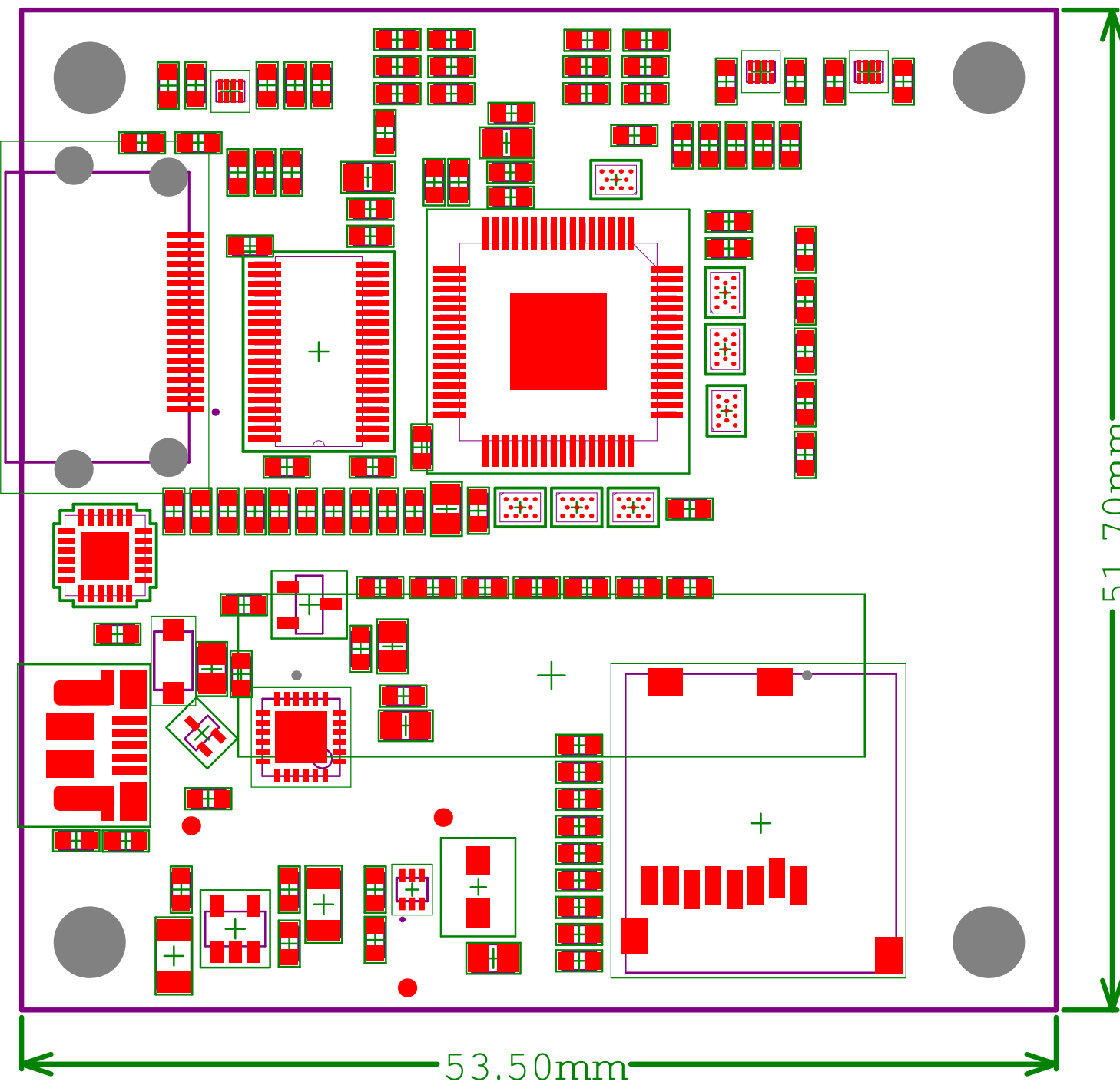
(Outer signal layers)



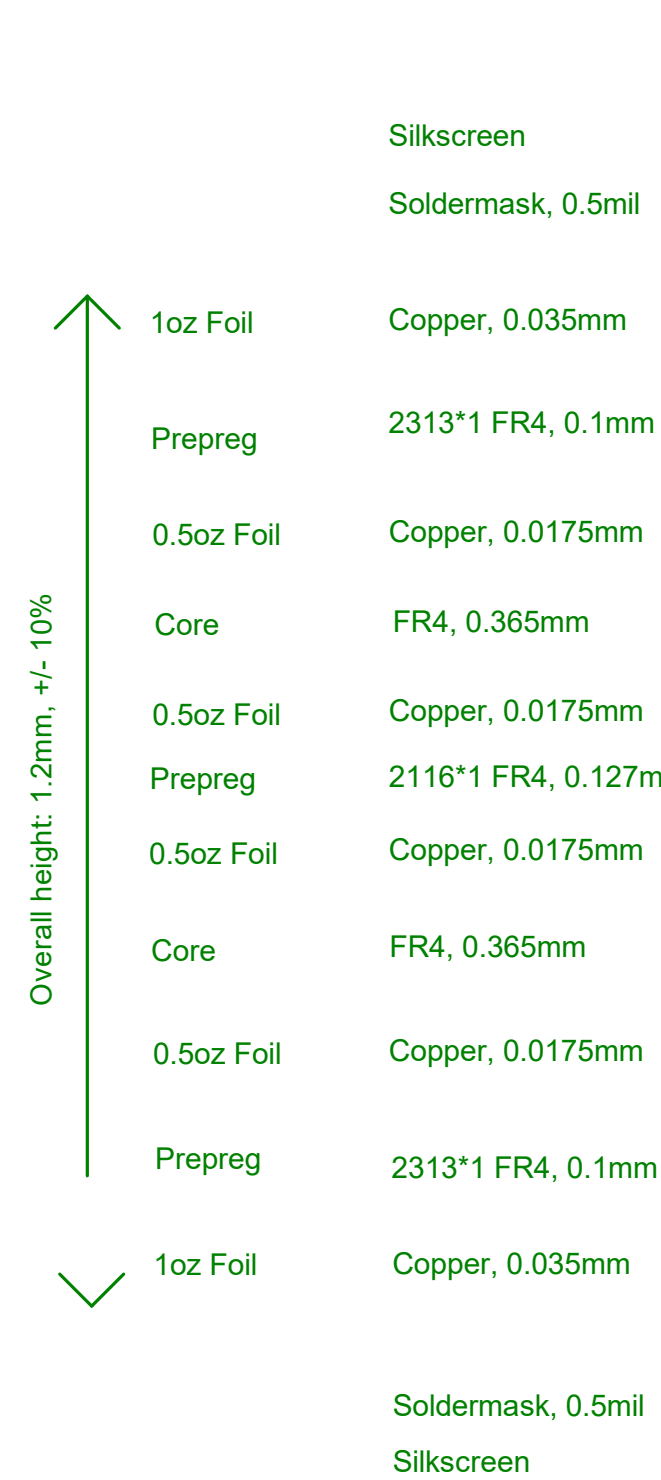
Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO

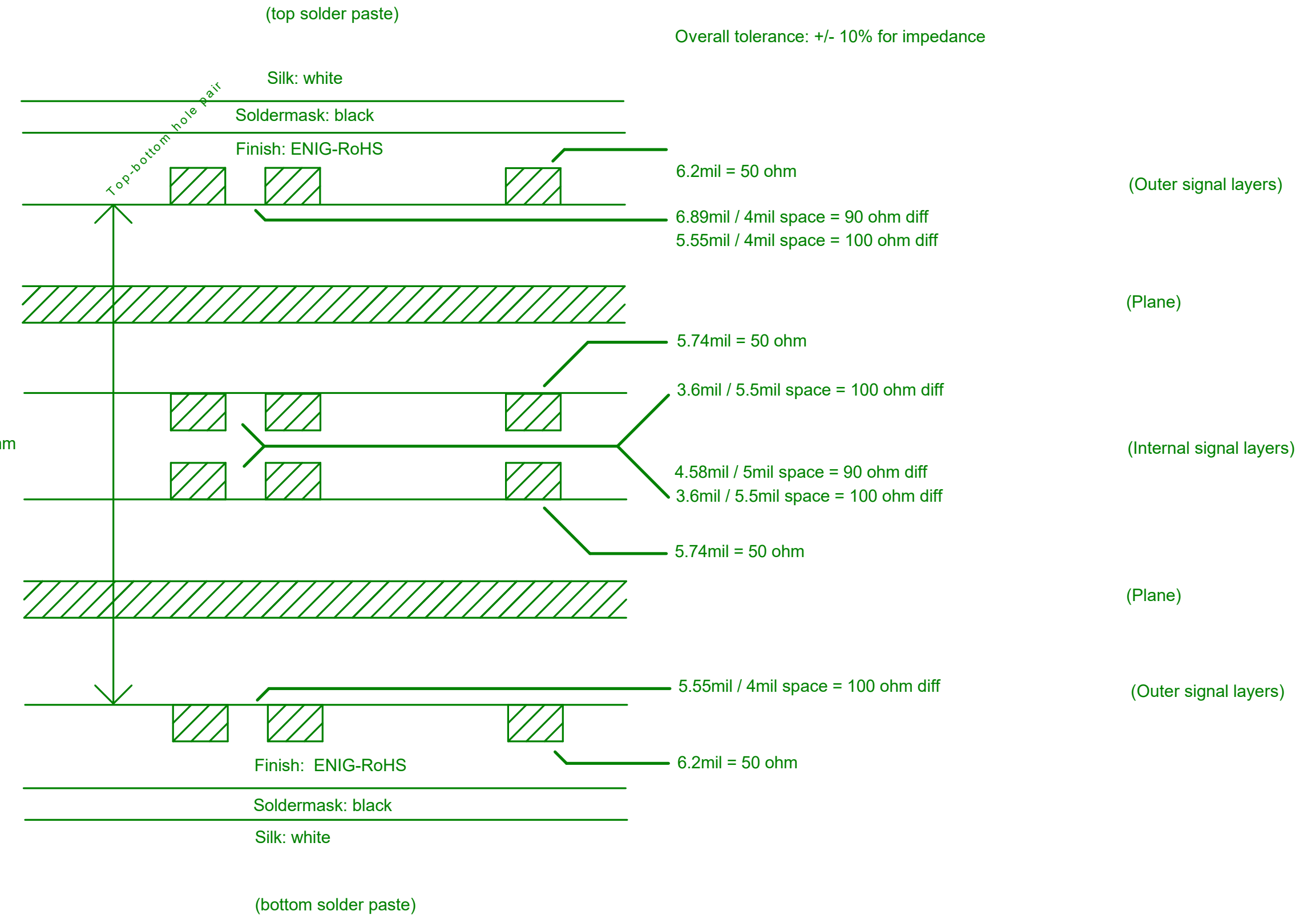


Material and thickness



Silkscreen
 Soldermask, 0.5mil
 Copper, 0.035mm
 2313*1 FR4, 0.1mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 2116*1 FR4, 0.127mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 Prepreg
 2313*1 FR4, 0.1mm
 Copper, 0.035mm
 Soldermask, 0.5mil
 Silkscreen

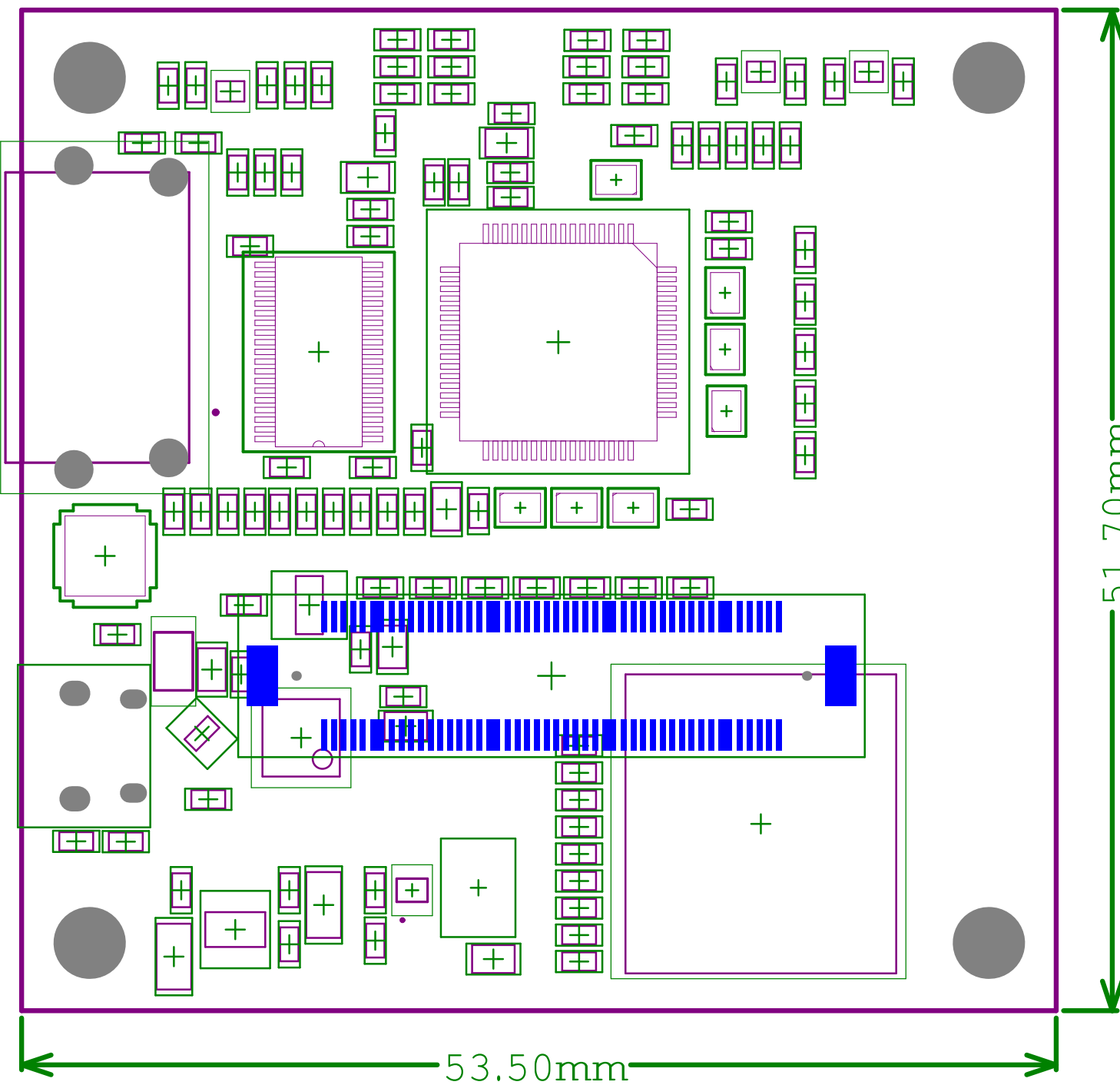
Trace width and impedance



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

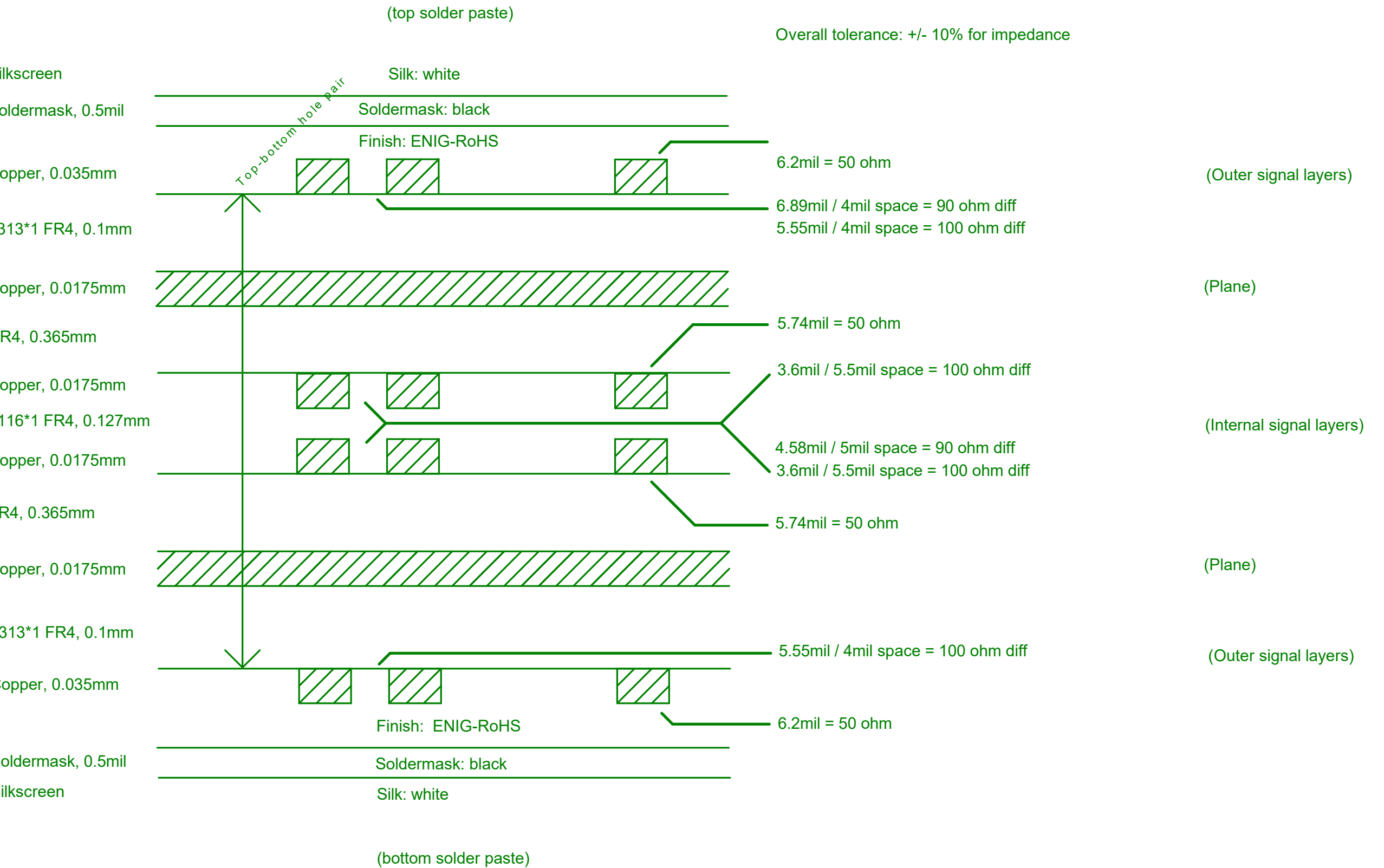
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

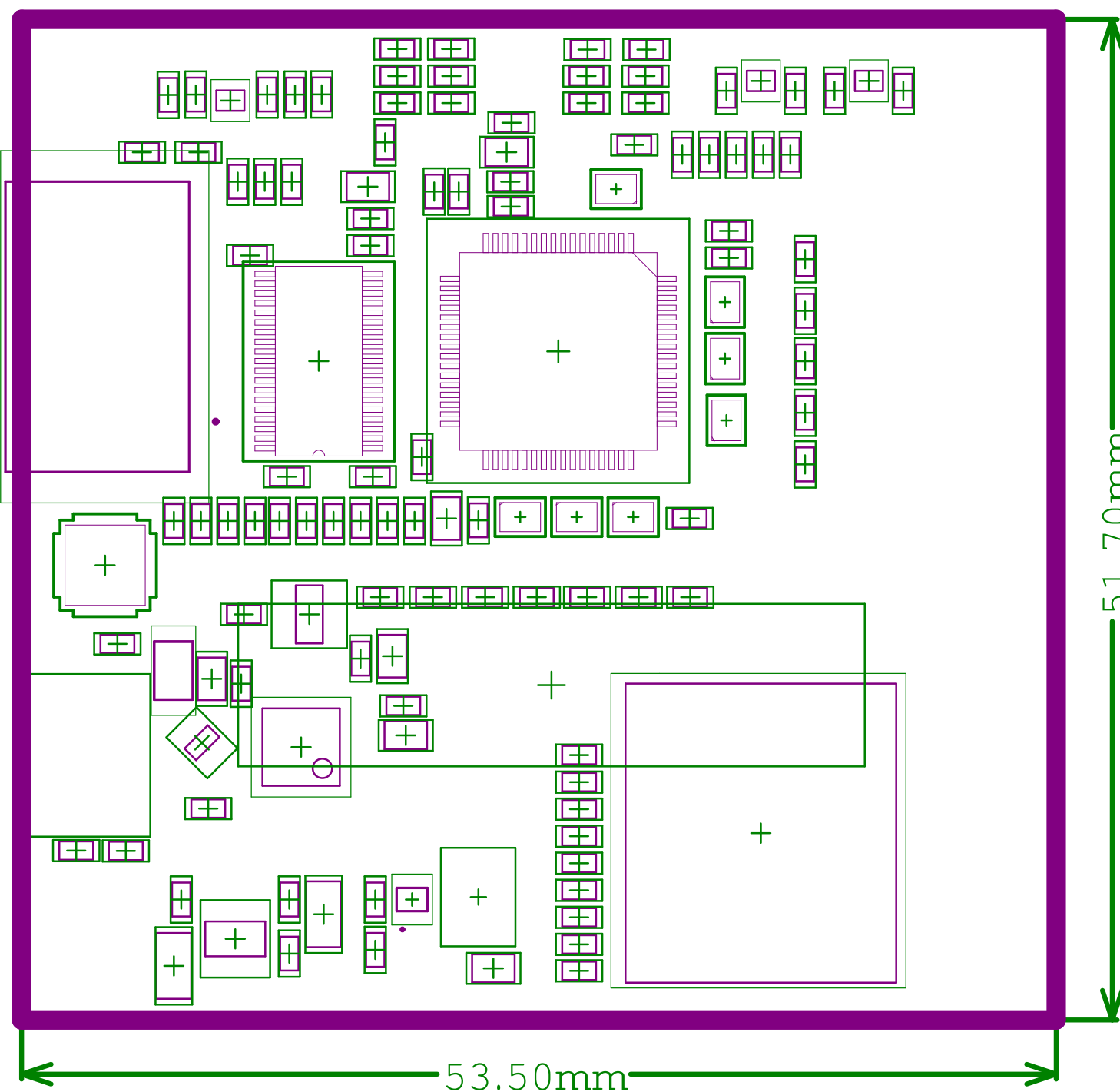
Overall height: 1.2mm, +/- 10%



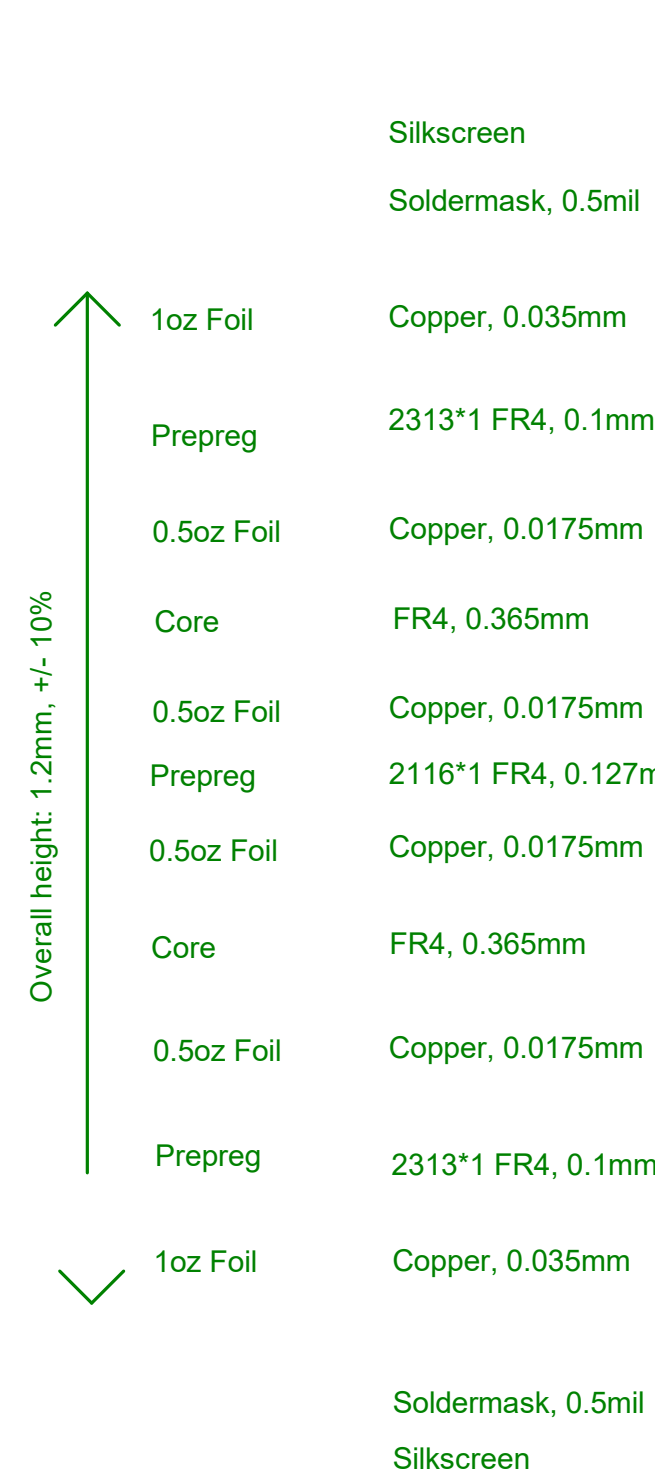
Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

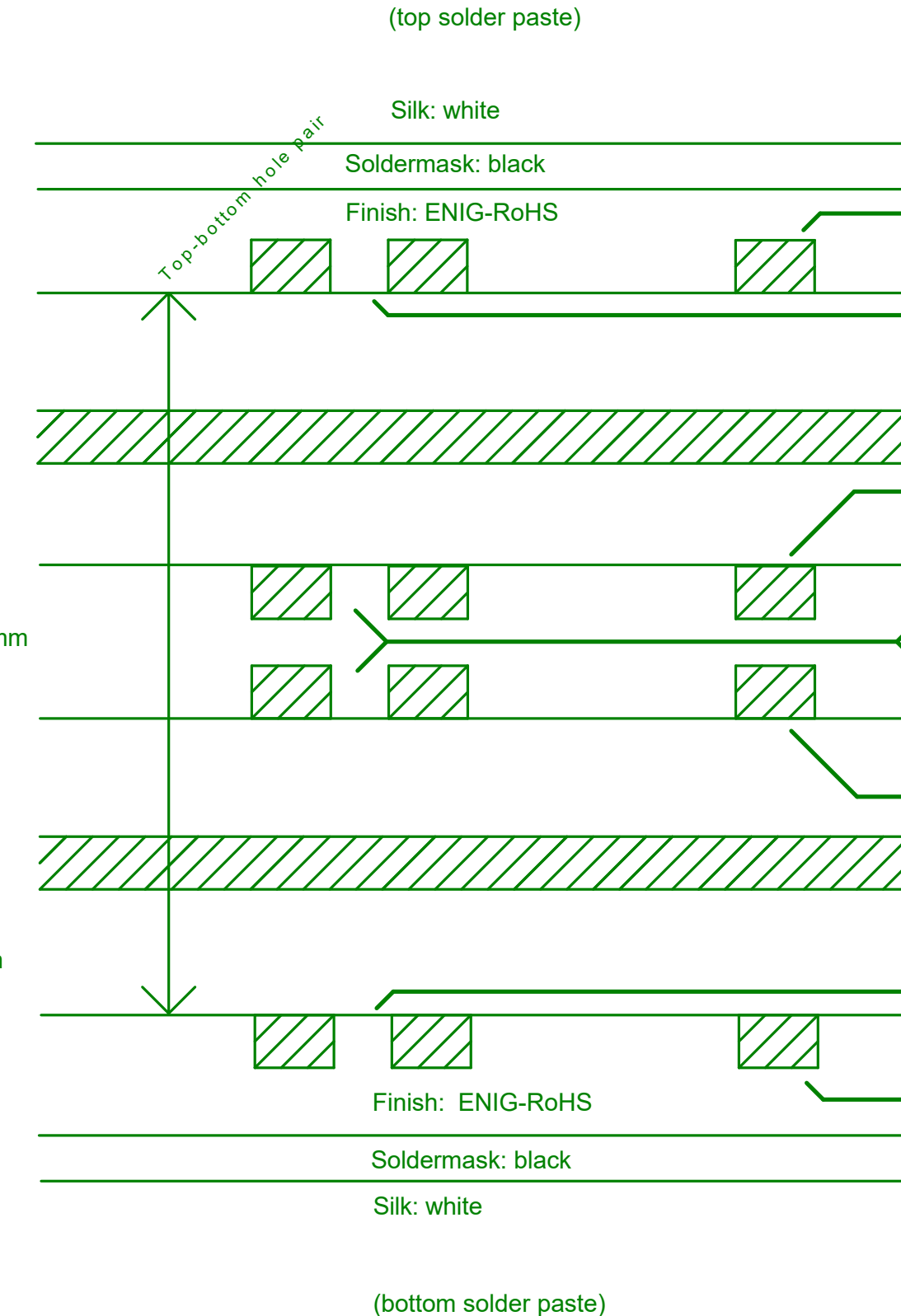
- .GTP
- .GTO
- .GTS
- .GTL
- .GP1
- .G1
- .G2
- .GP2
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness



Silkscreen
 Soldermask, 0.5mil
 Copper, 0.035mm
 2313*1 FR4, 0.1mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 2116*1 FR4, 0.127mm
 Copper, 0.0175mm
 FR4, 0.365mm
 Copper, 0.0175mm
 Prepreg
 2313*1 FR4, 0.1mm
 Copper, 0.035mm
 Soldermask, 0.5mil
 Silkscreen



Trace width and impedance

Overall tolerance: +/- 10% for impedance

6.2mil = 50 ohm
 6.89mil / 4mil space = 90 ohm diff
 5.55mil / 4mil space = 100 ohm diff
 5.74mil = 50 ohm
 3.6mil / 5.5mil space = 100 ohm diff
 4.58mil / 5mil space = 90 ohm diff
 3.6mil / 5.5mil space = 100 ohm diff
 5.74mil = 50 ohm
 5.55mil / 4mil space = 100 ohm diff
 6.2mil = 50 ohm

(Outer signal layers)
 (Plane)
 (Internal signal layers)
 (Plane)
 (Outer signal layers)

Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

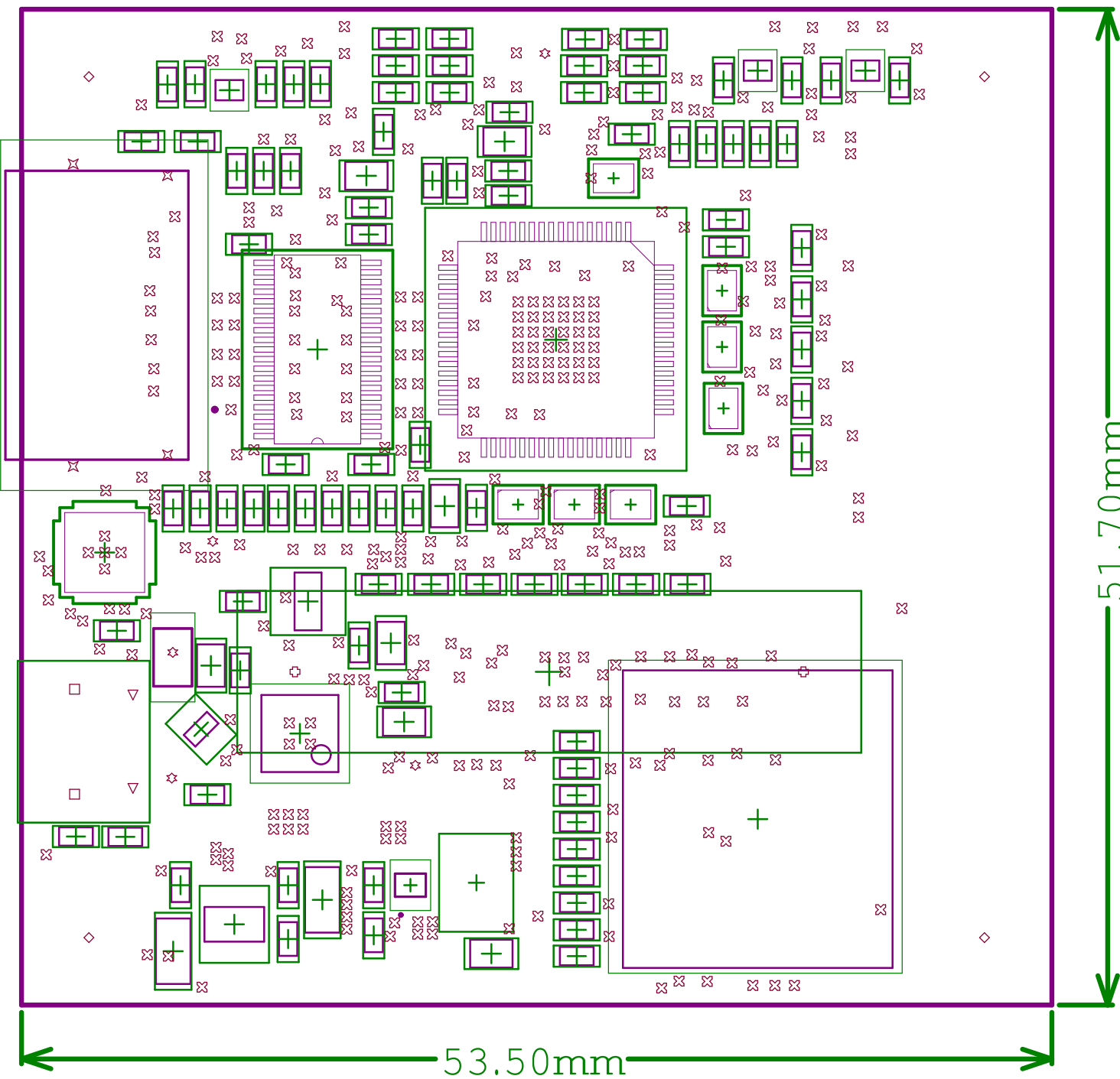
- .GTP
- .GTO
- .GTS
- .GTL

- .GP1

- .G1
- .G2

- .GP2

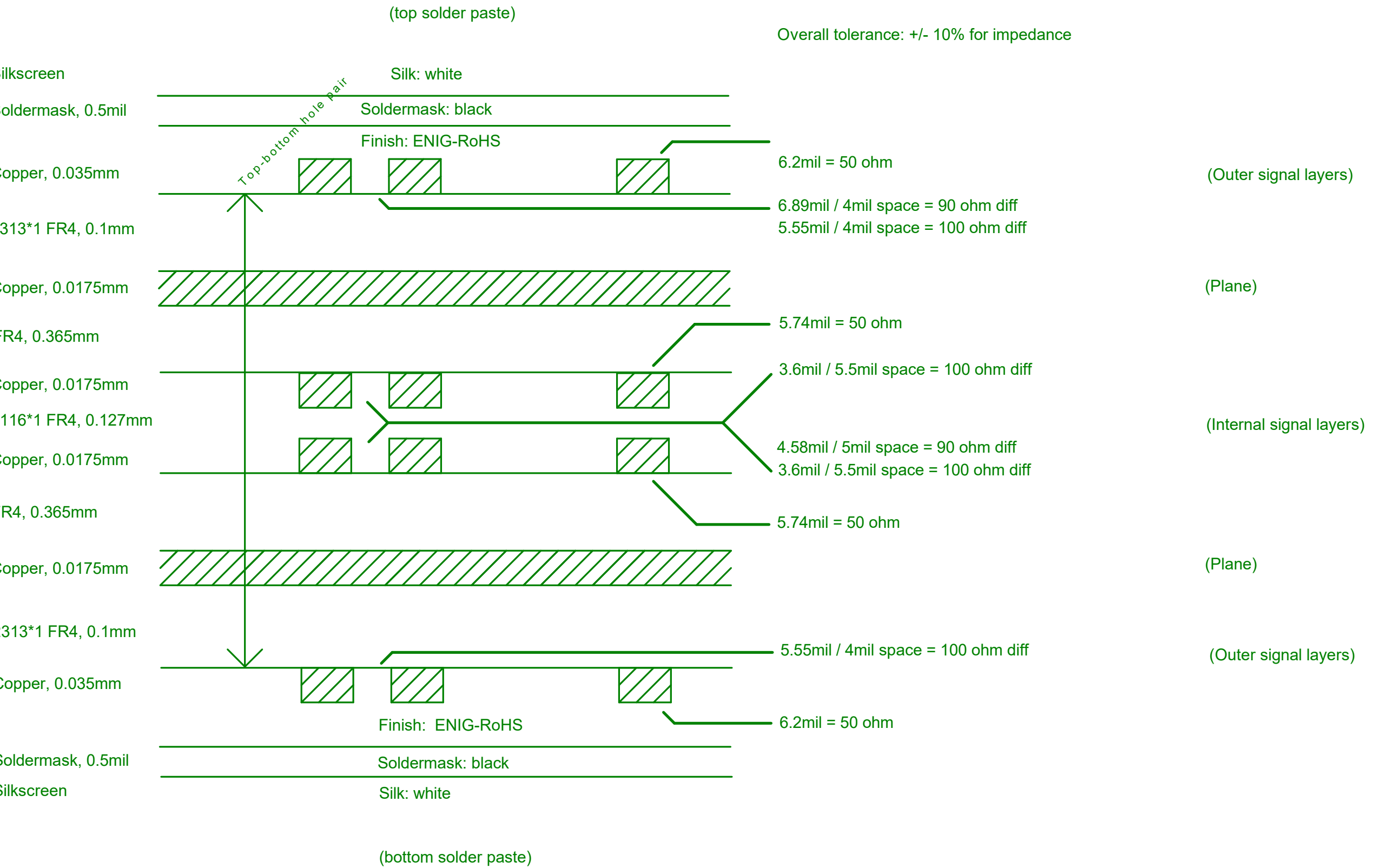
- .GBL
- .GBS
- .GBO
- .GBP
- .GKO



Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

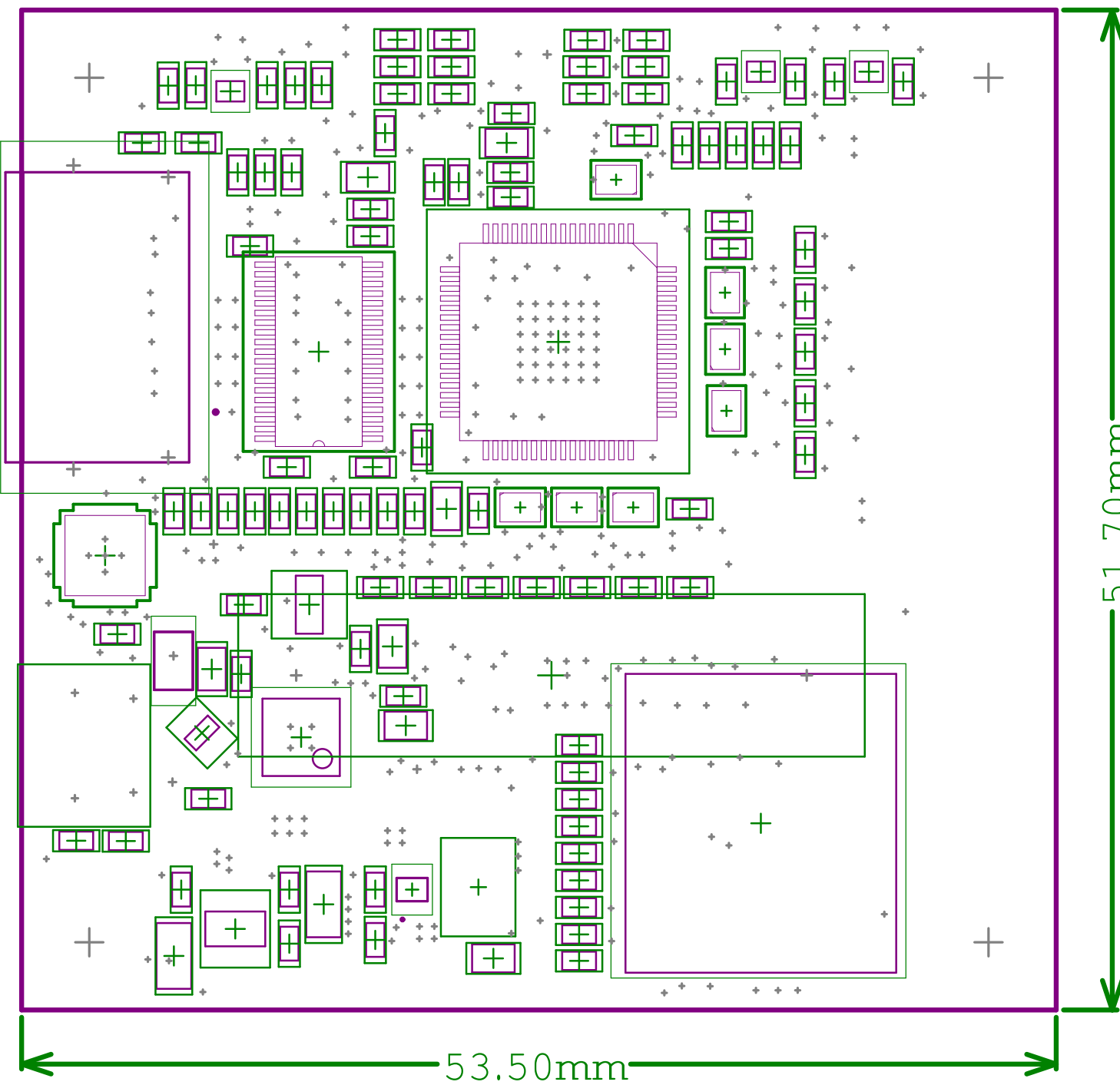
Overall height: 1.2mm, +/- 10%



Mech via: 10 mil hole / 20 mil pad smallest
 Route: 4mil width / 3.5mil clearance smallest

File name extensions:

- .GTP
- .GTO
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Material and thickness

1oz Foil	Copper, 0.035mm
Prepreg	2313*1 FR4, 0.1mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2116*1 FR4, 0.127mm
0.5oz Foil	Copper, 0.0175mm
Core	FR4, 0.365mm
0.5oz Foil	Copper, 0.0175mm
Prepreg	2313*1 FR4, 0.1mm
1oz Foil	Copper, 0.035mm

Overall height: 1.2mm, +/- 10%

