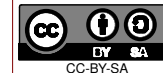


WAN on port P4, DTE wiring (1=T+, 2=T-, 3=R+, 6=R-)

LAN on port P0, DCE wiring (1=R+, 2=R-, 3=T+, 6=T-)

Resistors are 5% 1/16W 0402 unless otherwise specified  
Ceramic capacitors are  $\pm 10\%$  50V X7R dielectric 0402 unless otherwise specified

**DOMINO**  
WIFI 4 THINGS



Licensed under a Creative Commons  
Attribution-Share-Alike Unported License.  
See [creativecommons.org/licenses/by-sa/4.0/](https://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS".  
Global Marine Networks disclaims all other warranties express or implied,  
regarding this product, including but not limited to, any implied warranties of  
merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product  
descriptions at any time, without notice.

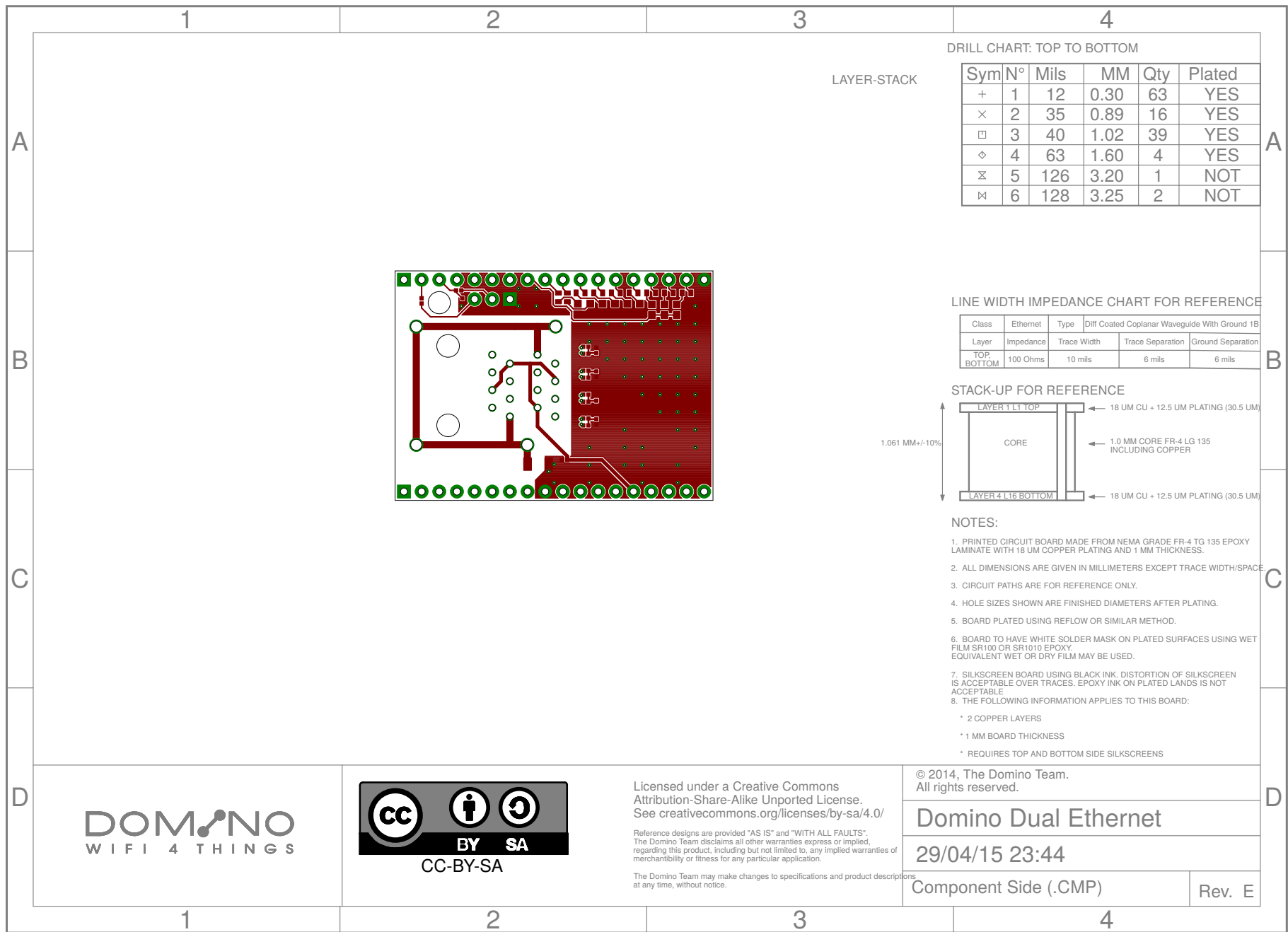
© 2014, The Domino Team  
All rights reserved.

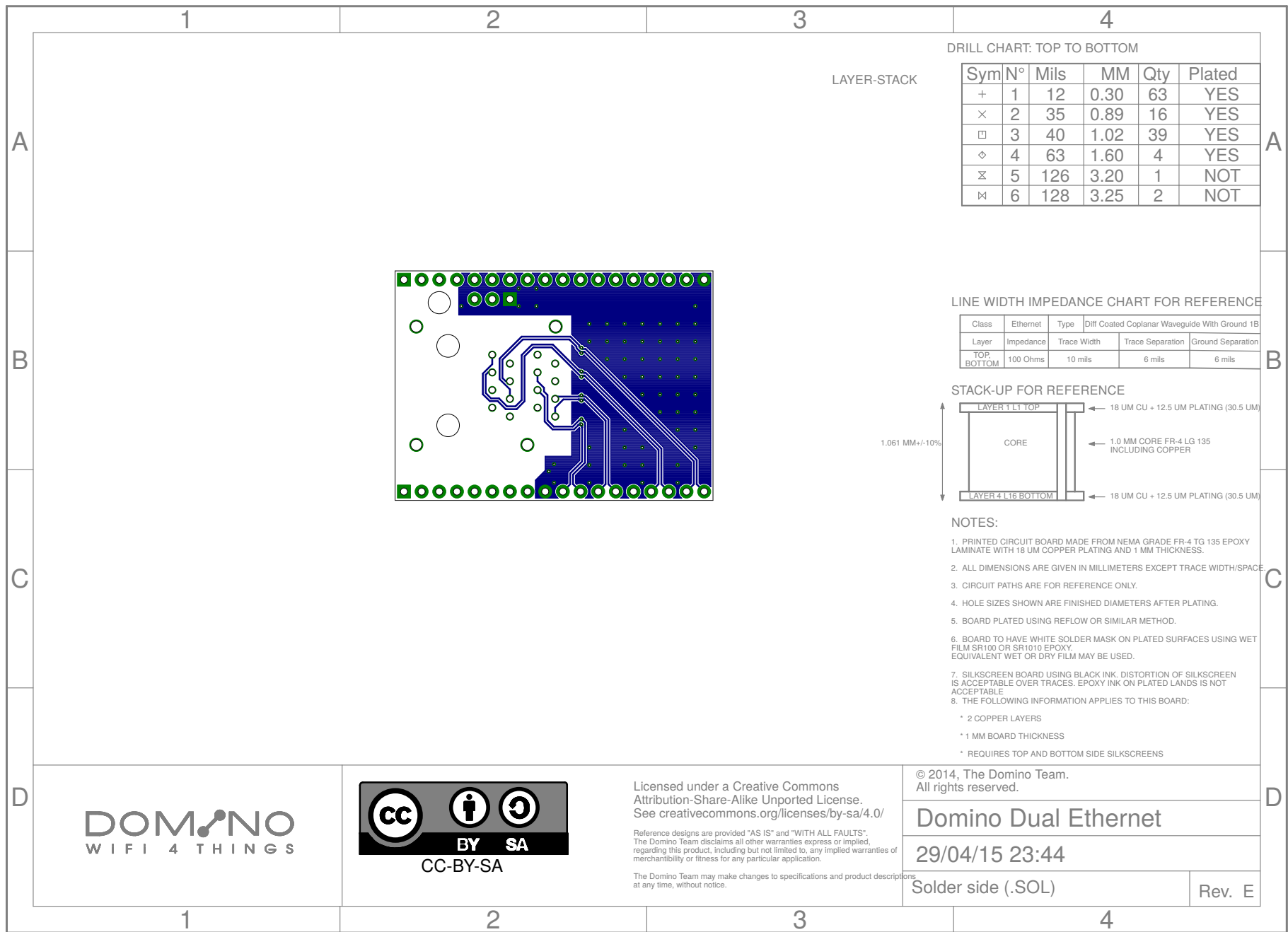
**Domino Dual Ethernet**

29/04/15 23:39

Sheet: 1/1

Rev. E





LAYER-STACK

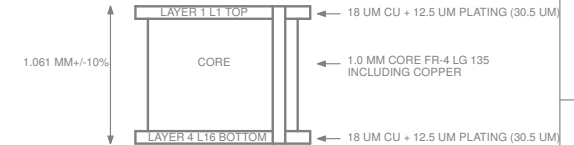
DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊗	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B
Layer	Impedance	Trace Width	Trace Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils

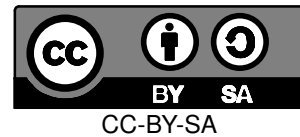
STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 TG 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANDS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
  - \* 2 COPPER LAYERS
  - \* 1 MM BOARD THICKNESS
  - \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

DOMINO  
WIFI 4 THINGS



Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](http://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.

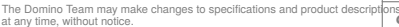
© 2014, The Domino Team.  
All rights reserved.

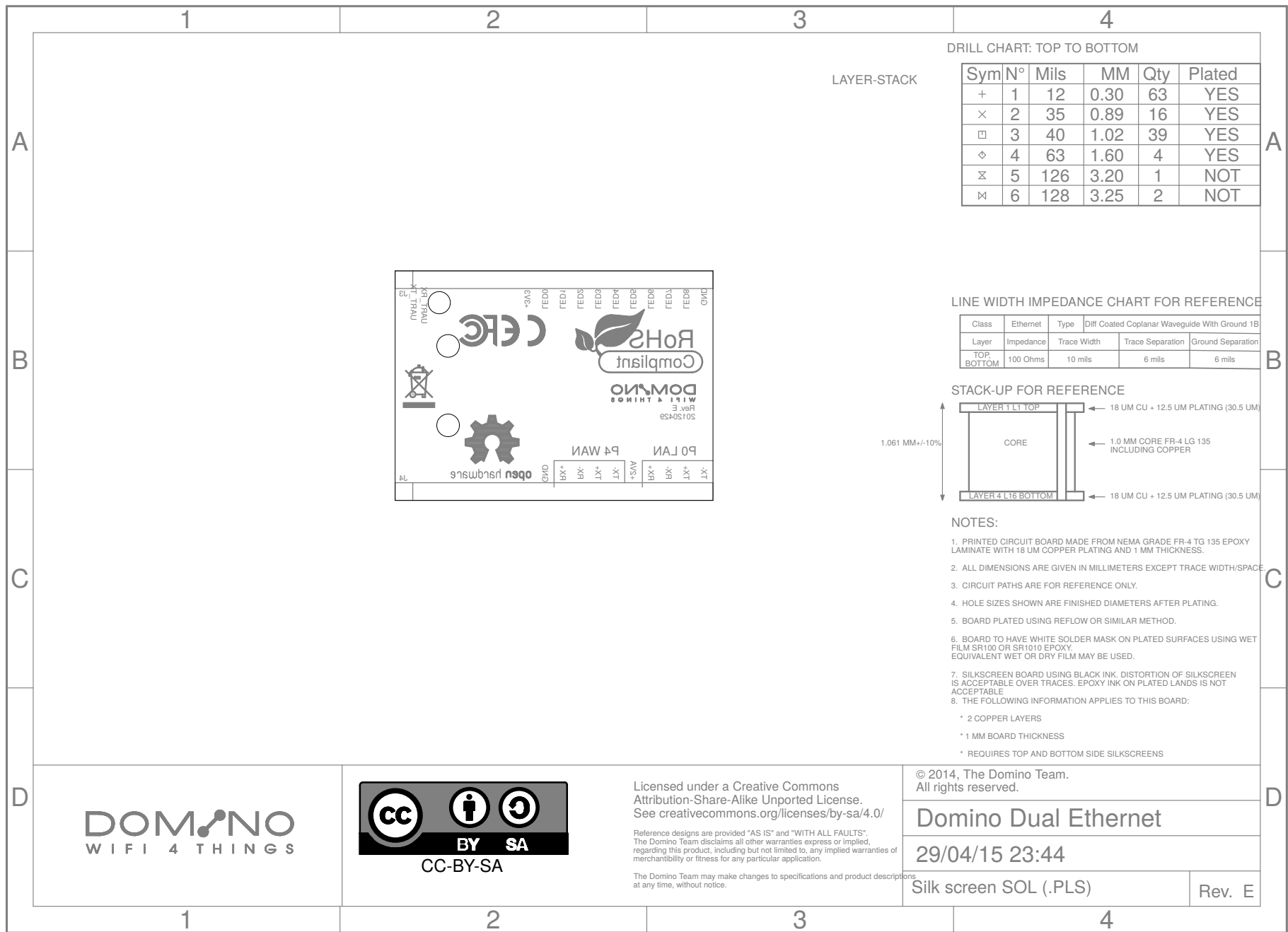
Domino Dual Ethernet

29/04/15 23:44

Solder side (.SOL)

Rev. E





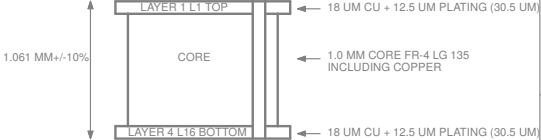
DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊗	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils	6 mils

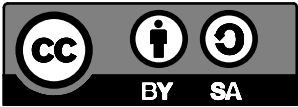
STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 TG 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANDS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
  - \* 2 COPPER LAYERS
  - \* 1 MM BOARD THICKNESS
  - \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

DOMINO  
WIFI 4 THINGS



CC-BY-SA

Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](http://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.

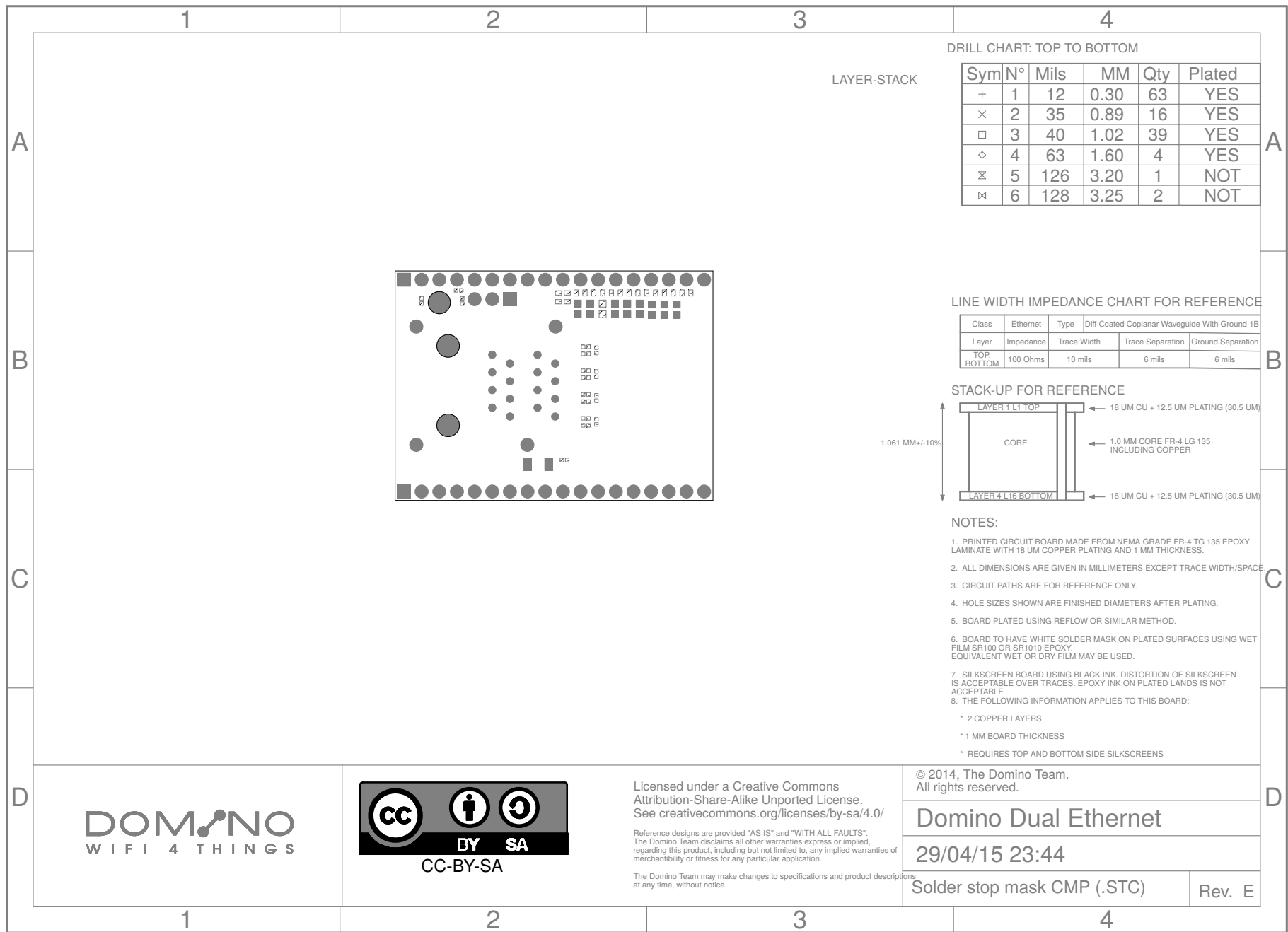
© 2014, The Domino Team.  
All rights reserved.

Domino Dual Ethernet

29/04/15 23:44

Silk screen SOL (.PLS)

Rev. E



LAYER-STACK

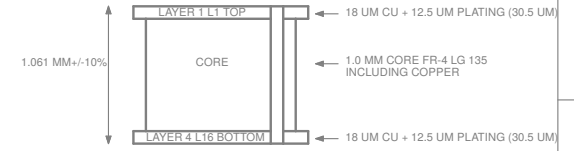
DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊗	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils	6 mils

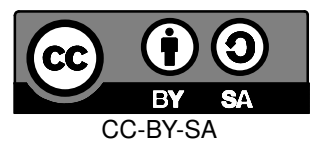
STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 TG 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANDS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
  - \* 2 COPPER LAYERS
  - \* 1 MM BOARD THICKNESS
  - \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

DOMINO  
WIFI 4 THINGS



Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](http://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.

© 2014, The Domino Team. All rights reserved.

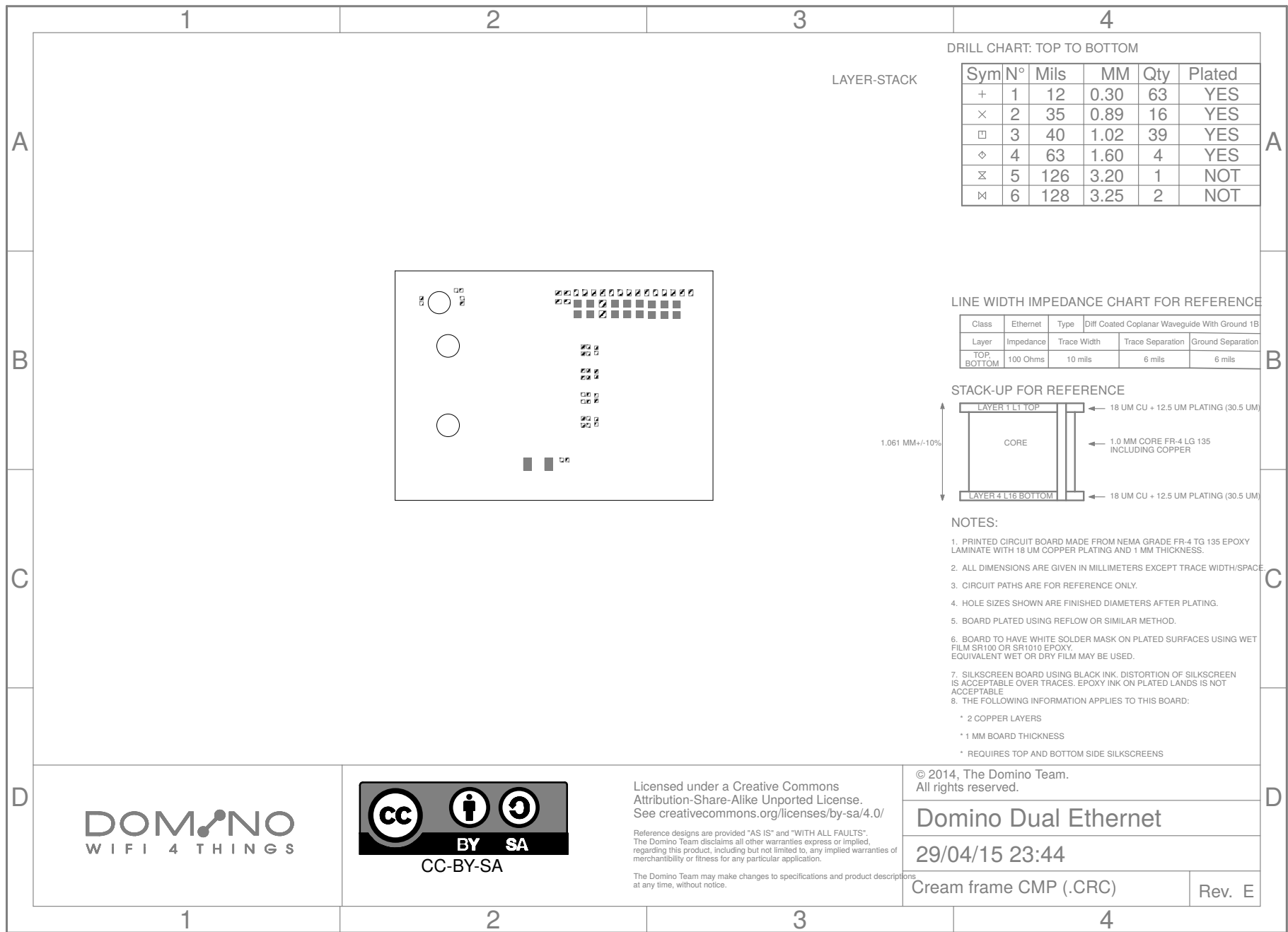
Domino Dual Ethernet

29/04/15 23:44

Solder stop mask CMP (.STC)

Rev. E





LAYER-STACK

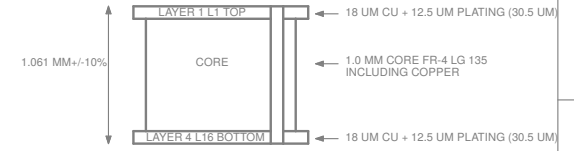
DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊗	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

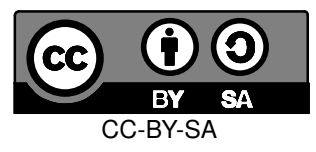
Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils	6 mils

STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 TG 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANDS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
  - \* 2 COPPER LAYERS
  - \* 1 MM BOARD THICKNESS
  - \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS



Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](http://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.

© 2014, The Domino Team. All rights reserved.

Domino Dual Ethernet

29/04/15 23:44

Cream frame CMP (.CRC)

Rev. E



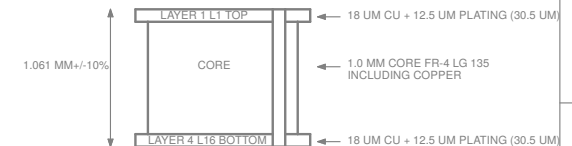
### DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
▣	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊠	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP BOTTOM	100 Ohms	10 mils	6 mils	6 mils

## STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 T 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY.  
EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANS IS NOT ACCEPTABLE
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:

- \* 2 COPPER LAYERS
- \* 1 MM BOARD THICKNESS
- \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

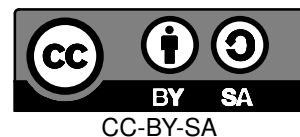
© 2014, The Domino Team.  
All rights reserved.

Domino Dual Ethernet

29/04/15 23:44

Cream frame SOL (.CRS)

Rev. E

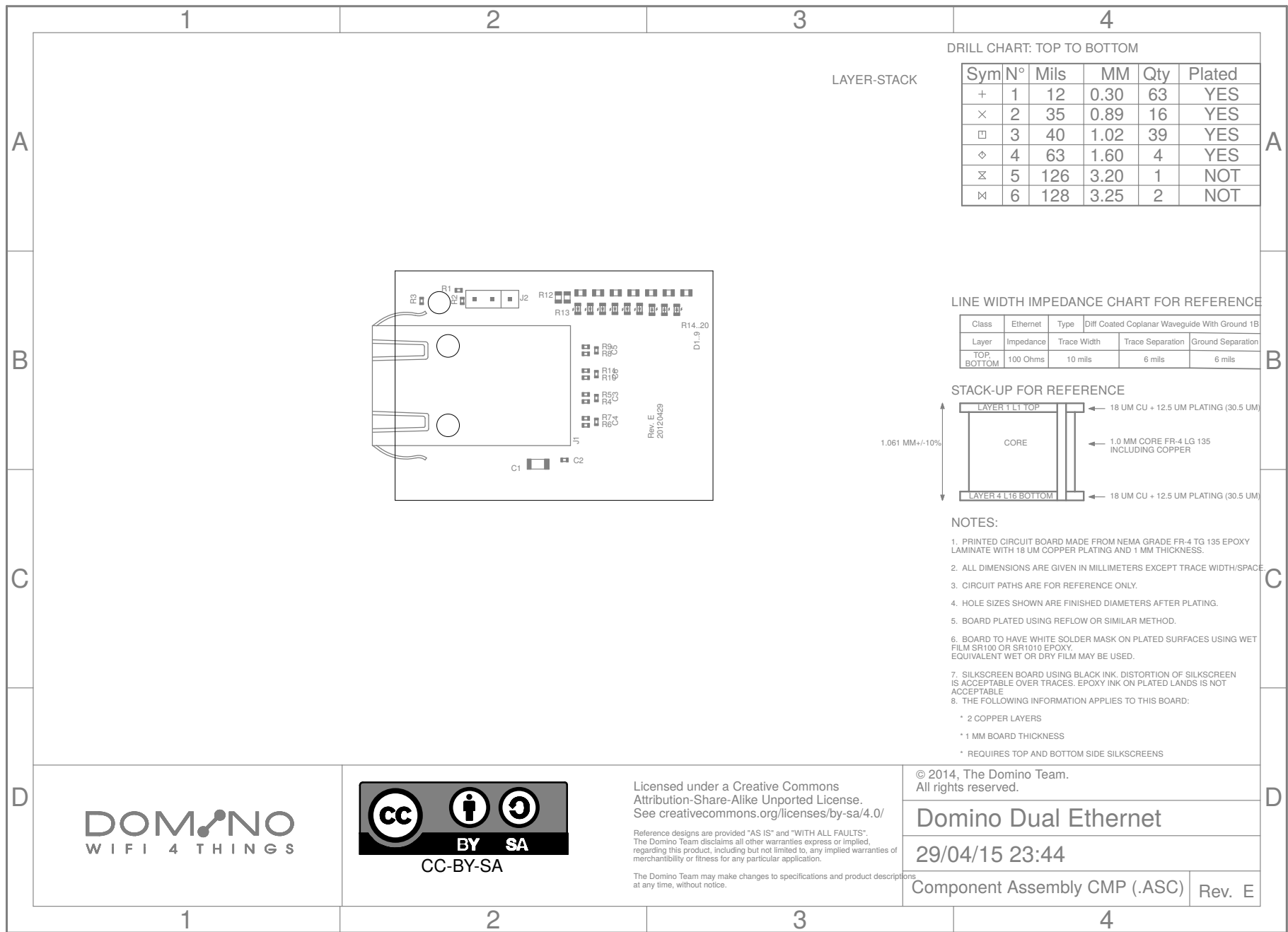


Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](https://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.





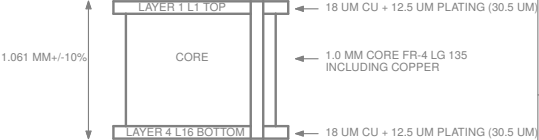
DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊗	5	126	3.20	1	NOT
⊗	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils	6 mils

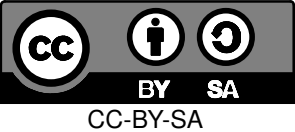
STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 TG 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSCREEN BOARD USING BLACK INK. DISTORTION OF SILKSCREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANDS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
  - \* 2 COPPER LAYERS
  - \* 1 MM BOARD THICKNESS
  - \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

DOMINO  
WIFI 4 THINGS



Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](http://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.

© 2014, The Domino Team.  
All rights reserved.

Domino Dual Ethernet

29/04/15 23:44

Component Assembly CMP (.ASC) Rev. E

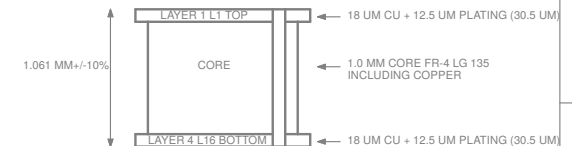
### DRILL CHART: TOP TO BOTTOM

Sym	N°	Mils	MM	Qty	Plated
+	1	12	0.30	63	YES
×	2	35	0.89	16	YES
□	3	40	1.02	39	YES
◇	4	63	1.60	4	YES
⊠	5	126	3.20	1	NOT
⊞	6	128	3.25	2	NOT

LINE WIDTH IMPEDANCE CHART FOR REFERENCE

Class	Ethernet	Type	Diff Coated Coplanar Waveguide With Ground 1B	
Layer	Impedance	Trace Width	Trace Separation	Ground Separation
TOP, BOTTOM	100 Ohms	10 mils	6 mils	6 mils

## STACK-UP FOR REFERENCE



NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 T 135 EPOXY LAMINATE WITH 18 UM COPPER PLATING AND 1 MM THICKNESS.
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETERS EXCEPT TRACE WIDTH/SPACE.
3. CIRCUIT PATHS ARE FOR REFERENCE ONLY.
4. HOLE SIZES SHOWN ARE FINISHED DIAMETERS AFTER PLATING.
5. BOARD PLATED USING REFLOW OR SIMILAR METHOD.
6. BOARD TO HAVE WHITE SOLDER MASK ON PLATED SURFACES USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
7. SILKSREEN BOARD USING BLACK INK. DISTORTION OF SILKSREEN IS ACCEPTABLE OVER TRACES. EPOXY INK ON PLATED LANS IS NOT ACCEPTABLE.
8. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:

- \* 2 COPPER LAYERS
- \* 1 MM BOARD THICKNESS
- \* REQUIRES TOP AND BOTTOM SIDE SILKSCREENS

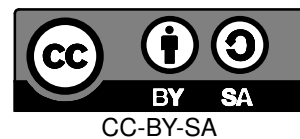
© 2014, The Domino Team.  
All rights reserved.

Domino Dual Ethernet

29/04/15 23:44

Component Assembly SOL (.ASS)

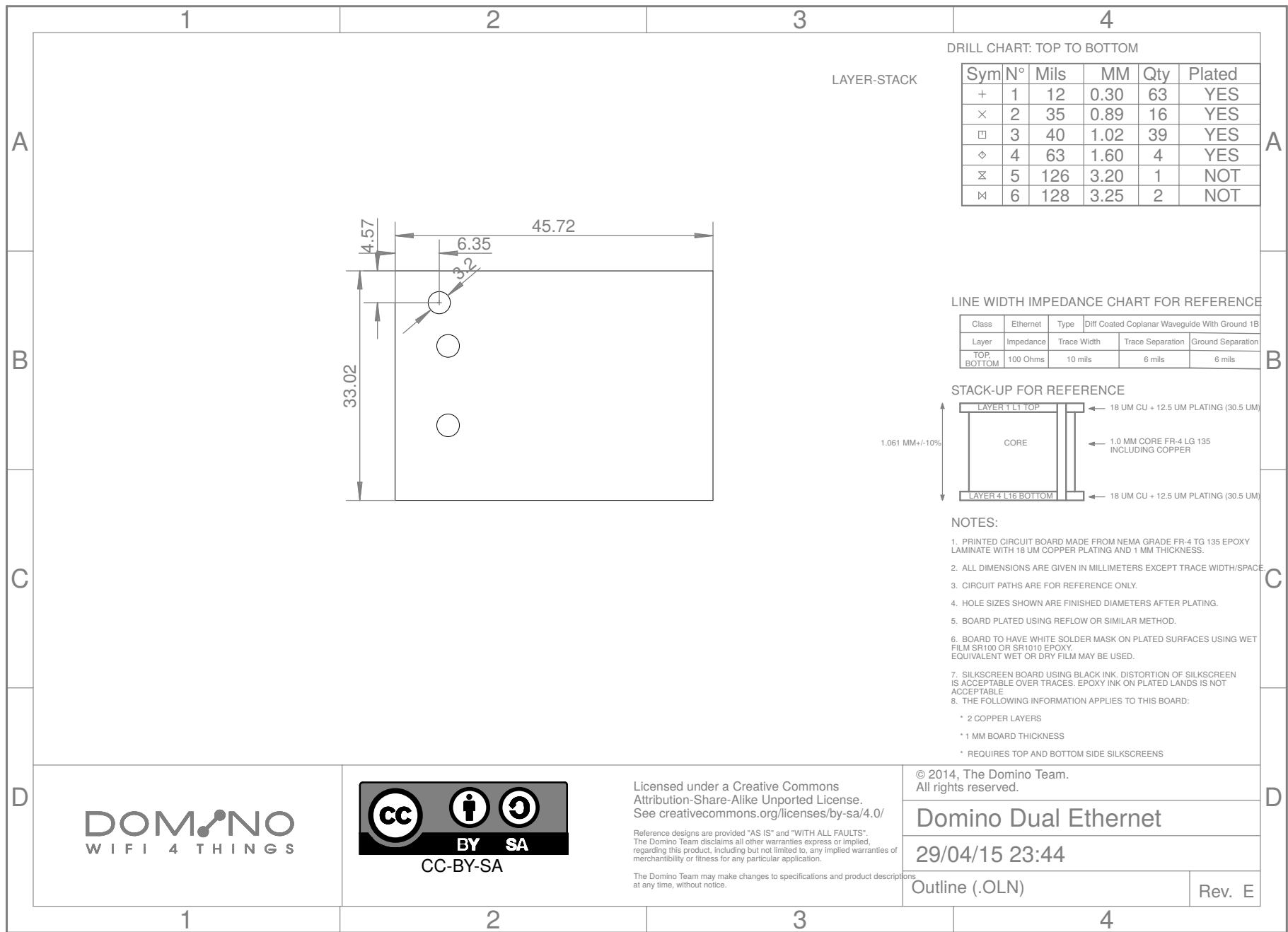
Rev. E

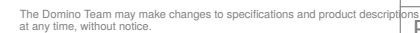


Licensed under a Creative Commons Attribution-Share-Alike Unported License. See [creativecommons.org/licenses/by-sa/4.0/](https://creativecommons.org/licenses/by-sa/4.0/)

Reference designs are provided "AS IS" and "WITH ALL FAULTS". The Domino Team disclaims all other warranties express or implied, regarding this product, including but not limited to, any implied warranties of merchantability or fitness for any particular application.

The Domino Team may make changes to specifications and product descriptions at any time, without notice.





# Domino Dual Ethernet Rev. E

Item	Qty	Value	Manufacturer	Device	Package	Reference	Description	Remarks
1	1	2n2	ANY	C1210_2n2_X7R_10%_CER_2kV	C1206	C1	CAP CER 2200PF 1KV 10% X7R 1210	
2	5	100n	ANY	C0402_100n_X7R_10%_CER_50V	C0402	C2, C3, C4, C5, C6	CAP CER 0.1UF 50V 10% X7R 0402	
3	1	BLUE	ANY	LED0603-BLUE	LED0603	D1	LED BLUE CLEAR 0603 SMD	
4	1	WHITE	ANY	LED0603-WHITE	LED0603	D2	LED WHITE CLEAR 0603 SMD	
5	4	GREEN	ANY	LED0603-GREEN	LED0603	D3, D4, D5, D6	LED GREEN CLEAR 0603 SMD	
6	1	RED	ANY	LED0603-ORANGE	LED0603	D7	LED ORANGE CLEAR 0603 SMD	
7	1	ORANGE	ANY	LED0603-ORANGE	LED0603	D8	LED ORANGE CLEAR 0603 SMD	
8	1	YELLOW	ANY	LED0603-YELLOW	LED0603	D9	LED YELLOW CLEAR 0603 SMD	
9	1	HB3-2H101NLF	SHEZHEN HUILY ELECTRONICS	HB3-2H101NLF	HB3-2H101NLF	J1	CONN MAGJACK 2PORT 100 BASE-T	
10	1	MH3-1	ANY	MH3-1-0.1	MH3-1-0.1	J2	CONN HEADER VERT .100 1ROW 3POS 8.08 HEAD 3.05 TAIL 15AU	
11	2	MH18-1	ANY	MH18-1-0.1	MH18-1-0.1	J3, J4	CONN HEADER VERT .100 1ROW 18POS 8.08 HEAD 3.05 TAIL 15AU	
12	1	4k7	ANY	R0402_4k7_5%_62.5mW	R0402	R1	RES 4.7K OHM 1/16W 5% 0402 SMD	
13	6	270R	ANY	R0603_270R_5%_125mW	R0603	R12, R13, R14, R15, R16, R17	RES 270 OHM 1/8W 5% 0603 SMD	
14	3	330R	ANY	R0603_330R_5%_125mW	R0603	R18, R19, R20	RES 330 OHM 1/8W 5% 0603 SMD	
15	1	15k	ANY	R0402_15k_5%_62.5mW	R0402	R2	RES 15K OHM 1/16W 5% 0402 SMD	
16	1	220R	ANY	R0402_220R_5%_62.5mW	R0402	R3	RES 220 OHM 1/16W 5% 0402 SMD	
17	8	49R9	ANY	R0402_49R9_1%_62.5mW	R0402	R4, R5, R6, R7, R8, R9, R10, R11	RES 49.9 OHM 1/16W 1% 0402 SMD	