



1 2 3 4 5 6 7 8

0.4mm
0.5
0.6
0.7
0.8
0.9
1.0

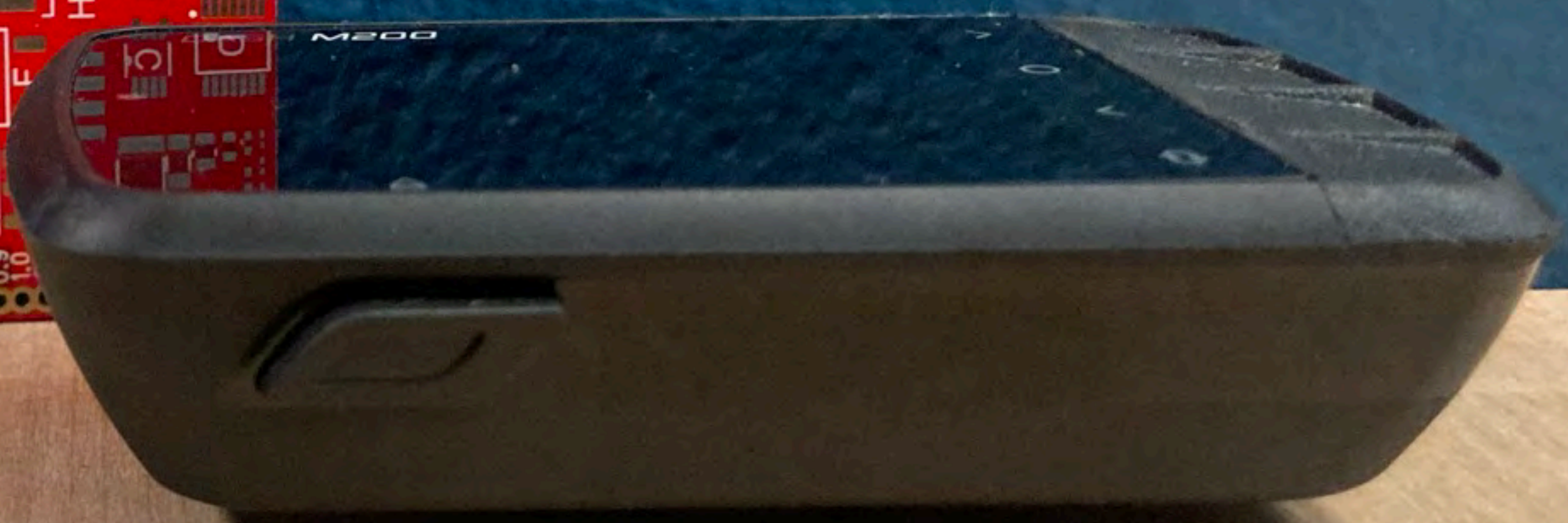
A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173", 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: DPak(5 Leads+Tab), TO-263-6, TO-263BA

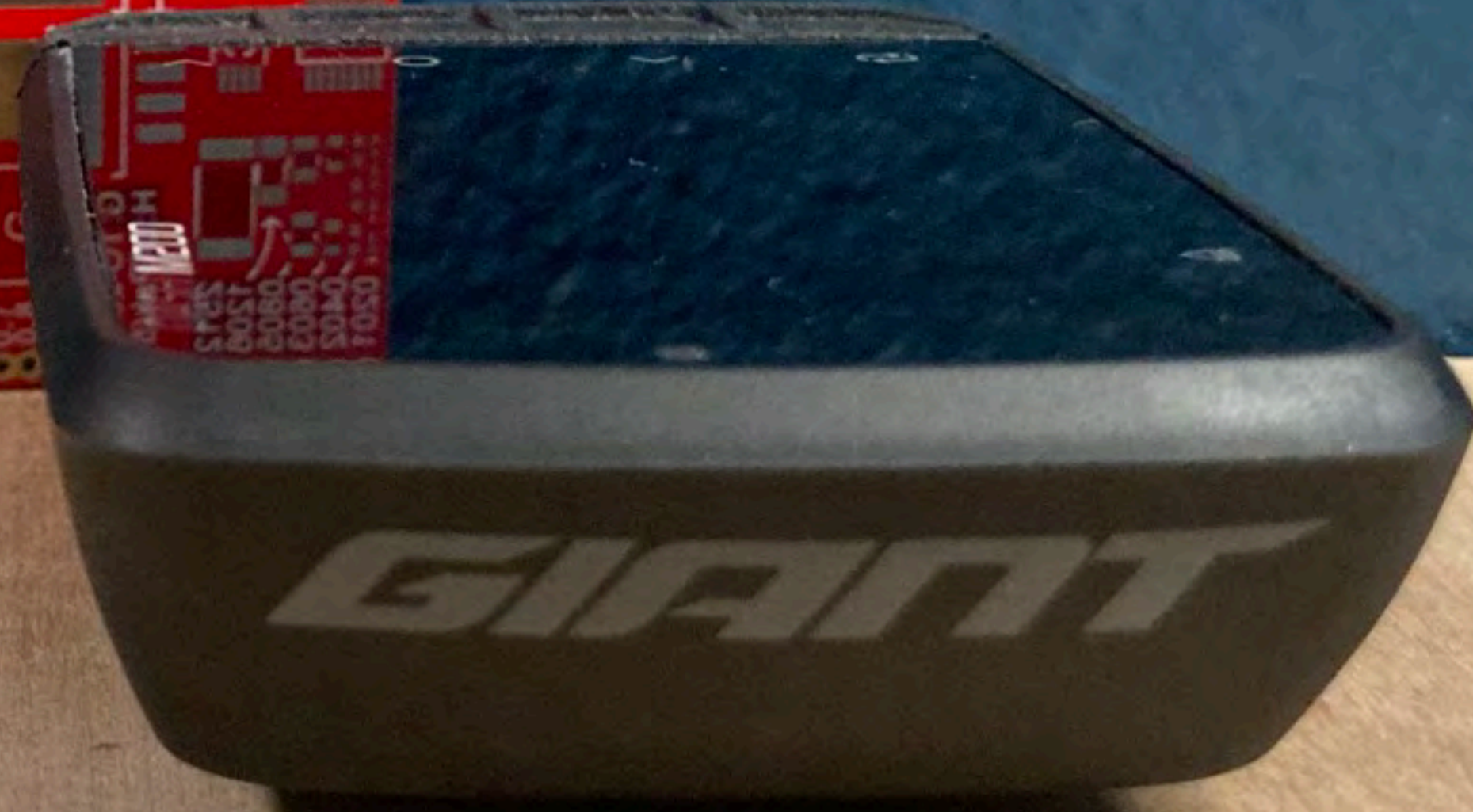
J K M N

Flux On, Flux Off

8 MIL	0.2MM
10MIL	.25MM
12MIL	0.3MM
15MIL	0.4MM
20MIL	0.5MM
30MIL	.75MM
40MIL	1.0MM
50MIL	1.25MM
75MIL	2.0MM
100MIL	2.5MM

2512 (6432m)
1206 (3216m)
0805 (2012m)
0603 (1608m)
0402 (1005m)
0201 (0603m)





1 2 3 4 5 6 7 8

A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173", 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D2Pak (5 Leads+Tab), TO-263-6, TO-263BA

Flux On, Flux Off

2512 (6432m)	8 MIL 0.2MM
1206 (3216m)	10MIL .25MM
.0805 (2012m)	12MIL 0.3MM
.0603 (1608m)	15MIL 0.4MM
.0402 (1005m)	20MIL 0.5MM
.0201 (0603m)	30MIL .75MM
	40MIL 1.0MM
	50MIL 1.25MM
	75MIL 2.0MM
	100MIL 2.5MM

1270
S.PES
6051
6080
6090
S2140
T050

1270
H
C
D

0.40 0.80 1 2 3 4 5 6 7 8

A: 8-SOIC (0.154" 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173" 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D2Pak(5 Leads+Tab), TO-263-6, TO-263BA

J: K: L: M: N:

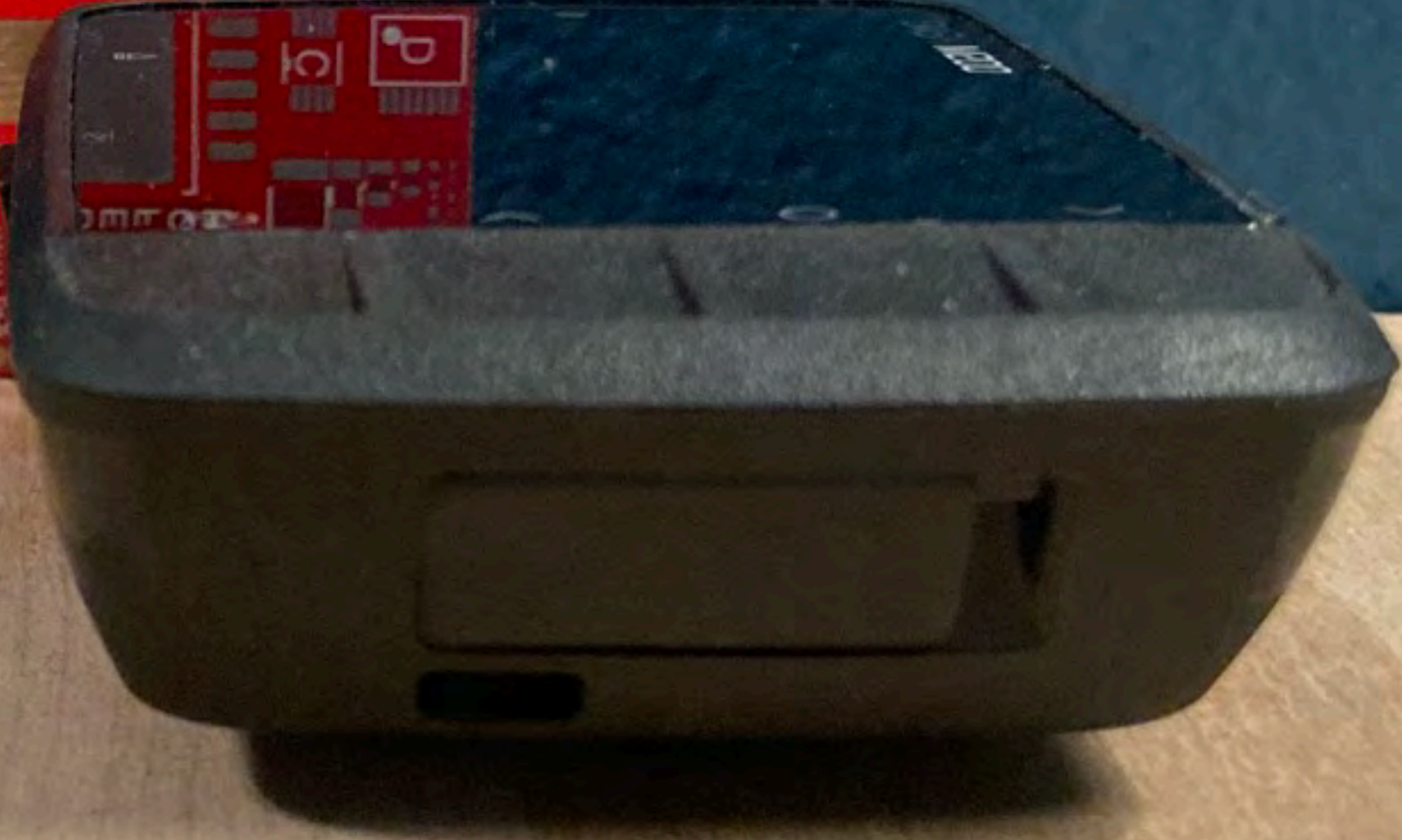
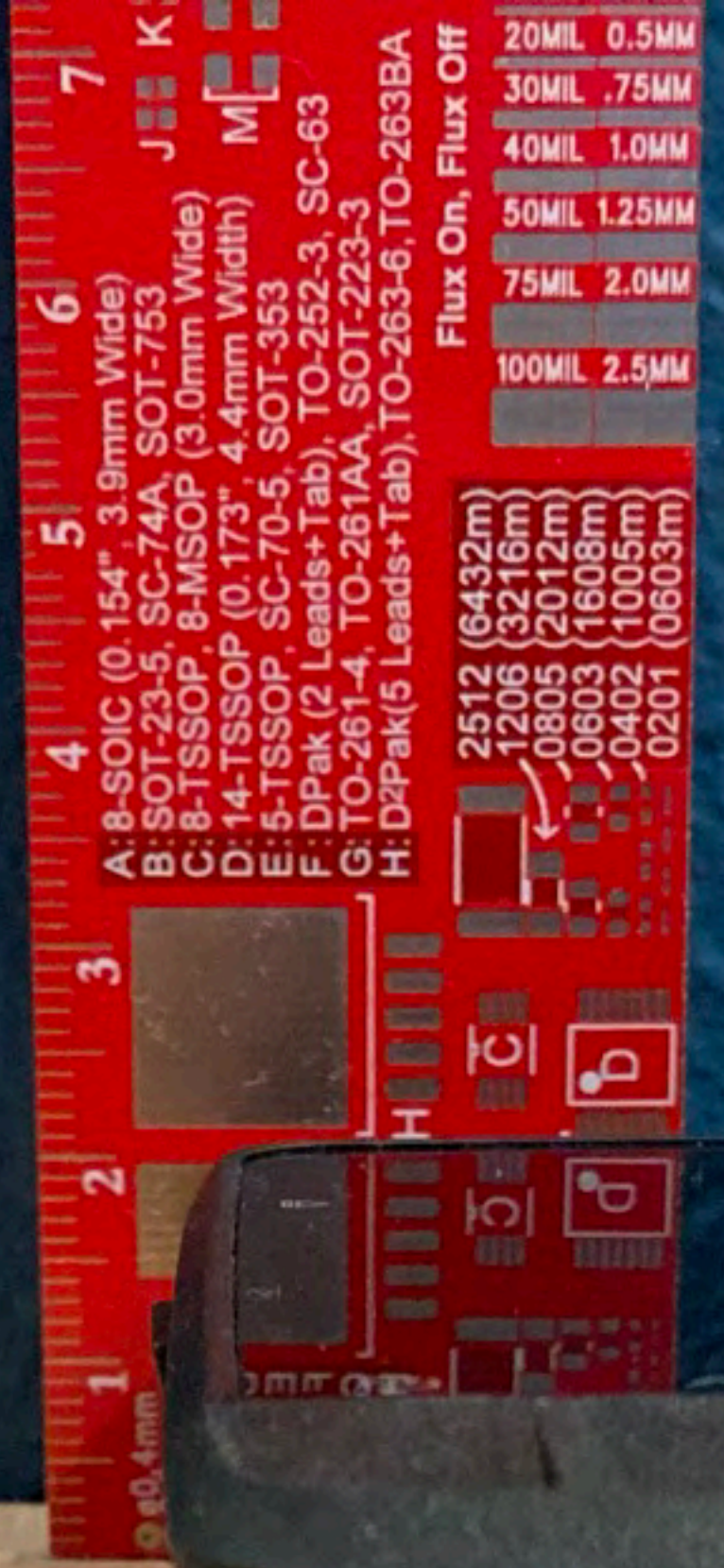
Flux On, Flux Off

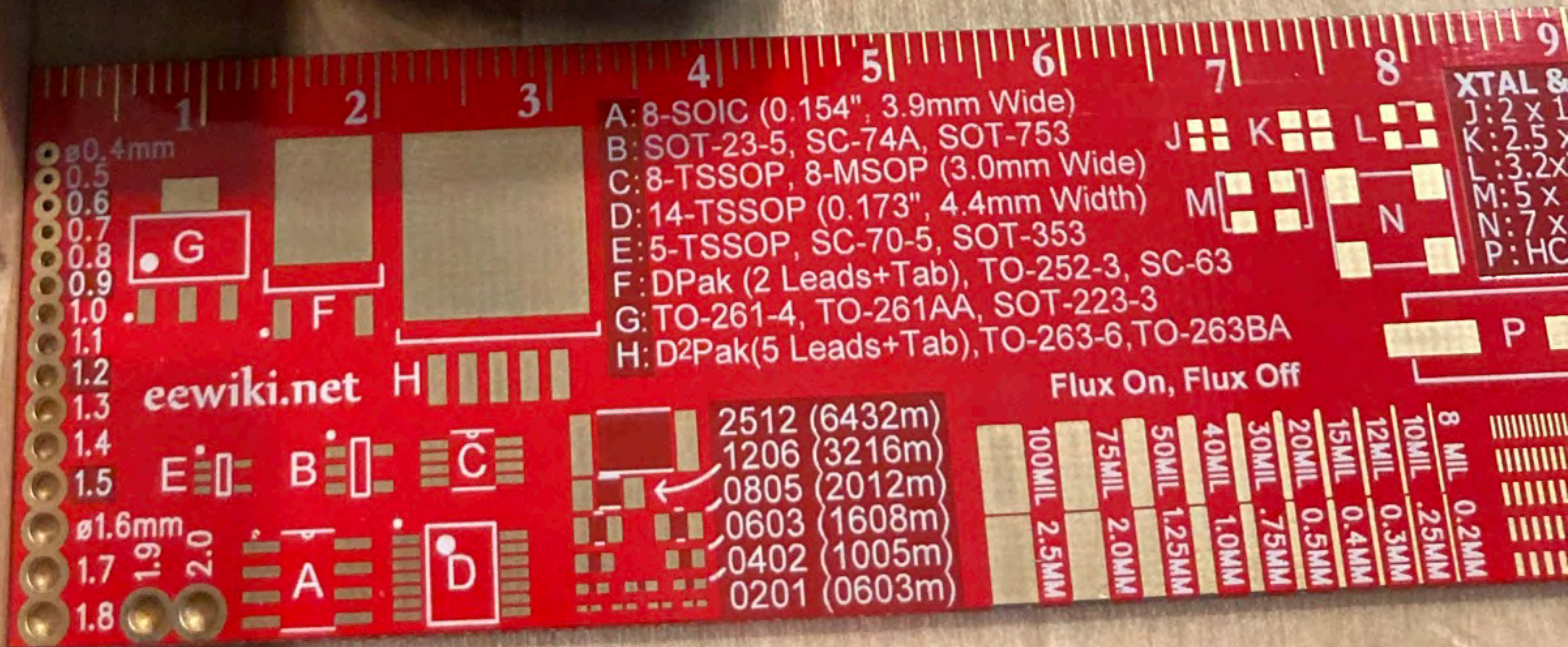
8 MIL	0.2MM
10MIL	.25MM
12MIL	0.3MM
15MIL	0.4MM
20MIL	0.5MM
30MIL	.75MM
40MIL	1.0MM
50MIL	1.25MM
75MIL	2.0MM
100MIL	2.5MM

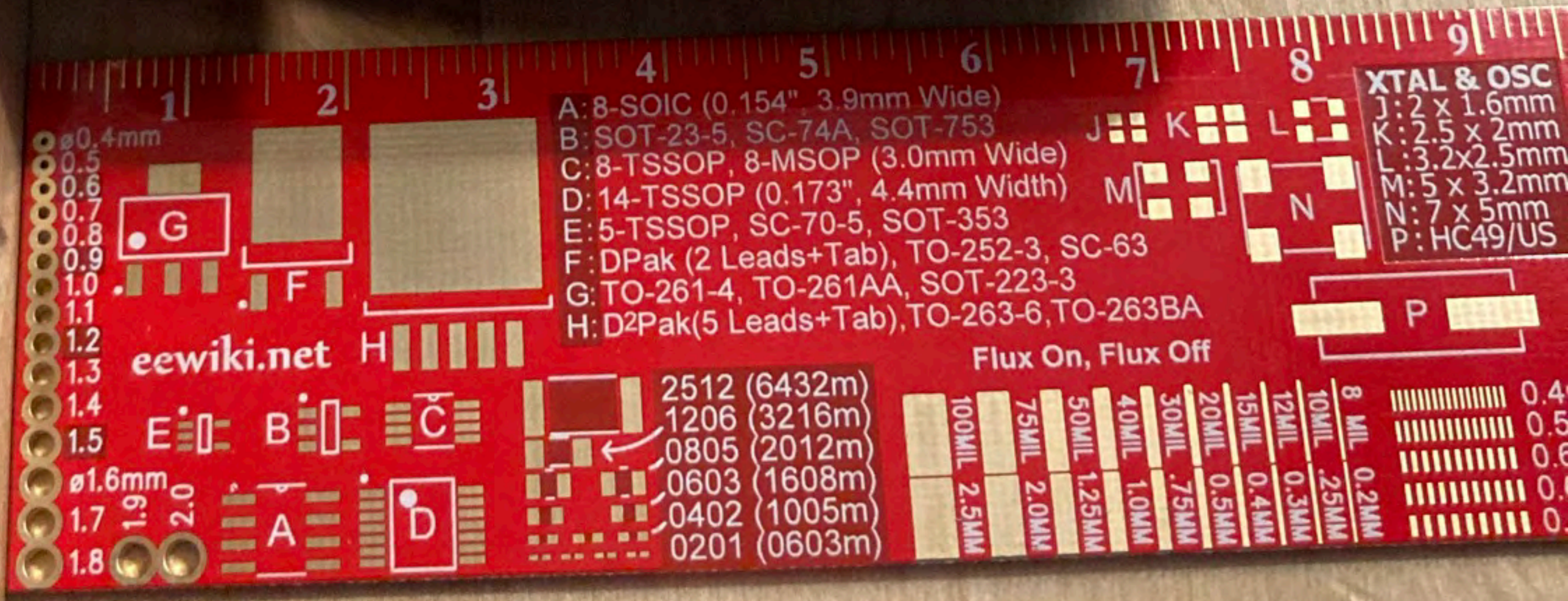
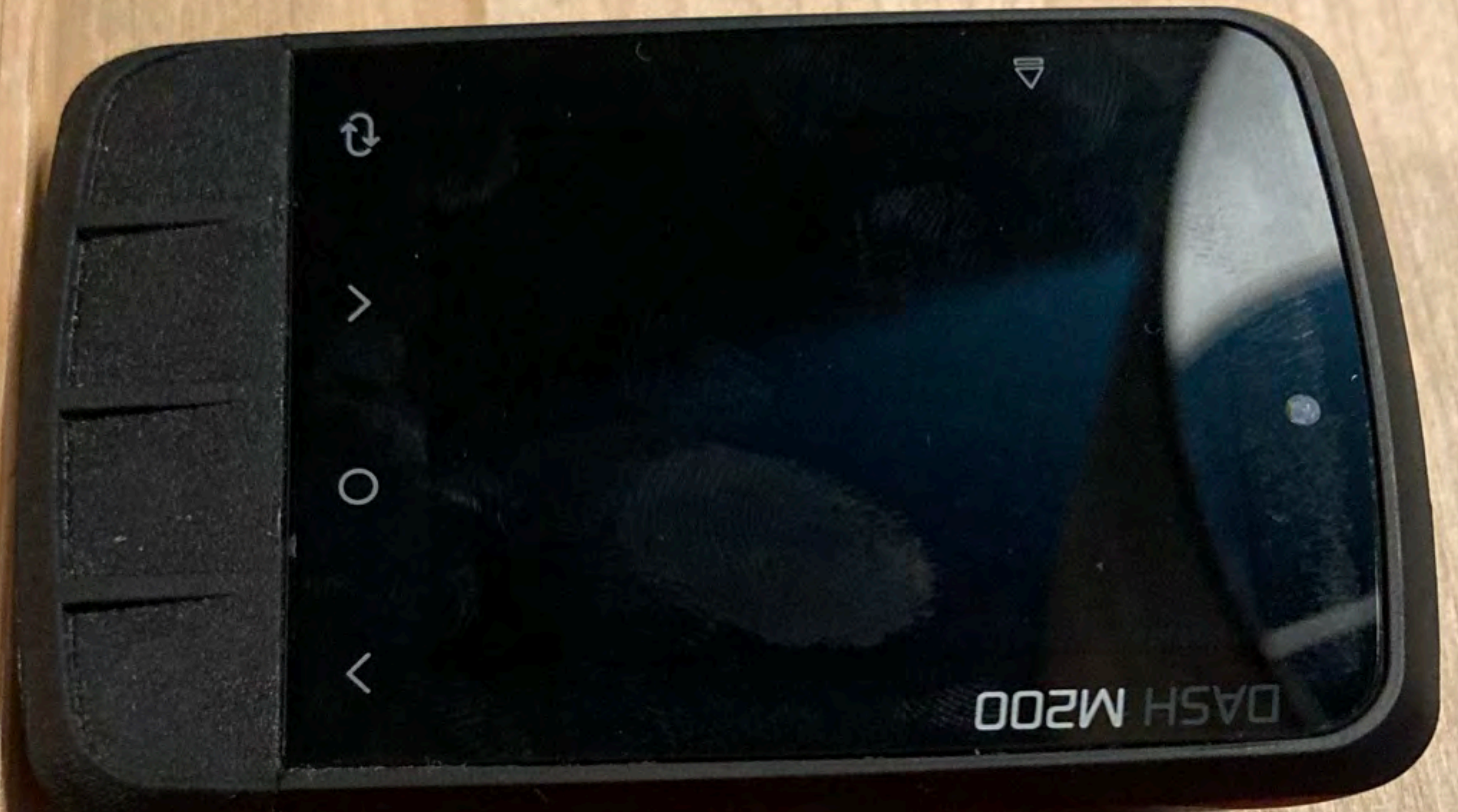
2512 (6432m)
1206 (3216m)
0805 (2012m)
0603 (1608m)
0402 (1005m)
0201 (0603m)

0.40 0.80 1 2 3 4 5 6 7 8



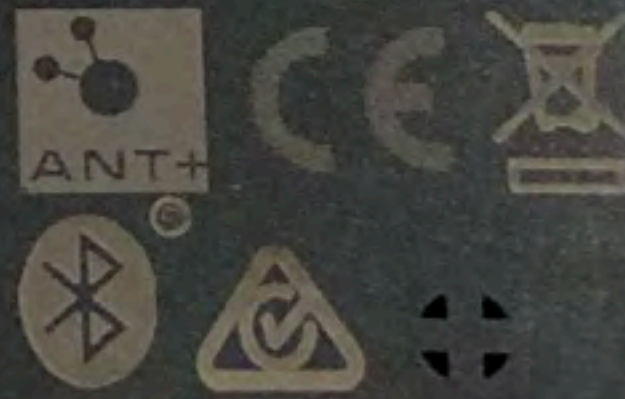






Giant Dash M200
Designed in Boulder, CO

SN:F0920210006
Assembled in Mexico
FCC ID: ZBM-SDM2
IC: 9327A-SDM2
Model: SDM2
IP57



1 2 3 4 5 6 7 8

∅0.4mm
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
∅1.6mm
1.7
1.8

G F H

eewiki.net

A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173", 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D²Pak(5 Leads+Tab), TO-263-6, TO-263BA

J K L M N P

Flux On, Flux Off

2512 (6432m)
1206 (3216m)
0805 (2012m)
0603 (1608m)
0402 (1005m)
0201 (0603m)

100MIL 2.5MM
75MIL 2.0MM
50MIL 1.25MM
40MIL 1.0MM
30MIL .75MM
20MIL 0.5MM
15MIL 0.4MM
12MIL 0.3MM
10MIL .25MM
8 MIL 0.2MM

XTA
J:2
K:2
L:3
M:5
N:3
P:



PCB layout reference guide with dimensions and component types.

Dimensions:

- 0.5mm to 1.8mm (vertical)
- 0.4mm, 0.6mm, 0.7mm, 0.8mm, 0.9mm, 1.0mm, 1.1mm, 1.2mm, 1.3mm, 1.4mm, 1.5mm, 1.6mm, 1.7mm, 1.9mm, 2.0mm (vertical)
- 100MIL, 75MIL, 50MIL, 40MIL, 30MIL, 20MIL, 15MIL, 12MIL, 10MIL, 8 MIL, 0.2MM, 0.25MM, 0.3MM, 0.4MM, 0.5MM, 0.635, 0.65, 0.8mm (horizontal)

Component Types:

- A: 8-SOIC (0.154", 3.9mm Wide)
- B: SOT-23-5, SC-74A, SOT-753
- C: 8-TSSOP, 8-MSOP (3.0mm Wide)
- D: 14-TSSOP (0.173", 4.4mm Width)
- E: 5-TSSOP, SC-70-5, SOT-353
- F: DPak (2 Leads+Tab), TO-252-3, SC-63
- G: TO-261-4, TO-261AA, SOT-223-3
- H: D2Pak(5 Leads+Tab), TO-263-6, TO-263BA
- J, K, L, M, N, P, Q, R, S, T, U, V: Various connector types

Flux On, Flux Off

Other: eewiki.net, 7 STRAND WIRE AWG, 1.2 x 1.6mm, 1.25 x 2mm, 2 x 2.5mm, 2 x 3.2mm, 3 x 2mm, SMA, DO-214AC, SMB, DO-214AA, SMC, DO-214AB, SOD-123(F), SC-76, SOD-323, SC-79, SOD-523.

Stages Dash M200
Designed in Boulder, CO

SN: F0920210018
Assembled in Mexico
PCB BY: TMM S0147
IC: M27A S0142
M: M27A S0142
M: M27A S0142

1 2 3 4 5 6 7 8 9 10 11 12 13

0.4mm
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6mm
1.7
1.8

ewiki.net

A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173", 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D2Pak(5 Leads+Tab), TO-263-6, TO-263BA

J K L M N P

XTAL OSC
J: 2 x 1.6mm
K: 2.5 x 2mm
L: 3.2 x 2.5mm
M: 5 x 3.2mm

Q R S T U V

7 STRAND WIRE
AWG
10 2.44
12 1.93
14 1.53
16 1.22
18 0.97
20 0.76
22 0.61
24 0.48
26 0.38
28 0.30
30 0.25

Flux On, Flux Off

2512 (6432m)	100MIL 2.5MM	0.4mm
1206 (3216m)	75MIL 2.0MM	0.5
0805 (2012m)	50MIL 1.25MM	0.635
0603 (1608m)	40MIL 1.0MM	0.65
0402 (1005m)	30MIL .75MM	0.8mm
0201 (0603m)	20MIL 0.5MM	
	15MIL 0.4MM	
	12MIL 0.3MM	
	10MIL .25MM	
	8 MIL 0.2MM	

Q: SMA, DO-214AC
R: SMB, DO-214AA
S: SMC, DO-214AB
T: SOD-123(F)
U: SC-76, SOD-323
V: SC-79, SOD-523

Stages Dash M200
Designed in Boulder, CO

SN:F0920210018
Assembled in Mexico
FCC ID: ZBM-SDM2
IC: 9327A-SDM2
Model: SDM2
IP57



ewiki.net

Flux On, Flux Off

2512 (6432m)	1206 (3216m)	0805 (2012m)	0603 (1608m)	0402 (1005m)	0201 (0603m)
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XTAL & OSC

J: 2 x 1.6mm	K: 2.5 x 2mm	L: 3.2 x 2.5mm	M: 5 x 3.2mm	N: 7 x 5mm	P: HC49/US
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Q: SMA, DO-214AC
R: SMB, DO-214AA
S: SMC, DO-214AB
T: SOD-123(F)
U: SC-76, SOD-323
V: SC-79, SOD-52

7 STR AWG

0.4mm
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6mm
1.7
1.8

1 2 3 4 5 6 7 8 9 10 11 12

A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
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E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D2Pak(5 Leads+Tab), TO-263-6, TO-263BA

100MIL 2.5MM
75MIL 2.0MM
50MIL 1.25MM
40MIL 1.0MM
30MIL .75MM
20MIL .5MM
15MIL .4MM
12MIL .3MM
10MIL .25MM
8 MIL .2MM

0.4mm
0.5
0.635
0.65
0.8mm



3 4 5 6 7 8 9

XTAL & OS
J: 2 X 1.6mm
K: 2.5 x 2mm
L: 3.2x2.5mm
M: 5 x 3.2mm
N: 7 x 5mm
P: HC49/US

A: 8-SOIC (0.154", 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
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E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D2Pak(5 Leads+Tab), TO-263-6, TO-263BA

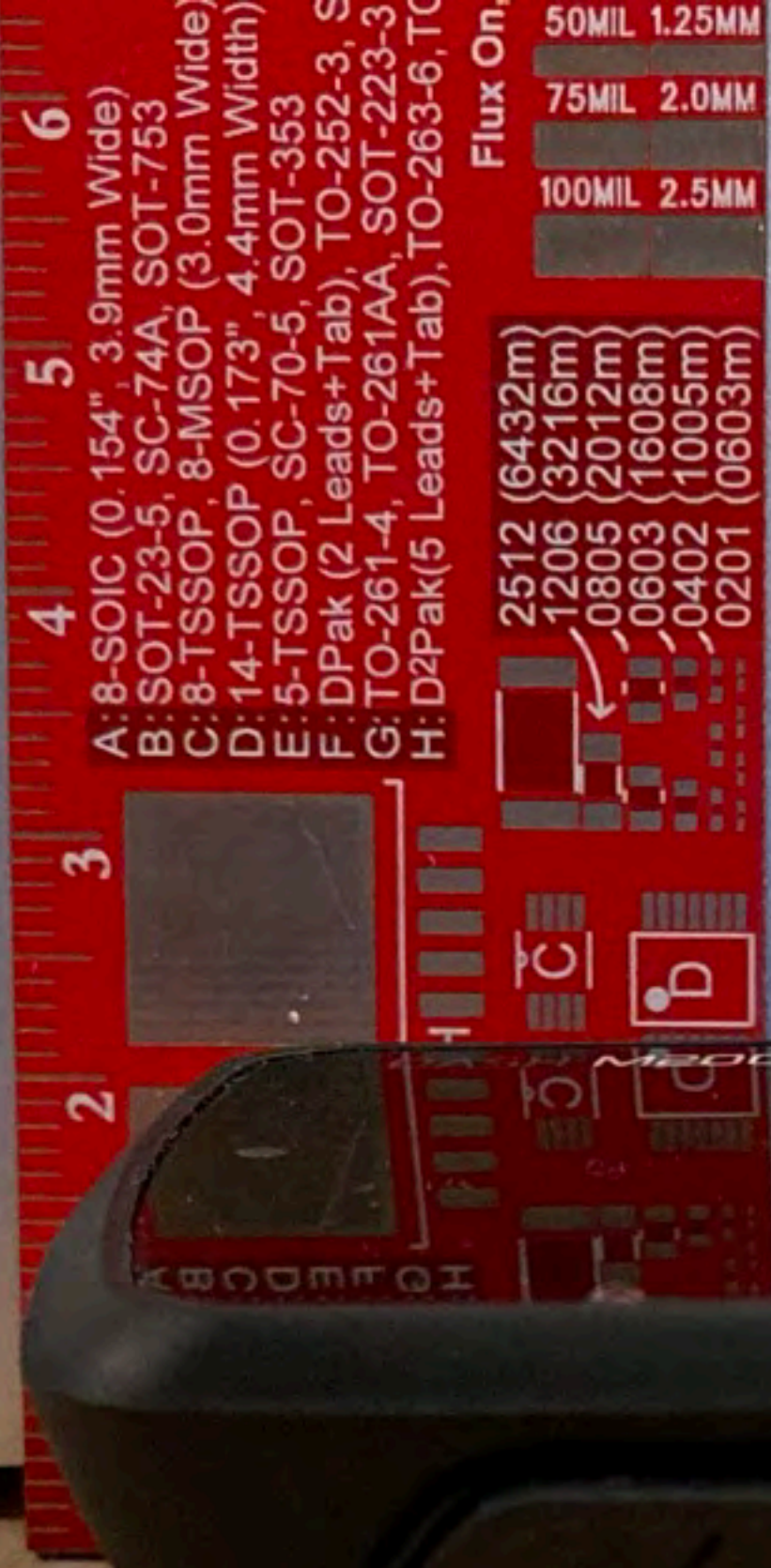
Flux On, Flux Off

2512 (6432m)	0.4m
1206 (3216m)	0.5
0805 (2012m)	0.63
0603 (1608m)	0.65
0402 (1005m)	0.65
0201 (0603m)	0.8m

8 MIL 0.2MM
10MIL .25MM
12MIL 0.3MM
15MIL 0.4MM
20MIL 0.5MM
30MIL .75MM
40MIL 1.0MM
50MIL 1.25MM
75MIL 2.0MM
100MIL 2.5MM

L
K
J
M
N
P





7
6
5
4
3
2
1

A: 8-SOIC (0.154" 3.9mm Wide)
B: SOT-23-5, SC-74A, SOT-753
C: 8-TSSOP, 8-MSOP (3.0mm Wide)
D: 14-TSSOP (0.173" 4.4mm Width)
E: 5-TSSOP, SC-70-5, SOT-353
F: DPak (2 Leads+Tab), TO-252-3, SC-63
G: TO-261-4, TO-261AA, SOT-223-3
H: D3Pak (5 Leads+Tab), TO-263-6, TO-263B

Flux On, Flux C

2512 (6432m)
1206 (3216m)
0805 (2012m)
0603 (1608m)
0402 (1005m)
0201 (0603m)

30MIL .75MM
40MIL 1.0MM
50MIL 1.25MM
75MIL 2.0MM
100MIL 2.5MM

J
M

c
b
d

