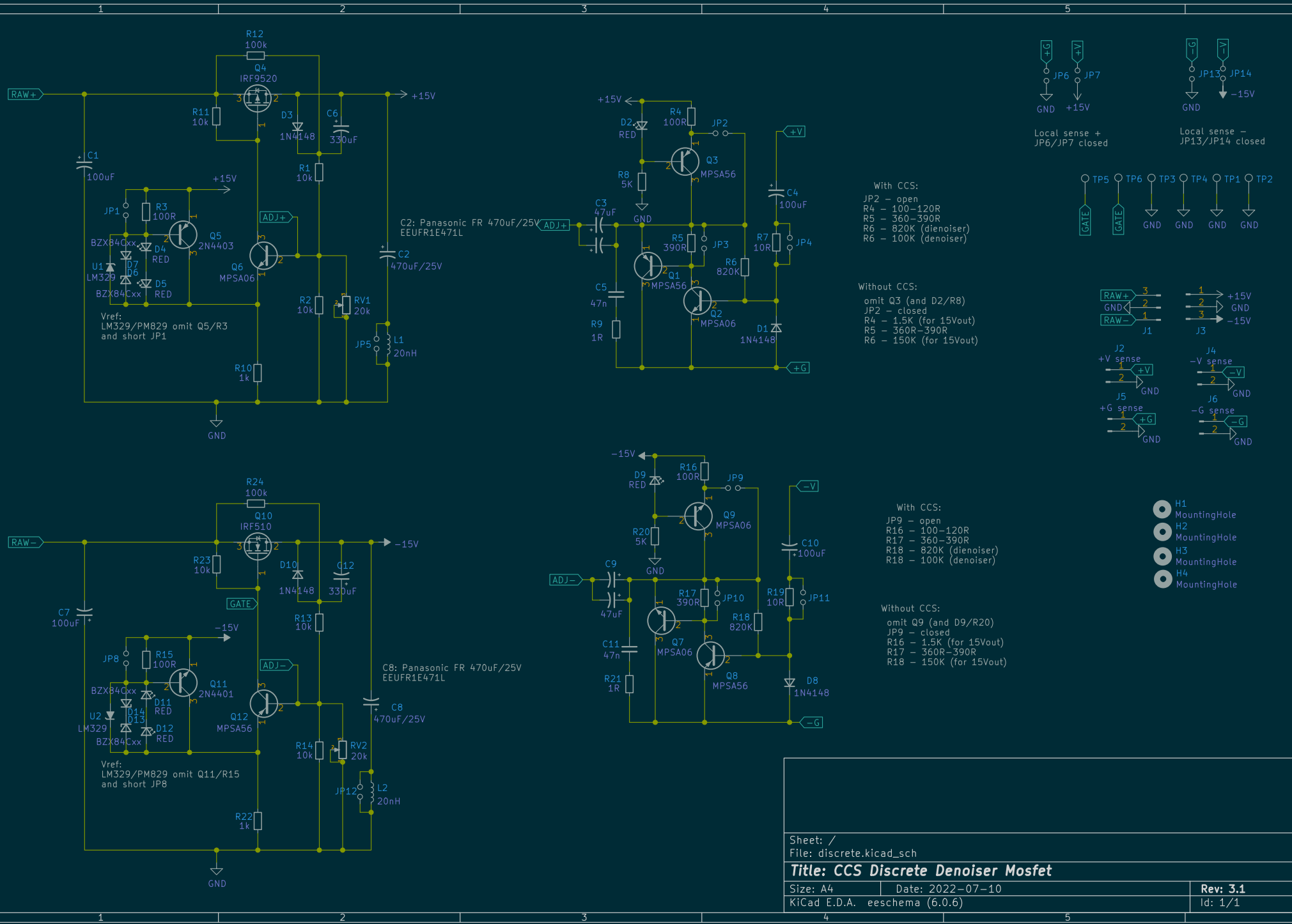
RAW+
R12
100k
Q4
IRF9520
+15V
R11
10k
D3
1N4148
C6
330uF
C1
100uF
R1
10k
JP1
R3
100R
Q5
2N4403
BZX84Cxx
D4
RED
U1
LM329
D7
D6
BZX84Cxx
D5
RED
ADJ+
Q6
MPSA06
C2
470uF/25V
R2
10k
RV1
20k
JP5
L1
20nH
R10
1k
GND
Vref:
LM329/PM829 omit Q5/R3
and short JP1
C2: Panasonic FR 470uF/25V
EEUFR1E471L
+15V
D2
RED
R4
100R
JP2
+V
Q3
MPSA56
R8
5K
GND
C3
47uF
ADJ+
C4
100uF
R5
390R
JP3
R7
10R
JP4
Q1
MPSA56
R6
820K
C5
47n
Q2
MPSA06
R9
1R
D1
1N4148
+G
With CCS:
JP2 – open
R4 – 100–120R
R5 – 360–390R
R6 – 820K (dienoiser)
R6 – 100K (denoiser)
Without CCS:
omit Q3 (and D2/R8)
JP2 – closed
R4 – 1.5K (for 15Vout)
R5 – 360R–390R
R6 – 150K (for 15Vout)
+G
+V
JP6
JP7
GND
+15V
Local sense +
JP6/JP7 closed
-G
-V
JP13
JP14
GND
-15V
Local sense –
JP13/JP14 closed
TP5
TP6
TP3
TP4
TP1
TP2
GATE
GATE
GND
GND
GND
GND
RAW+
GND
RAW–
J1
+15V
GND
-15V
J3
J2
+V sense
+V
GND
J4
–V sense
–V
GND
J5
+G sense
+G
GND
J6
–G sense
–G
GND
H1
MountingHole
H2
MountingHole
H3
MountingHole
H4
MountingHole
RAW–
R24
100k
Q10
IRF510
-15V
R23
10k
D10
1N4148
C12
330uF
C7
100uF
GATE
R13
10k
JP8
R15
100R
Q11
2N4401
BZX84Cxx
D11
RED
U2
LM329
D14
D13
BZX84Cxx
D12
RED
ADJ–
Q12
MPSA56
C8
470uF/25V
R14
10k
RV2
20k
JP12
L2
20nH
R22
1k
GND
Vref:
LM329/PM829 omit Q11/R15
and short JP8
C8: Panasonic FR 470uF/25V
EEUFR1E471L
-15V
D9
RED
R16
100R
JP9
–V
Q9
MPSA06
R20
5K
GND
C9
ADJ–
C10
100uF
47uF
R17
390R
JP10
R19
10R
JP11
Q7
MPSA06
R18
820K
C11
47n
Q8
MPSA56
R21
1R
D8
1N4148
–G
With CCS:
JP9 – open
R16 – 100–120R
R17 – 360–390R
R18 – 820K (dienoiser)
R18 – 100K (denoiser)
Without CCS:
omit Q9 (and D9/R20)
JP9 – closed
R16 – 1.5K (for 15Vout)
R17 – 360R–390R
R18 – 150K (for 15Vout)
Sheet: /
File: discrete.kicad_sch
Title: CCS Discrete Denoiser Mosfet
Size: A4
Date: 2022–07–10
Rev: 3.1
KiCad E.D.A. eeschema (6.0.6)
Id: 1/1