## **Currents**

	Name		Locate	Specification	Comment	DAC setting (dec.)
0	I34_IOUTBIAS	npn	R65 →gnd	n/a	PCB mod, direct 1000hm to ground	n/a
1	I34_MSOBIAS2	npn	R67 $\rightarrow$ gnd	90uA out of pad	Change R67 to 5K1	select for pulse len
2	I34_MSOBIAS1	npn	R66 $\rightarrow$ gnd	90uA out of pad	Change R66 to 5K1	select for pulse len
3	I34_COMPBIAS2	npn	R68 $\rightarrow$ gnd	100uA out of pad	Change R68 to 560R	250
4	I34_PREBIAS	npn	R70 $\rightarrow$ gnd	130uA out of pad	Change R70 to 560R	1030
5	I34_OUTSFBIAS	npn	R71 $\rightarrow$ gnd	120uA out of pad	Change R71 to 560R	630
6	I34_COMPBIAS1	pnp	R72 → vdd	65uA into pad	Change R72 to 20K	3100
7	I34_SFBIAS	pnp	R69 → vdd	90uA into pad	Change R69 to 13K	2450
8	I34_COMPBIASTRIM	pnp	R73 → vdd	(updated)	Change R73 to 100K	3000
9	DEBUGSFBIAS	pnp	R74 → vdd	200uA into pad	Change R74 to 6K2	(~3000 TBC)
10	ISENSE_COLREF	pnp	R76 → vdd		Ok	2048
11	I12COMPBIASTRIM	pnp	R75 → vdd	(updated)	Change R75 to 100K	3000
12	I12SHAPERBIAS	npn	R79 $\rightarrow$ gnd	150uA out of pad	Change R79 to 560R	290 *
13	I12_PREBIAS	npn	R78 $\rightarrow$ gnd	150uA out of pad	Change R78 to 560R	290 *
14	I12_COMPBIAS2	npn	R80 →gnd	83uA out of pad	Change R80 to 560R	830
15	I12_MSOBIAS1	npn	R77 $\rightarrow$ gnd	90uA out of pad	Change R77 to 5K1	select for pulse len
16	I12_OUTBIAS	npn	R85 $\rightarrow$ gnd	n/a	PCB mod, direct 100ohm to ground	n/a
17	ISENSE_ICOMPBIAS	npn	R82 $\rightarrow$ gnd	100uA out of pad	Change R82 to 560R TBC	830
18	ISENSE_IOUTBIAS	npn	R81 $\rightarrow$ gnd	120uA out of pad	Change R81 to 560R TBC	630
19	I12_COMPBIAS1	pnp	R83 → vdd	65uA into pad	Change R83 to 20K	3100
20	ISENSEBIAS	pnp	R84 → vdd	=	Change R84 to 110R	2048

\* below spec

These two biases were not "broken" (data comes off chip ok), changing resistors and bias settings for consistency with other biases yields same result (not broken, data ok)

## **Voltages**

	Name	Specification	Comment	DAC setting (dec.)
0.1				
21	VTH-34			
22	DEBUG_VTH-			
23	VTH-12			
24	VRST	1.0v		2275
25	VTH+34		Should be greater than VTH-34	
26	VPREAMPCASC34	1.5v		3400
27	DEBUG_VTH+		Should be greater than DEBUG_VTH-	
28	VSHAPECASC12	1.5v		3400
29	VPRECASC12	0.8v		1800
30	VTH+12		Should be greater than VTH-12	