

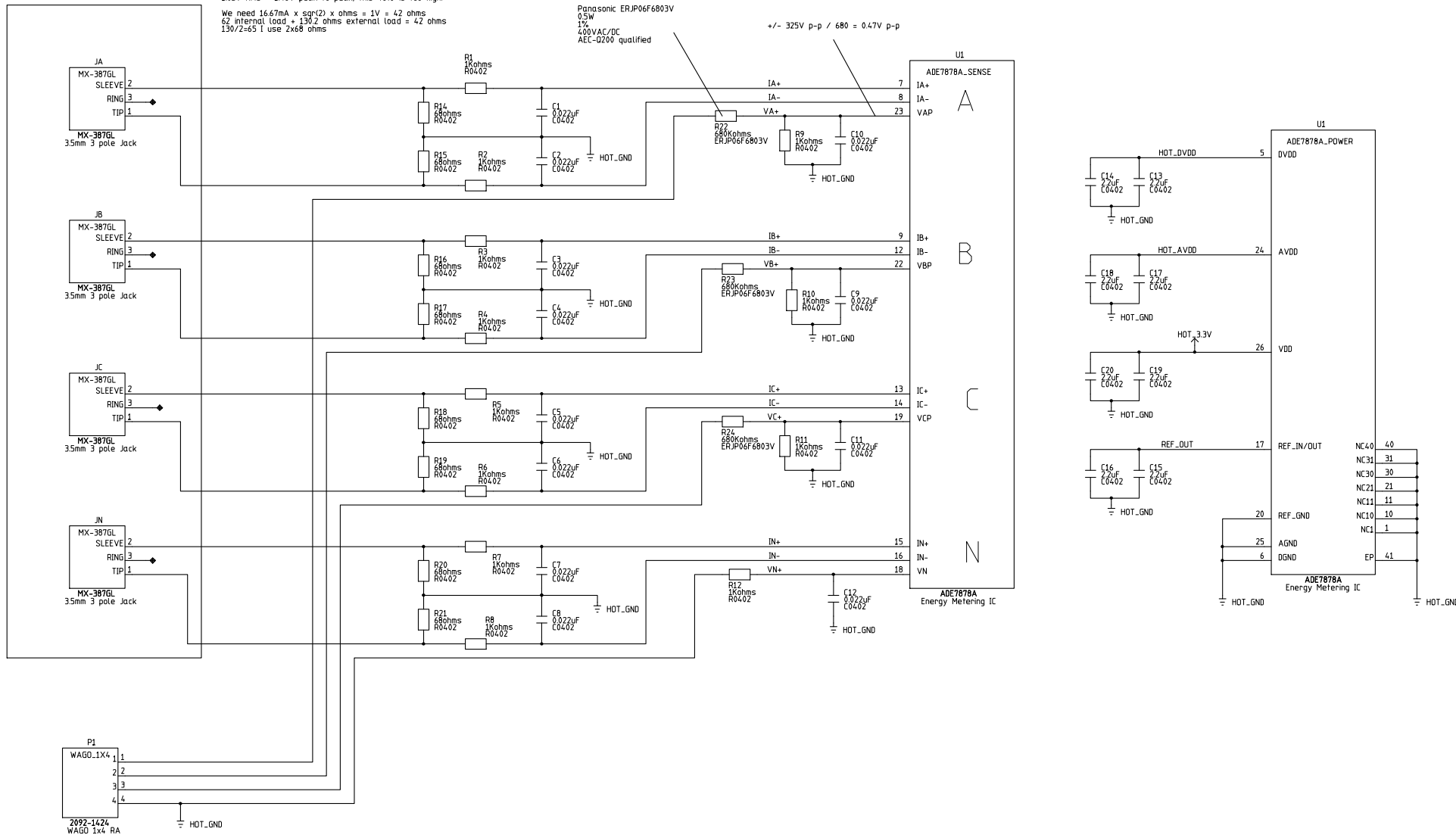
USING CT: SCT-013-030
 30A RMS 1V RMS, 62 ohms internal load.
 Turn Ratio 1800:1
 $30A / 1800 = 16.67mA \times 62 \text{ ohms} = 1.03 \text{ V RMS}$
 $1.03V \text{ RMS} = 1.46V \text{ peak to peak, this 46\% is too high.}$
 We need $16.67mA \times \text{sq}(2) \times \text{ohms} = 1V = 42 \text{ ohms}$
 62 internal load + 130.2 ohms external load = 42 ohms
 $130.2/2=65.1 \text{ use } 2x68 \text{ ohms}$

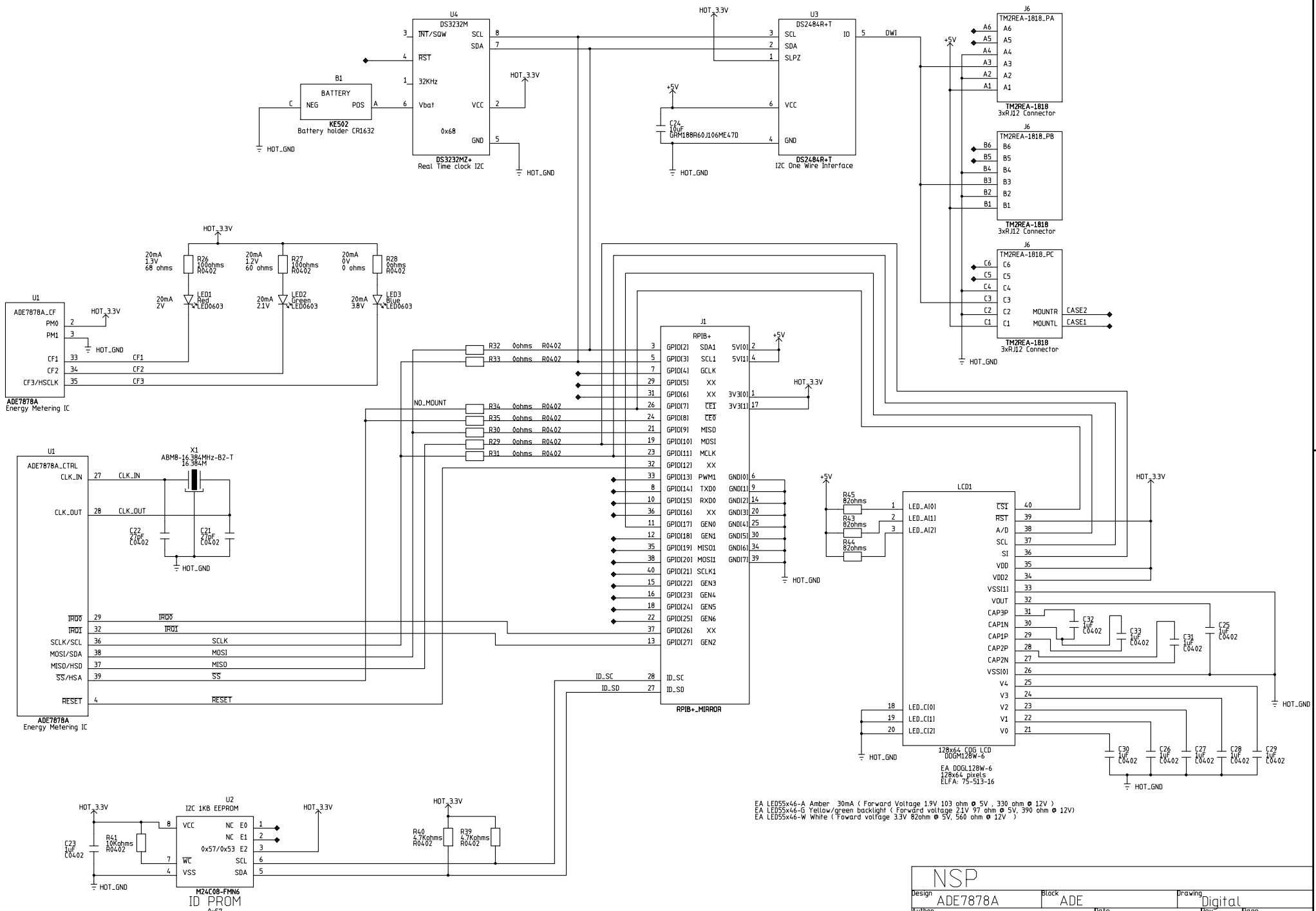
230V RMS
 $P = U \times I$
 $230 / 680K = 0.34mA$
 $P = 230 \times 0.34mA = 0.078W$

Panasonic ERJP06F6803V
 0.5W
 1\%
 400VAC/DC
 AEC-Q200 qualified

$VFS = (0.5 \times (R9 + R22) / R9 \times \text{SQ}(2)) \text{ RMS}$
 $VFS = (0.5 \times (1000 + 680000)) / (1000 \times 1.41) \text{ RMS}$
 $VFS = 340500 / 1414 = 240V \text{ RMS}$
 VFS = VOLTAGE FULL SCALE

+/- 325V p-p / 680 = 0.47V p-p

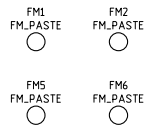




EA LED55x46-A Amber 30mA (Forward Voltage 1.9V 103 ohm @ 5V, 330 ohm @ 12V)
 EA LED55x46-G Yellow/green backlight (Forward voltage 2.1V 97 ohm @ 5V, 390 ohm @ 12V)
 EA LED55x46-W White (Forward voltage 3.3V 82ohm @ 5V, 560 ohm @ 12V)



Solder paste FM
Place at every corner, top and bottom layer.



NSP				
Design	ADE7878A	Block	ADE	Drawing
Author	Nicholas Savenlid	Date	2013-06-13	Misc
		Rev	1.0	Page
				S3