

## ACC Electronix Excess Inventory Example

Excess inventory is often confusing since it is a dynamic quantity with an equally dynamic dollar value. This spreadsheet is a reasonably simple example that demonstrates the complexity. Let's take Cap 1 and use the following scenario.

Assume that ACC needs 2,000 capacitors of a certain value. In order to get the lowest cost, ACC purchases a reel of 4,000 capacitors. (ACC makes this investment and the customer is not charged for any excess investment until the project is terminated.) After building the first run of 1,000 boards, we have an excess of 2,000 capacitors that are only used to build your boards. After building the second run of 1,000 boards, the excess capacitors have dropped to zero; but, in order to build the third run, we must buy a new reel of 4,000 capacitors; and we start the cycle all over again. Take that scenario and multiply it by the number of components on your printed circuit board, and you can see that we are talking about a complex situation with a constantly varying dollar value.

Part	Qty Per board	Part Value per Board	Qty needed for 1st 1000 pc Run	Package sizes of parts/ min buys	Qty in stock after 1st buy	Ext value (first buy) ACC Investment	Excess parts after First Run	Qty needed for 2nd 1000 pc run	2nd Purchase in part multiple quantities for 2nd 1000 pc run	Qty in stock for 2nd run of 1000	Excess parts after 2nd Run	Qty needed for 3rd 1000 pc run	3rd Purchase in part multiple quantities for 3rd 1000 pc run	Qty in stock for 3rd run of 1000	Excess parts after 3rd Run	Qty needed for 4th 1000 pc run	4th Purchase in part multiple quantities for 4th 1000 pc run	Qty in stock for 4th run of 1000	Excess parts after 4th Run
Cap 1	2	0.025	2000	4000	4000	\$100.00	2000	2000		2000	0	2000	4000	4000	2000	2000		2000	0
Cap 2	1	0.03	1000	4000	4000	\$120.00	3000	1000		2000	1000	1000	0	1000	0	1000	4000	4000	3000
Cap 3	3	0.15	3000	4000	4000	\$600.00	1000	3000	4000	5000	2000	3000	4000	6000	3000	3000		3000	0
Res 1	3	0.0015	3000	5000	5000	\$7.50	2000	3000	5000	7000	4000	3000	0	4000	1000	3000	5000	6000	3000
Res 2	1	0.0015	1000	5000	5000	\$7.50	4000	1000		4000	3000	1000		3000	2000	1000	5000	7000	6000
Res 3	4	0.0015	4000	5000	5000	\$7.50	1000	4000	5000	6000	2000	4000	5000	7000	3000	4000	5000	8000	4000
IC 1	3	0.25	3000	1000 (x3)	3000	\$750.00	0	3000	3000	3000	0	3000	3000	3000	0	3000	3000	3000	0
IC 2	2	0.5	2000	1500 (x2)	3000	\$1,500.00	1000	2000	1500	2500	500	2000	1500	2000	0	2000	3000	3000	1000
IC 3	3	1.2	3000	75 (x40)	3000	\$3,600.00	0	3000	3000	3000	0	3000	3000	3000	0	3000	3000	3000	0
Diode 1	1	0.2	1000	3000	3000	\$600.00	2000	1000		2000	1000	1000		1000	0	1000	3000	3000	2000
Diode 2	2	0.3	2000	3000	3000	\$900.00	1000	2000	3000	4000	2000	2000		2000	0	2000	3000	3000	1000
Diode 3	2	0.4	2000	3000	3000	\$1,200.00	1000	2000	3000	4000	2000	2000		2000	0	2000	3000	3000	1000
<b>Totals</b>		<b>\$3.06</b>				<b>\$9,392.50</b>	<b>\$1,900.50</b>				<b>\$2,193.50</b>				<b>\$509.00</b>				<b>\$1,709.50</b>