



Application note 4 for the 2008 IC Cost Model – March 21, 2008

## Calculating Gross Margin

### Introduction

We have received a number of emails over the years about gross margin. There seems to be a couple of common misconceptions about how gross margin is calculated that keep coming up so we thought it would be useful to go over the calculation.

### Calculating gross margin

Gross margin percentage is the percentage of the selling price that is gross margin. The calculation is:

$$\text{(Selling price – Cost of Goods Sold)/Selling Price}$$

When a manufacturing cost for a part has been calculated in the IC Cost Model and you wish to calculate selling price at a given margin the calculation is:

$$\text{COGS}/(1 - \text{Gross Margin \%})$$

So for example to calculate a 20% gross margin the COGS from the IC Cost Model are divided by 0.8. Multiplying by 1.2 is not 20% gross margin, it is actually 17% gross margin, dividing by 0.8 is 20% gross margin.

Table 1 gives some additional examples:

Gross Margin	Divide COGS by
10%	0.90
20%	0.80
30%	0.70
40%	0.60
50%	0.50
60%	0.40
70%	0.30
80%	0.20

So if a part has a \$0.80 cost from the IC Cost Model the selling price with 60% gross margin is  $\$0.80/0.40 = \$2.00$