

Terms of Reference – Senior Software WPF Developer

Program name:

PCB Manufacturing

Purpose and scope:

The program is designed to create an order for the production of a printed circuit board. The program is a test WPF application with data predefined in the code and serves to demonstrate the skills of a candidate for a WPF developer position.

Requirements:

The program should consist of 1 screen with 3 tabs: Preferences, Quote, Order (see images below).

The program must provide the ability to perform the following functions:

1. “Preferences” Tab:

- a) All drop-down lists must have 2 - 3 predefined values.
- b) The postcode validation capability must be implemented.
- c) Material - Possibility of choice of materials (2 - 3 predefined materials with different added value and time are expected).
- d) Solder mask color - Choice of mask color (2 - 3 predefined colors).

2. “Quote” Tab:

- a) Parameter table - The table should contain groupings of predefined values.
- b) Parameter Panel - The panel should display a graphical representation of the predefined parameters.

3. “Order” tab:

- a) Order button

The color scheme can be different (it is not necessary that the colors are the same as in the images below). It is also expected to use the MVVM approach to application design.

Tempo Automation

Describe your design and receive real-time design feedback for manufacturing and component sourcing. If you update your design, we will provide an updated quote.

Place an Order

↺

Everything is up to date ✓

Preferences

Project Basics

Preferences on this page supersede design file notes

Project Name

BC0001

Zipcode

92122

Boards Quantity

20

Important Board Preferences

Preferences on this page supersede design file notes

Board Thickness

1.57mm

Material

Arlon

+\$160

Surface Finish

ENEPIG

+\$75 +3 days

Solder Mask Color

Green

Special Board Preferences

Preferences on this page supersede design file notes

Lead Free

Yes

No

IPC Class

Class 2

Class 3

ITAR

Yes

No

Flux Type

Clean

No Clean

Silkscreen Color

White

Cooper Weight on Inner Layers

1.0oz

Cooper Weight on Outer Layers

1.0oz

Controlled Impedance

None

See Notes

Tenting for Vias

Both Sides

Top Side

Bottom Side

None

Stackup

Standard

See Notes

Notes

Discard to Default

Save and Continue

Tempo Automation

Your 20 boards will be delivered in 5 days

Running Total \$7,623.00

Place an Order

↺

Everything is up to date ✓

Preferences

Quote

Parameter	Value	Time Impact	Cost Impact
Fabrication		4 days	\$1,710.00
Base Fabrication	61.72x148.84mm, 10 layers	1 day	\$1,097.00
Boards Quantity	20	-	\$538.00
Surface Finish	ENEPIG	3 day	\$75.00
Assembly		1 day	\$4,955.50
Packages	Package on Packages	1 day	\$2,679.00
Processes	Split Assembly	-	\$720.50
Minimum Pitch	0.3mm pitch BGA	-	\$804.00
Components			\$957.50
Microchip ATTINY2313-20SU	2	-	\$48.64
Microchip ATTINY2313-18PC	1	-	\$22.12
Microchip ATTINY2313-18PC	1	-	\$22.12
Running Total		5 days	\$7,623.00

Manufacturing

\$7,623.00

Fabrication - 25%

Assembly - 65%

Components - 10%

\$1,710.00

\$4,955.50

\$957.50

Fabrication

\$1,710.00, 4 days

	Time Impact	Cost Impact
Board Thickness	1.57mm	●●●●●●●●●●
Board Dimensions	61.72x148.84mm	●●●●●●●●●●
Layers	10	●●●●●●●●●●
Material	Valid Values	●●●●●●●●●●
Surface Finish	up to 8	●●●●●●●●●●
Min Trace or Space	✓ up to 18	●●●●●●●●●●
Minimum Hole Size	18-64	●●●●●●●●●●
Number of Holes Per Board	40	●●●●●●●●●●

Orders

There are no orders yet.
Your orders will appear here.

Make a Current Order