## 1.0 PURPOSE

To provide our customers with a list of the documentation and information required to facilitate the timely and accurate response to a Request For Quote (RFQ).

## 2.0 SCOPE

This procedure applies to all Customer RFQ's accepted by PROTO-PAC Customer Service and Sales Departments.

## 3.0 PROTO-PAC CONTACT FOR CUSTOMER QUESTIONS

Customers should direct any questions with regard to this document to their assigned Customer Program Coordinator or the Sales Manager.

## 4.0 DOCUMENTATION REQUIREMENTS FOR TURNKEY MANUFACTURING RFQ

4.1 Document: *Bill of Material* - Supplied as an Excel Spreadsheet file or a comma delimited text file. (Refer to sample BOM spreadsheet at the end of this document.) For each part, document should list:

*4.1.1* Customer P/N

*4.1.2* Manufacturer – or alternate manufacturer if combined with AVL

*4.1.3* Manufacturer's P/N – Accurate P/N denoting value, tolerance, package, etc.

*4.1.4* Description of part

*4.1.5* Part Type – SMT, Through-hole, wire, hardware, etc.

*4.1.6* Quantity per assembly

*4.1.7* Reference designators – for location on assembly drawing

*4.1.8* Revision level of top level assembly and all subassemblies

4.1.9 Comments, if applicable

4.2 Document: *Approved Vendor List (Not required for Consigned Assemblies)* - Supplied as an Excel Spreadsheet file or a comma delimited text file. (Refer to sample AVL spreadsheet at the end of this document.) For each part, document should list:

4.2.1 Customer P/N

4.2.2 Description

4.2.3 Part Type – SMT, Through-hole

4.2.4 Reference Designator

4.2.5 Preferred manufacturer and part number.

4.2.6 All acceptable manufacturers and manufacturer's part numbers.

4.2.7 Comments if applicable

4.3 Article: A *sample of the assembly* to be quoted. If not available, digital photographs of both sides of the assembly.

4.4 Drawings:

4.4.1 *Assembly drawing* – Supplied in .pdf, .dwg or similar digital format, showing markings for pin 1 of IC's, orientation of polarized components and cathode orientations of diodes. Drawing should also show Customer Company name, assembly part number, and drawing revision level.

*4.4.2 Subassemblies*

4.4.2.1 Programmable Parts noted and whether they are to be programmed Proto-Pac.

4.4.2.1.1 Documentation to include subassembly P/N, raw material P/N, label description and whether program will be supplied in .JED or .BIN format.

4.4.2.2 Mechanical assemblies – Supplied in .pdf, .dwg or similar digital format.

4.4.3 PCB fabrication drawings/Gerber files – digital format is required.

4.4.4 Labeling and Packaging instructions and specifications – i.e. serial numbering, bar coding, etc.

4.4.5 Mechanical interface requirements – height and space limitations

4.5 Cosmetics – designate acceptable level of inspection and rework; IPC 610C Class 2 or 3

4.6 Special instructions (i.e. Engineering Change Orders (ECO), special handling, shipping instructions, first article requirement etc.). Supplied in .pdf, .dwg or similar digital format.

4.7 Special equipment – note any crimp, staking or insertion tools required.

4.8 Product Quantity – In addition to an annual quantity please also specify or include:

4.8.1 Date and quantity of first production delivery

4.8.2 Pre-production quantity (First article, prototype, ramp-up, etc.)

4.8.3 Ongoing lot sizes and scheduled deliveries

4.9 Business issues

4.9.1 Life of product

4.9.2 Stability of design

4.9.3 Material lead-time issues

4.9.4 Obsolete material issues

4.9.5 For Turnkey product: any Customer consigned material

4.9.6 For Consigned product: any material required to be purchased by Proto-Pac

4.10 Test Requirements, Specifications or System integration – Specify type of testing if applicable: ICT, functional, system etc.

## ***Bill of Material Spreadsheet Sample***

### Delta Electronics Company

**Assembly:** 240-0312
**Description:** Signal Processor Board
**Revision:** C

| Delta P/N | Mfg | Mfg P/N | Description | Part Class | Part Type | Qty | U/M | Reference |
|---|---|---|---|---|---|---|---|---|
| 100-0201 | Centralab | CY20C104M | .1UF,50V,20%,CER,Y5V | CAP | TH | 2 | EA | C1, C2 |
| 100-0521 | AVX | C0603C104K4RAC | .1UF,25V,20%,CER,Y5V | CAP | SMT | 10 | EA | C3 – C12 |
| 120-0370 | Yageo | CFR-12JR-56K | 56K, 5%,CF | RES | TH | 8 | EA | R1 – R7, R12 |
| 250-0103 | AMD | 29F0101B | Flash Memory | IC | SMT | 4 | EA | U1, U2, U5, U6 |
| 350-0085 | Acme | 3112-0150 | Transformer | X-FMR | TH | 1 | EA | T1 |
| 500-0012 | CGI | 240-0312 | PC Board | PCB | PCB | 1 | EA | |
| 900-0514 | GENERIC | #4-40 X 1/2IN,SS,PH,PAN HD | #4-40 X 1/2IN,SS,PH,PAN HD, MACH SCREW | HDWARE | SCREW | 4 | EA | |
| 900-0515 | GENERIC | #4-40,HEX,SS | 4-40, HEX, Stainless | HDWARE | NUT | 4 | EA | |
| 700-0002 | DOW CORN | 3145RTV | 3145,ELEC GRADE,CLEAR | CHEMICAL | RTV | 0.02 | OZ | |

## AVL Spreadsheet Sample

### Delta Electronics Company

**Assembly:** 240-0312
**Description:** Signal Processor Board
**Revision:** C

| Delta P/N | Part Class | Part Type | Description | Qty | U/M | Mfg | Mfg P/N | Reference |
|---|---|---|---|---|---|---|---|---|
| 100-0201 | CAP | TH | .1UF,50V,20%,CER,Y5V | 2 | EA | Philips | CY20C104M | C1, C2 |
| | | | | | | Philips | CY20C104Z | |
| | | | | | | BC Comp. | CY20C104M | |
| | | | | | | Kemet | K104Z15Y5VF5TL2 | |
| | | | | | | | | |
| 100-0521 | CAP | SMT | .1UF,25V,20%,CER,Y5V | 10 | EA | AVX | C0603C104K4RAC | C3 – C12 |
| | | | | | | Kemet | C0603C104K4GAC | |
| | | | | | | | | |
| 120-0370 | RES | TH | 56K, 5%,CF | 8 | EA | Yageo | CFR-12JR-56K | R1 – R7, R12 |
| | | | | | | Xicon | 299-56K/REEL | |
| | | | | | | | | |
| 250-0103 | IC | SMT | Flash Memory | 4 | EA | AMD | 29F0101B | U1, U2, U5, U6 |
| | | | | | | | | |
| 350-0085 | X-FMR | TH | Transformer | 1 | EA | Acme | 3112-0150 | T1 |
| | | | | | | | | |
| 500-0012 | PCB | PCB | PC Board | 1 | EA | CGI | 240-0312 | |
| | | | | | | | | |
| 900-0514 | HDWARE | SCREW | #4-40 X 1/2IN,SS,PH,PAN HD, MACH SCREW | 4 | EA | GENERIC | #4-40 X 1/2IN,SS,PH,PAN HD | S1 – S4 |
| | | | | | | | | |
| 900-0515 | HDWARE | NUT | 4-40, HEX, Stainless | 4 | EA | GENERIC | #4-40,HEX,SS | N1 – N4 |
| | | | | | | | | |
| 700-0002 | CHEMICAL | RTV | 3145,ELEC GRADE,CLEAR | 0.02 | OZ | DOW CORN | 3145RTV | |