Product classification (Rule book)

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+Introduction

Rule book for product categorization and product nomenclature

Mainly the products are divided into following categories:

I. Raw Material

II. General Consumable & Stationery.

III. Semi-finish

IV. Finish

V. Capital Goods

VI. Tool making Accessory

VII. Packaging Material

I.   Raw material:

RM includes all those materials which are purchased from the original producer or other manufacturers or dealers and are used directly in producing our finished product. This excludes material required for manufacturing of tools like Die, etc.

I. 1. Electronic Raw Material: -

Electronic materials are the type of materials which are typically used as core elements in a variety of device applications.

In electronic Raw material following are the types of nature of material: (which is used throughout the sub category Electronic Raw Material as Nature of Material)

#Master Electronic Nature List
1. SMD
2. Lead
3. Panel Mount
4. Manifold mount
5. Module
6. Wired
7. Screw Terminal
8. Socket Mounting

These elements can be categorized as below:

A. Cables
B. Wires
C. Sleeves
D. Transformer Spares
E. Electronic Component
      1. IC (Integrated Circuits)
      2. Diode
      3. Resistor
      etc
F. Connector Spare

I.1.A. Cables:

An electrical cable is an assembly of one or more wires running side by side or bundled, which is used to carry electric current.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Optional	Required	Required	Required	Optional
Category name	No. of Core or No. of Pins or Cable type	Size	Conductor Type	Insulation type or Colour	Make	Contacts Type
Cable	**No. of Core (As per Content List Table) Or No. of Pins (As per Content List Table) Or** Cable type **(As per Content List Table)**	**Size (As per Content List Table)**	**Conductor Type (As per Content List Table)**	**Insulation type or Colour (As per Content List Table)**	**Make (As per Content List Table)**	**Contacts Type (As per Content List Table)**

E.g.: 1) Cable - 3 Core - 1sq.mm – Copper – Black – Lapp -

    2) Cable – 10 Pins,FFC – 1mm pitch - Tin Plated Copper - White – Wurth - Same Side Contacts

Content List Table

No. of Core Or	1 Core, 2 Core, 3 Core, 4 Core, 5 Core

No. of Pins Or Cable Type	8 Pins, 10 Pins, 16 Pins SDI, HDMI, USB , SATA to USB,FFC
Conductor Type (Except Data cables)	Copper, Tin Plated, Aluminum, iron, Silver, Gold Plated, Tin Plated Copper
Insulation type or Colour	Black, White, Grey ,Blue
Contacts Type	Same Side Contacts, Opposite Side Contacts
Size	Length or Diameter

I.1.B. Wires :

A wire is a flexible strand of metal covered in insulating material. It is a long thin piece of stranded metal that is used to carry electric current.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	size	strands	colour	Insulation type	Make
Wire	**Size (As per Content List Table)**	**Strands (As per Content List Table)**	**Colour (As per Content List Table)**	**Insulation type (As per Content List Table)**	As Actual

E.g.: Wire - 7/32 - 0.7mm O.D. - Multi Strand - Blue – PVC - Lapp

Content List Table

Size	No. of Strand/Wire gauge - Outer Diameter
Strands	Single Strand, Multi Strand
Colour	Violet, Grey, Green, Yellow, Brown, Orange, Black, RED, White, Blue, Assorted
Insulation type	Teflon Single Coated, Teflon Double Coated, PVC, Litz

I.1.C. Sleeves :

A sleeve is a tube of material that is put into a cylindrical bore, for example to reduce the diameter of the bore or to line it with a different material.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Optional	Required	Optional	Optional	Required
Category name	Size	Shrink Property or Types	Material	Colour	Make
Sleeve	As Actual	**Shrink Property or Types** **(As per Content List Table)**	**Material** **(As per Content List Table)**	**Colour** **(As per Content List Table)**	As Actual

E.g.: 1. Sleeve - 12mm - Heat Shrinkable – Polyolefin – Black - Parker
      2. Sleeve - 4mm - Non Shrinkable - Plastic - White - Parker
      3. Sleeve – 6mm – Spiral – PVC – White - Parker

Content List Table

Shrink Property or Types	Heat Shrinkable, Non Shrinkable, Spiral
Material	FEP, Plastic, Polyolefin, PVC , Fiber glass
Colour	Black, White

I.1.D. Transformer Spares:

A varying current in any coil of the transformer produces a varying magnetic flux in the transformer's core, which induces a varying electromotive force (EMF) across any other coils wound around the same core.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required only for Core Material	Required only for Core Material	Required	Optional	Optional
Category name	Type	Part No or Size	Material Grade	Core Material	Make	Colour	Paper/Tape type
Transformer Spares	**Type (As per Content List Table)**	As Actual	**Material Grade (As per Content List Table)**	**Core Material (As per Content List Table)**	As Actual	**Colour (As per Content List Table)**	**Paper/Tape Type (As per Content List Table)**

E.g.: 1.Transformer Spares – Core - "ETD34-17-11" – N87 – Ferrite - EPCOS - -
  2. Transformer Spares – Bobbin - "ETD34-17" - - PVC - MS Electronics - -
  3. Transformer Spares – Core – "T-16 Toroid" - CF197 - Ferrite – EPCOS - -
  4. Transformer Spares - Insulation paper Sheet – "0.54mm thick" - - - Generic - Brown -
  5. Transformer Spares - Insulation Tape – "4657, 20mm X 50mm" - - - Tesa - Black -
  6. Transformer Spares - Insulation Tape – "26mm X 36 Mtr" – - Polyamide – Nitto - Amber - Kapton

Content List Table

Part No or Size	As Actual (It should be enclosed within " ")
Type	Core, Bobbin, Insulation paper Sheet, Insulation Tape
Material Grade	N87, N97,N95, CF197
Core Material	Ferrite, Laminated Iron, Powdered Iron, Air Core, PVC, Nylon, Polyamide
Paper/Tape Type	Kapton, Nitto
Colour	Brown, Green, Transparent, Amber

I.1.E. Electronic Component:

I.1.E.1. IC (Integrated Circuits):

An electronic circuit formed on a small piece of semiconducting material, which performs the same function as a larger circuit made from discrete components. Digi-pot IC's are included in this category.
 Note: This category will not have any type sensor IC's. For E.g.: Pressure sensor, Flow sensor.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category name	Nature of Material	Part No	IC Package	Inventory package	Make
IC (Integrated Circuits)	**Nature of Material (Master Electronic Nature List)**	As Actual	**IC Package (As per Content List Table)**	**Inventory package type (As per Content List Table)**	As Actual

E.g.: 1. IC – SMD - UC3825DWTR - SOIC-16 - Tape & Reel - Texas
        2. IC – Lead - UC3825N - DIP-16 - Tape & Reel - Texas

Content List Table

IC Package	E.g.: SOIC-X, DIP-X, QFP, SOP,PLCC,BGA,QFN
Inventory package type	Tape & Reel , Reel 7, Tape, Tube, Tray

 Note - where "X" denotes the integer number.

I.1.E.2. Diode:

A diode is a semiconductor device that essentially acts as a one-way switch for current. It allows current to flow easily in one direction, but severely restricts current from flowing in the opposite direction.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category name	Nature of Material	Part No or zener Voltage	Diode Type	Diode Package	Make	Inventory Package
Diode	**Nature of Material (Master Electronic Nature List)**	As Actual	**Diode Type (As per Content List Table)**	**Diode Package (As per Content List Table)**	As Actual	**Inventory Package (As per Content List Table)**

E.g.: 1. Diode – SMD - 3.3V - Zener - SOD-80 - Microsemi - Reel
     2. Diode – SMD - B340A-13-F – Schottky - DO-214AC - Microsemi -
     3. Diode – Lead - RURP3060 – Ultrafast - TO220 - ONSemi - Strip

Content List Table

Diode Type	Zener, Schottky, Ultrafast, Hyperfast, Fast, Photodiode, Bridge Rectifier, Photo Diode
Diode Package	DO-79, DO-41, DO-35, DO-214AC, SOD-80, TO220, DO-213
Inventory Package	Tape, Reel, Strip

I.1.E.3. Resistor:
A resistor is an electrical component that limits or regulates the flow of electrical current in an electronic circuit. Resistors can also be used to provide a specific voltage for an active device such as a transistor. Thermistors are also included in the resistor.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category name	Nature of Material	Value	Resistor Type	Inventory Package	Make
Resistor	**Nature of Material (Master Electronic Nature List)**	**Value (As per Content List Table)**	**Resistor Type (As per Content List Table)**	**Inventory Package (As per Content List Table)**	As Actual

E.g.:1. Resistor – SMD - 1KΩ 5% 1206 - Thick Film - Reel – Yageo
    2. Resistor – Lead - 10Ω 10% 1206 - Wire wound - Strip - Vaibhav Resistor

Content List Table

Value	In format Resistance- Tolerance- Package / Wattage
	Format for Resistance - 1 Ohm , 10Kohm (As per this format)
	Format for Tolerance - 5%, 10% (As per this format)
	Format for Package / Wattage - 0805,1206, 2512, 1/4W, 1/2W, 1W, 2W, 25W, 50W, 100W, 200W (As per this format)
Resistance	E.g.: 1 Ohm , 10Kohm (As per this format)
Tolerance	E.g.: 5%, 10% (As per this format)
Package / Wattage	E.g.: 0805,1206, 2512, 1/4W, 1/2W, 1W, 2W, 25W, 50W, 100W, 200W (As per this format)

Resistor Type	Thick Film, Thin Film, Wire wound, MFR, CFR, NTC, PTC, Ceramic

Inventory Package	Tape, Reel, Bulk, Strip

I.1.E.4. Capacitor:

A capacitor is a passive electronic component that stores energy in the form of an electrostatic field. In its simplest form, a capacitor consists of two conducting plates separated by an insulating material called the dielectric.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category name	Nature of Material	Value	Capacitor Type	Part No	Make	Inventory package
Capacitor	**Nature of Material (Master Electronic Nature List)**	**Value (As per Content List Table)**	**Capacitor Type (As per Content List Table)**	As Actual	As Actual	**Inventory Package (As per Content List Table)**

E.g.: 1. Capacitor – Lead - "0.047μF - 1250V - 10%" - Polypropylene Film - FKP1R024706D00KSSD – Wima - Strip
    2. Capacitor – SMD – "330nF - 50V - 5% - 1206" - MLCC - 12065C334JAT2A – AVX - Reel

Content List Table

Value	In format Capacitance - Voltage - Tolerance - Package/Case - Series, Lead Pitch, Height
Capacitance	0.1μF, 0.47μF, 220PF
Voltage	35V, 50V,63V
Tolerance	5%,10%, 15%,
Package /Case	0805,0603,1206, A-case, B-case, C-case, D-case
Series, Lead Pitch, Height	(Only for Leaded) Series- FKP1, MKP1 Lead Pitch- 15mm, 22.5mm, 27.5mm Height- 8mm, 10mm, 30mm, 45mm

Capacitor Type	Ceramic, Electrolytic, Polypropylene Film, MLCC, Polyester, Metalized, Tantalum, Box.
Inventory Package	Tape, Reel, Bulk, Strip

I.1.E.5. Transistor:

A transistor is a miniature semiconductor that regulates or controls current or voltage flow in addition amplifying and generating these electrical signals and acting as a switch/gate for them. Typically, transistors consist of three layers, or terminals, of a semiconductor material, each of which can carry a current.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category name	Nature of Material	Part No	Transistor Type	Transistor Package	Make	Inventory package
Transistor	**Nature of Material (Master Electronic Nature List)**	As Actual	**Transistor Type (As per Content List Table)**	**Transistor Package (As per Content List Table)**	Nexperia, Vishay	**Inventory Package (As per Content List Table)**

E.g.: 1. Transistor – SMD - PMBT42A - NPN-BJT - SOT-23 - Nexperia - Tape & Reel
2. Transistor - Lead - IRF840 - N-Mosfet - TO-220 - Vishay - Tube

Content List Table

Transistor Type	N-Mosfet, P-Mosfet, NPN-BJT, PNP-BJT, TRIAC, FET, Photo transistor
Transistor Package	TO-3, TO-5, TO-8, TO-18, TO-220, TO-247, SOT-23, SOT-89.
Inventory Package	Tube, Tape & Reel, Ammo, Bulk

I.1.E.6. Relay:

Relays are electrically operated switches that open and close the circuits by receiving electrical signals from outside sources. They receive an electrical signal and send the signal to other equipment by turning the switch on and off.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category name	Nature of Material	Part No	Contact Type	Coil & contact Ratings	Make	Inventory package
Relay	**Nature of Material (Master Electronic Nature List)**	As Actual	**Contact Type (As per Content List Table)**	**Coil & contact Ratings (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**

E.g.: Relay – Lead - G-I-S-112D-MFH – SPST - 12VDC, 277VAC/25A – Goodsky - Tray

Content List Table

Contact Type	SPST, SPDT, DPST, DPDT, Form A, Form B, Form C
Coil & contact Ratings	Coil voltage, Contact voltage/Contact current

Inventory package	Tube, Tray

I.1.E.7. PCB:

A printed circuit board, or PC board, or PCB, is a non-conductive material with conductive lines printed or .hed. Electronic components are mounted on the board and the traces connect the components together to form a working circuit or assembly.
Note: For all PCB make will be Shalya

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Optional	Required	Required	Required	Required
Category name	PCB Name	Drawing Number and Revision	PCB Colour Type	PCB Material	Make
PCB	As Actual	**Drawing Number and Revision (As per Content List Table)**	**PCB Colour Type (As per Content List Table)**	**PCB Material (As per Content List Table)**	**Make (As per Content List Table)**

E.g.: 1. PCB - Easy Display Board - V3.1.5 – Green - FR4 - Shalya
2. PCB - NB MC PCB - V1.2 - White - Aluminium - Shalya

Content List Table

Drawing Number and Revision	PCB Drawing Number and Revision
PCB Colour Type	Green, White, Blue, Black, Red
PCB Material	FR3, FR4, FR5, Aluminium
Make	Shalya (as PCBs are designed by us).

I.1.E.8. Display:
A display device is an output device for presentation of information in visual or tactile form (the latter used for example in tactile electronic displays for blind people). When the input information that is supplied has an electrical signal the display is called an electronic display.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Required	Required	Optional
Category name	Display Type	Part No.	Display Size	Display Colour	Make	Inventory Package
Display	**Display Type (As per Content List Table)**	As Actual	As Actual	**Display Colour (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Display – LCD - "DMT80480T050-02WTZ1" - 5" inch - Full colour - DWIN -
2. Display - SSD - HB5511CG - 0.56 inches - Diffused green - Galaxy -
3. Display - Bar Graph - "DC-05GWA" - 5 SEG – Green - Kingbright -

Content List Table

Display Type	LCD, SSD, Bar Graph
Display Colour	Yellow-Green, 8-bit colour, Full colour, Diffused green, Green, orange, red
Inventory package	Tray, Box packaging

I.1.E.9. Switches:

A switch is an electrical component that can disconnect or connect the conducting path in an electrical circuit, interrupting the electric current or diverting it from one conductor to another. The most common type of switch is an electromechanical device consisting of one or more sets of movable electrical contacts connected to external circuits. When a pair of contacts is touching current can pass between them, while when the contacts are separated no current can flow. This includes circuit breakers and related components.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category Name	Nature of material	Part no.	Contact Rating	Switch Type	Make	Inventory package
Switch	**Nature of Material (Master Electronic Nature List)**	As Actual	**Contact ratings (As per Content List Table)**	**Switch types (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Switch - Panel Mount - - 110/230V, 10A - Selector switch – - Bulk
2. Switch - Panel Mount - PS19-22Z-F-PG220-SO-S - 250VAC, 16A - Latching metal – Honyone - Bulk
3. Switch - SMD - KSC2TE01JLFS - 32Vdc 10mA to50mA - Push to ON - C&K - Tape & Reel

Content List Table

Contact ratings	Voltage, Current
Switch Type	Selector switch, Push to ON, Push to OFF, Momentary metal, Latching metal, Rocker switch, Dome, Reed Switch, MCB 'X' Pole
Inventory package	Bulk, Tape & Reel, Tray, Box

Note - 'X' in content tables to be filled with actual value.

I.1.E.10. LED (Light Emitting Diode):

A light-emitting diode (LED) is a semiconductor device that emits light when an electric current flows through it. When current passes through an LED, the electrons recombine with holes emitting light in the process.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category Name	Nature of material	Colour	Part No.	Specification	Make	Inventory package
LED	**Nature of Material (Master Electronic Nature List)**	**Colour (As per Content List Table)**	As Actual	**Specification (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. LED – Lead – Yellow - - 5mm – Round - - Reel
     2. LED - SMD - Orange - KPA-3010SECK - 3x1mm - Right Angle – Kingbright - Reel

Content List Table

Nomenclature for "Specification" : LED Size- LED Type- No. of Colour	
LED Size	3x1mm, 5mm, 1206, 0805
LED Type	3030 matric, 7070 matric, Right Angle, Box, Round, Dome, IR LED
Colour	Example - Bi-colour(Red,Blue), Tri-colour(Red,Green,Blue) (As per this format) **Note:** Mention only when LED has more than 1 colour.

Inventory package	Bulk, Reel

I.1.E.11. Crystal:

A crystal is a piezoelectric device that uses mechanical resonance to achieve a very precise frequency output. The most common type of crystal material is quartz, but different piezoelectric materials may be used.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	Nature of material	Specification	Part No.	Inventory Package	Make
Crystal	**Nature of Material (Master Electronic Nature List)**	**Specification (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**	As Actual

E.g.: Crystal - SMD - 8.00MHz, 13.4mm x 4.9mm - - Reel -

Content List Table

Specification	Value, Size(L x W)
Inventory package	Reel, Bulk

I.1.E.12. Optocoupler:

Optocoupler can either be used on their own as a switching device, or used with other electronic devices to provide isolation between low and high voltage circuits. You'll typically find these devices being used for: Microprocessor input/output switching. DC and AC power control.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	Nature of material	Part No	Optocoupler Package	Inventory Package	Make
Optocoupler	**Nature of Material (Master Electronic Nature List)**	As Actual	**Optocoupler Package (As per Content List Table)**	**Inventory package (As per Content List Table)**	As Actual

E.g.: 1.Optocoupler - SMD - CNY17-2 - SMD-6 - Reel - Vishay
2. Optocoupler – Lead - CNY66B - DIP-4 – Tube - Vishay

Content List Table

Optocoupler Package	SMD-6, SOP-4, SOP-8, SOP-5L, DIP-4, DIP-6, DIP-7
Inventory package	Tube , Reel

I.1.E.13. Power Supply:

The full form of SMPS is Switched Mode Power Supply also known as Switching Mode Power Supply. SMPS is an electronic power supply system that makes use of a switching regulator to transfer electrical power effectively. All types of DC to DC converter will not be included in this category.(PS is abbreviation of Power Supply)

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	PS Type	Part No.	Casing Type	Blank	Make
Power Supply	**Power Supply Type(As per Content List Table)**	As Actual	**Casing Type(As per Content List Table**	-	As Actual

E.g.: 1. Power Supply - SMPS - RPT-60B - Open case - Meanwell

Content List Table

Power Supply Type	SMPS, UPS, DC P.S., AC P.S, AC_DC PS MODULE
Casing Type	Plastic case, Open case, Metal case

I.1.E.14. Regulator:

Regulator is basically a DC to DC converter. It is nothing but any electrical or electronic device that maintains the voltage of a power source within acceptable limits. This Does not include SMPS or AC to DC converters.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category Name	Nature of material	Regulator Type	Part No	Regulator Package	Make	Inventory package
Regulator	**Nature of Material (Master Electronic Nature List)**	**Regulator Type (As per Content List Table)**	As Actual	**Regulator package (As per Content List Table)**	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Regulator – SMD – LDO - LM1117MP - SOT-223-4 – Texas - Reel
2. Regulator - Module - Boost Converter - XL6009E1 - XLSEMI - -

Content List Table

Regulator Type	LDO, Buck Converter, Boost Converter, Buck Boost Converter
Regulator package	TO-3, TO-220, TO-263, TO-223, TO-252, SOT-223, SOT-23,Open frame, Enclosed frame.
Inventory package	Reel, Tube

I.1.E.15. Battery:

A battery is a device that stores chemical energy and converts it to electrical energy. The chemical reactions in a battery involve the flow of electrons from one material (electrode) to another, through an external circuit. The flow of electrons provides an electric current that can be used to do work.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Optional	Required	Required	Required	Required	Optional
Category Name	Voltage	Part No	Battery Size/Type	Battery properties	Make	Inventory package
Battery	As Actual	As Actual	**Battery size (As per Content List Table)**	**Battery properties (As per Content List Table)**	As Actual	**Inventory Package (As per Content List Table)**

E.g.: 1. Battery - 1.5V - LR44 – Coin size - Non- Rechargeable - Maxell -
   2. Battery - 1.5V - AA - Non- Rechargeable - Duracell -

Content List Table

Battery size/Type	AA, Coin size, Lead Acid
Battery properties	Rechargeable, Non- Rechargeable
Inventory package	Tray

I.1.E.16. Potentiometer:

A potentiometer (also pot or electronic pot) is a variable resistor in which a wiper sweeps from one end of the resistive element to the other, resulting in resistance that is proportional to the wiper's position. Digi-pot IC's are excluded from this category.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	Nature of material	Value	Potentiometer types	Inventory package	Make
Pot	**Nature of Material (Master Electronic Nature List)**	**Value (As per Content List Table)**	**Potentiometer types (As per Content List Table)**	**Inventory package (As per Content List Table)**	As Actual

E.g.: Pot – LEAD - 5KΩ, 1W – Preset - Tube - Yageo

Content List Table

Value	Resistance , Wattage
Potentiometer types	Single turn, Trimmer, Preset, Rotary, Multi turn
Inventory package	Tube, Bulk

I.1.E.17. Fan:

Fans used to cool electrical equipment or in engines or other machines do cool the equipment directly by forcing hot air into the cooler environment outside of the machine. There are three main types of fans used for moving air, axial, centrifugal (also called radial) and cross flow (also called tangential).below are the types of cooling fan.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Optional	Required	Required	Required	Optional
Category Name	Nature of material	Working voltage	Size & Application	Part No	Make	Inventory package
Fan	As Actual	As Actual	**Size & Application (As per Content List Table)**	As Actual	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Fan – DC - 12V - 3 inch, Cooling - YDM4020B12 – ANVISION - Box pack

2. Fan - AC - 230V 50Hz - 1x3 inch, Cooling – Bajaj - Box pack

Content List Table

Size & Application	**Size**: - Example - 3 inch, 1x3 inch (As per this format)
	Application:- Cooling, Exhaust
Inventory package	Box pack, Tray

I.1.E.18. Sensors:

A sensor is a device that detects and responds to some type of input from the physical environment. The input can be light, heat, motion, moisture, pressure or any number of other environmental phenomena.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required	Required	Required	Required	Optional
Category Name	Nature of material	Sensor Type	Maximum Rating	Package	Make	Part No	Inventory package
Sensor	**Nature of Material (Master Electronic Nature List)**	**Sensor Type (As per Content List Table)**	**Maximum Rating (As per Content List Table)**	**Package (As per Content List Table)**	As Actual	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Sensor – Lead - Pressure - ±15psi - DIP-8 – Honeywell - HSCDRNT015PDSA3-ND -Tube

     2. Sensor - Manifold Mount – Flow - 200LPM - Honeywell - HAFUHM0200L4AXT -Tube

     3. Sensor – Lead – Optical - 10-80cm – Module - Sharp - GPY0A21YK0F -Tube

Content List Table

Sensor Type	Flow, Pressure, Proximity, Optical
Maximum Rating	4 bar, ±15psi, 10-80cm
Package	DIP-8, Module
Inventory package	Tube, Individual packing, Tray

I.1.E.19. Solder Wire:

Solder wires are wires with a low melting point which can melt along with the soldering iron.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5
Required	Required	Optional	Required	Required
Category Name	Solder Type	Gauge & Size	Part No	Make
Solder wire	**Solder Type (As per Content List Table)**	As Actual	As Actual	As Actual

E.g.:1. Solder wire - Lead Free - 0.8mm - SN99C -
2.

Content List Table

Solder Type	Lead Free, Lead based

I.1.E.20. Valve:

Device for controlling the flow of fluids (liquids, gasses, slurries) in a pipe or other enclosure. Control is by means of a movable element that opens, shuts, or partially obstructs an opening in a passageway.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	Valve Type	Valve Details	Part No	Blank	Make
Valve	**Valve Type (As per Content List Table)**	**Valve Details (As per Content List Table)**	As Actual	-	As Actual

E.g.: 1. Valve – Solenoid - 5mm Orifice - VX2A0CZ1D - SMC
     2. Valve – Proportional - 4mm Orifice - PVQ-33-6G-40 - SMC

Content List Table

Valve Type	Solenoid, Proportional, Pinch
Valve Details	Orifice Diameter

I.1.E.21. Motor:

An electric motor is a device for converting electrical energy into mechanical energy in the form of rotation. In an electric motor, the moving part is called the rotor and the stationary part is called the stator.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category Name	Nature of working Voltage	Motor Type or Application	Part No.	Supply Details	Make
Motor	**Nature of working Voltage (As per Content List Table)**	**Motor Type or Application (As per Content List Table)**	As Actual	**Supply Details (As per Content List Table)**	As Actual

E.g.: Motor – AC – Vacuum - ML2380G - 230VAC 50/60Hz 800W - ZS Mengli Motor

Content List Table

Nature of working Voltage	AC, DC
Motor Type or Application	Vacuum, Single Phase, Stepper, 3 Phase, Brushed, Brushless
Supply Details	Operating Voltage, Operating Frequency, Operating Wattage

I.1.E.22. Thermal Sheet:

They sit between two components and transfer heat from one to the other. This usually means dissipating heat from a heat source to a heat sink, to protect a device from overheating.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	Nature of Material	Size	Part No	Colour	Make
Thermal Sheet	**Nature of Material (As per Content List Table)**	**Size (As per Content List Table)**	As Actual	**Colour (As per Content List Table)**	As Actual

E.g.: Thermal Sheet - Single side adhesive - 300mm X 1000mm - 0.2mm - TC-20TAG-Z-AA - Grey – ShinEtsu

Content List Table

Nature of Material	Non adhesive, Single side adhesive, Both side adhesive, .
Size	Examples(Length x Height x Thickness) - 300mm X 1000mm - 0.2mm (As per this format)
Colour	Grey, Orange

I.1.E. 23. Mains Filter:

Mains filters in electronic equipment are usually there to prevent unwanted signals to get onto the mains when the equipment produces contaminations.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Optional
Category Name	Nature of Material	Ratings	Part No.	Fuse	Make	Packaging Type
Mains filter	**Nature of Material (Master Electronic Nature List)**	**Rating (As per Content List Table)**	As Actual	**Fuse (As per Content List Table)**	As Actual	**Packaging Type (As per Content List Table)**

E.g.: Mains filter – Panel Mount – 6Amp/250VAC – EL-1B006B01E-B07-A – Line fuse – ELCOM - Bulk

Content List Table

Rating	Current / Voltage
Fuse	Line fuse, Line & Neutral fuse
Packaging Type	Box, Bulk

I.1.E.24. Speaker:

Speaker is a device for converting electrical energy into acoustical signal energy that is radiated into a room or open air.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category Name	Value	Diaphragm type	Frames type	Part No.	Make
Speaker	**Value (As per Content List Table)**	**Diaphragm type (As per Content List Table)**	**Frames type (As per Content List Table)**	As Actual	As Actual

E.g.: Speaker – 57mm/8Ohm/0.5W – Paper – Round – XDEC-57Y-1 - XDEC

Content List Table

Value	Size / Impedance / Power
Diaphragm type	Paper, Mylar
Frames type	Round, Square

I.1.E.25. Fuse:

A safety device that protects electrical circuits from the effects of excessive currents. All types of voltage suppressor , current suppressor, In rush current limiter are included in the fuse.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required	Required	Required	Optional	Required
Category Name	Nature of material	Fuse Type	Rating	Size or lead pitch	Make	Fuse property	Part No.
Fuse	**Nature of Material (Master Electronic Nature List)**	**Fuse type (As per Content List Table)**	**Ratings (As per Content List Table)**	**Size (As per Content List Table)**	As Actual	**Fuse property (As per Content List Table)**	As Actual

E.g.: 1. Fuse - Socket Mounting - Cartridge – 4A/250V – 5x20mm – Generic – fast blow -
2. Fuse – Lead – Over voltage suppression, NTC - 5Ω - 5mm – Uppermost- - UEI005

3. Fuse – Lead - Over voltage suppression, MOV – 500V - 5mm – EPCOS - - HEL41D511K

Content List Table

Fuse type	Cartridge, Over voltage suppression, NTC, Resettable
Ratings	I/P Current / I/P voltage, Resistance,
Size	Examples(Diameter, Length) - 5X20mm (As per this format)
Fuse property	Slow blow, fast blow

I.1.E.26. Inductor

This category includes all types of readily available inductors that we can purchase.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Optional	Optional	Required	Required	Required	Required	Optional
Category Name	Nature of Material	Part No.	Electrical Properties	Core Material	Make	Dimensions	Inventory Package
Inductor	**Nature of Material (Master Electronic Nature List)**	As Actual	**Electrical Properties (As per Content List Table)**	**Core Material (As per Content List Table)**	As Actual	**Dimensions (As per Content List Table)**	**Inventory Package (As per Content List Table)**

E.g. 1. Inductor - SMD - 7447709330 - "33uH, 20%, 4.2A, 0.045Ω, WE-PD Series" - Ferrite - Wurth - 12 X 12 X 10mm - Reel

Content List Table

Electrical Properties	Inductance & Tolerance, Rated Current, DC Resistance, Inductor series (enclosed within " ")
Core Material	Ferrite, Silicon Steel, Iron Powder
Dimensions	Length X Width X Height
Inventory Package	Reel, Box, Bulk, Tape, Tape & Reel

I.1.E.27.Heatsink:

The purpose of using a heat sink is to properly remove heat from device components to improve device performance and extend its life.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Required	Required	Optional
Category name	Type	Dimensions (LxWxH)	Part No.	Material	Make	Color
Heatsink	Type(As per content list table)	As actual	As actual	Material(As per content list table)	As actual	Color(As per content list table)

E.g. 1. Heatsink - Passive - 93x38x130mm - - Aluminium- one power - Silver

Content list table:

Types	Active , Passive
Color	Silver, Black
Material	Aluminium, Copper

I.1.E.28. AEC (Auxiliary Electronics Components):

This category will have general electronics materials which do not have any category in the rule book.

Nomenclature :

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Optional	Required	Required
Category Name	Material Name	Size/ Dimensions/ Model Number	Colour	Specification/ Properties	Make	Inventory Package
AEC	As Actual	Size/Dimensions/Model Number(As per Content List Table)	Colour (As per Content List Table)	Specification/ Properties (As per Content List Table)	As Actual	Inventory Package (As per Content List Table)

Eg. 1. AEC - Insulation paper - 55mm thick - White - Non Adhesive - XYZ - Roll
2. AEC - Insulation tape - 50mm thick - Blue - Adhesive - XYZ - Roll
3. AEC - Battery Charger - 15212D5 - - 24V10A - NHP - Box

Content List Table

Size/ Dimensions / Model Number	Size / Length, Width, Thickness (Any one parameter is sufficient), Model Number (As Actual)
Colour	White, Blue, Green, Black
Specification/ Properties	Adhesive, Non Adhesive, Electrical/Electronics specifications
Inventory Package	Roll, Box, Bulk

I.1.E.29. RF Antenna

An antenna is a device that receives or transmits radio electromagnetic waves. It is a transducer that converts radio frequency (RF) fields into alternating current or vice versa. Antennas play an important role in the operation of all radio equipment. They are used in wireless local area networks, mobile, telephony and satellite communication.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required	Required	Required	Optional	Optional
Category Name	Antenna Type	Value	Mounting Type	Termination	Make	Size(LxWxT) mm	Inventory Package
RF Antenna	**Antenna Type (As per Content List Table)**	**Value (As per Content List Table)**	**Mounting Type (As per Content List Table)**	**Termination (As per Content List Table)**	As Actual	As Actual	**Inventory Package (As per Content List Table)**

E.g.: 1. RF Antenna - FPC – 2.4GHz, 5dBi – Internal – U.FL (UMCC) - Generic - 42x18x0.15mm

2. RF Antenna - Rod – 2.4GHz, 2dBi – External – IPEX to SMA Connector - Generic

Content List Table

Nomenclature for "Value" : Frequency - gain	
Frequency	2.5GHz, 4.5GHz (As per this format)
Gain	5dBi, 2dBi (As per this format)

Antenna Type	Rod, Sucker, Yagi, PCB/Trace, Patch, Chip, FPC (Flexible Printed Circuit)
Mounting Type	Internal, External
Termination	U.FL (UMCC), IPEX MHF1, MHF1, IPEX, IPEX to SMA Connector
Packaging	Bulk, Box

I.1.E.30. Heater

An electrical device that converts an electric current into heat.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Optional	Required	Required	Required	Optional
Category name	Heater Type	Part no	Value	Dimension	Make	Inventory packaging
Heater	As per content list table	As actual	As actual	As actual	As actual	As per content list table

E.g.: 1. Heater - Cartridge -0706504000500 - 12V,50W, 400º - 6.50x40mm- Anupam - Bag

Content List Table:

Value	In Format Voltage - Wattage - Temperature Voltage - 12V (As per this format) Wattage - 50W (As per this format) Temperature - 400º (As per this format)
Heater Type	Cartridge, ceramic
Inventory packaging	Bag, Box

I.1.F. Connector Spare:

Connectors are parts or devices used for electrically connecting or disconnecting circuits. They can connect and disconnect by hands or with simple tools without requiring special tools or processes such as soldering. It consists of connectors, housings and crimp pins.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required	Required	Required	Required	Optional
Category Name	Types of connector spare	Nature of material	C/H/C Type	Specification (Not for Crimp Pin)	Make	Part No (not for Generic)	Inventory package
Connector Spare	**Types of connector spare (As per Content List Table)**	**Nature of Material (Master Electronic Nature List)**	**C/H/C Type (As per Content List Table)**	**Specification (As per Content List Table)**	As Actual	As Actual	**Inventory package (As per Content List Table)**

E.g.: 1. Connector Spare - Connector – SMD - FFC Female - 10 pins, 1mm Pitch - Wurth - 68611014422-Reel
2. Connector Spare - Connector – Panel Mount - VGA Female - 15pins – Generic -- Bulk
3. Connector Spare – Housing – Wired – Crimp style – 2mm Pitch - JST - JS-2003-06 – Bag
4. Connector Spare - Crimp Pin – Wired - CPU Locking Female Square - - JST - SVH-41T-P1.1/SVH-21T-P1.1 - Reel
5. Connector Spare - Connector – Wired – Banana Male - 4mm, Red - Generic - ST-C00688 – Bulk

Content List Table

Types of connector spare	Connector, Housing, Crimp Pin, Socket,Jack & Plug, Coupler
C/H/C Type (Connector/Housing/Crimp/ socket)	FFC Male/Female,, VGA Female, Banana Male/Female, CPU Locking Male/Female, Crimp style , mains inlet, DC inlet, Fuse holder,DC power jack/Plug, ,Audio jack/Plug,BNC Male/Female, SMA Male/Female, USB-2.0/3.0/Micro/Type C, CPU Locking Male/Female Square, Aviation Plug Connector Male/Female
Specification	**For connector:** No. of pins, pitch size or Jack diameter, Colour,Right angle/straight **For socket :** No. of pins, I/P ratings, with fuse, with switch **For fuse holder:** Small/ Big, I/P ratings, Vertical/ Horizontal

Inventory package	Bulk, Reel, Bag

In this chapter, we will focus on the Raw material, mechanical categories only.

Following are the subcategories under the mechanical categories.

I. 2. Mechanical

    A. Hardware
    B. Tubes and Pipes
    C. Rods
    D. Plates
    E. Granules/ Powder
    F. Bearings
    G. Raw Moulded
    H. Raw Fabricated
    I. Raw Customized

List of materials advance with Code
#Mechanical Master Material List

Code	Name
SS	Stainless Steel
SS304	Stainless Steel Grade 304
SS302	Stainless Steel Grade 302
SS316	Stainless Steel Grade 316
SS420	Stainless Steel Grade 420
17-4PH	Stainless Steel Grade 17-4PH
CU01	Copper 11000
BR00	Brass
BR01	Brass IS 319
BR02	Brass H59
AL01	Aluminium 6082
AL02	Aluminium alloy AA1200 H14
AL03	Aluminium 6063 T6
AL04	Aluminium Alloy ALSI 132

MS	MS Mild Steel
MS01	Mild Steel SAE 1026
MS02	Mild Steel IS 1239
MS03	Mild Steel SA-106 Gr. B
MS04	Mild Steel SAE 1020
GI01	GI 80 GSM
OHNS	Oil Hardening Non Shrinking
TPE30	TPE 30
TPE50	TPE 50
TPE55	TPE 55
T35P	TPE 30 + TPE 55
PP01	PPS 1140L4
PP02	PPS 9140L4
PB01	PBT GF20 BG20-01
PB02	PBT GF20 MT 2406
TR01	Tritan TX1001
HY01	Hytrel 4069
HY02	Hytrel 5526
NY01	Nylon 6
NY02	Nylon 6/6
NY03	Nylon 66
ABS	Acrylonitrile Butadiene Styrene
DE00	Delrin
DE01	Delrin 100P NC010
DE02	Delrin 500AF
SL01	FEP
PP	Polypropylene
PG	Pigment 430C

SL02	PVDF
SL03	PTFE
Silicon	Silicon
ZY00	Zytel
CE00	Ceramic

I.2.A. Hardware

This subcategory encompasses all types and various sizes of screws, washers, cable ties, circlips, dowels, etc. A mechanical hardware is a device that is used to mechanically join (or fasten or affixes) two or more objects together. In general, hardware's are used to create non-permanent joints; that is, joints that can be removed or dismantled without damaging the joining components.

I.2.A.1. Screw

This category encompasses all size screws available in the market.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Optional
Category name	Material	Dimensions & Specification	Standard	Part No.	Make
Screw	**Material (Mechanical Master Material List)**	**Dimensions and Specifications (As per Content List Table)**	**Standard (As per Content List Table)**	-	-

E.g.: 1) Screw - SS - M12 x 40 Socket Head Cap Screw - - - -
        2) Screw – MS – M3 x 6 Pan Phillip Screw - - - -

Content List Table

Dimensions and Specifications	Examples - M12 x 40 Socket Head Cap Screw M3 x 6 Pan Phillip Screw (As per this format)
Standard	DIN, ISO,
Part no.	-
Make	-

List of screw head types

Flat head screws	Round head screws

Oval head screws	Button head screws
Pan phillip screws	Mushroom head screws
Socket head cap screws	Self-tapping screws
Set screws	Sheet metal screws
Machine screws	Thread cutting screws

I.2.A.2. Nut

This category encompasses all size nuts available in the market.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Optional
Category name	Material	Dimensions & Specification	Standard	Part No.	Make
Nut	**Material (Mechanical Master Material List)**	**Dimensions and Specifications (As per Content List Table)**	**Standard (As per Content List Table)**	-	-

E.g.: 1) Nut - SS – M10 Hex Nut - - - -
      2) Nut – MS – M5 Square Nut - - - -

Content List Table

Dimensions and Specifications	Examples - M10 Hex Nut M5 Square Nut (As per this format)
Standard	DIN, ISO,
Part no.	-
Make	-

Nut types

Hex Nut	Heavy Hex Nut
Jam Nut	Wing Nut
Cap Nut	Flange Nut
Square Nut	Prevailing Torque Nut
Stud or Coupling	Castle Nut

Slotted Nut	

I.2.A.3. Washer

This category encompasses all types of washers.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Optional
Category name	Material	Dimensions & Specification	Standard	Part No.	Make
Washer	**Material (Mechanical Master Material List)**	**Dimensions and Specifications (As per Content List Table)**	**Standard (As per Content List Table)**	-	-

E.g.: 1) Washer - SS304 - M6 Plain Washer - - - -
        2) Washer - MS – OD 25.4 x ID 12.5 mm - - - -

Content List Table

Dimensions and Specifications	Examples - M6 Plain Washer OD 25.4 x ID 12.5 mm (As per this format)
Standard	DIN, ISO
Part no.	-
Make	-

Washer types

Flat Washer	Wave washer
Spring Washer	Belleville washer

I.2.A.4. Circlip

Circlips are the fasteners that grasp elements or installations onto a shaft or in a dwelling/bore when assembled in a groove.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Optional
Category name	Material	Type	Dimensions	Part No.	Make
Circlip	**Material (Mechanical Master Material List)**	**Type (As per Content List Table)**	**Dimensions (As per Content List Table)**	**-**	**-**

E.g.: 1) Circlip - SS304 - Internal - Bore dia. 15 mm, thickness 2 mm - - -
2) Circlip - SS316 - External - OD 15 mm, thickness 4 mm - - -

Content List Table

Type	External, Internal, etc.
Dimensions	Examples - Bore dia. 15 mm, thickness 2 mm OD 15 mm, thickness 4 mm (As per this format)
Part no.	-
Make	-

I.2.A.5. Dowels

A dowel is a "cylindrical rod, usually made from wood, plastic, or metal" that is used for holding together components of a structure.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5
Required	Required	Required	Optional	Optional
Category name	Material	Dimensions & Specification	Part No.	Make
Dowel	**Material (Mechanical Master Material List)**	**Dimensions & Specifications (As per Content List Table)**	-	-

E.g.: 1) Dowel - SS304 - OD 5 mm x Length 8 mm - - -

Content List Table

Dimensions & Specifications	Examples - OD 5 mm x Length 8 mm (As per this format)
Part no.	-
Make	-

I.2.A.6. Miscellaneous Hardware

Various miscellaneous hardwares which do not belong to the other hardware subcategories. This hardware consist of Mechanical parts like spring plates,

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category name	Material	Product name	Dimensions	Specification	Make
Miscellaneous Hardware	**Material (Mechanical Master Material List)**	As Actual	**Dimensions (As per Content List Table)**	As Actual	As Actual

E.g.: 1) Miscellaneous Hardware - SS304 - Pallet ball - 2 mm - - Rajnikant steel

Content List Table

Product name	As Applicable
Dimensions	Examples - 2 mm (As per this format)
Specifications	As Applicable
Make	As Applicable

I.2.B. Tubes / Pipes

Tubes are the cylindrical hollow sections with thickness less than 1.5 mm and pipes are the cylindrical hollow sections with the thickness more than 1.5 mm.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Optional	Required	Required	Optional
Category name	Material	Type	Cross section	Dimensions & Specification	Make
Tube, Pipe	**Material (Mechanical Master Material List)**	**Type (As per Content List Table)**	**Cross section (As per Content List Table)**	**Dimensions & Specifications (As per Content List Table)**	-

E.g.: 1) Tube - SS304 – Seamless – Round - OD 3.8 x ID 2.8 mm - Torich International
2) Pipe – MS – ERW – Rectangular – 80 x 60 x 4 mm - -

Content List Table

Type	Seamless, ERW
Cross section	Round, Rectangular, Square, etc.
Dimensions & Specifications	Examples - OD 3.8 x ID 2.8 mm 80 x 60 x 4 mm (As per this format)
Make	-

I.2.C. Rods

Rods are available in any shape like square, hexagonal, round and any other shape.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	-	Required
Category name	Material	Cross section	Dimensions & Specification	-	Make
Rods	**Material (Mechanical Master Material List)**	**Cross section (As per Content List Table)**	**Dimensions & Specifications (As per Content List Table)**	**-**	

E.g.: 1) Rods - SS304 – Round - OD 4 mm x 3000 mm - - -
     2) Rods - SS304 – Square - 6 x 6 x 3000 mm - - -

Content List Table

Cross section	Round, Hexagonal, Square
Dimensions & Specifications	Examples - OD 3.8 x ID 2.8 mm (As per this format)
Make	Generic , or as Actual.

I.2.D. Plates

Any sheet of metal with various thickness & materials.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Optional	Optional	Optional	Optional
Category name	Material	Dimensions & Specification	Blank	Blank	Make
Plate	**Material (Mechanical Master Material List)**	**Dimensions & Specifications (As per Content List Table)**	**-**	**-**	**Make (As per Content List Table)**

E.g.: 1) Plate - SS304 – 80 x 65 x 35 mm - - - Real Metals

2) Plate - SS304 – 80 x 55 x 35 mm - - - Real Metals

Content List Table

Dimensions & Specifications	Examples - 85 x 65 x 35 mm (As per this format)
Make	Real Metals, KP steel, SP steel, Bharat steel, Recent steel

I.2.E. Granules

Plastic granules are used for molding purposes. Powders contain sand blasting, coating powder, etc.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	Material	Grade	Colour	Catalogue No. or Part Number	Make
Granules	**Material (Mechanical Master Material List)**	**Grade (As per Content List Table)**	**Colour (As per Content List Table)**	**Catalogue No. or Part Number (As per Content List Table)**	**Make (As per Content List Table)**

E.g.: 1) Granules - PPS - 1140 L4 – Black - - Fortron
     2) Granules – HY01 - – Natural – - Dupont

Content List Table

Grade (Material Properties or Composition)	1140L4, 4069, GF20,
Colour	Natural, Black, Opaque White
Catalogue No. or Part Number	Part Number or Catalgoue number as per manufacturer datasheet.
Make	Fortron, Celanese, Dupont, Elastron

I.2.F. Bearings

Bearings are mechanical assemblies that consist of rolling elements and usually inner and outer races which are used for rotating or linear shaft applications, and there are several different types of bearings.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category name	Type	Dimensions	Part number	Blank	Make
Bearing	**Type (As per Content List Table)**	**Dimensions (As per Content List Table)**	**Part number (As per Content List Table)**	-	**Make (As per Content List Table)**

E.g.: 1) Bearing - Tapered thrust roller - 101.2 mm x 128.5 mm x 5.9 mm- AKG 101.2 x 128.5 - - Shandong Ante Bearing

2) Bearing – Deep Groove Ball – 42 mm x 20 mm x 12 mm - 6004 – - SKF

Content List Table

Type	Roller, Ball, Tapered thrust roller, Deep groove ball
Dimensions	Examples - Bore diameter, Outside diameter and Width (As per this format)
Part number	6004, 6203, AKG 101.2 x 128.5
Make	SKF, Shandong Ante Bearing

I.2.G. Raw Moulded

Plastic or rubber moulded parts procured or outsourced from vendors.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	Material	Product name	Drawing number	Revision number	Designed For or ODM Code
Raw Moulded	**Material (Mechanical Master Material List)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g.: Raw Moulded – Silicon – "Gasket 1 – PN" – "PN/015-000-004" - 0 -

Content List Table

Product name	It should be as per the drawing number. (It should be enclosed within " ")
Drawing number	It should be enclosed within " "
Revision No.	It should be as per drawing.
Designed For or ODM Code	Shalya, ODM Code

I.2.H. Raw fabricated

All outsourced sheet metal parts.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	Material	Product name	Drawing number	Revision number	Designed For or ODM Code
Raw fabricated	**Material (Mechanical Master Material List)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g.: 1) Raw fabricated - AL02 – "Tray with Handle 500 mm" – "PN/012-000-001" - 0 - Shalya
2) Raw fabricated - AL02 – "Sigma Top Cover" – "ESU-S/000-000-001" - 2 - Shalya

Content List Table

Product name	It should be as per the drawing number. (It should be enclosed within " ")
Drawing number	It should be enclosed within " "
Revision No.	It should be as per drawing.
Designed For or ODM Code	Shalya, ODM Code

I.2.I. Raw Customized

All outsourced machined parts including.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	Material	Product name	Drawing number	Revision number	Designed For or ODM Code
Raw customized	**Material (Mechanical Master Material List)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g.: 1) Raw customized – SS304 – "DH-Sliding Link" – "DH/001-000-002" - 1 - Shalya
    2) Raw customized – AL03 – "Horizontal Section" – "PN/000-000-002" - 0 - Shalya

Content List Table

Product name	It should be as per the drawing number. (It should be enclosed within " ")
Drawing number	It should be enclosed within " "
Revision No.	It should be as per the drawing.
Designed For or ODM Code	Shalya, ODM Code

I. 3. Labels Stickers and Manuals.

I.3.A. Sticker.

Film sheets are printed with text and designs that serve critical functional and/or aesthetic purposes, such as indicating how to use the product and conveying a brand message.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Optional	Required	Optional	Required	Optional
Category Name	Sticker type	Functional type	Model name	Drawing No. and Revision No.	Designed For or ODM Code	Material	Thickness / Sticker Type
Sticker	**Sticker type (As per Content List Table)**	**Functional type (As per Content List Table)**	As Actual	As Actual	As Applicable	As Actual	**Thickness / Sticker (As per Content List Table)**

 E.g.: 1) Sticker – Overlay – Accessory –Sigma – Rev. 00 - Shalya - - -

Content List Table

Sticker type	Overlay, Keypad, Panel
Functional type	Accessory, membrane, Logo, Tactile, Unit/ Product,Display, Variant name, Instruction
Drawing No. and Revision No.	Drawing Number and Revision number from designing team.
Material	Mention only for panel sticker (Applicable for Panel only)
Thickness / Sticker Type	Thickness of Label, Autoclavable Sticker, Evident Proof Sticker.
Designed For or ODM Code	Shalya, ODM Code

I.3.B. Label

This category encloses all types of product labels and its accessories (Consumables) which are outsourced.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Required	Required	Required	Required
Category name	Nature of Material	Product Name	Label Size	Label Color	Designed For or ODM Code	Print Status
Label	**Nature of Material (As per Content List Table)**	As Actual	As Actual	**Label Color (As per Content List Table)**	As Applicable	**Print Status (As per Content List Table)**

E.g.: 1) Label – PP – Accessories Cable – 100mm X 15mm – White – Vebcon - Plain

Content List Table

Nature of Material	PP, Paper, Ribbon, Gloss Polycarbonate, Polycarbonate
Product name	As Applicable
Label Size	As Applicable in Format (Length x Width x Thickness in mm or inch)
Label Color	White, Black
Print Status	Plain, Pre Printed with Drawing Number and Revision

I.3.C. User Manual

This category encloses all types of product manuals which are outsourced.

Nomenclature :

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category Name	Manual format	Type	Model Name	Version No. and document No.	Designed for or ODM Code
User manual	As per content table	As per content table	As actual	As actual	As applicable

E.g.: User manual - Soft copy - CD - Easy+v - V1.6, XMT/IFU/ESU/04 - Shalya

Content List Table

Manual Format	Hard copy, Soft copy
Type	Spiral Booklet, CD, USB

I.4. Chemicals

Electronic chemicals can exist in solid, liquid, or gas form. The different types of electronic chemicals utilized by every electronic device manufacturer for
e.g. PCB cleaning, PCB coating, potting process, Printing process etc.

I.4.A. Ink

This category includes ink used in screen printing processes during fabrication of cabinets.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Optional	Optional	Optional	Required	Required	Optional
Category Name	Colour Type	Colour	Colour Code	Application	Make	Product Code
Ink	**Colour Tye (As per Content List Table)**	**Colour (As per Content List Table)**	As Actual	**Application (As per Content List Table)**	As Actual	As Actual

E.g.: 1)Ink - PVC Matt - Black - HM 0111/0.5E15 - Screen Printing - Huber Group -

   2)Ink - - White - - Pad Printing - Marabu - TPU 970

Content List Table

Colour Type	PVC Matt, PVC Gloss, Paper Gloss, Vinfix Matt, Vinyl Gloss
Colour	White, Black, Dk. Royal Blue
Application	Screen Printing, Pad Printing

I.4.B. Solvent

A solvent is any substance like Xylene, Thinner and I.P, usually liquid, which is capable of dissolving one or several substances, thus creating a solution.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Optional	Required	Optional
Category Name	Name of Solvent	Application	Part No/ Code	Inventory Package	Make	Packaging Size
Solvent	As Applicable	**Application (As per Content List Table)**	As Applicable	**Inventory Package (As per Content List Table)**	As Actual	**Packaging Size (As per Content List Table)**

E.g.: 1) Solvent - Thinner - Vinfix Rheology Improver - "SRIVY-3101/IE26" - Bottle - Huber Group - 1Ltr

2) Solvent - Xylene - Cleaning agent - - Bottle - New Lite Wire - 5Ltr

Content List Table

Application	Vinfix Rheology Improver, Cleaning agent
Packaging Size	As Applicable (Weight of solvent)
Inventory Package	Bottle, Can, Drum
Part No/ Code	Enclosed within " "

I.4.C Adhesive

It is any substance like Glue stick, Fevikwik that is capable of holding materials together in a functional manner by surface attachment that resists separation.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Optional	Required	Optional
Category Name	Name	Type of Adhesive	Part No/ Code	Inventory Package	Make	Packaging Size
Adhesive	As Applicable	**Type of Adhesive (As per Content List Table)**	As Applicable	**Inventory Package (As per Content List Table)**	As Actual	**Packaging Size (As per Content List Table)**

E.g.: 1) Adhesive - Fevikwik - RTV Adhesive - 8901860010029 - Bulk - Pedilite - 5ml

2) Adhesive - Araldite - Resin Adhesive - 8901860240419 - Tube - Pedilite - 36gm

3) Adhesive - Polyfix instant glue (LV) - RTV Adhesive - - Bulk - Polyfix - 50g

Content List Table

Type of Adhesive	Resin Adhesive, RTV Adhesive
Inventory Package	Tube, Bulk, Can, Bottle
Packaging Size	As Applicable (Weight of adhesive)

I.4.D.Coating

The coating process consists of applying a coating material to a moving web of flexible substrate like varnish and Acryfoam.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Optional	Required	Optional
Category Name	Name	Application	Part No/ Code	Inventory Package	Make	Packaging Size
Coating	As Applicable	**Application (As per Content List Table)**	As Applicable	**Inventory Package (As per Content List Table)**	As Actual	**Packaging Size (As per Content List Table)**

 E.g.: 1) Coating - DC Acryfoam - PCB Coating and Contact Cleaner - - Bottle - Bharat BiJlee - 400ml

2) Coating - Elmo Luft 1A Golden Varnish - Insulation - EBIL-P - Bottle - Altana - 1Ltr

Content List Table

Application	PCB Coating and Contact Cleaner, Insulation
Inventory Package	Bottle
Packaging Size	As Applicable (Weight of adhesive)

II. General Consumable & Stationery.

II 1.A. Protective Accessories :-

Accessories worn to minimize exposure to hazards that cause serious workplace injuries and illnesses.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Optional	Optional	Optional	Required
Category Name	Nature of Accessories	Specification	types	Part No.	Make
Protective Accessories	**Application (As per Content List Table)**	As Actual	As Actual	As Actual	As Actual

E.g.: 1) Protective Accessories - Goggles - Transparent - Closed - -

Content List Table

Nature of Accessories	Gloves, Gowns, Shoe Covers, Head Covers, Masks, Respirators, Eye Protection, Face Shields, and Goggles.

II 1.B. Grocery :-

Grocery Items means food and foodstuffs, groceries, beverages, and household goods, usually prepackaged, Tea Cups, Tea Premix Powder, Coffee Premix Powder, Lemon Premix Powder or measured into quantities for household use and not generally suitable for immediate consumption by the purchaser.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Optional	Optional	Optional	Required
Category Name	Name of Product	Specification/ Flavors	Type/Size/Di mension	Color	Make
Grocery	**Name of Product(As per Content List Table)**	**Specification/ Flavors(As per Content List Table)**	As Actual	As Actual	As Actual

E.g.: 1. Grocery - Tea Cups - - 70ml - White - xyz

      2. Grocery - Tea Premix Powder - Ginger - 1kg - - pqr

Content List Table

Name of Product	Tea Cups, Tea Premix Powder, Coffee Premix Powder, Lemon Premix Powder
Specification/Flavors	Ginger, Cardamom

II 1.C. Stationary :-

Stationery refers to commercially manufactured writing materials, including cut paper, envelopes, writing implements, continuous form paper, and other office supplies. Stationery includes materials to be written on by hand or by equipment such as computer printers.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Optional	Optional	Optional	Required
Category Name	Name of Product	Dimension	Paper GSM	Specification	Make
Stationary	**Name of Product(As per Content List Table)**	As Actual	As Actual	As Actual	As Actual

E.g.: 1) Stationary -

Content List Table

Name of Product	

III. Semi finish

All goods that have already undergone some processing and are then used as inventory inputs to manufacture of finished goods.

III.1. Moulded

This category encompasses all the inhouse molded parts.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Required Drawing No.	Required
Category name	Material	Sub Assembly Name	BOM No or ID	Drawing No.	Designed For or ODM Code
Moulded	**Material (Mechanical Master Material List)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Moulded - TPE - "Solenoid valve gasket" - XMT/PD/XX/DS/XX - XMT/PD/XX/WI/XX - Shalya

Content List Table

Sub Assembly Name	It should be as per the drawing. (Should be enclosed within " ")
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.2. Machined parts

Machining generally describes a manufacturing process in which a worker uses sharp cutting tools to remove excess material from a part in order to create a desirable new shape.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Material	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Machined parts	**Material (Mechanical Master Material List)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Machined parts - SS304 - "Yoke top spring arm connecting bush front loading" - XMT/PD/XX/DS/XX- XMT/PD/XX/WI/XX - Shalya

Content List Table

Sub Assembly Name	It should be as per the drawing. (Should be enclosed within " ")
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.3. Assembled Cabinet

It is the combination assembly of top cover, bottom cover & bezel. This exclude raw cabinet parts. Only Assembled cabinets for any product can be part of this category.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Assembled Cabinet	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled Cabinet - Inhouse - Assembled Cabinet set - XMT/PD/ES/WI/04 - XMT/PD/ES/WI/04 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
Sub Assembly Name	ESU, Endoscopy, Addon ESU, oem, etc.
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.4. Assembled Transformer

It is the combination assembly of core, bobbin and litz wire.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Assembled Transformer	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled Transformer - Inhouse - Assembled Transformer set - XMT/PD/ES/DS/22 - XMT/PD/ES/SOP/04 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
Sub Assembly Name	Transformer, Inductor, Excluding Torid, etc
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.5. Electronics Hardware Assembly

It is the assembly set of wires,switch,heat sink,to ride,mosfet.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Electronics Hardware Assembly	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Electronics Hardware Assembly - Inhouse - Hardware Assembly set - XMT/PD/ES/WI/02 - XMT/PD/ES/WI/02 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
Sub Assembly Name	Heat sink, toroid, on off switch, etc assembly
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.6. ESU Assembly / Testing / Calibration

ESU Assembly - It is the combination assembly of tested PCB & assembled cabinet set of ESU.

ESU Testing - It is the combination assembly of tested PCB & assembled cabinet set of ESU.

Esu Calibration - It is the combination assembly of tested PCB & assembled cabinet set of ESU.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
ESU Assembly, ESU Testing, ESU Calibration	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) ESU Assembly - Inhouse - Easy Assembled unit - ES/BOM/FA/EZ/01 - XMT/PD/ES/SOP/06 - Shalya

2) ESU Testing - Inhouse - Vista VS- ES/W/VTVS/01 - XMT/PD/ES/WI/01 - Shalya

3) ESU Calibration - Inhouse -Vista RF VSE - NA - XMT/PD/ES/SOP/05 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP

Designed For or ODM Code	Shalya, ODM Code

III.7. Endoscopy Assembly / Testing / Calibration

All sub assemblies required for manufacturing of Endoscopy equipments EndoLux, EndoJet, Argon,etc!!!. This includes parts assembled from Raw material directly purchased from vendors (products from Raw Material Category), Post processed Parts inhouse processed or outsourced for processing (not for manufacturing). Other intermediate assemblies produced during Manufacturing of above equipment from Assembly, Testing and calibration. Final except Final QC (QC items / products covered in separate category)

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Endoscopy Assembly, EndoscopyTesting, EndoscopyCalibration	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Endoscopy Assembly - Inhouse - Endoscopic Final Assembled unit - XMT/PD/EN/DS/37 - XMT/PD/EN/WI/12 - Shalya

   2) Endoscopy Testing - Inhouse - Endoscopic Tested PCB - - XMT/PD/EN/WI/14 - Shalya

   3) Endoscopy Calibration - Inhouse - Endoscopic Calibrated unit - - XMT/PD/EN/WI/13 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP

Designed For or ODM Code	Shalya, ODM Code

III.8. ESU Simulation / Final QC

It is the verification of a calibrated ESU unit. All products created in this categories are Simulated or Final QC done products only.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
ESU Stimulation, Final QC	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) ESU Simulation - Inhouse -   Vista RF VSE Simulated unit - - XMT/PD/ES/SOP/09-Shalya

2) Final QC - Inhouse - Easy Final Product - - XMT/QC/ES/SOP/01 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.9. Endoscopy Final QC

It is the verification of a calibrated Endoscopic unit.All products created in this category are Simulated or Final QC done products only.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Endoscopy Final QC	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Endoscopy Final QC - Inhouse - Endoscopic Final Product - - XMT/QC/EN/WI/02 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.10. Assembled PCB

It is the combination assembly of electronics components. All products created under this category are Assembled PCB of different products.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Assembled PCB	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled PCB - Inhouse - iLux 10 main board - XMT/PD/EN/DS/36 - XMT/PD/EN/SOP/01 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.11. Assembled Relay

It is the combination assembly of coil, reed switch & epoxy. All products created in this category are Semi Finished Products or Final Relay Module can be used in next production processes.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Assembled Relay	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled Relay - Inhouse - Assembled Relay - XMT/PD/ES/DS/27 - XMT/PD/ES/WI/05 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.12. OTL Assembly / Testing / Calibration

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
OTL Assembly, OTL Testing, OTL Calibration	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) OTL Assembly - Outsource - Cabinet Top - BOM - SOP - Shalya

    2) OTL Assembly - Outsource - Yoke Pipe - BOM - SOP - Shalya

    3) OTL Assembly - Inhouse - Welded Cabinet - BOM - SOP - Shalya

    4) OTL Testing - Inhouse - Main Board iLux 10 - - XMT/PD/OR/WI/22 - Shalya

    5) OTL Calibration - Inhouse - iLux 10- - XMT/PD/OR/WI/21 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.13. Processed Cable

The category named "Processed cable" includes various moulded cables used for electrosurgical devices such as axer flex cable, axer max A handswitching cable, etc.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Processed Cable	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Processed Cable - Inhouse – Bipolar Cable Fixed end – XMT/MDD/LH/DS/22 – XMT/MDD/LH/WI/12 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.14. Assembled Inserts

The category named "Assembled inserts" includes the various types of jaw inserts such as Maryland round, Fenestrated straight, etc. which are used for laparoscopic and open surgeries as per the application.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP NO or ID	Designed For or ODM Code
Assembled Inserts	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled Inserts - Inhouse – Maryland round jaw insert – XMT/MDD/LH/DS/30 – XMT/MDD/LH/WI/07 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.15. Assembled Medical Devices

The category named "Assembled Medical Devices" includes various completely assembled medical devices like Axer flex B handle, Monopolar pencil for open surgery, etc.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP NO or ID	Designed For or ODM Code
Assembled Medical Devices	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Assembled Medical Devices - Inhouse – Axer flex B handle – XMT/MDD/LH/DS/04 – XMT/MDD/LH/WI/01 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.16. Medical Devices Final QC

The category named "Medical Devices Final QC" includes materials or things required for final quality control of the assembled medical devices, assembled jaw inserts and processed cables.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Medical Devices Final QC	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Medical Devices Final QC -

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.17. Medical Devices Kits

The category named "Medical Devices Kits" includes various medical devices accessories/assemblies which are packed with the main medical device/unit or saleable unit.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for Short Term BOM or SOP 1 of them is required)	Optional (for Short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP No or ID	Designed For or ODM Code
Medical Devices Kits	**Outsource , Inhouse (As per Content List Table)**	As Actual	As Actual	As Actual	**Designed For or ODM Code (As per Content List Table)**

E.g. 1) Medical Devices Kits - Inhouse – Axer flex B handle – TEMP/XXXX – TEMP/XXXX - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP No or ID	SOP
Designed For or ODM Code	Shalya, ODM Code

III.18. Pendant Assembly

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional (for short Term BOM or SOP 1 of them is required)	Optional (for short Term BOM or SOP 1 of them is required)	Required
Category Name	Nature of Manufacturing	Sub Assembly Name	BOM No or ID	SOP NO or ID	Design for or ODM Code
Pendant Assembly	**Outsource, Inhouse (As per content List Table)**	As Actual	As Actual	As Actual	**Design for or ODM Code (As per content List Table)**

E.g. 1) Pendant Assembly - Inhouse - Bearing Housing Assembly H - XMT/OR/PN/DS/01 - XMT/OR/PN/WI/02 - Shalya

2) Pendant Assembly - Outsource - HORIZONTAL SECTION - XMT/OR/PN/DS/01 - XMT/OR/PN/WI/03 - Shalya

Content List Table

Nature of Manufacturing	Outsource, Inhouse
BOM No or ID	BOM
SOP NO or ID	SOP
Design for or ODM Code	Shalya, ODM Code

III.19. Assembled Sticker:

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Required	Required
Category name	Nature of manufacturing	Sub Assembly name	Drawing No.	Revision No.	Designed for or ODM code
Assembled sticker	As per content list table	As actual	As actual	As actual	As applicable

E.g.: Assembled sticker - Inhouse - Vista RF VSE - XMT/PD/ES/DS/39 - Rev.01 - Shalya

Content list table:

Nature of Manufacturing	Inhouse, Outsource
Drawing No. and Revision No.	Drawing No. and Revision No. from designing team
Designed for or ODM code	Shalya, ODM code

III.20.Footswitch Assembly / testing :

Nomenclature :

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Required
Category name	Nature of manufacturing	Sub assembly name	BOM No or ID	BOM No or ID	Designed for or ODM CODE
Footswitch assembly, Footswitch testing	Outsource / Inhouse (as per content list table)	As actual	As actual	As actual	Designed for or ODM code

E.g.:1) Footswitch Assembly - Inhouse – wireless footswitch assembled - XMT/PD/FS/DS/15 - XMT/PD/FS/DWL/WI/01 – Shalya

2) Footswitch Testing- Inhouse – wireless footswitch - - XMT/PD/FS/WI/10 – Shalya

Content list table:

Nature of manufacturing	Outsource / Inhouse
BOM No or ID	BOM
BOM No or ID	SOP
Designed for or ODM code	Shalya, ODM Code

III.21. Footswitch simulation / Final QC:

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	optional	optional	Required
Category name	Nature of manufacturing	Sub assembly name	BOM No or ID	BOM No or ID	Make
Footswitch simulation , Footswitch Final QC	Outsource / Inhouse (as per content list table)	As actual	As actual	As actual	Designed for or ODM code

E.g.: 1) Footswitch simulation - Inhouse – wireless footswitch - -XMT/QC/FS/WI/03 - Shalya

2) Footswitch Final QC - Inhouse – wireless footswitch - - XMT/QC/FS/ WI/03 – Shalya

Content List table:

Nature of manufacturing	Outsource / Inhouse
BOM No or ID	BOM
BOM No or ID	SOP
Designed for or ODM code	Shalya or ODM code

V. Capital Goods:

Capital goods are the assets used by businesses in the course of producing their products and services, and can include buildings, machinery, tools and equipment.

V.1. Office Equipments:

Office equipment are the instruments, tools, machines that are required to perform the various tasks in an office.

These elements can be categorized as below:

A. Electrical Equipment

B. IT Equipment

C. Testing and Manufacturing Equipment

D. Safety Equipments

V.1.A. Electrical Equipment:

Electrical equipment are any apparatus, device, integral component, or integral part used in an activity which is electrically, electronically, mechanically, or by legal prescription necessary to the process of generation, transmission, or distribution of electric energy.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Required	Required
Category name	Nature of Equipment	Specification	Blank	Part No.	Make
Electrical Equipment	**Nature of Equipment (As per Content List Table)**	As Actual	-	As Actual	As Actual

E.g.: 1) Electrical Equipment - Light - 10W - - LED400 - Philips

Content List Table

Nature of Equipment	Example - Bulb, Tube, FAN

V.1.B. IT Equipment:

IT Equipment are any equipment which has a primary function of either entry, storage, display, retrieval, transmission, processing, switching, or control, of data and of telecommunication messages or a combination of these functions and may be equipped with one or more terminal ports typically operated for information transfer.
Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Required	Required
Category name	Nature of Equipment	Specification	Blank	Part No.	Make
IT Equipment	**Nature of Equipment (As per Content List Table)**	As Actual	-	As Actual	As Actual

E.g.: 1) IT Equipment - Phone - Analog - - TEL100 - Panasonic

Content List Table

Nature of Equipment	Example - Phone, Laptop, PC,Battery charger

V.1.C. Testing / Manufacturing Equipment:

Manufacturing Equipment is defined as "**anything kept, furnished, or provided for a specific purpose**." Testing Equipment means the equipment used by the issuing authority to carry out tests; "test report" means the report issued by an issuing authority containing the result of the test in accordance with these regulations.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Required	Required
Category name	Nature of Equipment	Specification	Blank	Part No.	Make
Testing , Mechanical Equipment	**Nature of Equipment (As per Content List Table)**	As Actual	-	As Actual	As Actual

E.g.: 1) Testing Equipment - Multimeter - 1000V AC - - DC100 - Meco
2) Manufacturing Equipment - Soldering Gun - 60W - - GUN60 - Weller

Content List Table

Nature of Equipment	Example - Multimeter, Soldering Gun

V.2. Furniture and Fixture:

Furniture and fixtures are larger items of movable equipment that are used to furnish an office.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Required	Required
Category name	Nature of Equipment	Specification	Blank	Part No.	Make
Furniture and Fixture	**Nature of Equipment (As per Content List Table)**	As Actual	-	As Actual	As Actual

E.g.: 1) Furniture and Fixture - Bed - l x b x h - - KYOTO-Dark Maple- WoodenStreet

Content List Table

Nature of Equipment	Example - Bed, Chairs, Desks, Tables

V.3. Tools and Fixture:

Tools and Fixtures are manufactured by us.

VI. Tool Making Accessory:

A die is a specialized machine tool used in the manufacturing industry to cut or form material to a desired shape or profile.

All Mechanical material required in making Die, Jigs or other types of tools which further will be used for producing product and not directly sold as product. This are generally assets for company.

VI.1. Rectangular Metal Block:

Rectangular Metal Block is a block of raw material with a rectangular cross section.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Required
Category name	Nature of Material	Dimensions & Specification	Colour	Blank	Make
Rectangular Metal Block	**Nature of Material (As per Content List Table)**	**Dimensions & Specification (As per Content List Table)**	-	-	**Make (As per Content List Table)**

E.g.: 1) Rectangular Metal Block - MS - 80x60x60mm - - - SP Steel

Content List Table

Nature of Material	MS, P20 2311, P20 High Hard 2738, En31 , Ohns, Forged Copper
Dimensions & Specification	Format (l x b x h unit) - 80x60x60mm
Make	SP Steel, Empire Steel, K P Steel, Suresh Metal

VI.2. Round Metal Block:

Raw material with a circular cross sectional.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Required
Category name	Nature of Material	Dimensions & Specification	Colour	Blank	Make
Round Metal Block	**Nature of Material (As per Content List Table)**	**Dimensions & Specification (As per Content List Table)**	-	-	**Make (As per Content List Table)**

E.g.: 1) Round Metal Block - MS - OD - - - SP Steel

Content List Table

Nature of Material	MS, P20 2311, P20 High Hard 2738, En31 , Ohns, Forged Copper
Dimensions & Specification	Format (OD unit) - 40mm
Make	SP Steel, Empire Steel, K P Steel, Suresh Metal

VI.3. Die Accessories:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Optional	Required	Required
Category name	Material Name	Dimensions & Specification	Colour	Blank	Make	Hardness
Die Accessories	**Material Name (As per Content Table)**	**Dimensions & Specification (As per Content Table)**	**Colour (As per Content Table)**	-	**Make (As per Content Table)**	As Actual

E.g.: 1) Die Accessories - Ejector Pin - OD X L - Black - - Riddhi Trader - 65-75 hrc

Content List Table

Nature of Material	Ejector Pin, Spring, Die Punch, Taper Interlock, O' Ring, Hot Runner.
Dimensions & Specification	Format (OD X L, OD X ID X L, OD unit) - 40 mm
Colour	Black, Blue, Green, Red, Yellow, Brown, Regular
Make	Riddhi Trader, Vijaydeep Accessories, Eurotech Hot Runner Systems
Hardness	As Actual (Required only for Part 2 = Ejector Pin)

VI.4. Cutting Tools & Accessories:

A cutting tool is a pointed tool mounted in a machine tool and used for cutting materials.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Optional	Required	Optional	Optional	Optional
Category Name	Tool Type	Material	Dimensions	Special	Make	Part No./Model No.
Cutting Tools & Accessories	Tool Type(As per Content List Table)	**Material (As per Content List Table)**	As Actual	As Actual	As Actual	As Actual

E.g.: 1) Cutting Tools & Accessories - Tap - HSS - M3 X 0.5mm - Straight Flute - Emkay -

2) Cutting Tools & Accessories - Drill - HSS - 5mm - - Mirinda -

Content List Table

Tool Type	Drill, Tap, Endmill, Ballmill, Toolholder, Inserts, Sim, Sim Screw, L&Key, Insert Clamp, Nut, Bolt, Groove Screw, Abrasive Grinding Wheel, Grinding Wheel, Screw
Material	HSS, Carbide, Abrasive, Diamond, SS, MS

VII. Packaging Material:

At its most basic level, product packaging serves to protect the product inside. Packaging must keep the product safe during shipment between the manufacturing facility and the retailer and must prevent damage while the product sits on the shelf.

VII.1. Suitcase:

A suitcase is a form of luggage. It is a rectangular container with a handle and is typically used to carry material.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7
Required	Required	Required	Optional	Required	Required	Optional
Category Name	Suitcase Type	Dimension	Part No.	Color	Make	Material
Suitcase	**Suitcase type(As per Content List Table)**	As Actual	As Actual	**Color(As per Content List Table)**	As Actual	**Material(As per Content List Table)**

E.g.: 1) Suitcase - Without Wheel - 59 x 48 x22 cm – CHAMP-6642 SUITCASE 59 - Grey – Princeware - Polypropylene

Content List Table

Suitcase Type	Without Wheel, With Wheel
Colour	Grey, Brown, Light Blue
Material	Polypropylene

VII.2. Foam:

Foams are materials formed by trapping pockets of gas in a liquid or solid.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Optional	Optional	Required
Category Name	Foam Type	Dimension	Color	Material	Make
Foam	**Foam Type(As per Content List Table)**	As Actual	**Color(As per Content List Table)**	**Material(As per Content List Table)**	As Actual

E.g.: 1) Foam – Hitlon – 1400 x 5mm x 80Mtr – White - EPE - Khushi Multipack Solution

Content List Table

Foam Type	Hitlon, Bubble
Color	For Hitlon: White For Bubble: Transparent White
Material	Bubble foam material: Plastic Hitlon foam material: EPE

VII.3. Packing Polybag:

A plastic bag, poly bag, or pouch is a type of container made of thin, flexible, plastic film, nonwoven fabric, or plastic textile.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Optional	Required	Optional	Required	Required
Category Name	Packing Polybag Weight	Dimension	Color	Material	Make
Packing Polybag	**Packing Polybag Weight(As per Content List Table)**	As Actual	**Color(As per Content List Table)**	**Material(As per Content List Table)**	As Actual

E.g.: Packing Polybag – 30 gm – 24 x 7cm - Transparent White – Plastic – Gold Coin / Lotus International

Content List Table

Foam Type	Hitlon, Bubble
Color	Transparent White
Material	Plastic
Pouch Weight	gm

VII.4. Corrugated Box:

Cardboard boxes are industrially prefabricated boxes, primarily used for packaging goods and materials. Specialists in industry seldom use the term cardboard because it does not denote a specific material.

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6
Required	Required	Required	Required	Optional	Required
Category Name	No. of Ply	Dimension	Color	Material	Make
Corrugated Box	**No. of Ply(As per Content List Table)**	As Actual	**Color(As per Content List Table)**	**Material(As per Content List Table)**	As Actual

E.g.: Corrugated Box – 5 ply – 330 x 330 x 860mm – Brown - Paper – Corropack

Content List Table

No. of Ply	5 Ply, 7 Ply
Color	Brown
Material	Paper

VII.5. DUST COVER:

Nomenclature:

Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
Required	Required	Required	Required	Optional	Required	Optional	Optional
Category Name	Nature of manufacturing	Model Name	Colour	Dimensions	Make	Material	Inventory Packaging
Dust cover	As per content list table	As actual	As per content list table	As actual	As actual	As per content list table	As per content list table

E.g.: Dust cover - Outsource - Vista - Transparent white -355x456x165mm - Generic - PVC Plastic - Bulk

Content List Table:

Nature of manufacturing	Outsource
Colour	Transparent white
Material	PVC Plastic