



## ASCENX PART NAME STANDARD PROCEDURE

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**Title:** ASCENX PART NAME STANDARD PROCEDURE

**Summary:** Describe the standards of naming for new parts.

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Name		Initial / Date	Distribution Restriction
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**ASCENX PART NAME STANDARD PROCEDURE****1. OVERVIEW**

This procedure establishes the rules for part description on APDM. This document provides the guideline and is to be used with APDM.

**2. SCOPE**

This procedure applies when create new part number on APDM.

**3. DEFINITIONS**

RES: Resistor

CAP: Capacitor

LED: Light Emitter Diode

DC: Document Control

P/N: Part Number

OD: Outside Diameter

ID: Inside Diameter

THK: Thickness

BW: Belt Width

**4. ROLES AND RESPONSIBILITIES**

All engineers to create a new part have to follow this standard for naming.

**5. REFERENCE DOCUMENTS AND WEB ADDRESSES**

N/A

**6. REQUIRED TOOLS AND EQUIPMENTS**

N/A

**7. PREPARATIONS AND WARNINGS**

N/A

## ASCENX PART NAME STANDARD PROCEDURE

**8. PROCEDURE STEPS**

Note: Fields are separated by a comma (,)

**8.1. RESISTOR**

RES	A	B	C	D	E
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**A:** Family

**B:** Resistance value

**C:** Power Rate

**D:** Tolerance

**E:** Package/mounting type

**Note:**

- Family of resistor such as: Carbon film, Metal film, Metal oxide film, Thick film, Thin film ...
- Value of resistance in ohm.

For example:

100 ohm is showed as 100 ohm

10,000 ohm is showed as 10K

1,000,000 ohm is show as 1M

- Tolerance of resistance in %.

For example:

+/-1% is showed as 1%

+1%, -5%

- Power rate. For example in common case: 1/8W, 1/4W, 1/2W, 1W, 2W.
- Package/mounting type. For example in common case: THRU (Through Hole), 0603, 0805...

**EX: RES, CARBON FILM, 10K, 1/8W, 1%, 0603**

**8.2. CAPACITOR**

CAP	A	B	C	D	E
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**A:** Family.

**B:** Capacitance

**C:** Voltage rate

## ASCENX PART NAME STANDARD PROCEDURE

D: Tolerance

E: Package/mounting type

**Note:**

- Family of capacitor. For example in common case: Aluminum, Tantalum, Electric Double Layer, Ceramic, Mica, Film, Thin Film, Niobium Oxide...
- All value in Fara and unit follow up to Manufacturer's value unit. For example in common case: 10uF, 100pF, 10nF....
- Voltage rate in vol. For example: 10V, 50V, 1KV...
- Package/mounting type. For example in common case: THRU (Through Hole), 0603, 0805...

**EX: CAP, CERAMIC, 10uF, 35V, 5%, 0805**

### 8.3. INDUCTOR

INDUCTOR	A	B	C	D
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A: Inductance value

B: Tolerance

C: Current

D: Package/mounting type

**Note:**

- All value in miliHenry. For example: 10mH, 100mH.
- Tolerance of inductance in %.
- Current of inductance in ampere. For example in common case: 1A, 0.5A...
- Package/mounting type. For example in common case: THRU (Through Hole), 0603, 0805...

**EX: INDUCTOR, 10mH, 5%, 5A, 0603**

### 8.4. DIODE

DIODE	A	B	C	D	E
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A: Diode Type

B: Manufacturer part number

C: Current

D: Voltage

## ASCENX PART NAME STANDARD PROCEDURE

E: Package/mounting type.

**Note:**

- Diode Type. For example: Zener, Schottky, rectifier.
- Manufacturer part number such as: 1N4001, 1N4148...
- Current of diode in ampere. For example in common case: 1A, 0.5A...
- Voltage of diode. Voltage forward, if diode type is rectifier or schocky. Voltage zener, if diode type is zener.

**EX: DIODE, RECTIFIER, 1N4001, 1A, 50V, THRU**

**8.5. LED**

LED	A	B	C	D	E	F
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A: Color

B: Lens Type

C: Current

E: Voltage

F: Package & mounting type

- Current of LED is showed in ampere. For example in common case: 1A, 0.5A...
- Voltage rate in vol. For example: 10V...
- Package/mounting type. For example in common case: THRU Right angle (Through Hole), ...

**EX: LED, RED, WATER CLEAR, 1A, 50V, THRU RIGHT ANGLE**

**8.6. OSCILLATOR & CRYSTAL**

A	B	C
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A: Type.

B: Frequency of oscillator/crystal.

C: Package & mounting type.

**Note:**

- Type. For example: Oscillator, crystal.
- Frequency of oscillator/crystal value in Hz, and unit follow up Manufacturer's unit value. For example: 100MHz, 40KHz, ...

**EX: OSCILLATOR, 100MHz, 0805**

## ASCENX PART NAME STANDARD PROCEDURE

**8.7. CONNECTOR**

CONN	A	B	C	D	E
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**A:** Connector type

**B:** Number of Positions

**C:** Male/Female

**D:** Pitch (in inch)

**E:** Package/mounting type

**Note:**

- Connector type. For example: header, D-sub, terminal...
- Number of Positions. Specially for header type, number of positions indicate as header rows x positions per row. For example: 2ROWx40POS, D-SUB, 25POS (2row), D-SUB, HD 25 POS (3row)
- Package/mounting type. For example: THRU, SMD...

**EX: CONN, HEADER, 2ROWx20POS, .1INCH, THRU**

**8.8. IC**

IC	A	B	C
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**A:** Manufacture part number

**B:** Short description of function

**C:** Package/mounting type

**EX: IC MC10H131, DUAL D FLIP-FLOP, DIP 16**

**8.9. FUSE**

FUSE	A	B	C
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**A:** Max current of fuse

**B:** Voltage of fuse

**C:** Package/mounting type

**EX: FULSE 5A, 250V, 0805**

**8.10. TRANSISTOR**

TRANSISTOR	A	B	C	D	E
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**ASCENX PART NAME STANDARD PROCEDURE**

**A:** Transistor type                      For example: BJT, FET, Triac, Thysistor...

**B:** Family                                      For Example: NPN, PNP...

**C:** Current - Collector (Ic) (Max)

**D:** Voltage - Collector Emitter Breakdown (Max)                      (in ampere)

**E:** Package/mounting type

**8.11. THERMISTOR**

THERMISTOR	A	B
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**A:** Operating Temperature.                      For example: -80~150 C

**B:** Resistance in Ohms @ 25°C

**D:** Package/mounting type

**8.12. VARIABLE**

VAR	A	B	C	D
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**A:** Type                                      For example: Resistor, capacitor, inductor...

**B:** Variable Value                                      (in Ohm). For Example: 10 ohm, 10K, 1M

**C:** Current                                      (Optional for resistor, capacitor)

**D:** Power rate                                      (Optional for capacitor, inductor)

**E:** Voltage rate                                      (Optional for resistor)

**F:** Tolerance                                      For example: 1%, 5%...

**G:** Package/mounting type

**8.13. SWITCH**

SW	A	B	C	D	E
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**A:** Actuator type                      For example: Slide, Keypad, Keylock, Rocker, Push button, Toggle...

**B:** Circuit                                      For example: DPDT, DPST, DPST-NO, DPST-NC, SP3T.....

**C:** Current rating                      For example: 1A, 2.5A

**D:** Voltage                                      For example: 12VDC, 24VAC

**E:** Mounting type                      For Example: Panel mounting, Through hole, Snap on

**EX: SW, PUSH, SPST MOM, .1A, 14VDC, PCB (MFG# ESE-20C441)**

**8.14. RELAY**



**ASCENX PART NAME STANDARD PROCEDURE**

RELAY	A	B	C	D	E	F	G
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**A:** Relay type                      For example: Current sense, General purpose, Reed, Safety...

**B:** Circuit                              For example: DPDT, DPST .....

**C:** Coil current                      For example: 0.1A, 0.25A

**D:** Coil voltage                      For example: 12VDC, 115VAC

**E:** Current output                      For example: 3A, 5A

**F:** Voltage output                      For example: 12VDC, 115VAC

**G:** Mounting type                      For Example: Chassis mounting, DIN rail, Socket, SMT (Surface mount)

**EX: RELAY, TELECOM, DPDT, 4.5VDC, SMT**

**8.15. TRANSFORMER**

TRANSF	A	B	C	D	E	F	G	H
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**A:** Transformer type                      For example: ISO, Auto, Frequency (250 kHz...), BALUN (400MHZ...), ...

**B:** Power                                  For example: 15VA, 40VA, .....

**C:** Ratio                                  For example: 1:10, 1:100, 1:1000.....

**D:** Inductance                      For example: 1.28nH, 2nH, 3nH

**E:** Voltage input                      For example: 220VAC, 115VAC

**F:** Current Output                      For example: 5A, 7A,...

**G:** Voltage output                      For Example: 3.3V, 5V, 12V,...

**H:** Mounting type                      For Example: Free hanging, Panel mount, PCB SMD....

**EX: TRANSF, BALUN, 2.45GHZ, 0603**

**8.16. SCHEMATIC DIAGRAM**

A	TOP ASSY	SCHEMATIC NAME
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**A:** SCHEMATIC(WIRING DIAGRAM) or DIAGRAM

For example: SCHEMATIC, Y-SLIDER DEVELOP, FILTER BOARD

**8.17. TEMPLATE DRAWING**

## ASCENX PART NAME STANDARD PROCEDURE

TEMPLATE	A	B	C
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**A:** Tool Name For example: OrCAD, AutoCAD, ProE, ...

**B:** Size For example: B-SIZE, D-SIZE, .....

**C:** Organization Name For example: AscenX, Intel, KLA-Tencor.....

**EX: ORCAD, D-SIZE, KLA-TENCOR**

**8.18. CABLE ASSEMBLIES**

ASSY	CABLE	A
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**A:** Function For example: AudioVideo, Power, ...

**8.19. TUBE/PIPE ASSEMBLIES**

ASSY	TUBE	A	B
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**A:** ID For example: ID1/8, ...

**B:** OD For example: OD1-1/2...

**8.20. PCB FAB**

FAB	A	B
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**A:** Project Name

**B:** Name of PCB

**8.21. WIRE**

WIRE	A	B	C
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**A:** Wire Size For example: AWG1, AWG2, ...

**B:** Color For example: GRN, YEL, ...

**C:** Stranding For example: solid, multi-conductor

**8.22. HEAT SHRINK TUBING**

HEAT SHRINK	A	B	C
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**A:** Type For example: Normal, Dual, ThinWal, ...

**B:** InnerDiameterSupplied(unit of value in inch → “)

**C:** InnerDiameterRecovered((unit of value in inch → “)

**8.23. POWER SUPPLY**

**ASCENX PART NAME STANDARD PROCEDURE**

PS	A	B	C	D
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**A:** Input value                      For example: 0.5A-220VAC

**B:** Output value                      For example: 5A@5V/1A@12V

**C:** Power Rating                      For example: 25W

**D:** Type                      For example: DC-DC, AC-DC

**8.24. NUT**

NUT	A	B	C
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**A:** TYPE                      For Example: Hex, Square, Lock...

**B:** THREAD SIZE

**C:** MATERIAL                      For Example: SST, ST...

**EX:** NUT, HEX, #10-32, SST

**8.25. SCREW**

SCREW	A	B	C	D	E
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**A:** HEAD STYLE                      For Example: Pan, Button, Binding...

**B:** DRIVER STYLE                      For Example: Phillips, Slotted...

**C:** THREAD SIZE

**D:** LENGTH

**E:** MATERIAL                      For Example: SST, ST...

**EX:** SCREW, BUTT, PHIL, #10-32 X 1/2", SST

**8.26. BOLT**

BOLT	A	B	C	D
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**A:** HEAD STYLE                      For Example: T-Slot, Heavy Hex ...

**B:** THREAD SIZE

**C:** LENGTH

**D:** MATERIAL                      For Example: SST, ST...

**EX:** BOLT, HEX, #10-32 X 1/2", SST

**8.27. WASHER**

**ASCENX PART NAME STANDARD PROCEDURE**

WASHER	A	B	C	D	E	F
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**A: SHAPE**

For Example: Round, Spring Lock, Square...

**B: SIZE**
**C: THK**
**D: ID**
**E: OD**
**F: MATERIAL**

For Example: SST, ST...

**EX: WASHER, SPRING LOCK, #6, 1/2 ID, 1/4OD, 1/2 THK, SST**
**8.28. SPACER**

SPACER	A	B	C	D	E	F
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**A: TYPE**

For Example: Round, Hex...

**B: SIZE SCREW**
**C: LENGTH**
**D: ID**
**E: OD**
**F: MATERIAL**

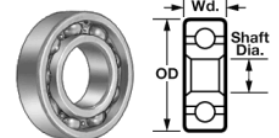
For Example: SST, ST...

**EX: SPACER, ROUND, #10 X 5/32", 2"ID, 1/2"OD, SST**
**8.29. PEM**

PEM	A
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**A: TYPE AND MATERIAL- THREAD CODE- LENGTH CODE- FINISH**
**EX: PEM, SO-440-8-ZI**
**EX: PEM, S-440-8-ZI**
**8.30. BEARING**

BEARING	A	B	C	D	E
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ASCENX PART NAME STANDARD PROCEDURE

A: TYPE For Example: Ball, Roller, Sleeve...

B: ID

C: OD

D: W

E: MATERIAL For Example: SST, ST, DELRIN...

EX: BEARING, BALL, 1/4"ID, 5/8"OD, .196"W, SST

8.31. O-RING

O-RING	A	B	C	D	E
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A: TYPE For Example: Round, Square...

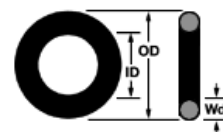
B: ID

C: OD

D: W

E: MATERIAL For Example: Buna-N, Silicone...

EX: O-RING, ROUND, 1/4"ID, 5/8"OD, .196"W, SILICON



8.32. BELT

BELT	A	B	C	D
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A: TYPE For Example: Timing, Flat, V Belt

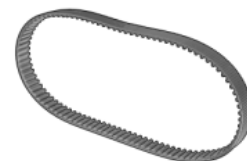
B: TRADE SIZE

C: W

D: MATERIAL For Example: Urethane, Neoprene, Rubber

EX: BELT, TIMING, 1280-8M, 12MM W, NEOPRENE

BELT, TIMING, 115XML, 12MM W, NEOPRENE



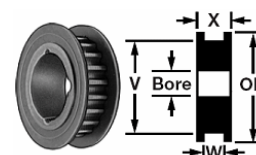
8.33. PULLEY

PULLEY	A	B	C	D	E
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A: TYPE For Example: Timing, Flat, V Belt

B: PITCH

C: WIDTH



**ASCENX PART NAME STANDARD PROCEDURE**

**D: OD**

**E: MATERIAL** For Example: ST, AL, Nylon, Brass...

**EX: PULLEY, TIMING BELT, 8MM, .6"W, 4.9"OD, ST**

**8.34. DESIGN PART AND LABEL**

<b>A</b>	<b>B</b>	<b>C</b>
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**A: NAME OF PART**

**B: NAME OF RELATED ASSEMBLY OR PROJECT NAME**

**C: REFERENCE PART OR FUNCTION OF PART**

**EX: BRACKET, Y-SLIDER, MOTOR**

**EX: LABEL, PWR BOX, COVER**


**8.35. ASSEMBLY**

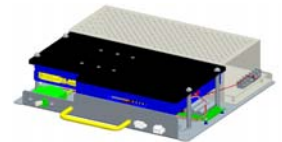
<b>ASSY</b>	<b>A</b>	<b>B</b>	<b>C</b>
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**A: NAME OF ASSEMBLY**

**B: NAME OF RELATED ASSEMBLY OR PROJECT NAME**

**C: FUNCTION OF ASSEMBLY**

**EX: ASSY, AMP, Y-SLIDER (NO FUNCTION)**


**9. APPENDIX**

**TBD**