

Toshiba Dynabook Portege X30L-J

Linux Mint 20.1 with Mate desktop

Engineers manual

v20210407

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1 Intention

The intention of this document is to create a manual for the standard computer user wanting to use Linux.

ONE machine - ONE operating system - ONE manual.

2 User manual

By this I mean the end user manual versus the technicians manual versus this engineers manual.

3 Versions

The version number of this manual is in its own filename. It is the reverse date.

YYYYMMDD_filename

The extended type is:

YYYYMMDD_hhss_filename

which may be done if several versions are created in one day.

The reason for this versioning system is for easy organisation in any file system on any platform.

4 Improvement suggestions

Found in the Technicians manual

5 Description

This document outlines the engineering details of a Toshiba Dynabook Portege X3.0L-J notebook computer running Linux Mint version 20.1.

6 The machine

Taken from:

Menu → System Reports → System Information.

System: Kernel: 5.8.0-48-generic x86_64 bits: 64 compiler: N/A Desktop: MATE 1.24.0 wm: marco

dm: LightDM Distro: Linux Mint 20.1 Ulyssa base: Ubuntu 20.04 focal

Machine: Type: Laptop

System: Dynabook

product: PORTEGE X30L-J v: PCR10A-02P003 serial: <filter>

Chassis: type: 10 v: Version 1.0 serial: <filter>

Mobo: Dynabook model: A010D/0001 v:

Version A0 serial: <filter> UEFI: Dynabook

v: Version 1.90 date: 02/04/2021

Battery: ID-1: BAT1 charge: 37.7 Wh condition: 54.1/53.1 Wh (102%)
volts: 15.7/15.4
model: G71C000M8221 serial: <filter> status: Discharging

CPU: Topology: Quad Core model: 11th Gen Intel Core i5-1135G7 bits: 64
type: MT MCP
arch: Tiger Lake rev: 1 L2 cache: 8192 KiB
flags: avx avx2 lm nx pae sse sse2 sse3 sse4_1 sse4_2 ssse3 vmx
bogomips: 38707
Speed: 851 MHz min/max: 400/4200 MHz
Core speeds (MHz): 1: 608 2: 969 3: 3480 4: 1269
5: 1080 6: 666 7: 3437 8: 1064

Graphics: Device-1: Intel driver: i915 v: kernel bus ID: 00:02.0 chip ID:
8086:9a49
Display: x11 server: X.Org 1.20.9
driver: modesetting unloaded: fbdev,vesa
compositor: compiz resolution: 1920x1080~60Hz
OpenGL: renderer: Mesa Intel Xe Graphics (TGL GT2) v: 4.6 Mesa

20.2.6
direct render: Yes

Audio: Device-1: Intel driver: snd_hda_intel
v: kernel bus ID: 00:1f.3 chip ID: 8086:a0c8

Sound Server: ALSA v: k5.8.0-48-generic

Network: Device-1: Intel
driver: iwlwifi v: kernel
port: 3000 bus ID: 00:14.3 chip ID: 8086:a0f0
IF: wlo1 state: up mac: <filter>

Device-2: Intel Ethernet I219-V
driver: e1000e v: 3.2.6-k port: efa0 bus ID: 00:1f.6
chip ID: 8086:15fc
IF: eno2 state: down mac: <filter>

Drives: Local Storage: total: 931.51 GiB used: 492.28 GiB (52.8%)
ID-1: /dev/nvme0n1
vendor: Crucial model: CT1000P1SSD8 size: 931.51 GiB
speed: 31.6 Gb/s lanes: 4 serial: <filter>
Partition: ID-1: /
size: 915.40 GiB used: 492.27 GiB (53.8%) fs: ext4 dev:
/dev/nvme0n1p2

USB: Hub: 1-0:1 info: Full speed (or root)
Hub ports: 1 rev: 2.0
chip ID: 1d6b:0002
Hub: 2-0:1 info: Full speed (or root)
Hub ports: 4 rev: 3.1 chip ID: 1d6b:0003

Hub: 3-0:1 info: Full speed (or root)
Hub ports: 12 rev: 2.0 chip ID: 1d6b:0002
Device-1: 3-5:2 info: Siliconworks SiW HID Touch Controller type: HID
driver: hid-generic,hid-multitouch,usbhid rev: 2.0 chip ID:
5348:1201
Device-2: 3-6:3 info: Chicony Web Camera - HD type:
Video driver: uvcvideo rev: 2.0
chip ID: 04f2:b6f0
Device-3: 3-10:4 info: Intel type: Bluetooth driver: btusb rev: 2.0 chip ID:
8087:0026
Hub: 4-0:1 info: Full speed (or root)
Hub ports: 4 rev: 3.1 chip ID: 1d6b:0003
Sensors: System Temperatures: cpu: 53.0 C mobo: 53.0 C
Fan Speeds (RPM): N/A

7 Chip sets

The chip sets used

8 3D part files

Created in CAD packages
FreeCAD preferably

9 3D Printing replacement parts

10 Electrical Schematics

11 Disabling the IME

Disabling the Intel Management Engine. Refer to blogs at Puri.sm

12 ToDos

Probably not much as engineering handled by Toshiba

12.1 First item

13 Glossary

~ = Approximately equal to
(tild
e)
OS = Operating System

LAN

Local Area Network

14 Forks

Feel free to fork these manuals. They are GNU licence.

15 Contribute

If this manual has helped you and you feel you want to contribute, That or motivate me to update this manual and write other ones. Please do so at

<https://www.patreon.com/dionpatelis>