Apple Inc. v.
Papst Licensing GmbH & Co., K

P.T.A.B. Proceeding No. IPR2016-01839

U.S. Patent No. 6,470,399

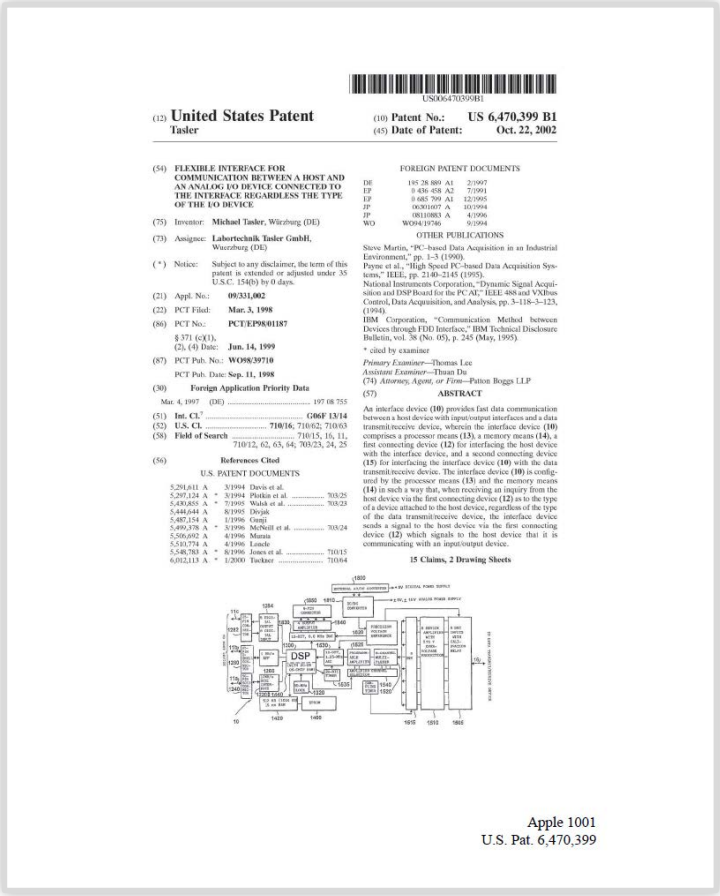
January 16, 2018

Instituted Grounds (’399 Patent)

Ground	Claims	Type	Primary Reference	Secondary Reference(s)
IPR2016-01839 (’399 Patent)				
1	1, 3, 5, 11, 14	§ 103	Kawaguchi	Schmidt and the “sampling ci references (Horowitz, Burr-Br Intersil, MT-090, Oppenhei

U.S. Patent 6,470,399 describes an interface device

The ’399 patent discloses techniques to make “the interface device app to the host device as a hard disk.”



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(12) **United States Patent**
Tasler

(10) **Patent No.: US 6,470,399 B1**
(45) **Date of Patent: Oct. 22, 2002**

(54) **FLEXIBLE INTERFACE FOR COMMUNICATION BETWEEN A HOST AND AN ANALOG I/O DEVICE CONNECTED TO THE INTERFACE REGARDLESS THE TYPE OF THE I/O DEVICE**

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§ 371 (c)(1),
(2), (4) Date: **Jun. 14, 1999**

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(51) **Int. Cl.**[7] **G06F 13/14**
(52) **U.S. Cl.** **710/16**; 710/62; 710/63
(58) **Field of Search** 710/15, 16, 11, 710/12, 62, 63, 64; 703/23, 24, 25

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(57) **ABSTRACT**

An interface device (**10**) provides fast data communication between a host device with input/output interfaces and a data transmit/receive device, wherein the interface device (**10**) comprises a processor means (**13**), a memory means (**14**), a first connecting device (**12**) for interfacing the host device with the interface device, and a second connecting device (**15**) for interfacing the interface device (**10**) with the data transmit/receive device. The interface device (**10**) is configured by the processor means (**13**) and the memory means (**14**) in such a way that, when receiving an inquiry from the host device via the first connecting device (**12**) as to the type of a device attached to the host device, regardless of the type of the data transmit/receive device, the interface device sends a signal to the host device via the first connecting device (**12**) which signals to the host device that it is communicating with an input/output device.

15 Claims, 2 Drawing Sheets

Apple 1001
U.S. Pat. 6,470,399

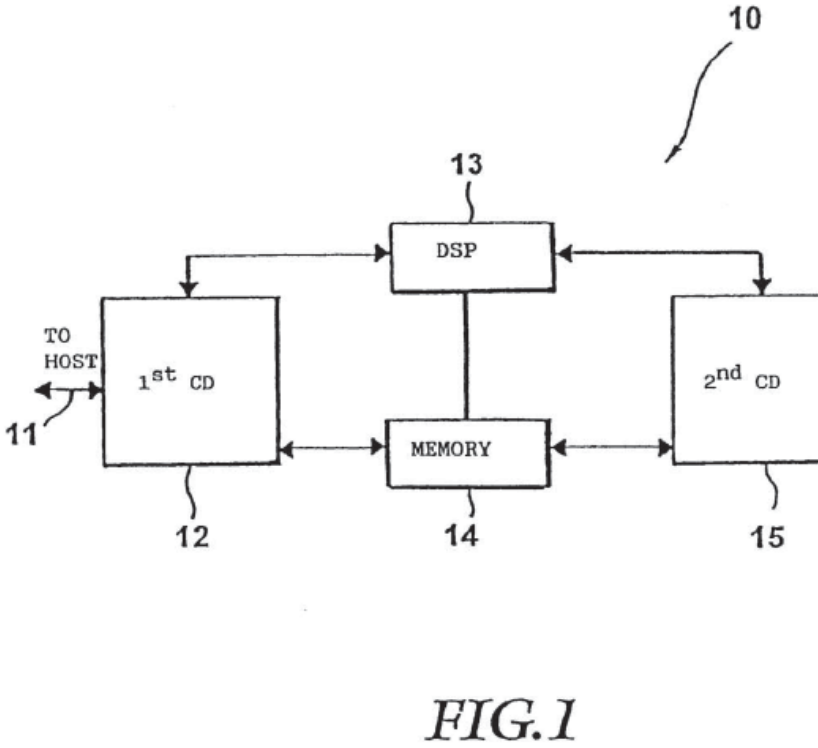

FIG.1

’399 Claim 1

An interface device for communication between a host device, which comprises drivers for input/o
customary in a host device and a multi-purpose interface, and a data transmit/receive device, the
transmit/receive device being arranged for providing analog data, comprising:

a processor;

a memory;

a first connecting device for interfacing the host device with the interface device via the multi
interface of the host device; and

a second connecting device for interfacing the interface device with the data transmit/receive
the second connecting device including a sampling circuit for sampling the analog data prov
data transmit/receive device and

an analog-to-digital converter for converting data sampled by the sampling circuit into digital

wherein the interface device is configured by the processor and the memory to include a firs
interpreter and a second command interpreter, ***wherein the first command interpret***
configured in such a way that the command interpreter, when receiving an
from the host device as to a type of a device attached to the multi-purpose
the host device, sends a signal, regardless of the type of the data transmit
device attached to the second connecting device of the interface device, to
device which signals to the host device that it is an input/output device cus
host device, whereupon the host device communicates with the interface d
means of the driver for the input/output device customary in a host device,

the second command interpreter is configured to interpret a data request command from the
the type of input/output device signaled by the first command interpreter as a data transfer c
initiating a transfer of the digital data to the host device.

’399 Claim 11

An interface device for communication between a host device, which comprises a multi-purpose in
specific driver for this interface, and a data transmit/receive device, the data transmit/receive devic
arranged for providing analog data, comprising:

a processor;

a memory;

a first connecting device for interfacing the host device with the interface device via the multi
interface of the host device; and

a second connecting device for interfacing the interface device with the data transmit/receive
the second connecting device including a sampling circuit for sampling the analog data provi
data transmit/receive device and

an analog-to-digital converter for converting data sampled by the sampling circuit into digital

where the interface device is configured using the processor and the memory to include a fir
interpreter and a second command interpreter, ***wherein the first command interprete***
configured in such a way that the interface device, when receiving an inqu
host device as to the type of a device attached at the multi-purpose interfa
host device, sends a signal, regardless of the type of the data transmit/rec
attached to the second connecting device of the interface device, to the ho
which signals to the host device that it is an input/output device customary
device, whereupon the host device communicates with the interface device
of the specific driver for the multi-purpose interface, and wherein the second c
interpreter is configured to interpret a data request command from the host device to the typ
input/output device signaled by the first command interpreter as a data transfer command fo
transfer of the digital data to the host device.

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