IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

US Patent No. 7,420,294
Applicants: Taylor; George F. and Raviv; Ofer

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Title: **Smart Power Switch For Broadband Communications Network**

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P.O. Box 1450
Alexandria, VA 22313-1450

DETAILED REQUEST FOR EX PARTE REEXAMINATION OF PATENT

Sir:

In accordance with 35 U.S.C. §302-307 and 37 C.F.R. §1.510, Requestor respectfully requests the Commissioner reexamine US Patent No. 7,420,294 that issued on September 2, 2008 to Applicants Taylor; George F. and Raviv; Ofer (hereinafter "the Taylor '294 Patent"). A copy of the Taylor '294 Patent is attached as Exhibit A. The patent is still enforceable.

I. CLAIMS FOR WHICH REEXAMINATION IS REQUESTED

Reexamination is respectfully requested of claims 1-8 of the Taylor '294 Patent. Independent claim 1 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art US Patent No. 5747888 to Zilberberg (hereinafter "the Zilberberg '888 patent", Exhibit B); or the Zylec corporation website dated October 30 2004 (hereinafter "Zylec website I", Exhibit C); or an article in CED magazine dated June 1999 (hereinafter "*CED* reference", Exhibit D). Dependent claim 2 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I or the *CED* reference.

Dependent claim 3 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I. Dependent claim 4 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I. Dependent claim 7 is invalid under 35 U.S.C. §102(b), as anticipated by the *CED* reference or the prior art Zylec website I. Independent claim 1 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the CED reference, alone or combination, or in combination with US Patent No. 6459175 (hereinafter "US '175", issued on October 1, 2002, Exhibit E) or in combination with the DPS power website dated October 9 2004 (hereinafter "DPS Power I", Exhibit F-3). Dependent claim 2-3 are invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or combination or in combination with ~~,~~ the DPS power website dated October 9 2004 (hereinafter "DPS Power I" and "DPS Power II", Exhibits F-3 and F-4). Dependent claim 4 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with US '175 and/or in combination with the Philips management reference (June 1 1998, Exhibit G, given as Exhibit G-1 (introduction) and Exhibit G-2 (description); all page numbers are taken from Exhibit G-2 unless otherwise indicated) and/or in combination with DPS Power I. Dependent claim 5 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with a reference entitled "Field Monitoring Using Sensor-Nodes with a Web Server", by Fukatsu T et al, *Journal of Robotics and Mechatronics*, Vol.17 No.2, June 20 2005 pp.164-172 (hereinafter *Mechatronics*, Exhibit H). Dependent claim 6 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination. Dependent claim 7 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with US '175 and/or in combination with the Philips management reference. Dependent claim 8 is invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with *Mechatronics* and/or in combination with the Philips management reference.

II. EXPLANATION OF PERTINENCY AND MANNER OF APPLYING CITED PRIOR ART TO EVERY CLAIM FOR WHICH REEXAMINATION IS REQUESTED

a. REEXAMINATION OF CLAIM 1 UNDER 35 U.S.C. §102(b)

As stated above, independent claim 1 is invalid under 35 U.S.C. §102(b), as anticipated by the Zilberberg '888 patent; or Zylec website I; or the *CED* reference.

i. The Zilberberg '888 patent

The Zilberberg '888 patent discloses a back-up system for the supply of electric voltage to the main trunk and secondary amplifier located within a television cable system when an electric fault in the electric supply occurs includes switching members in the system. The switching members may be a relay, a TRIAC or a transistor which are automatically actuated when an electric fault occurs which cause a change of direction of the supply of electricity to the cable system. The switching members may be located within the trunk and may be connected to an in/out supply socket, to a fuse terminal or to a voltage supply selecting socket. The system may feature a plurality of trunk amplifiers connected to an optical receiver, for example, and/or a plurality of trunks connected in a cascade.

Taylor '294 Patent (claim 1)	**Corresponding structure in the Zilberberg '888 patent**
A switching module for providing power to an amplifier in a broadband telecommunications network, comprising	The reference describes such a switching module for providing power to an amplifier as part of a back-up system for the supply of electric voltage to main and secondary amplifiers in television cable systems in case of an electricity fault (entire document, including abstract, all figures, cols 1-6).
a first input port for connection to a first power source	The reference describes such a first input port for connection to a first power source, for example in col 2, lines 16-end; and also with regard to Figures 1-6 and the corresponding description in col 4, line 34-end, bridging to col 6, lines 1-39, Col 6 line 51-65 ,Col 7 line 19-43

a second input port for connection to a second power source	The reference describes such a second input port for connection to a second power source, for example in col 2, lines 16-end; and also with regard to Figures 1-6 and the corresponding description in col 4, line 34-end, bridging to col 6, lines 1-39.
(a) an input/output port for connection to a cable connecting the amplifier with a remote amplifier	The reference describes such an input/output port for connection to a cable connecting the amplifier with a remote amplifier, for example with regard to Col 3 line 2 -43,Col 4 line 40-44,Col 8 line 6-15, and Fig 3A,3B and the corresponding description in Col 4 line 3-5
(b) an output port for connection to the amplifier	The reference describes such an output port for connection to the amplifier, for example with regard to Col 2 line 64-67, Figures 2, 4, 5d, 7 and the corresponding description in Col 3, Col 4 line 18-38, and Col 5 line 56-63.
(c) a controller for (i) connecting the first input port to the output port when power is present at the first input port; connecting the second input port to the output port when power is not present at the first input port, power is present at the second input port, and power is not present at the input/output port; (iii) connecting the input/output port to the output port when power is not present at the first input port, power is not present at the second input port, and power is present at the input/output port; and (iv) connecting the second input port to the input/output port when power is present at the second input port and power is not present at the input/output port,	The reference describes such an automatic controller for connecting input power to output port in and second unit input power to second unit output port. Col 1 line 54-55, Col 3 line 7-8,Col 3 line 22-30, Figure 3A and the corresponding description in Col 3 line 13-52.
wherein the controller comprises a first switch, a second switch, and a	The reference describes such an automatic controller with regard to Col 2

microcontroller to control switching of the first and second switches, wherein the first switch has a first state connecting the first input port to the output port and a second state connecting an output of the second switch to the output port, and wherein the second switch has a first state connecting the second input port to an input of the first switch and a second state connecting the input/output port to the input of the first switch	line 47-end, as well as in Figures 2 and 3, and the accompanying description in Col 5 line 13-15, Col 8 line 23-38, as well as claims 7, 11 and 12.

Thus it is respectfully argued that claim 1 reads on the disclosure of the Zilberberg '888 patent. Therefore, claim 1 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

ii. Zylec website I

The Zylec website I was obtained through the Internet Archive "WayBack" service (http://web.archive.org/web/*/http://zylec.com) http://web.archive.org/web/20050216214757/zylec.com/index.htm shown as Exhibit C-1. According to this service, a snapshot was taken of the website "http://zylec.com" on Oct 30 2004. This snapshot is attached as Exhibit C-2. In addition, a snapshot was taken of the website "http:// www.zylec.com/Products.htm " on Oct 30 2004, which is attached as Exhibit C-3. From this page, the following manual was downloaded: DPS+Design+Practice.pdf, attached as Exhibit C-4. Unless otherwise noted, all references to figures, page numbers and so forth in relation to the Zylec website I refer exclusively to the manual DPS+ Design+Practice.pdf.

The document "DPS+Design+Practice.pdf" is in fact devoted to a complete description of such a back-up system as described with regard to the Taylor '294 Patent.

Taylor '294 Patent (claim 1)	**Corresponding structure in the Zylec website I**
A switching module for providing power to an amplifier in a broadband	The reference describes such a switching module for providing power to an amplifier as part of a back-up system for the supply of electric voltage to main and

telecommunications network, comprising	secondary amplifiers in cable systems in case of an electricity, which may feature optical components (entire document).
(a) a first input port for connection to a first power source	The reference describes such a first input port for connection to a first power source, for example with regard to Figures 1 and 2, pages 4 and 5
(b) a second input port for connection to a second power source	The reference describes such a second input port for connection to a second power source, for example with regard to Figures 1 and 2, and the accompanying description, pages 4 and 5
(c) an input/output port for connection to a cable connecting the amplifier with a remote amplifier	The reference describes such an input/output port for connection to a cable connecting the amplifier with a remote amplifier, for example with regard to Figure 2 and the description on page 5.
(d) an output port for connection to the amplifier	The reference describes such an output port for connection to the amplifier, for example with regard to Figures 1 and 2, and the accompanying description, pages 4 and 5.
(e) a controller for (i) connecting the first input port to the output port when power is present at the first input port; connecting the second input port to the output port when power is not present at the first input port, power is present at the second input port, and power is not present at the input/output port; (iii) connecting the input/output port to the output port when power is not present at the first input port, power is not present at the second input port, and power is present at the input/output port; and (iv) connecting the second input port to the input/output port when power is present at the second input port and power is not present at the input/output port,	The reference describes such a controller for example with regard to Figures 1 and 2, and the accompanying description, pages 4 and 5.

wherein the controller comprises a first switch, a second switch, and a microcontroller to control switching of the first and second switches, wherein the first switch has a first state connecting the first input port to the output port and a second state connecting an output of the second switch to the output port, and wherein the second switch has a first state connecting the second input port to an input of the first switch and a second state connecting the input/output port to the input of the first switch	The reference describes such a controller for example with regard to Figures 1 and 2, and the accompanying description, pages 3-5.

Thus it is respectfully argued that claim 1 reads on the disclosure of the Zylec website I. Therefore, claim 1 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

iii. *CED* reference

The *CED* reference is a magazine article, published in June 1999, which describes how to prevent cable communication outages, for example for cable television transmission, through a back-up system that does not require batteries. The system is described as an "intelligent switching" system to manage system powering.

Taylor '294 Patent (claim 1)	**Corresponding structure in the *CED* reference**
A switching module for providing power to an amplifier in a broadband telecommunications network, comprising	The reference describes such a switching module for providing power to an amplifier as part of a back-up system for the supply of electric voltage to main and secondary amplifiers in television cable systems in case of an electricity fault (entire document).
(a) a first input port for connection to a first power source	The reference describes such a first input port for connection to a first power source, for example in Figures 1-4 and 6, and the corresponding description on pages 1-7.
(b) a second input port for connection	The reference describes such a second input port for connection to a second power source, for example in Figures 1-4

to a second power source	and 6, and the corresponding description on pages 1-7.
(c) an input/output port for connection to a cable connecting the amplifier with a remote amplifier	The reference describes such an input/output port for connection to a cable connecting the amplifier with a remote amplifier, for example for example in Figures 1-4, and the corresponding description on pages 1-5.
(d) an output port for connection to the amplifier	The reference describes such an output port for connection to the amplifier, for example in Figures 1-4 and 6, and the corresponding description on pages 1-7.
(e) a controller for (i) connecting the first input port to the output port when power is present at the first input port; connecting the second input port to the output port when power is not present at the first input port, power is present at the second input port, and power is not present at the input/output port; (iii) connecting the input/output port to the output port when power is not present at the first input port, power is not present at the second input port, and power is present at the input/output port; and (iv) connecting the second input port to the input/output port when power is present at the second input port and power is not present at the input/output port,	The reference describes such a controller for example in Figures 1-4 and 6, and the corresponding description on pages 1-7.
wherein the controller comprises a first switch, a second switch, and a microcontroller to control switching of the first and second switches, wherein the first switch has a first state connecting the first input port to the output port and a second state connecting an output of the second switch to the output port, and wherein the second switch has a first state connecting the second input port to an input of the first switch and a second state connecting the input/output port to the	The reference describes such a controller with regard to Figures 2, 3, 4 and 6 and the accompanying description on pages 1-7.

input of the first switch	

Thus it is respectfully argued that claim 1 reads on the disclosure of the *CED* reference. Therefore, claim 1 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

b. **REEXAMINATION OF CLAIM 2 UNDER 35 U.S.C. §102(b)**

As stated above, dependent claim 2 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I, or by the *CED* reference. Dependent claim 2 depends directly from claim 1, which was shown to be anticipated by the prior art Zylec website I and also by the *CED* reference.

i. Zylec website I

Taylor '294 Patent (claim 2)	**Corresponding structure in the Zylec website I reference**
The switching module of claim 1, further comprising: a switch for selecting a primary mode of operation or a secondary mode of operation.	The reference describes such a switch for selecting a primary mode of operation or a secondary mode of operation, for example with regard to a master mode and a slave mode, in Figures 2 and 3 and the description on pages 5 and 6 ("Operational & Testing Instructions for the DPS system").

ii. *CED* reference

Taylor '294 Patent (claim 2)	Corresponding structure in the *CED* reference.
The switching module of claim 1, further comprising: a switch for selecting a primary mode of operation or a secondary mode of operation.	The reference describes such a switch for selecting a primary mode of operation or a secondary mode of operation, for example with regard to a master mode and a slave mode, as shown on page 6.

Thus it is respectfully argued that claim 2 reads on the disclosure of the Zylec website I reference and also on the disclosure of the *CED* reference. Therefore, claim 2 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

c. **REEXAMINATION OF CLAIM 3 UNDER 35 U.S.C. §102(b)**

As stated above, dependent claim 3 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I. Dependent claim 3 depends directly from claim 1, which was shown to be anticipated by the prior art Zylec website I.

i. Zylec website I

Taylor '294 Patent (claim 3)	**Corresponding structure in the Zylec website I reference**
The switching module of claim 1, further comprising: a switch for selecting a first operating voltage range or a second voltage operating range.	The reference describes such a switch for selecting between two different operating ranges, for example with regard to Figure 2 and the description on page 5 (which show that the switching module accepts power from a local power supply, having a range of 60-90V, or from a high voltage port at a dual power supply) ("Operational & Testing Instructions for the DPS system", page 11).

Thus it is respectfully argued that claim 3 reads on the disclosure of the prior art Zylec website I. Therefore, claim 3 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

d. **REEXAMINATION OF CLAIM 4 UNDER 35 U.S.C. §102(b)**

As stated above, dependent claim 4 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I and also by the *CED* reference. Dependent claim 4 depends directly from claim 1, which was shown to be anticipated by the prior art Zylec website I and also by the *CED* reference.

i. Zylec website I

Taylor '294 Patent (claim 4)	**Corresponding structure in the Zylec website I reference**
The switching module of claim 1, further comprising: a monitoring circuit for communicating status information about the switching module.	The reference describes such a monitoring circuit for communicating status information about the switching module, for example with regard to Figures 2-4 and the description on pages 5-7 (the lights show which ports are active) ("Operational & Testing Instructions for the DPS system", page 11).

ii. *CED* reference

Taylor '294 Patent (claim 4)	Corresponding structure in the CED website I reference.
The switching module of claim 1, further comprising: a monitoring circuit for communicating status information about the switching module.	The reference describes such a monitoring circuit for communicating status information monitoring the power information about switching module. (page 5 line 10-15,)

Thus it is respectfully argued that claim 4 reads on the disclosure of the Zylec website I reference and also the *CED* reference. Therefore, claim 4 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

e. **REEXAMINATION OF CLAIM 7 UNDER 35 U.S.C. §102(b)**

As stated above, dependent claim 7 is invalid under 35 U.S.C. §102(b), as anticipated by the prior art Zylec website I. Dependent claim 7 depends directly from claim 1, which was shown to be anticipated by the prior art Zylec website I.

Taylor '294 Patent (claim 7)	**Corresponding structure in the Zylec website I reference**
The switching module of claim 1, further comprising means for monitoring the	The reference describes such means for monitoring the status of the power sources, for example with regard to

status of the power sources.	Figures 2-4 and the description on pages 5-7.

Thus it is respectfully argued that claim 7 reads on the disclosure of the Zylec website I reference. Therefore, claim 7 of the Taylor '294 Patent is invalid under 35 U.S.C. §102(b).

f. **REEXAMINATION OF INDEPENDENT CLAIM 1 UNDER 35 U.S.C. §103**

To the extent that the examiner finds that claim 1 is not anticipated by the cited prior art references, it is also invalid under 35 USC 103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, or in combination with US '175 and/or in combination with DPS Power.

As described above, all of the references teach a dual power source back-up system, which includes the ability to switch between two power sources and also to switch between power offered by the first and second power sources, and also power from a remote amplifier, for a telecommunications system. Furthermore, to the extent that the examiner determines that any features are not taught specifically in any of the references, any such feature would be inherent to such a system or alternatively would be a mere design choice, and hence would clearly be obvious.

For example, as used in the claim, the word "controller" may be very broadly construed as it has mainly functional limitations. All of the above references describe such functional limitations. With regard to the structural elements of "first switch", "second switch" and "microcontroller", no further restrictions are placed in claim 1. All of the above references clearly teach switching. The term "microcontroller" simply means an element within the controller that causes the switching, which is also present in the above references with regard to various types of automatic actuation of switching. Furthermore, microcontrollers are well known in the art and would be an obvious design choice for one of ordinary skill in the art.

Indeed, many different types of systems featuring multiple power sources were known to use microcontrollers to switch between these power sources. For example, US '175 clearly describes a system featuring two power sources (power converters) controlled by a microprocessor (for example, Figure 10 and the accompanying

description in cols 48-66). Thus, such a design concept was known for many systems which deliver power from a plurality of power sources, and was used to provide control over switching between the power sources.

Furthermore, DPS Power I provides a set of figures, in a presentation as described below, that exactly match Figures 2-18 (or at least are substantially similar thereto) of the Taylor '294 Patent. The DPS Power website was obtained through the Internet Archive "WayBack" service. (http://web.archive.org/web/*/http://www.dpspower.net) http://web.archive.org/web/20041014065416/ www.dpspower.net/. According to this service, a snapshot was taken of the website "http:// www.dpspower.net" on October 14 2004, including the above home page, given as Exhibit F-1. A snapshot was taken of the demos page "http://web.archive.org/web/20041009140919/ www.dpspower.net/DemosFTI.htm" on October 9 2004, which is attached as Exhibit F-2. From this webpage, a Powerpoint presentation was downloaded, containing figures that exactly or substantially match Figures 2-18 of the Taylor '294 Patent, given as Exhibit F-3 (and referred to herein as DPS Power I). The Powerpoint drawings clearly demonstrate all of the basic principles of claim 1 of the Taylor '294 Patent, which is unsurprising as they are identical to Figures 2-18 of the Taylor '294 Patent.

As a general note, the disclosure of the Zylec website and that of www.dpspower.net were found to generally be highly overlapping if not identical.

g. **REEXAMINATION OF DEPENDENT CLAIM 2 UNDER 35 U.S.C. §103**

To the extent that the examiner finds that claim 2 is not anticipated by the cited prior art references, it is also invalid under 35 USC 103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, or in combination with DPS Power I and/or DPS Power II. The additional recitation provided by claim 2 is "a switch for selecting a primary mode of operation or a secondary mode of operation". The "primary" and "secondary" modes of operation are not specified and hence could, for example, relate to power being

provided from any available source cited in claim 1 as the "primary" mode and power being provided from any other available source cited in claim 1 as the "secondary" mode. Zylec website I relates to such a switch in that two modes of operation are provided ("master" and "slave" mode). However any two modes of operation could correspond to claim 2; having two modes is an obvious design choice, as described for example with regard to Zylec website I.

DPS Power I provides a series of figures which show two different modes of operation as selected by a switch, as previously described.

As previously described, a snapshot was taken of the website "http://www.dpspower.net" on October 9 2004, including a snapshot of the webpage "http://web.archive.org/web/20041009192225/www.dpspower.net/SupportQ&A.htm", which is attached as Exhibit F-4 (and referred to herein as DPS Power II). This page includes a detailed set of questions and answers on the back-up system as described with regard to the Taylor '294 Patent.

Taylor '294 Patent (claim 2)	Corresponding structure in the DPS Power II reference.
The switching module of claim 1, further comprising: a switch for selecting a primary mode of operation or a secondary mode of operation.	The reference describes such a switch for selecting a primary mode of operation or a secondary mode of operation, for example with regard to a master mode and a slave mode, as shown in the answers to questions 5-9.

h. **REEXAMINATION OF DEPENDENT CLAIM 3 UNDER 35 U.S.C. §103**

To the extent that the examiner finds that claim 3 is not anticipated by the cited prior art references, it is also invalid under 35 USC 103, as obvious over the Zilberberg '888 patent, Zylec website I, and the *CED* reference. The additional recitation provided by claim 3 is "a switch for selecting a first operating voltage range or a second voltage operating range ". Zylec website I relates to such a switch in that two power sources having different voltage ranges are provided ("local power source" and "high voltage power source"), as described above. Such a recitation would be

obvious over any of Zilberberg '888 patent, Zylec website I, and the *CED* reference, as an obvious design choice, and also in combination with US Patent No. 6459175.

US Patent No. 6459175 also describes a switch for selecting between different voltage operating ranges, again showing that this was a clear and obvious design choice for any type of system featuring multiple power sources. On col 59, lines 60-end, bridging to col 60, lines 1-5, it is stated "To assist in this process, the power supply (26 or 64) module's firmware may have an optional look-up table. This software is a chart of average load schedules for most of the common supplied devices. There are also voltage ranges within which certain classes of devices operate. The voltage ranges are not very important, but they do establish "sweet spots" along the voltage ladder where the power supply module might expect to encounter a cellular phone-type supplied device and not a portable computer. Resistive values (i.e., load) are far easier to ballpark than voltages, so this look-up table expresses anticipated load as a function of voltage, compared to device types."

One of ordinary skill in the art would be motivated to provide such a switch in order to accommodate devices requiring different levels of power within the telecommunications system for example.

DPS Power II

Taylor '294 Patent (claim 3)	**Corresponding structure in the DPS Power II reference**
The switching module of claim 1, further comprising: a switch for selecting a first operating voltage range or a second voltage operating range.	The reference relates to a series of questions and answers which discuss switching between two different operating ranges.

i. **REEXAMINATION OF DEPENDENT CLAIM 4 UNDER 35 U.S.C. §103**

To the extent that the examiner finds that claim 4 is not anticipated by the cited prior art references, it is also invalid under 35 USC 103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with US '175 and/or in combination with the Philips management reference and/or in combination with DPS Power I. The additional recitation provided by claim 4 is "a monitoring circuit for communicating status information about the switching module". Zylec website I relates to such a monitoring circuit for communicating status information (as exemplified by the multiple lights, showing the operating and connection status of the switching module), as described above. Such a recitation would also be obvious over any of Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, as an obvious design choice, and also in combination with US '175 (as described for example in col 50, lines 1-50, which relate to a monitoring circuit for communicating status information about switching between the different power sources and also about the status of the switch itself which controls the use of each such supply) and/or the Philips management reference.

The Philips management reference describes a system for monitoring the performance of broadband components, including power sources, as part of the "Diamond Diagnostics element management system". The document describes such remote monitoring of power sources for example on pages 1 and 4 (the latter including a diagram); page 37 describes a radio frequency transponder for communicating such information remotely. The diagram on page 4 also shows the use of such a transponder for communicating status information about the power supply remotely.

As previously described, DPS Power I also describes communication of information about the switching module, including for example showing different colored lights.

j. **REEXAMINATION OF DEPENDENT CLAIM 5 UNDER 35 U.S.C. §103**

Claim 5 reads as follows: The switching module of claim 4, further comprising: a humidity sensor for sensing humidity within the switching module.

Dependent claim 5 merely incorporates the use of a humidity sensor for sensing humidity within the previously taught system. It would have been obvious to one of ordinary skill in the art to use such a humidity sensor, because cable television systems operate outdoors under a wide variety of weather and environmental conditions. Moisture is known to damage electrical circuits. Therefore, including such a humidity sensor would be an obvious design choice.

In addition, the use of humidity sensors for various components deployed in the field, such as for example cable television components, has been known in the art for some time. For example and without limitation, *Mechatronics* teaches the use of such a humidity sensor in a field deployed component. The field deployed component is a "field server" which includes a combination of several sensors with a web server, to allow the measurements of the sensors in the field to be accessed through the Internet.

As stated in Section 2.1 of the article, "Sensors connected to the Field Server monitor air temperature, relative humidity, and intensity of solar radiation by standard equipment". It should be noted that humidity is stated to be measured by "standard equipment", not any type of equipment adapted to the specific purpose of the article, such that one of ordinary skill in the art could easily use such "standard equipment" for monitoring cable television components as well for deployment in the field.

k. **REEXAMINATION OF DEPENDENT CLAIM 6 UNDER 35 U.S.C. §103**

Claim 6 reads as follows: The switching module of claim 1, further comprising a mode selection switch to allow user selection between a primary mode of operation and a secondary mode of operation, wherein the secondary mode of operation provides for delayed switching as compared to the primary mode of operation.

Dependent claim 6 merely incorporates the use of a mode selection switch for user selection between two modes of operation, one of which provides for delayed switching. It would have been obvious to one of ordinary skill in the art to use such a switch, in order to provide the user with greater control over the operation of the switching module, for example to prevent rapid switching between power sources.

Dependent claim 6 is also invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, or in combination with DPS Power I.

For example, the *CED* reference describes a system which uses both battery back-up and also the above described system for switching between other different power sources (page 4). Such a system would inherently result in delayed switching, because the battery back-up is described as being local to the switching module, while at least one other power source is described as being remote from the switching module, such that switching to the remote power source would in any event result in a delay.

The system described in the *CED* reference also includes a "master" mode and a "slave" mode, which again would inherently feature a delay in switching between these modes.

As previously described, DPS Power I also renders claim 6 obvious, as it relates to various modes of switching, including delayed switching.

l. **REEXAMINATION OF DEPENDENT CLAIM 7 UNDER 35 U.S.C. §103**

To the extent that the examiner finds that claim 7 is not anticipated by the cited prior art references, it is also invalid under 35 USC 103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination. The additional recitation provided by claim 7 is "means for monitoring the status of the power sources ". Zylec website I relates to such a monitoring circuit for communicating status information (as exemplified by the multiple lights, showing the operating status of the power sources connected to switching module), as described above. Such a recitation would also be obvious over any of Zilberberg '888 patent, Zylec website I, and the *CED* reference, as an obvious design choice, and/or in combination with US '175 (as described for example in col 50, lines 1-50, which relate to a monitoring circuit for communicating status information about the different power sources) and/or in combination with the Philips management reference.

The Philips management reference describes a system for monitoring the performance of broadband components, including power sources, as part of the "Diamond Diagnostics element management system". The document describes such remote monitoring of power sources for example on pages 1 and 4 (the latter including a diagram); page 37 describes a radio frequency transponder for communicating such information remotely. The diagram on page 4 also shows the use of such a transponder for communicating status information about the power supply remotely.

m. **REEXAMINATION OF DEPENDENT CLAIM 8 UNDER 35 U.S.C. §103**

Claim 8 reads as follows: The apparatus of claim 7, wherein the monitoring means outputs a radio frequency signal containing status information.

Dependent claim 8 merely incorporates the use of a radio frequency signal for communicating status information. It would have been obvious to one of ordinary skill in the art to use such a radio frequency signal, since cable television systems often feature many geographically distributed components; such a radio frequency signal would allow one of ordinary skill in the art to receive status information from an offsite location.

Dependent claim 8 is also invalid under 35 U.S.C. §103, as obvious over the Zilberberg '888 patent, Zylec website I, and/or the *CED* reference, alone or in combination, and/or in combination with *Mechatronics* and/or in combination with the Philips management reference.

Furthermore, *Mechatronics* teaches that the use of radio frequency signals for communicating status information for field deployed components was well known in the art as of the date of publication of the article (see for example page 165 of the article).

The Philips management reference describes a system for monitoring the performance of broadband components, including power sources, as part of the "Diamond Diagnostics element management system". The document describes such remote monitoring of power sources for example on pages 1 and 4 (the latter

including a diagram); page 37 describes a radio frequency transponder for communicating such information remotely. The diagram on page 4 also shows the use of such a transponder for communicating status information about the power supply remotely.

III. STATEMENT POINTING OUT SUBSTANTIAL NEW QUESTION OF PATENTABILITY

With the exception of the Zilberberg '888 patent, none of the above prior art references were of record in the file of the Taylor '294 Patent. Furthermore, all of these prior art references are closer to the claimed subject matter of the Taylor '294 Patent than the references of record in the file. These new prior art references provide teachings not provided during the prosecution of the Taylor '294 Patent. Since claims 1-8 are not patentable over these new prior art references, a substantial new question of patentability is raised.

Although the Zilberberg '888 patent was provided in an IDS to the examiner during prosecution of the Taylor '294 Patent, the examiner did not specifically cite the Taylor '294 Patent with regard to any question of patentability, merely initialing the IDS. As determined with regard to *in re Swanson* (Fed. Cir. 2008), a substantial new question of patentability may arise even with a reference considered by the examiner, if a question of patentability that has not been considered by the USPTO is brought with regard to the reference. In this situation, no question of patentability was considered with regard to the Zilberberg '888 patent and hence the application of this reference as described herein, both alone and also in combination with one or more of the above new references, is respectfully argued to constitute a substantial new question of patentability. Therefore, reexamination is respectfully requested.

Respectfully submitted,

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