Patent attorney Sviderskiy and partners
Patent attorney Eduard Sviderskiy, reg. № 0020
Dmitrievskaya str. 15, Kolodishi, Minsk, Belarus, 223050
E-mail: sviderskiy@belpatent.by http://www.belpatent.by
Phone 508-19-12, mob: 8-029-622-90-52, Tax ID № 700165108
Acc. № 3013 60385 0010 in «BelAPB» JSC branch of Minsk state directorate, SWIFT 153001963

Conclusion

On patent purity of «Device for contactless vehicle CAN bus signal receiving (Crocodile)».

Conclusion is commissioned by CJSC Technoton to analyze possible violation of the European patent EP 1941656 «Device for reading information on a digital bus without a wire connection to the network».

The European patent is obtained on the basis and with the priority of French patent application No. 0510343 of October 06, 2005 and No. 0600331 of January 12, 2006. For these initial applications, a whole family of patents has been obtained, including European patent EP 1941656, including an extension to Portugal, Denmark, Austria (right-holder MASTERNAUT [FR]). US Pat. No. 8548099 (Legal Counsel BERENGER JEAN-YVES [FR]; MEDAN ERIC [FR] MASTERNAUT).

The claim (English version):

1. The invention claimed is: 1. A device for reading data intended to recover signals exchanged on a digital data bus and to process the signals, including:

at least one connection capacitive type clip for connecting to multiplexed networks without a wire connection and configured for recovering signals transmitted on the digital data bus, the clip including:

a first metal peripheral envelope around which is disposed an insulating layer, around which is disposed an encircling tightening wire which ensures physical coupling thanks to a means for tightening.

2. The device for reading data according to claim 1, wherein the clip is connected to an electronic circuit, which analyzes and processes the recovered signals.

3. The device for reading data according to claim 1, wherein the clip is attached to at least one line of the digital data bus.

4. The device for reading data according to claim 3, wherein the clip is attached to two lines of the digital data bus and performs a differential measurement.

5. A device for reading data intended to recover signals exchanged on a digital data bus and to process the signals, including:

a clip for connecting to multiplexed networks without a wire connection configured for recovering signals transmitted on the digital data bus; and,

an electronic processing circuit which includes at least:

one amplifier configured to amplify rising and descending pulse signals,

a detector and a comparator,

a circuit for shaping the pulse signals,

an output driver.

6. The device for reading data according to claim 5, installed to read data from a CAN (Controller Area Network) network.

7. The device for reading data intended to recover signals exchanged on a digital data bus and to process the signals including at least one clip for connecting to multiplexed networks without a wire connection configured for recovering signals transmitted on the digital bus, the at least one clip comprising:

a peripheral metal layer which is disposed around an insulating jacket of the digital data bus without penetrating the jacket;

an insulating layer around the peripheral metal layer.

8. A device for reading data intended to recover signals exchanged on a digital data bus and to process the signals, including:

at least one connection capacitive type clip for connecting to multiplexed networks without a wire connection and configured for recovering signals transmitted on the digital data bus, the clip comprising:

a generally U-shaped electrical contact which is configured to be disposed at least partially around an insulating jacket of a first line of the digital data bus;

an insulating portion disposed around the generally U-shaped electrical contact; and

a clamp element disposed around the insulating portion to press the insulating portion against the generally U-shaped electrical contact to press the generally U-shaped electrical contact against the insulating jacket of the data bus.

9. The device for reading data according to claim 8, further including a second clip comprising:

a generally U-shaped electrical contact which is configured to be disposed at least partially around an insulating jacket of a second line of the digital data bus;

an insulating portion disposed around the generally U-shaped electrical contact; and

a clamp element disposed around the insulating portion to press the insulating portion against the generally U-shaped electrical contact to press the generally U-shaped electrical contact against the insulating jacket of the digital data bus.

10. The device for reading data according to claim 9, further including:

a circuit for differentially combining pulse signals received by the first and second clips.

11. The device for reading data according to claim 9, further including:

an amplifier that amplified pulses received by the first and second clips;

one or more circuits which detect using leading edges of the pulses received by the first clip with a threshold and compare an amplitude of the rising leading edges with a first threshold and which detect falling leading edges of the pulses received by the second clip and compare the falling leading edges with a second threshold;

a circuit for combining and shaping the pulses with the rising and falling leading edges; and

an output driver which outputs the combined and shaped pulses to a connector configured for connection to a computer.

……

……

……

This part of Conclusion was excluded from translation – see translator's notes in the footer.

……

……

……

Careful study of the claim of the European patent EP 1.941.656. showed the following:

1. The operating principle of contactless reading of data is based on capacitive interaction between the clip, which is shaped to partly (U-shaped) embrace CAN wire, while does not disrupting electrical insulation of bus.

2. The clip must be firmly pressed against the wire being read and fixed to it with a screw.

3. The clip must be insulated from the outside.

The investigated technical solution (Crocodile) does not violate the patent, since the principle of operation is inductive rather than capacitive, which allows not to embrace the wire, but to place it in the Crocodile along the mark.

Thus, the mandatory round clip used in the patent and the mandatory insulation of the circular clip are not used in the investigated solution. Claimed technical result is achieved by other means and the features of the invention set forth in the European patent are not used.

Conclusion.

The investigated technical solution (Crocodile) manufactured by CJSC Technoton is pure in respect of the European patent № EP1941656, as well as in respect of the U.S. patent № 8548099, and its production and sale does not violate the exclusive right of the right holders of mentioned patents.

Eurasian patent attorney reg. 240 E. Svidersky

09/03/2015 signature

Translator's notes: original Conclusion contains patent text translation from English to Russian – this part of document was excluded (English version of patent text is copied from patent application and given below). Date of translation – 03/04/2017 by Technoton marketing department.