

Application Number: 2019101555359	Date of filing: 2019-03-01	Type of Search: 首次检索
Applicant(s): 默升科技集团有限公司	Earliest Priority Date: 2019-03-01	
Number of Claims:20	Number of Paragraphs of Description: 40	
IPC Number Certified by Examiner: H01R31/06, H01R13/66, H01R43/16, H04L12/10		
Patent search record information:		

Cited Patent Document(s)

Type	Nationality	Document Number	Publication Date	IPC Number	Involved Claims	Relate Page	Type of Document
	CN	109286416	20190129	H04B1/40	1-20	全文	A
	CN	109075992	20181221	H04L12/24	1-20	全文	A
	CN	104838636	20150812	H04M1/253	1-20	全文	A
X	US	9337993	20160510	H04L7/033	1-20	说明书第6-14栏, 附图1-2A	B1
X	CN	202797544	20130313	H01R31/06	1-2、8-9、15-16	说明书第53-57段, 附图4-5	U

Cited Periodical(s)

Type	Name of Periodical or Abstract	Volume Number	Issue Number	Release Date	Author(s)	Title	Involved Claims	Related Page
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Cited Book

Type	Title	Volume Number	Version	Publication Date	Author(s)	Title	Involved Claims	Reference Page
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上海桂平路 435 号 上海专利商标事务所有限公司
周全 (021-34183200) 钱慰民 (021-34183200)

Issuing Date:

Application No. or Publication No.:201910155535.9

Issue No.:

Applicant or Patentee: Thermo Scientific Co. Ltd.

Title of Invention: Active Ethernet cable

F i r s t O f f i c e A c t i o n

1. Upon the request of substantive examination of the applicant, in accordance with Article 35.1 of the Patent Law, the State Intellectual Property Office performs the substantive examination for the aforesaid application for a patent for invention.

In accordance with Article 35.2 of the Patent Law, the State Intellectual Property Office proceeds to examine the aforesaid application for a patent for invention as to its substance on its own initiative.

2. The applicant requests on the basis of:

The applicant has submitted the copy of previous application documents for the first filed, which has been verified by the original receiving organization.

The applicant has not submitted the copy of previous application documents for the first filed, which has been verified by the original receiving organization. In accordance with Article 30 of the Patent Law, the claim to the right of priority shall be deemed not to have been made.

3. Upon examination, the amendment submitted by the applicant on __, shall not be accepted for not in conformity with Rule 51.1 of the Implementing Regulations of the Patent Law.

4. Application files for examination:

Original application documents. Documents submitted on the date of submission of divisional application. Following application documents:

5. The decision of this Office Action has been made without search.

The decision of this Office Action has been made based on search.

The following reference documents are cited in this Office Action (the serial number(s) of which will be used in follow-on examination) :

No.	Document number or Document title	publication date (or application date of the conflicting
1	US 9337993B1	20160510



6. Conclusive opinions of the examination:

About the description:

The application falls into the scope of subject matter which is nonpatentable according to Article 5 of the Patent Law.

The description fails to comply with the provisions of article 26.3 of the Patent Law.

The description fails to comply with the provisions of Article 33 of the Patent Law.

The drafting of the description fails to comply with Rule 17 of the Implementing Regulations of the Patent Law.

About the claims:

The claim(s) _____ fail(s) to comply with the provisions of Article 2.2 of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Article 9.1 of the Patent Law.

The claim(s) 1-2, 8-9, 15-16 fail(s) to comply with the novelty requested by Article 22.2 of the Patent Law.

The claim(s) 3-7, 10-14, 17-20 fail(s) to comply with the inventive steps requested by Article 22.3 of the Patent Law.

The claim(s) _____ fail(s) to comply with the applicability requested by Article 22.4 of the Patent Law.

The claim(s) _____ fail(s) into the scope of subject matter which is nonpatentable according to Article 25 of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Article 26.4 of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Article 31.1 of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Article 33 of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Rule 19 of the Implementing Regulations of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Rule 20 of the Implementing Regulations of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Rule 21 of the Implementing Regulations of the Patent Law.

The claim(s) _____ fail(s) to comply with the provisions of Rule 22 of the Implementing Regulations of the Patent Law.

The application fails to comply with the provisions of Article 26.5 of the Patent Law or Rule 26 of its Implementing Regulations.

The application fails to comply with the provisions of Article 20.1 of the Patent Law.

The divisional application fails to comply with the provisions of Rule 43.1 of the Implementing Regulations of the Patent Law.

The detailed analyses of the above conclusive opinions refer to the text of this Office Action.

7. On the basis of the conclusive opinions, the examiner suggests:

The applicant should amend the application documents according to the text of this Office



Action.

The applicant should state the reasons why the patent application should be granted in the observation, and amend the part which fails to comply with the provisions according to this Office Action, otherwise the patent application should not be granted.

The substantive content that might be granted can not be found in the application, if the applicant does not state the reasons or the stated reasons are not sufficient, the application shall be rejected.

8. The applicant should pay attention to the followings statements:

(1) In accordance with Article 37 of the Patent Law, the applicant should submit the written opinion within four months from the date of receipt of this Office Action. If, without any justified reason, the time limit for reply is not met, the application shall be deemed to have been withdrawn.

(2) The amendment of the application document by the applicant should be in conformity with Article 33 of the Patent Law, and it should not exceed the scope specified in the initial description and claims. Meanwhile, the amendment of the application document by applicant should be in conformity with Rule 51.3 of the Implementing Regulations of the Patent Law, and in accordance with this Office Action.

(3) The written opinion and/or amendment document of the applicant should be sent by mail or submitted directly to the Receiving Division of the Patent Office of the State Intellectual Property Office, otherwise it will be considered to have no legal effect.

(4) Without appointment, the applicant and/or the agent should not come to the Patent Office of the State Intellectual Property Office to have an interview with the examiner.

9. The text of this Office Action has 4 pages, and the attachments are as follows:

The total number of copies of the reference documents cited is _____ copies and _____ pages.

Name of the Examiner: 文雅

Tel: 010-53961248

Examination Department: 专利审查协作北京中心
电学发明审查部



T h e F i r s t O f f i c e A c t i o n

Application

Number: 2019101555359

The present application relates to an active Ethernet cable. Upon review, the following review comments are now presented.

Claims 1-20 are not novel or inventive

1. Claim 1 claims an active Ethernet cable. Comparative document 1 (US9337993 B1) discloses an active cable that can be used in Ethernet (columns 6-14 of the specification, Figures 1-2A):

Comprising an electrical conductor 111 connected between the first connector 105a and the second connector 105b, each of said first and second connectors 105a, 105b being adapted to fit into an Ethernet port of a respective host device 101a, 101b to receive from that host device an input electrical signal transmitting an inbound data stream to said cable and to provide to that host device an output electrical signal transmitting an outbound data stream from said cable,

Each of the first and second connectors 105a, 105b includes a respective transceiver 107a, 107b that performs clock and data recovery on the input electrical signal to extract and re-modulate the inbound data stream for transmission via the electrical conductor as a respective electrical transmission signal conveying transmission data stream.

The technical solution claimed by claim 1 is thus compared to comparative document 1, only a slight difference in literal language, the technical solutions are substantially identical and both belong to the same technical field, solve the same technical problem and obtain the same technical effect, and therefore the claims are not novel and do not comply with the second paragraph of the twenty-second patent law.

2. Claim 2 refers to Claim 1. Comparative document 1 also discloses (columns 6-14, Figures 1-2A) that the respective transceiver 107a, 107b for each of the first and second connectors performs clock and data recovery on the respective electrical transmission signal to extract and re-modulate the transmission data stream as the outbound data stream from the cable. Accordingly, the claims are not novel.

3. Claim 3 refers to claim 2. However for the parameters of the transceiver facing the host device side are set, having the respective transceivers each adopt fixed, cable-independent equalization parameters in order to re-modulate the transmission data stream as the outbound data stream, or to perform clock and data recovery on the input electrical signal, are all technical means readily conceivable by the skilled person in order to achieve a better cable transmission effect. Accordingly, to the extent a claim is not novel, that claim is not inventive and is not in accordance with the provisions of the third paragraph of the twenty-second patent law regarding inventive step.

4. Claim 4 refers to Claim 3. However for the parameters of the transceiver on the cable facing side are set, having the respective transceivers each employ cable-dependent equalization parameters in order to re-modulate the inbound data stream for transmission, as well as to perform clock and data recovery on the electrical transmission signals, are all technical means that are readily conceivable by the skilled person in order to achieve better cable transmission results. Neither is the claims inventive.

5. Claims 5-7 are dependent claims. However choosing to adapt cable dependent equalization parameters during use of the Ethernet cable, and such that the above-mentioned cable-dependent equalization parameters are determined



during testing at a manufacturer of said Ethernet cable and fixed during normal use of said Ethernet cable, all as is a conventional setting for a person skilled in the art; setting the size of the data in particular for the incoming and outgoing data streams is also a routine choice for a person skilled in the art. Neither is the above claims inventive.

6. Claim 8 claims a communication method. Comparative document 1 discloses a communication method (columns 6-14 of the specification, Figures 1-2A):

Comprised in a network cable having a conductor pair 111 electrically connecting a first connector 105a to a second connector 105b:

Receiving with said first connector 105a a first input electrical signal conveying a first inbound data stream from a first host device 101a; performing clock and data recovery on the first input electrical signal with a first transceiver 107a in the first connector to extract the first inbound data stream; re-modulating the first inbound data stream into a first transmission data stream transmitted by a first electrical transmission signal on a first one of the conductor pairs;

Receiving with said second connector 105b a second input electrical signal conveying a second inbound data stream from a second host device 101b; performing clock and data recovery on the second input electrical signal with a second transceiver 107b in the second connector to extract the second inbound data stream; and re-modulating the second inbound data stream into a second transmission data stream transmitted by a second electrical transmission signal on a second one of the pairs of conductors 111.

The solution claimed in claim 8 is thus compared to comparative document 1, only a slight difference in literal language, the technical solutions are substantially identical and both belong to the same technical field, solve the same technical problem and obtain the same technical effect, and therefore the claims are not novel and do not comply with the second paragraph of the twenty-second patent law.

7. Claim 9 refers to claim 8. Comparative document 1 also discloses (columns 6-14 of the specification, Figures 1-2A):

Performing clock and data recovery on the first electrical transmission signal with the second transceiver 107b to extract the first transmission data stream; re-modulating the first transmission data stream into a second outbound data stream communicated to the second host device by a second output electrical signal; performing clock and data recovery on the second electrical transmission signal with the first transceiver to extract the second transmission data stream; and re-modulating the second transmitted data stream into a first outbound data stream transmitted to the first host device by a first output electrical signal. Accordingly, the claims are not novel.

8. Claim 10 refers to claim 9. However, the parameters for the transceivers facing the host device end are set such that the respective transceivers each employ fixed, cable-independent equalization parameters to facilitate re-modulation of the first and second transmitted data streams, performing clock and data recovery on the first and second input electrical signals, all as is conventional to those skilled in the art. Accordingly, this claim does not comply with the provisions of the third paragraph of the twenty-second patent law regarding creativity.

9. Claim 11 refers to claim 10. However for the parameters of the transceiver on the cable facing side are set, having the respective transceivers each employ cable-dependent equalization parameters in order to re-modulate the



first and second inbound data streams, as well as to perform clock and data recovery on the first and second electrical transmission signals, are all technical means readily conceivable by the skilled person in order to achieve a better cable transmission effect. Neither is the claims inventive.

10. Claims 12-14 are dependent claims. However, such that the cable-dependent balancing parameters are adaptively updated, and such that said cable-dependent balancing parameters are determined during testing at the manufacturer of said Ethernet cable and fixed during normal use of said Ethernet cable, all being conventional settings for a person skilled in the art; setting the size of the data in particular for the incoming and outgoing data streams is also a routine choice for a person skilled in the art. Neither is the above claims inventive.

11. Claim 15 claims a cable manufacturing method. Comparative document 1 also discloses a cable manufacturing process comprising (columns 6-14 of the specification, Figures 1-2A):

Connecting first and second ends of a set of conductor pairs 111 to a first transceiver 105a and a second transceiver 105b, respectively, for transmitting first electrical transmission signals from said first transceiver 107a to said second transceiver 107b and for transmitting second electrical transmission signals from said second transceiver to said first transceiver;

Packaging the first transceiver 107a into a first connector 105a, the first connector being configured to couple a first input electrical signal from a network interface port of a first host device 101a to said first transceiver 107a, and to couple a first output electrical signal from said first transceiver to said network interface port of said first host device; and

Packaging the second transceiver 107b into a second connector 105b, the second connector being configured to couple a second input electrical signal from a network interface port of a second host device 101 b to the second transceiver and to couple a second output electrical signal from the second transceiver to the network interface port of the second host device,

The first transceiver and the second transceiver are configured to perform clock and data recovery on the first input electrical signal and the second input electrical signal, to extract and re-modulate the first inbound data stream and the second inbound data stream as the first electrical transmission signal and the second electrical transmission signal conveying first and second transmission data streams, respectively.

The solution claimed in claim 15 is thus compared to comparative document 1, only a slight difference in literal language, the technical solutions are substantially identical and both belong to the same technical field, solve the same technical problem and obtain the same technical effect, and therefore the claims are not novel and do not comply with the second paragraph of the twenty-second patent law.

12. Claim 16 refers to claim 15. Comparative document 1 also discloses (columns 6-14 of the specification, Figures 1-2A): the first transceiver 107a and the second transceiver 107b being configured to perform clock and data recovery on the second electrical transmission signal and the first electrical transmission signal, to extract and remodulate the second transmission data stream and the first transmission data stream as the first outbound data stream and the second outbound data stream conveyed by the first output electrical signal and the second output



electrical signal from the cable. Accordingly, the claims are not novel.

13. Claim 17 depends from claim 16. Whereas specific parameters of the first transceiver and the second transceiver are set, such that they are each configured to employ fixed, cable-independent equalization parameters for clock and data recovery onto the respective input electrical signals and for producing the respective output electrical signals, as is conventional and skilled in the art. Accordingly, this claim does not comply with the provisions of the third paragraph of the twenty-second patent law regarding creativity.

14. Claim 18 depends from claim 17. Configuring, however, specific parameters of the first transceiver and the second transceiver, such that they are both configured to employ cable-dependent equalization parameters for generating the first electrical transmission signal and the second electrical transmission signal and for clock and data recovery of the second electrical transmission signal and the first electrical transmission signal, which is also a conventional design for those skilled in the art. Neither is the claims inventive.

15. Claims 19-20 are all dependent claims. Additional features are, however, conventional settings for a person skilled in the art when configuring the first and second transceivers with specific parameters. Neither is the above claims inventive.

For the above reason, neither the independent nor the dependent claims of the present application are inventive. Should the Applicant not suggest a sufficient reason, within the answering date prescribed by this notice, for novelty and inventive step of the present application be dismissed. Applicant's amendment to the specification shall be in accordance with the provisions of the thirty-third patent law and shall not exceed the scope of the original specification and claim recitations.

Applicants can withdraw their patent application under the provisions of Article 32 of Patent Law and Article 36 of the Rules of Patent Law. For an inventive patent application that enters the substantive examination phase, the proactive application is withdrawn before the response deadline of the first Examination Opinion (except for the response being submitted) expires, requesting a return of 50% of the substantive examination fee of the patent application.

If you doubt about the review comments, a reviewer phone 010-53961248, or a supervisory phone 010-53961480, 53961255 may be dialed. Note: The contents of the phone feedback are not legally valid, please submit formal Opinion Statements and/or Modification texts to the Patent Office Reception department within defined terms.

审查员姓名:文雅
审查员代码:263127



200233

上海桂平路 435 号 上海专利商标事务所有限公司
周全(021-34183200) 钱慰民(021-34183200)

Issuing Date:

Application No. or Publication No.:201910155535.9

Issue No.:

Applicant or Patentee:

Thermo Scientific Co. Ltd.

Title of Invention:

Active Ethernet cable

N o t i f i c a t i o n t o G r a n t P a t e n t R i g h t f o r I n v e n t i o n

1. In accordance with Article 39 of the Patent Law and the provision of Rule 54 of its Implementing Regulations, for the aforesaid application for a patent for invention, where no grounds for rejection have been found after the substantive examination, Notification to Grant Patent Right for Invention should be made.

After receiving the Notification to Grant Patent Right for Invention, the applicant shall go through the formalities of registration according to content of the Notification to Go through Formalities of Registration.

After the applicant has gone through the formalities of registration within the prescribed time limit, the State Intellectual Property Office shall make a decision to grant the patent right, issue the certificate of patent for invention, and register and announce it.

If the applicant does not go through the formalities of registration within the prescribed time limit, he or it shall be deemed to have abandoned his or its right to obtain the patent right.

2. The aforesaid application for a patent for invention that shall be granted is on the basis of the following application documents:

Original application documents. Documents submitted on the date of submission of divisional application. Following application documents.

申请日提交的说明书摘要、说明书第 1-40 段、说明书附图、摘要附图；

2021 年 10 月 12 日提交的权利要求第 1-14 项。

3. The title of aforesaid application for a patent for invention that shall be granted is:

Not _____ changed.

Changed _____ from _____ to _____ the _____ aforesaid _____ title.

4. Upon examination, the declaration of abandonment of patent right (Publication No.

) submitted by the applicant on _____ - _____ has: _____



The State Intellectual Property Office of People's Republic of China

Entered the procedure of abandonment of patent right.

Not entered the procedure of abandonment of patent right. The reason is: the patent right declared to abandon by the applicant and this patent application is not regarded as identical invention-creation.

5. The amendments Ex Officio made by the examiner to the application documents are as follows:

6. The amended documents received after this notification was issued, which are made by the applicant on his own initiative, shall not be accepted.

Name of the Examiner:文雅

Tel: 010-53961248

Examination Department:专利审查协作北京中心
电学发明审查部