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# Comprehensive Implementation of the Border Area Mountain Steppe Electronic Information and Developed Cities Electronic Information and Information equalization scheme G-10 million G or more

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ABSTRACT

Under the condition that the laser can not be used bare fiber and the existing satellite is limited by electric energy and weight, the innovative wired magnetic fiber<sup>[1]</sup> cable, rich IP channel magnetic fiber receiver<sup>[2]</sup> and transponderless reflector satellite<sup>[3]</sup> technology combine with the existing technology to make the magnetic fiber superior to the optical fiber and can be used bare; the magnetic fiber technology is an innovative product under the existing technical conditions of the downlink frequency segment, which can only be used as a linear transmission satellite at present, so that the frequency segment can be bent transmission and realize the new cable of the reflector satellite and the magnetic fiber port “antenna”; Magnetic fiber, magnetic fiber port “antenna” and reflector satellite interoperability, infinite number of channels IP the inverse As wireless transmission, radio satellite (including ground and indoor relay “antenna”) can also be combined with optical fiber interoperability, so that the extremely rich number of channels IP realize wired wireless electronic information network, terminal equipment upgrade to magnetic fiber receiver, solve the problem of serious imbalance between electronic information in border area, mountain area, grassland and developed city and broadband narrow mobile equipment, magnetic fiber can also be integrated with power network of low-cost multi-power ecological network body.

## 1. Introduction

Prior to the 1960s, two-row cables and coaxial cables were widely used to transmit electromagnetic wave frequencies below 1 GHz for wired cable information transmission, while more than 1 GHz of electromagnetic wave frequencies could not be transmitted by wired cable information. Up to now, they can only be

transmitted in a straight line such as satellite transmission with more than 1 G of downlink frequency. So far, GHz more than 1 GHz in the middle to the optical frequency segment of the cable can only be transmitted in a straight line so far, such as satellites G 1 Because the optical fiber is transmitted by laser as the carrier, the laser has serious harm to the characters. Only under the closed optical fiber, it is impossible to irradiate or use the laser naked.

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A magnetic fiber reflector satellite and a magnetic fiber receiver with no transponder were invented to solve the problem of transmitting information by wire between the optical frequency segment of the optical fiber GHz and the optical frequency segment of the optical fiber cable Cable a series of blank and so on, below share these results for your reference.

## 2. Issues Addressed by Existing Technologies

At present, the most advanced is optical fiber transmission electronic information technology. Transmission of high frequency electricity by coaxial cable.

Magnetic waves are out of use. Optical fiber technology solves the problem that the high frequency electromagnetic wave attenuation of coaxial cable transmission is very serious, thus forming the urban cable network broadband and mobile phone rapid development, such as urban radio, television, broadband, communications and other electronic information networks such as rapid development; while the border areas, mountain areas, grasslands and other electronic information networks such as radio, television, broadband, communications and other slow development, serious polarization social problems. Optical fiber technology is seriously limited by technology, such as optical fiber must use a laser, it is impossible to transmit information in the way of irradiation because it hurts people, only to transmit information in the way of wire, plus cost problems, such as not It can lay optical fiber everywhere in grassland, border area and mountain area, which results in the serious imbalance between the electronic information of border area, mountain area and grassland and the electronic information of developed cities. In this way, only innovative technology can solve this serious social problem. the following is an innovative optical fiber cable with an electromagnetic wave frequency of more than 1 GHz along the wire, a magnetic fiber receiver with a IP channel<sup>[2]</sup>, and a reflector satellite technology without an electronic transponder.

## 3. Innovative Magnetic Fiber Technologies

### 3.1 Structure and Products of Magnetic Fiber

Composition: metal material, metal surface and pipe composition, metal surface surrounded by pipe to form magnetic fiber, such as metal pipes; local non-metallic pipes are also feasible, such as ceramic pipes. Such as organic pipe plating a layer of metal is also the composition of magnetic fiber products or direct metal tube to form magnetic fiber products.

Application: More than 1 GHz of electromagnetic wave frequency carries electronic information on the inner surface of the pipeline of wired magnetic fiber cable reflected from near to far transmission, so that the current more than 1 GHz of electromagnetic wave frequency in straight line wireless transmission to bend laid magnetic fiber cable wired transmission.

Requirements: the surface of the pipe is smooth; the bending degree of the inner surface of the pipe is similar to that of the fiber. figure 1 magnetic fiber, figure 1 is the metal surface ,2 is the path of electromagnetic wave reflection, and 3 is the circular hole, which is the entrance of the mounting antenna.

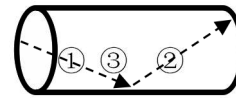


Figure 1. Magnetic fiber

### 3.2 Principles of Magnetic Fibers

Principle: reflection principle, it is recommended that the overall reflection is better.

### 3.3 Role of Magnetic Fibers

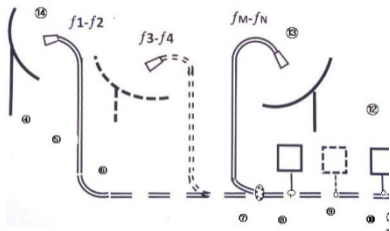
Similar to today, optical fiber itself is a straight line transmission into a curved transmission carrier, under the action of optical fiber transmission of light in a wired way to achieve today's optical fiber network change development. So far, the electromagnetic wave frequency segment over 1 GHz has been transmitted in a straight line wirelessly. The magnetic fiber technology has been invented, that is, the magnetic fiber is formed into a pipe with a metal surface. The electromagnetic wave frequency segment over 1 GHz is transmitted in a straight line to a curved transmission on the inner surface of the pipe. According to, under the action of the magnetic fiber, laying the bending propagation in any direction way.

### 3.4 Examples of Magnetic Fibers

#### 3.4.1 Physical Objects

Such as coating a layer of metal on the inner surface of an organic pipe is also a magnetic fiber product or a direct metal tube constitutes a magnetic fiber product, see in detail "electromagnetic wave information and electricity transmitted more than 1 GHz by magnetic fiber technology"<sup>[4]</sup> or apply for patent no .201510237920 X "bending electromagnetic wave fiber tube to transmit high frequency electromagnetic wave information"<sup>[5]</sup>, etc., as shown in figure 2 multi-satellite multi-reflector broadband

power system. For example, in the magnetic fiber to solve the “study of China’s urban and rural balanced development of radio, film and television information network master plan (top)(bottom)”<sup>[6]</sup> limitations.



**Figure 2.** Multi-satellite Multi-reflective Surface Broadband Power System (left schematic, right physical)

### 3.4.2 Magnetic Fiber Technology is Multifunctional

Magnetic fiber technology can solve the problem of multi-satellite multi-reflector system engineering and high-frequency electromagnetic wave broadband transmission, and can also be integrated with power system.

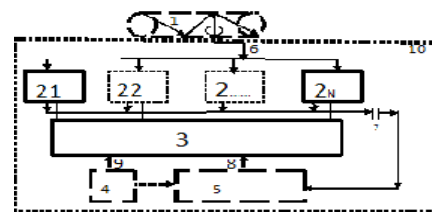
A number of satellite reflectors are used to increase the flow of magnetic fibers, frequency, frequency segments, number of channels and information, as shown in  $f1-2$ ,  $f3-4$ ,  $fM-N$ . figure 2 This equipment, especially in the mountains, desert areas, areas of the very border areas, such as a series of rooms used by users or scattered individual use, greatly reduce costs. See Figure 2,(Figure 2  $f1-2$ ,  $f3-4$ ,  $fM-N$  the source of electromagnetic wave information in the high-frequency segment of a satellite with different downlink frequencies, reflected by the reflector), for more than GHz 1 transmission using magnetic fiber technology Electromagnetic Information and Electricity.

Without any technical improvements under the existing technical conditions, such as transmitter and satellite equipment, such as the implementation of different satellite downlink frequency transmission of different radio and television programs, it is easy to solve the problem of increasing magnetic fiber flux, frequency value, frequency segment value, number of channels and information, the receiver can use magnetic fiber technology to transmit, the implementation of border area, mountain area, grassland radio and television county-level media fusion, combined with asymmetric broadband,

communications and other electronic information network media broadband fusion, see similar reference to the above “Research satellite and ground radio and television information comprehensive broadband program”<sup>[7]</sup> or power line and fiber integration to achieve access One step to implement low-cost, large-capacity, high-speed implementation of electronic information transmission balance, comprehensive reality of electronic information sharing on the ground ,“better guide the masses, serve the masses”, but also make the following innovations.

## 4. Innovative Magnetic Fiber Receiver Technology

### 4.1 Magnetic Fiber Receiver



**Figure 3.** Schematic diagram of magnetic fiber receiver (left schematic, right physical)

Magnetic fiber receivers include: magnetic fiber over 10 G-million G of long and wideband magnetic fiber receivers including computer mainframe, mobile phones, routers, satellite receiver high-frequency head products)<sup>[8]</sup>

The structure of the magnetic fiber receiver is:

The existing devices such as mobile phones, computer hosts, routers, satellite receivers, high frequency heads, etc. are collectively referred to as electromagnetic wave receivers as shown in Figure 4 and 5, adding innovative technologies such as N LNB (2 N) and circuit boards of switch board 3 together to form an innovative device for receiving information, as shown in Figure 2(natural number),(circuit boards in Figure 3 are equivalent to a LNB (2 N) group of bus control circuit systems). N LNB (2 N) can be connected in parallel, series, series-parallel cooperative receiver part. the 2 N in figure 3 is a diagram of parallel, series or series-parallel mixing. The device is called a magnetic fiber receiver, where the magnetic fiber receiver mainly refers to the direct reception of more than 1 G of high frequency conversion equipment, such as figure 3 10 for the overall magnetic

fiber receiver unidirectional input fiber receiver, as shown in the arrow direction in figure 3, the same realization of receiving and transmitting bidirectional information equipment, such as this device has the function of mobile phone, thus forming a new mobile phone. To make the description easy to understand, it is equivalent to an innovative device that directly integrates ground-satellite receiver equipment with existing technology, such as N satellite receiving high-frequency head LNB, so that the coaxial cable part in the middle is eliminated and becomes a magnetic fiber receiver. Surface, direct use of high-frequency electromagnetic wave information, is also mobile magnetic fiber receiver only magnetic fiber receiver antenna need to be improved (slightly).

## 4.2 The Principle of Extremely Rich Capacity for Magnetic Fiber and Magnetic Fiber Receivers

Innovative technology has been developed for magnetic fiber and magnetic fiber receivers. Magnetic fiber technology is wired transmission of more than 1 GHz of electromagnetic wave electronic information technology, this equipment is called magnetic fiber. The frequency of high frequency segments transmitted by magnetic fibers more than one GHz has a large number of channels, that is, the frequency IP address can be of the existing technology to calculate the large number of channels, the frequency IP address can be implemented as coding to solve the specific selection of channels, thus forming the channel IP address. A IP address with broadband, can reach hundreds of billions of IP address order of magnitude, can be compared with optical fiber, although each has its own advantages and disadvantages, but in electronic information popularization, optical fiber technology has not been better than magnetic fiber technology. The following is a brief discussion of the advantages and disadvantages of magnetic fiber technology and optical fiber technology.

## 5. Analysis of Innovative Technologies

### 5.1 Discuss the Advantages and Disadvantages of Magnetic Fiber Technology and Optical Fiber Technology

(1)fiber technology and magnetic fiber technology advantages: both have rich broadband IP address, the same speed of propagation.

(2)fiber technology shortcomings: optical fiber through the intermediate medium entity obstacles, optical fiber is the use of laser transmission, laser exposure damage to people and other particularly serious, can not be used naked, so at present, the main way to seal the transmission

of information by wire, it is impossible to transmit information by irradiation, this is the nature of the city's electronic information developed. Because it is impossible to use it by cable, the electronic information of border area, mountain area and grassland is unbalanced with the electronic information of developed city.

(3)The advantages of magnetic fiber technology: magnetic fiber is to use more than 1 G of high-frequency electromagnetic wave transmission, solve the problem of high-frequency electromagnetic wave transmission of more than 1 G before more than 1 G, high-frequency electromagnetic wave damage to people and so on is not particularly serious, now realized: this section of electromagnetic wave can be wired, wireless transmission of high-frequency electromagnetic more than 1 G. As has been demonstrated in today's vast array of real-world uses of the 14 G downlink frequency of live satellites for decades. Existing wired and wireless modes are utilized as shown in Figure 2 and Figure 5 below and Figure 6 as fixed magnetic fiber receivers;

(4)“Antenna”

Or the high frequency electromagnetic wave that emits more than 1 G in front of the magnetic fiber port, that is, the magnetic fiber port “antenna”, realizes the wireless receiving mode such as indoor and outdoor areas to implement the magnetic fiber port “antenna”, and facilitates the use of mobile receivers such as 50 G broadband mobile phones, such as figure 2 above is not the satellite downlink frequency, but the implementation of the magnetic fiber port emitted more than 1 G of high frequency electromagnetic wave solution (limited space, specific technology, see another article, the same below). (Note: Self-installed magnetic fiber receivers, etc. can not produce standard objects due to their limited funds and no functional rights, please understand that the physical objects are simple); if the antenna of the magnetic fiber receiver is further improved, the migration will be formed Mobile receiver (limited space, technical details, see another article, the same below).

(5) Magnetic fiber technology can directly re-equip a reflector satellite, that is, the reflector satellite does not want electronic components such as transponders on satellites of the existing technology, and the satellite technology to solve the existing technology seriously limits the number of channels (or broadband bandwidth) and power, etc. Direct use of convex reflector and support to form a satellite, called reflector satellite (limited space, specific technology, see another article). A high-frequency electromagnetic wave G above the ground is directly reflected from the reflector directly by diffuse reflection, and scattered on the ground as a downlink frequency. The



balance between information and electronic information in developed cities. This technology, optical fiber technology is absolutely impossible to use.

(6) Magnetic fiber lightning protection technology please refer to “Village Tong” lightning protection high-frequency head technology<sup>[9]</sup>, “use magnetic fiber technology to transmit more than 1 GHz of electromagnetic wave information and electricity”<sup>[4]</sup> and “an electronic product lightning protection device”<sup>[10]</sup> and so on.

## 5.2 Technical Conclusions of Magnetic Fibers

(1) With regard to the current technical requirements, A, direct use of magnetic fiber technology and magnetic fiber receiver technology, direct use of multiple satellites to transmit a large number of continuous transmission of high-frequency electromagnetic waves of more than one G of downlink frequency, that is, different satellite frequency segments, to transmit electronic information to the ground receiving system; also can use magnetic fiber along the transmission and magnetic fiber port ejection transmission, both directly installed magnetic fiber receiver scheme.

(2) Implementation of reflector satellites, magnetic fiber technology and magnetic fiber receiver technology directly with reflector satellites constitute a system, transmission of high-frequency electromagnetic waves of more than one G down frequency of different satellites at different frequency segments of multiple satellites into a reflector satellite, constitute a rich number of channels IP address wireless system, transmission of electronic information to the ground receiving system; also can use magnetic fiber along the transmission and magnetic fiber port transmission directly installed magnetic fiber receiver scheme, forming wired wireless free choice symmetrical network system and asymmetric network system.

(3) The combination of optical fiber and magnetic fiber, using the existing laid optical fiber network, in the existing terminal technology, the photoelectric conversion system such as the magnetic fiber port “antenna” is directly implemented, and the local area is directly realized between the magnetic fiber port and the magnetic fiber receiver, which is called the mobile receiver system network, the fixed receiver system and the wired receiver system network along the line with magnetic fiber as wired electronic information.

(4) Based on the integration of three networks and power lines, the effective electronic information network (EIN) and power network (EIN) are.

## 6. Implementation of the Electronic Information Balance Programme for Border Areas, Mountain Areas, Grasslands and Developed Cities



**Figure 5.** Preliminary physical drawing of magnetic fiber and magnetic fiber receivers received

A large number of continuously transmitted high-frequency electromagnetic waves of more than one G to transmit electronic information to the ground, or a reflector satellite system, are emitted by the magnetic fiber port irradiation (indoor and outdoor installation) or the existing satellite downlink frequency, which is received directly by a magnetic fiber receiver. Reference can be made to the physical actual product receiving diagram of the multi-satellite multi-reflector broadband power system in Figure 2, Figure 5, or to the installation of the magnetic fiber receiver along the magnetic fiber line, as shown in Figure 3. It is impossible to compare and solve technical problems with optical fiber technology. It is also impossible for optical fiber technology to balance the electronic information of border areas, mountain areas and grasslands with that of developed cities. The realization of social problems in backward grasslands and developed cities. If very low-income adopt the one-way reception of the Comprehensive Broadband Programme for Researching Radio and Television Information on Satellites and the Ground (such as the practical analogy of today’s massive APP). With the support of the revision of national laws and regulations, adapting to the application of the new technology, we can realize the technical re-division of the four networks in one and the high frequency electromagnetic band. better guide the masses and serve the masses.

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