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Inventor(s)	Chu; Changsing

Retractable cable box and electronic device suitable for storing longer data cable

Abstract

A retractable cable box includes a shell, a cable-receiving component, a connection plate and a guiding element. The shell has an inner cavity and a storage opening. The shell includes a first shell and a second shell. The first shell is rotatable relative to the second shell. The cable-receiving component is disposed in the inner cavity and fixedly connected to the first shell. The second shell has a mounting hole. The connection plate is passed through the mounting hole and fixedly connected to the cable-receiving component. The guiding element is mounted to the cable-receiving component. The second shell has a track groove. By rotating the cable-receiving component relative to the second shell, the guiding element moves along the track groove, so that a data cable is coiled or loosened from the cable-receiving component. An electronic device having the retractable cable box is disclosed.

Inventors: **Chu; Changsing (Kunshan, CN)**

Applicant: **LANTO ELECTRONIC LIMITED** (Kunshan, CN)

Family ID: **1000008765261**

Assignee: **LANTO ELECTRONIC LIMITED (Kunshan, CN)**

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References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
6325665	12/2000	Chung	N/A	N/A
6803525	12/2003	Liao	439/35	B65H 75/4423
7389955	12/2007	Liao	242/378.1	B65H 75/4431
8136751	12/2011	Chen	242/378.1	H02G 11/02
2012/0320546	12/2011	Wu	361/755	H02G 11/02

FOREIGN PATENT DOCUMENTS

Patent No.	Application Date	Country	CPC
210724275	12/2019	CN	N/A
216215939	12/2021	CN	N/A
217535033	12/2021	CN	N/A
218005457	12/2021	CN	N/A

Primary Examiner: Hammond; Briggitte R.

Attorney, Agent or Firm: Birch, Stewart, Kolasch & Birch, LLP

Background/Summary

CROSS-REFERENCE TO RELATED APPLICATION

(1) This patent application claims priority of a Chinese Patent Application No. 202310066060.2, filed on Jan. 18, 2023 and titled “RETRACTABLE CABLE BOX AND ELECTRONIC DEVICE”, the entire content of which is incorporated herein by reference.

TECHNICAL FIELD

(2) The present disclosure relates to a technical field of terminal auxiliary equipment, in particular to a retractable cable box and an electronic device.

BACKGROUND

(3) Electronic devices include charging pads, connector expansion bases, smart speakers and smart home appliances, etc. Conventional electronic devices do not have a storage function. When not in use, the data cable is exposed outside a main body of the electronic device, so it is relatively easy to be damaged. In related technologies, the electronic device includes a shell and a turntable arranged

in the shell. The shell is provided with a fixed shaft. The turntable rotates around the fixed axis, so that the data cable can be wound on the turntable to realize storage.
(4) If the data cable is directly wound, the length of the data cable needs to be limited to avoid excessive rotation due to the rotation angle range of the shell and a rotation shaft.

SUMMARY

(5) An object of the present disclosure is to provide a retractable cable box and an electronic device, which are suitable for storing a longer data cable.
(6) In order to achieve the above object, the present disclosure adopts the following technical solution: a retractable cable box, configured to accommodate a data cable, including: a shell having an inner cavity and a storage opening communicating with the inner cavity: the shell including a first shell and a second shell: the first shell being rotatable relative to the second shell: the second shell defining a mounting hole and a track groove: the track groove having an opening facing the inner cavity: a cable-receiving component disposed in the inner cavity and fixedly connected to the first shell: a connection plate passing through the mounting hole and fixedly connected to the cable-receiving component: and a guiding element mounted to the cable-receiving component: wherein by a rotation of the cable-receiving component relative to the second shell, the guiding element moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component.
(7) In order to achieve the above object, the present disclosure adopts the following technical solution: an electronic device, including: a data cable: a circuit board: at least two plug ports: and a retractable cable box, including: a shell having an inner cavity and a storage opening communicating with the inner cavity: the shell including a first shell and a second shell: the first shell being rotatable relative to the second shell: the second shell defining a mounting hole and a track groove: the track groove having an opening facing the inner cavity: a cable-receiving component disposed in the inner cavity and fixedly connected to the first shell: a connection plate passing through the mounting hole and fixedly connected to the cable-receiving component: and a guiding element mounted to the cable-receiving component: wherein the data cable is capable of being accommodated in the inner cavity: the plug ports and the data cable are electrically connected to the circuit board: and by a rotation of the cable-receiving component relative to the second shell, the guiding element moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component.
(8) In the retractable cable box of the present disclosure, the cable-receiving component rotates relative to the second shell, so that the guiding element moves along the track groove. As a result, it is possible to realize the rotation of the first shell around the second shell by more than 360 degrees, thereby realizing the storage of a longer data cable.

Description

BRIEF DESCRIPTION OF DRAWINGS

(1) FIG. **1** is a structural view of an electronic device in accordance with a first embodiment of the present disclosure:
(2) FIG. **2** is an exploded view of FIG. **1**:
(3) FIG. **3** is a sectional view of FIG. **1**:
(4) FIG. **4** is a structural view of a first shell and a cable-receiving component in FIG. **2**;
(5) FIG. **5** is a structural view of FIG. **4** from another angle;
(6) FIG. **6** is a structural view of the cable-receiving component and a second shell in FIG. **2**;
(7) FIG. **7** is a structural view of the cable-receiving component, a guiding element and a data cable in FIG. **2**;
(8) FIG. **8** is an exploded view of the cable-receiving component and the guiding element in FIG.

7;
(9) FIG. **9** is a structural view of the guiding element in FIG. **8**;
(10) FIG. **10** is an assembly view of the cable-receiving component and the guiding element in FIG. **7**;
(11) FIG. **11** is an enlarged structure view of area A in FIG. **10**;
(12) FIG. **12** is a structural view of the second shell in FIG. **2**;
(13) FIG. **13** is an enlarged structure view of area B in FIG. **12**;
(14) FIG. **14** is an enlarged structure view of area C in FIG. **12**;
(15) FIG. **15** is a sectional view of FIG. **12**;
(16) FIG. **16** is a structural view of an electronic device in accordance with a second embodiment of the present disclosure;
(17) FIG. **17** is an exploded structural view of a cable-receiving component and a guiding element in FIG. **16**;
(18) FIG. **18** is an assembly structure view of the cable-receiving component and the guiding element in FIG. **17**;
(19) FIG. **19** is an enlarged structure view of area D in FIG. **18**; and
(20) FIG. **20** is a structural view of the guiding element in FIG. **18**.

DETAILED DESCRIPTION

(21) Exemplary embodiments will be described in detail here, examples of which are shown in drawings. When referring to the drawings below; unless otherwise indicated, same numerals in different drawings represent the same or similar elements. The examples described in the following exemplary embodiments do not represent all embodiments consistent with this application. Rather, they are merely examples of devices and methods consistent with some aspects of the application as detailed in the appended claims.
(22) The terminology used in this application is only for the purpose of describing particular embodiments, and is not intended to limit this application. The singular forms “a”, “said”, and “the” used in this application and the appended claims are also intended to include plural forms unless the context clearly indicates other meanings.
(23) It should be understood that the terms “first”, “second” and similar words used in the specification and claims of this application do not represent any order, quantity or importance, but are only used to distinguish different components. Similarly, “an” or “a” and other similar words do not mean a quantity limit, but mean that there is at least one: “multiple” or “a plurality of” means two or more than two. Unless otherwise noted, “front”, “rear”, “lower” and/or “upper” and similar words are for ease of description only and are not limited to one location or one spatial orientation. Similar words such as “include” or “comprise” mean that elements or objects appear before “include” or “comprise” cover elements or objects listed after “include” or “comprise” and their equivalents, and do not exclude other elements or objects. The term “a plurality of” mentioned in the present disclosure includes two or more.
(24) Hereinafter, some embodiments of the present disclosure will be described in detail with reference to the accompanying drawings. In the case of no conflict, the following embodiments and features in the embodiments can be combined with each other.
(25) Referring to FIG. **1** to FIG. **20**, the present disclosure discloses an electronic device which includes a retractable cable box and a data cable **20**. The retractable cable box is used for accommodating the data cable **20**. When not in use, the data cable **20** can be retracted into the retractable cable box, which is convenient for organizing and storing the data cable **20**.
(26) Referring to FIG. **1** to FIG. **3**, the retractable cable box includes a shell **1**, a cable-receiving component **2** and a connection plate **3**. The shell **1** is cylindrical in shape and beautiful in appearance. The shell **1** defines an inner cavity **101** and a storage opening **102** communicating with the inner cavity **101**. The data cable **20** is retracted into the inner cavity **101** through the storage opening **102** and wound around the cable-receiving component **2**. The data cable **20** can also be led

out of the inner cavity **101** through the storage opening **102**.
(27) In an embodiment of the present disclosure, referring to FIG. **2**, the shell **1** includes a first shell **11** and a second shell **12**. The first shell **11** is rotatable relative to the second shell **12**. The first shell **11** and the second shell **12** are located on a periphery of the inner cavity **101**. Specifically, the first shell **11** includes a first wall portion **111** and a first peripheral wall **112** vertically extending from the first wall portion **111**. The second shell **12** includes a second wall portion **126** and a second peripheral wall **127** vertically extending from the second wall portion **126**. The storage opening **102** is provided on the second peripheral wall **127**.
(28) The cable-receiving component **2** is disposed in the inner cavity **101**. The cable-receiving component **2** is fixedly connected to the first shell **1**, and the cable-receiving component **2** can also be rotatable relative to the second shell **12**. The inner cavity **101** between the cable-receiving component **2** and the second shell **12** is used as a storage cavity for storing the data cable **20**.
(29) Referring to FIG. **5**, the cable-receiving component **2** is provided with a plurality of connecting holes **211**. The first shell **11** further includes a plurality of support posts **113** vertically extending from the first wall portion **111**. Each support post **113** has a threaded hole **1131** extending along a thickness direction of the cable-receiving component **2**. The threaded hole **1131** is coaxial with a corresponding connecting hole **211**. The retractable cable box further includes screws **5**. The screws **5** are passed through the connecting holes **211** and screwed into corresponding threaded holes **1131**, so that the cable-receiving component **2** can be stably connected to the first shell **11**. In one embodiment of the present disclosure, referring to FIG. **4**, the cable-receiving component **2** is further provided with a positioning sleeve **212**. The positioning sleeve **212** is fixed on a surface of the cable-receiving component **2** facing the first shell **1**. The support post **113** is mounted into the positioning sleeve **212**, so as to improve the assembly efficiency of the retractable cable box.
(30) The connection plate **3** is fixedly connected with the cable-receiving component **2**. The connection plate **3** is rotatably connected with the second shell **12**. Specifically, referring to FIG. **2** and FIG. **6**, the second shell **12** defines a mounting hole **121**. The connection plate **3** is movably passed through the mounting hole **121**. The connection plate **3** includes a plate body **31** and a connecting portion **32** disposed on the plate body **31**. The connecting portion **32** is passed through the mounting hole **121** and is fixedly connected with the cable-receiving component **2**, such as by screws. An outer diameter of the plate body **31** is larger than an inner diameter of the mounting hole **121**, so that the plate body **31** is restricted outside the mounting hole **121**.
(31) Referring to FIG. **2**, the retractable cable box further includes a guiding element **4**. The guiding element **4** is mounted to the cable-receiving component **2**. The second shell **12** has a track groove **122**. The track groove **122** is formed by inwardly recessing from the second wall portion **126**. The track groove **122** has an opening facing the inner cavity **101**. By rotating the cable-receiving component **2** relative to the second shell **12**, the guiding element **4** is moved along the track groove **122**, so that the data cable **20** is coiled or loosened from the cable-receiving component **2**.
(32) The guiding element **4** includes a guide portion **41**, **41**′. The second shell **12** further defines a limiting groove **123**. The limiting groove **123** is located at an end of the track groove **122**. The guide portion **41**, **41**′ moves along the track groove **122**, so that the data cable **20** is coiled or is loosened from the cable-receiving component **2**, and the guide portion **41**, **41**′ cooperates with the limiting groove **123** to restrict the rotation of the cable-receiving component **2** relative to the second shell **12**.
(33) In the first embodiment of the present disclosure, the guiding element **4** adopts a torsion spring. Referring to FIG. **8**, the guiding element **4** includes the guide portion **41**, an elastic body **42** and an end portion **43**. The end portion **43** is connected to one end of the elastic body **42**, and the guide portion **41** is connected to another end of the elastic body **42**. The guide portion **41** is a bent structure. Referring to FIG. **9**, the guide portion **41** includes a connecting arm **411** and a head portion **412** bent perpendicularly from an end of the connecting arm **411**. At least part of the head

portion **412** is movable along the track groove **122**. The head portion **412** can also go deep into the limiting groove **123** to form a limiting connection. The end portion **43** is of a straight structure. The end portion **43** resists against the cable-receiving component **2**. By using the torsion spring as the guiding element **4**, since the torsion spring has elasticity, the first shell **1** can be rotated around the second shell **12** by more than 360 degrees, which is convenient for accommodating a longer data cable **20** and has a wide range of applications.

(34) Referring to FIG. **12**, the track groove **122** includes an inner track groove **1221** and an outer track groove **1222** communicating with the inner track groove **1221**. The inner track groove **1221** is disposed around the mounting hole **121**. The outer track groove **1222** is disposed around the inner track groove **1221**. At least the inner track groove **1221** is an annular groove. The outer track groove **1222** can be an annular groove, or less than one circle. By setting the outer track groove **1222**, the rotation angle of the cable-receiving component **2** around the second shell **12** can be greater than 365°, which has a good storage effect for the longer data cable **20**.

(35) Referring to FIG. **12**, the limiting groove **123** includes a first limiting groove **1231** and a second limiting groove **1232**. The first limiting groove **1231** is located at an end of the inner track groove **1221**. The second limiting groove **1232** is located at an end of the outer track groove **1222**. When the guide portion **41** is mated with the first limiting groove **1231**, the data cable **20** is coiled around the cable-receiving component **2**. When the guide portion **41** is mated with the second limiting groove **1232**, the data cable **20** is loosened from the cable-receiving component **2**. Through the cooperation of the guide portion **41** and the limiting groove, a locking effect is played. As a result, the relative rotation between the cable-receiving component **2** and the second shell **12** is restricted, so that the storage and use of the data cable **20** are more stable.

(36) Referring to FIG. **15**, the first limiting groove **1231** has a first depth W**1** along a thickness direction of the second shell **12**. The second limiting groove **1232** has a second depth W**2** along the thickness direction of the second shell **12**. The track groove **122** has a third depth W**3** along the thickness direction of the second shell **12**. Both the first depth W**1** and the second **20**) depth W**2** are greater than the third depth W**3**. In this way, the head portion **412** of the guiding element **4** can be restricted in the limiting groove.

(37) Referring to FIG. **13** and FIG. **14**, a first blocking portion **124** is provided between the first limiting groove **1231** and the inner track groove **1221**. A second blocking portion **125** is provided between the second limiting groove **1232** and the outer track groove **1222**. By providing the first blocking portion **124** and the second blocking portion **125**, the head portion **412** of the guiding element **4** is not easy to move from the limiting groove to the track groove **122**. The first blocking portion **124** has a first inclined surface **1241** and a second inclined surface **1242**. The first inclined surface **1241** faces the inner track groove **1221**. The second inclined surface **1242** faces the first limiting groove **1231**. The second blocking portion **125** has a third inclined surface **1251** and a fourth inclined surface **1252**. The third inclined surface **1251** faces the outer track groove **1222**. The fourth inclined surface **1252** faces the second limiting groove **1232**. By setting two inclined surfaces on the blocking portion, it is beneficial for the head portion **412** of the guiding element **4** to slide from the track groove **1222** into the limiting groove under the action of external force, and it is also convenient for the head portion **412** of the guiding element **4** to slide from the limiting groove to the track groove **1222**.

(38) Referring to FIG. **7**, the cable-receiving component **2** includes a bearing portion **21** and a cable winding portion **22**. The cable winding portion **22** is disposed on a surface of the bearing portion **21** facing the second shell **12**. The cable winding portion **22** defines a cable groove **221**. One end of the data cable **20** is fixed in the cable groove **221**. Part of the data cable **20** is stored in the cable groove **221**, and another part of the data cable **20** is wound around the cable winding portion **22**. In addition, referring to FIG. **8**, the cable winding portion **22** is provided with a mounting groove **222**. A columnar post **223** is fixed in the mounting groove **222**. The elastic body **42** of the guiding element **4** is sleeved on the columnar post **223**. Referring to FIG. **11**, the cable winding portion **22**

has a resisting portion **224**. The end portion **43** of the guiding element **4** resists against the resisting portion **224**.
(39) In this embodiment, continue to refer to FIG. **11**, the cable winding portion **22** defines a through hole **225** communicating with the mounting groove **222**. An inner wall on one side of the through hole **225** is the resisting portion **224**.
(40) In this embodiment, referring to FIG. **7**, the cable winding portion **22** includes a first groove body **2204** and a second groove body **2205**. A spacer **226** is provided between the first groove body **2204** and the second groove body **2205**. The spacer **226** can improve the structural strength of the cable-receiving component **2**. By setting the groove bodies, it is beneficial to reduce weight. The mounting groove **222** communicates with the first groove body **2204**. At least part of the guide portion **41** extends out of the first groove body **2204** for mating with the track groove **122** and the limiting groove **123**. The connecting arm **411** of the guide portion **41** resists against the spacer **226**.
(41) Referring to FIG. **2**, the electronic device further includes a circuit board **30** and at least two plug ports **40**. The plug ports **40** are electrically connected to the circuit board **30**. The circuit board **30** is fixed in the inner cavity **101** between the first shell **11** and the cable-receiving component **2**. In one embodiment of the present disclosure, the circuit board **30** includes a first circuit board **301** and a second circuit board **302**. The electronic device of this embodiment is a connector expansion base to provide functions of data signal transmission and charging. The connector expansion base includes an audio port, a USB port, a memory card port, a network port, a digital video port, a VGA analog video port and a Type-C port. Wherein, the audio port, the USB port, the memory card port and the network port are electrically connected to the first circuit board **301**: the digital video port, the VGA analog video port and the Type-C port are electrically connected to the second circuit board **302**. The second shell **12** defines a plurality of ports **103**. Each plug port and multiple external devices are connected to the plug ports through the ports **103**.
(42) In this embodiment, the first circuit board **301** is disposed adjacent to the first shell **11**, and the second circuit board **302** is disposed adjacent to the cable-receiving component **2**. Both the first circuit board **301** and the second circuit board **302** are fixedly connected to the first shell **11** by screws.
(43) In other embodiments, the electronic device can also be a charging board, and the first circuit board **301** of the electronic device is further provided with a wireless charging module to provide wireless charging for external devices.
(44) In a second embodiment of the present disclosure, referring to FIG. **16** and FIG. **17**, the guiding element **4** includes a guide potion **41**′, a main body **401** and a shaft portion **402**. The shaft portion **402** is connected to one end of the main body **401**, and the guide portion **41**′ is connected to another end of the main body **401**. The cable winding portion **22** is provided with a shaft hole **2201** in which the shaft portion **402** is disposed, and the shaft portion **402** is rotatable in the shaft hole **2201**.
(45) In this embodiment, referring to FIG. **17** to FIG. **19**, the cable winding portion **22** is provided with a first limiting portion **2202** and a second limiting portion **2203**. The guide portion **41**′ is movable between the first limiting portion **2202** and the second limiting portion **2203**. In this way, the first shell **1** can rotate more than 360 degrees around the second shell **12**, which is convenient for accommodating a longer data cable **20** and has a wide range of applications. The shaft hole **2201** is disposed on a bottom wall of the first groove body **2204** of the cable winding portion **22**. The shaft hole **2201** communicates with the first groove body **2204**. At least part of the guide portion **41**′ protrudes out of the first groove body **2204** for mating with the track groove **122** and the limiting groove **123**. The guide portion **41**′ is in a shape of a cylinder, and its end is chamfered, which facilitates the guide portion **41**′ to slide into the limiting groove **123**.
(46) Specifically, the main body **401** is of a flat plate structure. The guide portion **41**′ and the shaft portion **402** are provided on different surfaces of the main body **401** along the thickness direction. Referring to FIG. **19** and FIG. **20**, the main body **401** includes a first arc-shaped surface **4011**, a

second arc-shaped surface **4012**, and two flat surfaces **4013** connecting the first arc-shaped surface **4011** and the second arc-shaped surface **4012**. A diameter of the first arc-shaped surface **4011** is larger than a diameter of the second arc-shaped surface **4012**. The shaft portion **402** is located closer to the first arc-shaped surface **4011** relative to the second arc-shaped surface **4012**. The guide portion **41′** is located closer to the second arc-shaped surface **4012** relative to the first arc-shaped surface **4011**.

(47) An inner surface of the first limiting portion **2202** fits with part of the second arc-shaped surface **4012** and one of the flat surfaces **4013**, and an inner surface of the second limiting portion **2203** fits with at least part of the other flat surface **4013**, so as to realize the movable restriction of the guiding element **4**.

(48) When the guide portion **41′** mates with the first limiting groove **1231**, the data cable **20** is coiled around the cable-receiving component **2**. When the guide portion **41′** mates with the second limiting groove **1232**, the data cable **20** is loosened from the cable-receiving component **2**. The mutual cooperation between the guide portion **41′** and the limiting groove plays a locking role, thereby restricting the relative rotation of the cable-receiving component **2** and the second shell **12**, making the storage and use of the data cable **20** more stable.

(49) The above embodiments are only used to illustrate the present disclosure and not to limit the technical solutions described in the present disclosure. The understanding of this specification should be based on those skilled in the art. Descriptions of directions, although they have been described in detail in the above-mentioned embodiments of the present disclosure, those skilled in the art should understand that modifications or equivalent substitutions can still be made to the application, and all technical solutions and improvements that do not depart from the spirit and scope of the application should be covered by the claims of the application.

Claims

1. A retractable cable box, configured to accommodate a data cable, comprising: a shell having an inner cavity and a storage opening communicating with the inner cavity; the shell comprising a first shell and a second shell: the first shell being rotatable relative to the second shell: the second shell defining a mounting hole and a track groove: the track groove having an opening facing the inner cavity; a cable-receiving component disposed in the inner cavity and fixedly connected to the first shell; a connection plate passing through the mounting hole and fixedly connected to the cable-receiving component; and a guiding element mounted to the cable-receiving component; wherein by a rotation of the cable-receiving component relative to the second shell, the guiding element moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component.

2. The retractable cable box according to claim 1, wherein the guiding element comprises a guide portion: the second shell further defines a limiting groove located at an end of the track groove: the guide portion moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component: the guide portion cooperates with the limiting groove to limit the rotation of the cable-receiving component relative to the second shell.

3. The retractable cable box according to claim 2, wherein the cable-receiving component comprises a bearing portion and a cable winding portion: the cable winding portion is disposed on a surface of the bearing portion facing the second shell: the cable winding portion defines a cable groove: one end of the data cable is fixed in the cable groove: part of the data cable is stored in the cable groove, and another part of the data cable is wound around the cable winding portion.

4. The retractable cable box according to claim 3, wherein the guiding element comprises a guide portion, an elastic body and an end portion: the end portion is connected to one end of the elastic body: the guide portion is connected to another end of the elastic body: the cable winding portion defines a mounting groove in which a columnar post is fixed: the elastic body is sleeved on the

columnar post: the cable winding portion has a resisting portion; and the end portion resists the resisting portion.
5. The retractable cable box according to claim 3, wherein the guiding element comprises a guide portion, a main body and a shaft portion: the shaft portion is connected to one end of the main body: the guide portion is connected to another end of the main body: the cable winding portion defines a shaft hole in which the shaft portion is disposed.
6. The retractable cable box according to claim 5, wherein the cable winding portion comprises a first limiting portion and a second limiting portion: the guide portion is movable between the first limiting portion and the second limiting portion.
7. The retractable cable box according to claim 2, wherein the track groove comprises an inner track groove and an outer track groove communicating with the inner track groove: the inner track groove is arranged around the mounting hole; and the outer track groove is arranged around the inner track groove.
8. The retractable cable box according to claim 7, wherein the limiting groove comprises a first limiting groove and a second limiting groove: the first limiting groove is located at an end of the inner track groove: the second limiting groove is located at an end of the outer track groove: when the guide portion cooperates with the first limiting groove, the data cable is coiled around the cable-receiving component: when the guide portion cooperates with the second limiting groove, the data cable is released from the cable-receiving component.
9. The retractable cable box according to claim 8, wherein the first limiting groove has a first depth along a thickness direction of the second shell: the second limiting groove has a second depth along the thickness direction of the second shell: the track groove has a third depth along the thickness direction of the second shell: both the first depth and the second depth are greater than the third depth.
10. The retractable cable box according to claim 9, wherein a first blocking portion is provided between the first limiting groove and the inner track groove; and a second blocking portion is provided between the second limiting groove and the outer track groove.
11. An electronic device, comprising: a data cable; a circuit board; at least two plug ports; and a retractable cable box, comprising: a shell having an inner cavity and a storage opening communicating with the inner cavity; the shell comprising a first shell and a second shell: the first shell being rotatable relative to the second shell: the second shell defining a mounting hole and a track groove: the track groove having an opening facing the inner cavity; a cable-receiving component disposed in the inner cavity and fixedly connected to the first shell; a connection plate passing through the mounting hole and fixedly connected to the cable-receiving component; and a guiding element mounted to the cable-receiving component; wherein the data cable is capable of being accommodated in the inner cavity; the plug ports and the data cable are electrically connected to the circuit board; and by a rotation of the cable-receiving component relative to the second shell, the guiding element moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component.
12. The electronic device according to claim 11, further comprising a wireless charging module arranged on the circuit board.
13. The electronic device according to claim 11, wherein the guiding element comprises a guide portion: the second shell further defines a limiting groove located at an end of the track groove: the guide portion moves along the track groove so that the data cable is coiled or loosened from the cable-receiving component: the guide portion cooperates with the limiting groove to limit the rotation of the cable-receiving component relative to the second shell.
14. The electronic device according to claim 13, wherein the cable-receiving component comprises a bearing portion and a cable winding portion: the cable winding portion is disposed on a surface of the bearing portion facing the second shell: the cable winding portion defines a cable groove: one end of the data cable is fixed in the cable groove: part of the data cable is stored in the cable

groove, and another part of the data cable is wound around the cable winding portion.
15. The electronic device according to claim 14, wherein the guiding element comprises a guide portion, an elastic body and an end portion: the end portion is connected to one end of the elastic body: the guide portion is connected to another end of the elastic body: the cable winding portion defines a mounting groove in which a columnar post is fixed: the elastic body is sleeved on the columnar post: the cable winding portion has a resisting portion; and the end portion resists the resisting portion.
16. The electronic device according to claim 14, wherein the guiding element comprises a guide portion, a main body and a shaft portion: the shaft portion is connected to one end of the main body: the guide portion is connected to another end of the main body: the cable winding portion defines a shaft hole in which the shaft portion is disposed.
17. The electronic device according to claim 16, wherein the cable winding portion comprises a first limiting portion and a second limiting portion: the guide portion is movable between the first limiting portion and the second limiting portion.
18. The electronic device according to claim 13, wherein the track groove comprises an inner track groove and an outer track groove communicating with the inner track groove: the inner track groove is arranged around the mounting hole; and the outer track groove is arranged around the inner track groove.
19. The electronic device according to claim 18, wherein the limiting groove comprises a first limiting groove and a second limiting groove; the first limiting groove is located at an end of the inner track groove; the second limiting groove is located at an end of the outer track groove; when the guide portion cooperates with the first limiting groove, the data cable is coiled around the cable-receiving component; when the guide portion cooperates with the second limiting groove, the data cable is released from the cable-receiving component.
20. The electronic device according to claim 19, wherein the first limiting groove has a first depth along a thickness direction of the second shell; the second limiting groove has a second depth along the thickness direction of the second shell; the track groove has a third depth along the thickness direction of the second shell; both the first depth and the second depth are greater than the third depth; and wherein a first blocking portion is provided between the first limiting groove and the inner track groove; and a second blocking portion is provided between the second limiting groove and the outer track groove.