CLAIMS

1. A signal transmission apparatus, comprising a service processing module, a signal processing module, and an optical module, wherein the service processing module comprises a first interface, the optical module comprises a first channel, the signal processing module is separately communicatively connected to the first interface and the first channel, and the first interface is communicatively connected to the first channel;

the first interface is configured to send an initial signal to the first channel;

the first channel is configured to obtain a first modulated signal based on the initial signal, and transmit the first modulated signal; and

the signal processing module is configured to determine a parameter adjustment policy based on a transmission status corresponding to the first modulated signal, wherein the parameter adjustment policy is used to adjust a matching parameter of the signal transmission apparatus, and the matching parameter is used to determine matching between the first interface and the first channel.

2. The signal transmission apparatus according to claim 1, wherein the signal processing module is configured to obtain a transmission indicator corresponding to the first modulated signal, and determine the parameter adjustment policy based on the transmission indicator, wherein the transmission indicator is determined based on the transmission status corresponding to the first modulated signal.

3. The signal transmission apparatus according to claim 2, wherein the service processing module further comprises a second interface, the optical module further comprises a second channel, the second interface is communicatively connected to the second channel, the signal processing module is separately communicatively connected to the second interface and the second channel, and the second channel is communicatively connected to the first channel;

the first channel is configured to transmit the first modulated signal to the second channel;

the second channel is configured to obtain a second modulated signal based on the first modulated signal, and transmit the second modulated signal to the second interface;

the second interface is configured to obtain a signal feature of the second modulated signal, wherein the signal feature of the second modulated signal indicates the transmission status corresponding to the first modulated signal; and

the signal processing module is configured to obtain the transmission indicator that is obtained based on the signal feature of the second modulated signal.

4. The signal transmission apparatus according to claim 3, wherein the first channel and the second channel are connected through an optical fiber.

5. The signal transmission apparatus according to claim 3, wherein the optical module further comprises an optical splitting module, and the optical splitting module is separately communicatively connected to the first channel and the second channel;

the first channel is configured to transmit the first modulated signal to the optical splitting module; and

the optical splitting module is configured to transmit the first modulated signal to the second channel.

6. The signal transmission apparatus according to any one of claims 3 to 5, wherein the second interface is further configured to send the signal feature of the second modulated signal to the signal processing module; and

the signal processing module is configured to determine the transmission indicator based on the signal feature of the second modulated signal, an initial parameter of the second channel, and an initial parameter of the second interface.

7. The signal transmission apparatus according to claim 2, wherein the first channel is communicatively connected to an indicator calculation module, and the indicator calculation module is communicatively connected to the signal processing module;

the first channel is configured to transmit the first modulated signal to the indicator calculation module;

the indicator calculation module is configured to determine the transmission indicator based on the received first modulated signal, and transmit the transmission indicator to the signal processing module; and

the signal processing module is configured to receive the transmission indicator sent by the indicator calculation module.

8. The signal transmission apparatus according to claim 2, wherein the first channel is communicatively connected to a third channel comprised in a reference apparatus, and the third channel is communicatively connected to a reference processing module comprised in the reference apparatus;

the first channel is configured to send the first modulated signal to the third channel;

the third channel is configured to obtain a third modulated signal based on the first modulated signal, and send the third modulated signal to the reference processing module;

the reference processing module is configured to determine the transmission indicator based on the third modulated signal, and send the transmission indicator to the signal processing module; and

the signal processing module is configured to receive the transmission indicator sent by the reference processing module.

9. The signal transmission apparatus according to any one of claims 2 to 8, wherein the signal processing module is configured to determine, based on mismatching between the transmission indicator and a transmission protocol corresponding to the signal transmission apparatus, that the parameter adjustment policy indicates to adjust the matching parameter of the signal transmission apparatus.

10. The signal transmission apparatus according to any one of claims 1 to 9, wherein the signal transmission apparatus further comprises a central control module, the central control module is separately communicatively connected to the first interface and the first channel, and the central control module is communicatively connected to the signal processing module;

the signal processing module is further configured to indicate to adjust the matching parameter of the signal transmission apparatus according to the parameter adjustment policy, and send the parameter adjustment policy to the central control module; and

the central control module is configured to adjust at least one of an interface parameter of the first interface and a drive parameter of the first channel according to the parameter adjustment policy.

11. A signal transmission apparatus commissioning method, wherein the method is applied to a signal transmission apparatus, the signal transmission apparatus comprises a service processing module, a signal processing module, and an optical module, the service processing module comprises a first interface, the optical module comprises a first channel, the signal processing module is separately communicatively connected to the first interface and the first channel, and the first interface is communicatively connected to the first channel; and the method comprises:

sending an initial signal to the first channel through the first interface;

obtaining a first modulated signal through the first channel based on the initial signal, and transmitting the first modulated signal; and

determining a parameter adjustment policy through the signal processing module based on a transmission status corresponding to the first modulated signal, wherein the parameter adjustment policy is used to adjust a matching parameter of the signal transmission apparatus, and the matching parameter is used to determine matching between the first interface and the first channel.

12. The method according to claim 11, wherein determining the parameter adjustment policy through the signal processing module based on the transmission status corresponding to the first modulated signal comprises:

obtaining, through the signal processing module, a transmission indicator corresponding to the first modulated signal, and determining the parameter adjustment policy based on the transmission indicator, wherein the transmission indicator is determined based on the transmission status corresponding to the first modulated signal.

13. A signal transmission apparatus commissioning device, wherein the device comprises a processor, and the processor loads and executes at least one instruction, so that the signal transmission apparatus commissioning device implements the signal transmission apparatus commissioning method according to any one of claims 11 to 12.

14. The signal transmission apparatus commissioning device according to claim 13, wherein the device comprises a memory, the memory is coupled to the processor, and the memory stores at least one instruction.

15. A computer-readable storage medium, wherein the computer-readable storage medium stores at least one instruction, and the instruction is loaded and executed by a processor, to implement the signal transmission apparatus commissioning method according to any one of claims 11 to 12.