CLAIMS

1. A hot capacity extension POI device for changing access of different frequency bands, comprising an expansion module and a base module,

the expansion module being used for classifying access signals and the classified access signals forming mutually independent paths, and then integrating the paths; and

the base module being used for combining signals classified and integrated by the expansion module and then performing frequency mixing output on the signals, each input port of the base module being correspondingly input with a supportive communication frequency band, wherein classifying the access signals refers to classifying the access signals according to a supportive communication frequency band signal type of the base module; and integrating the paths refers to integrating independent and separate frequency bands belonging to the same supportive communication frequency band.

2. The hot capacity extension POI device as recited in claim 1, wherein the expansion module includes a plurality of expansion sub-modules for transmitting different supportive communication frequency bands and the plurality of expansion sub-modules are independent of each other.

3. The hot capacity extension POI device as recited in claim 2, wherein each expansion sub-module includes a filter for accessing a same service signal.

4. The hot capacity extension POI device as recited in claim 2, wherein each expansion sub-module includes a combiner for combining different service signals.

5. A hot capacity extension POI method using a hot capacity extension POI device as recited in any one of claims 1 to 4, comprising the following steps:

classifying access signals and the classified access signals forming mutually independent paths, and then integrating the paths;

combining signals classified and integrated by the expansion module; and

performing frequency mixing output on the signals; wherein classifying the access signals refers to classifying the access signals according to a supportive communication frequency band signal type of the base module; and integrating the paths refers to integrating independent and separate frequency bands belonging to the same supportive communication frequency band.

6. The hot capacity extension POI method as recited in claim 5, wherein forming mutually independent paths is to independently transmit the access signals after the same access signals are classified.

7. The hot capacity extension POI method as recited in claim 6, wherein when a new service signal needs to be accessed, transmission of a correspondingly accessed path is suspended; and filtration is performed to the new service signal after the same new service signal is accessed.

8. The hot capacity extension POI method as recited in claim 6, wherein when a new service signal needs to be accessed, transmission of a correspondingly accessed path is suspended; and the new service signal and an original service signal are combined after the new service signal is accessed.