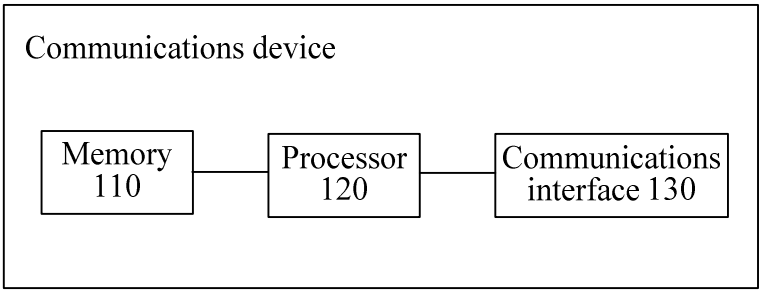
Communications device
Memory 110
Processor 120
Communications interface 130

FIG. 1

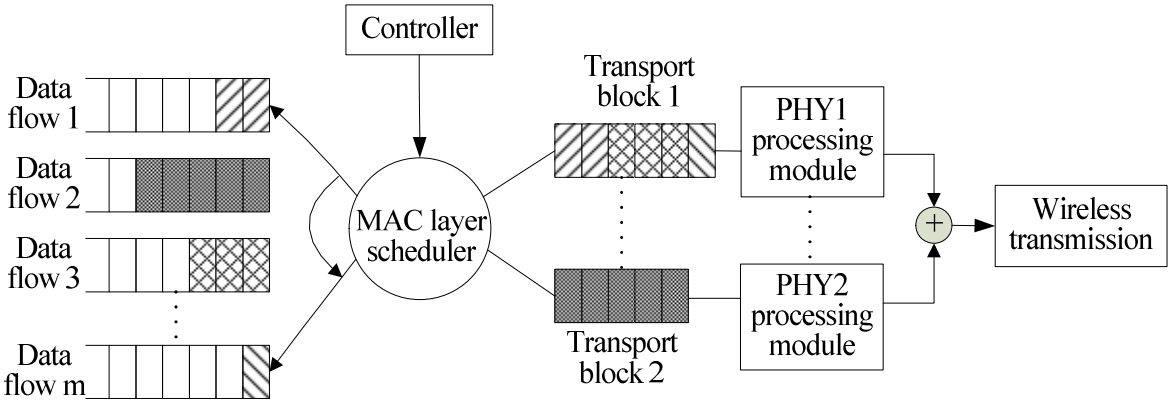
Controller
Data flow 1
Data flow 2
Data flow 3
Data flow m
MAC layer scheduler
Transport block 1
Transport block 2
PHY1 processing module
PHY2 processing module
Wireless transmission

FIG. 1A

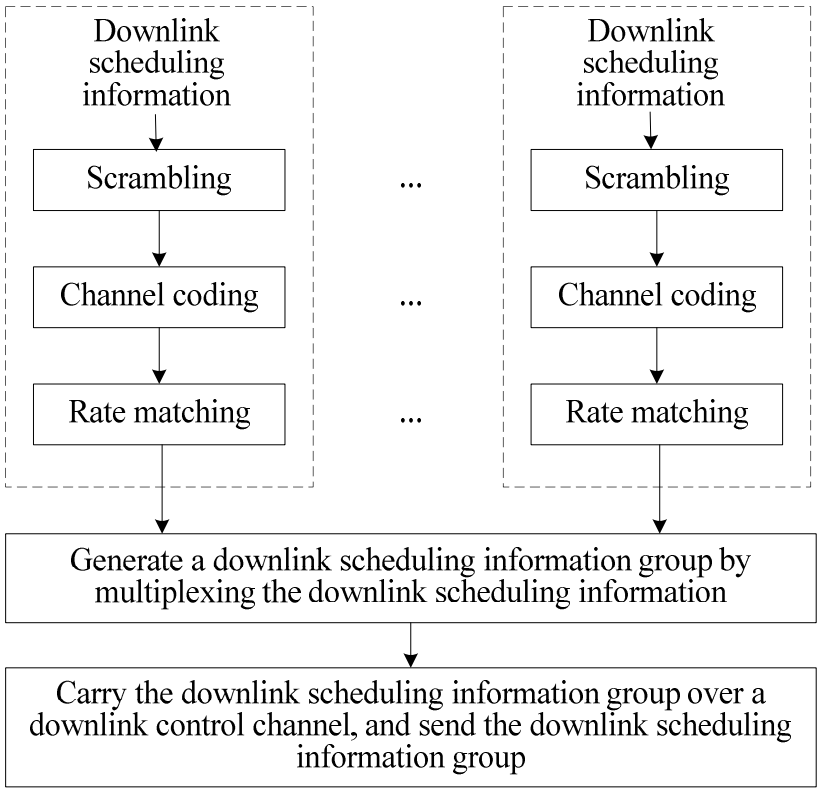
Downlink scheduling information
Scrambling
Channel coding
Rate matching
...
...
...
Downlink scheduling information
Scrambling
Channel coding
Rate matching
Generate a downlink scheduling information group by multiplexing the downlink scheduling information
Carry the downlink scheduling information group over a downlink control channel, and send the downlink scheduling information group

FIG. 1B

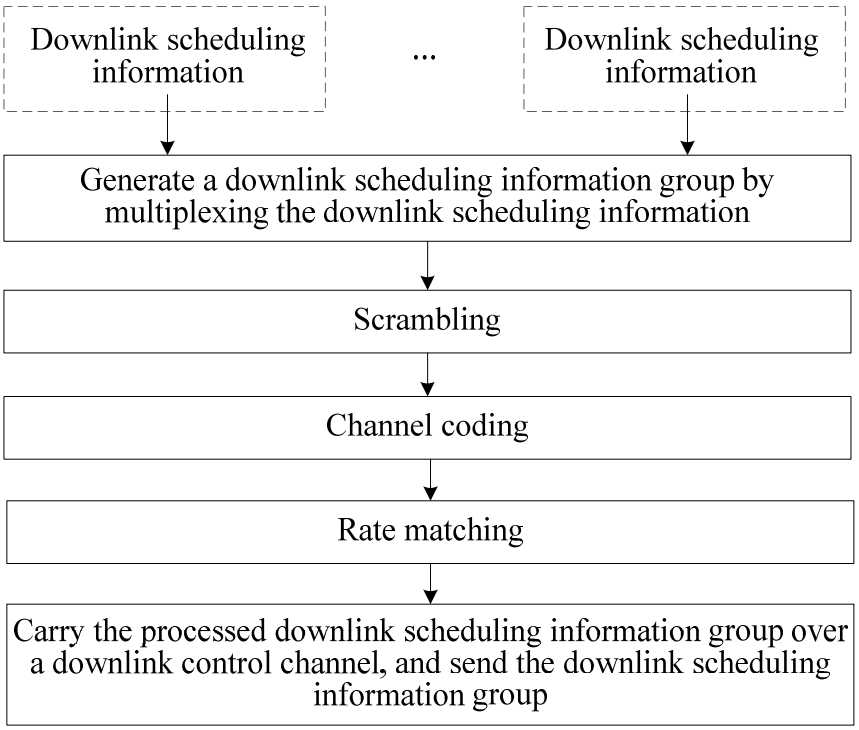
Downlink scheduling information
...
Downlink scheduling information
Generate a downlink scheduling information group by multiplexing the downlink scheduling information
Scrambling
Channel coding
Rate matching
Carry the processed downlink scheduling information group over a downlink control channel, and send the downlink scheduling information group

FIG. 1C

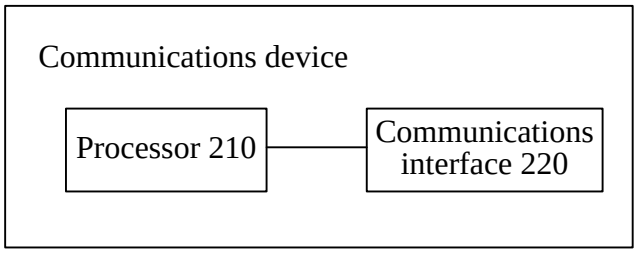
Communications device
Processor 210
Communications interface 220

FIG. 2

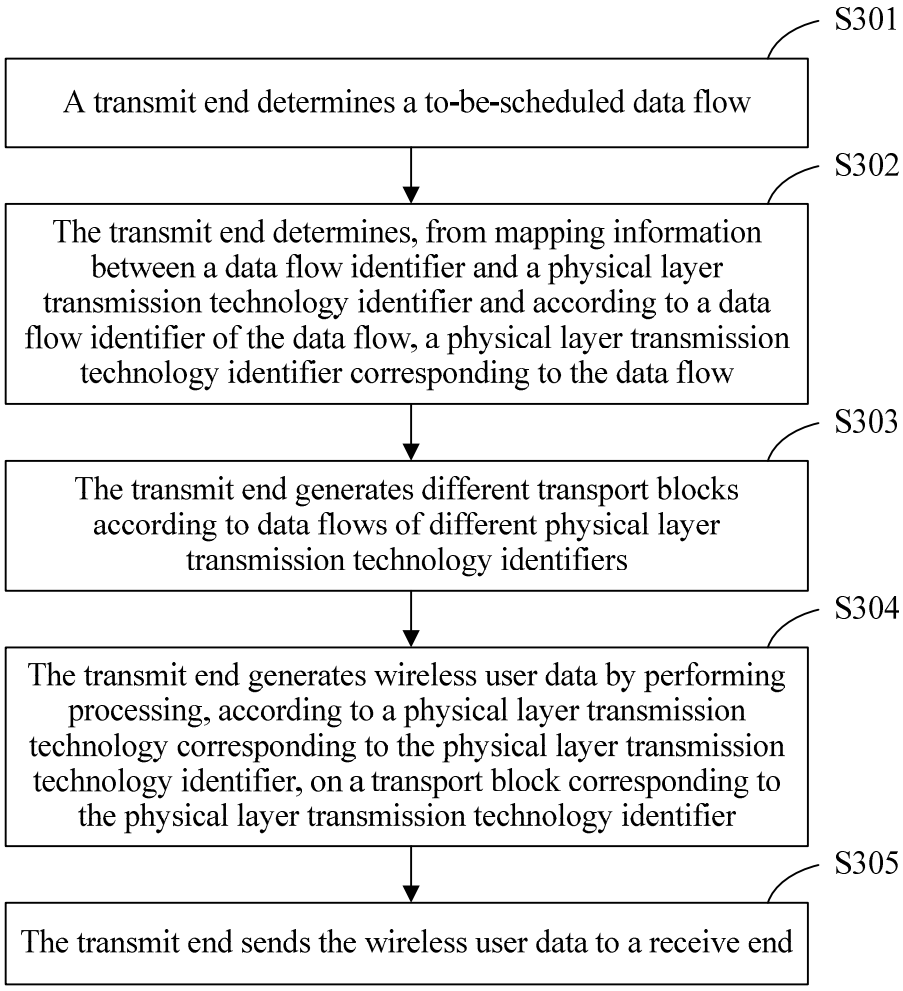
S301
A transmit end determines a to-be-scheduled data flow
S302
The transmit end determines, from mapping information between a data flow identifier and a physical layer transmission technology identifier and according to a data flow identifier of the data flow, a physical layer transmission technology identifier corresponding to the data flow
S303
The transmit end generates different transport blocks according to data flows of different physical layer transmission technology identifiers
S304
The transmit end generates wireless user data by performing processing, according to a physical layer transmission technology corresponding to the physical layer transmission technology identifier, on a transport block corresponding to the physical layer transmission technology identifier
S305
The transmit end sends the wireless user data to a receive end

FIG. 3

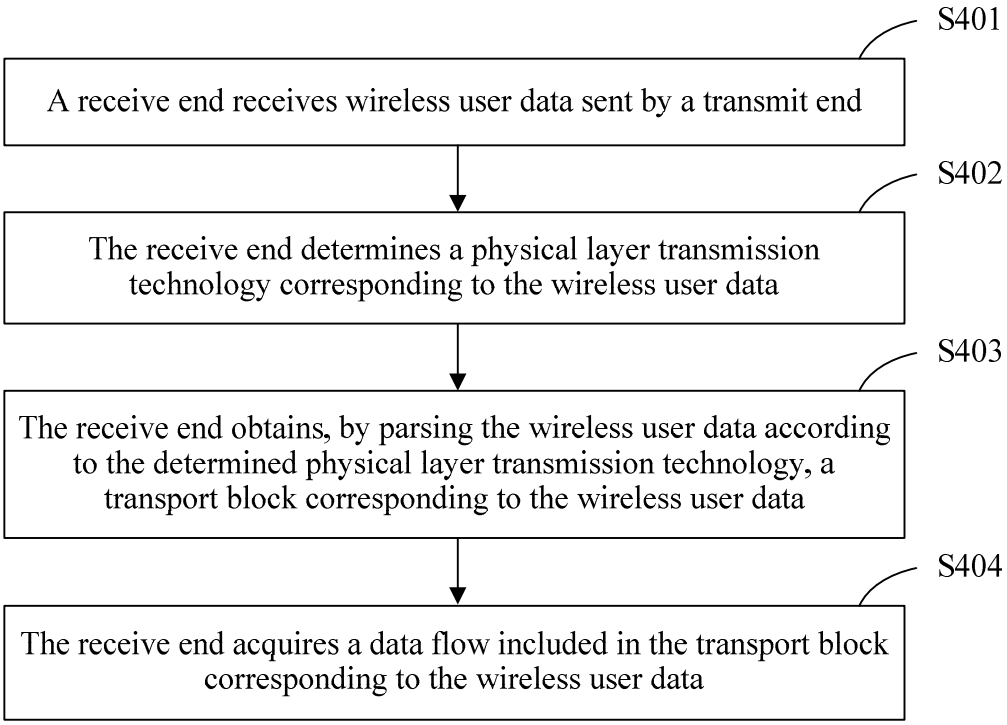
S401
A receive end receives wireless user data sent by a transmit end
S402
The receive end determines a physical layer transmission technology corresponding to the wireless user data
S403
The receive end obtains, by parsing the wireless user data according to the determined physical layer transmission technology, a transport block corresponding to the wireless user data
S404
The receive end acquires a data flow included in the transport block corresponding to the wireless user data

FIG. 4

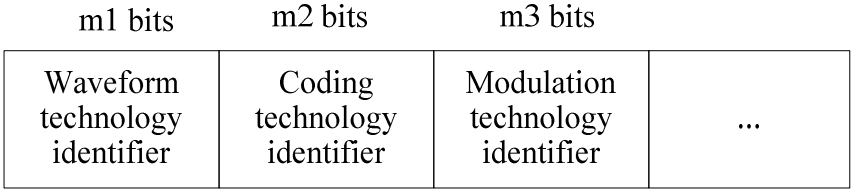
m1 bits
m2 bits
m3 bits
Waveform technology identifier
Coding technology identifier
Modulation technology identifier
...

FIG. 5