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(54) **RESOURCE SHARING IN A TELECOMMUNICATIONS ENVIRONMENT**

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H03M 13/00   (2006.01)
(52) **U.S. Cl.** **714/774**; 714/784; 375/222
(58) **Field of Classification Search** 709/215; 375/222; 714/774, 784; 711/147, 153, 157, 711/170, 173; 379/93.01
See application file for complete search history.

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(57) **ABSTRACT**

A transceiver is designed to share memory and processing power amongst a plurality of transmitter and/or receiver latency paths, in a communications transceiver that carries or supports multiple applications. For example, the transmitter and/or receiver latency paths of the transceiver can share an interleaver/deinterleaver memory. This allocation can be done based on the data rate, latency, BER, impulse noise protection requirements of the application, data or information being transported over each latency path, or in general any parameter associated with the communications system.

8 Claims, 3 Drawing Sheets
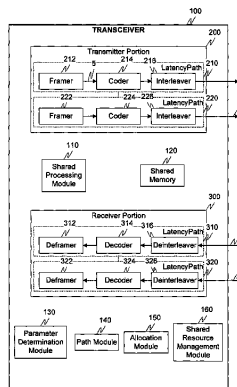
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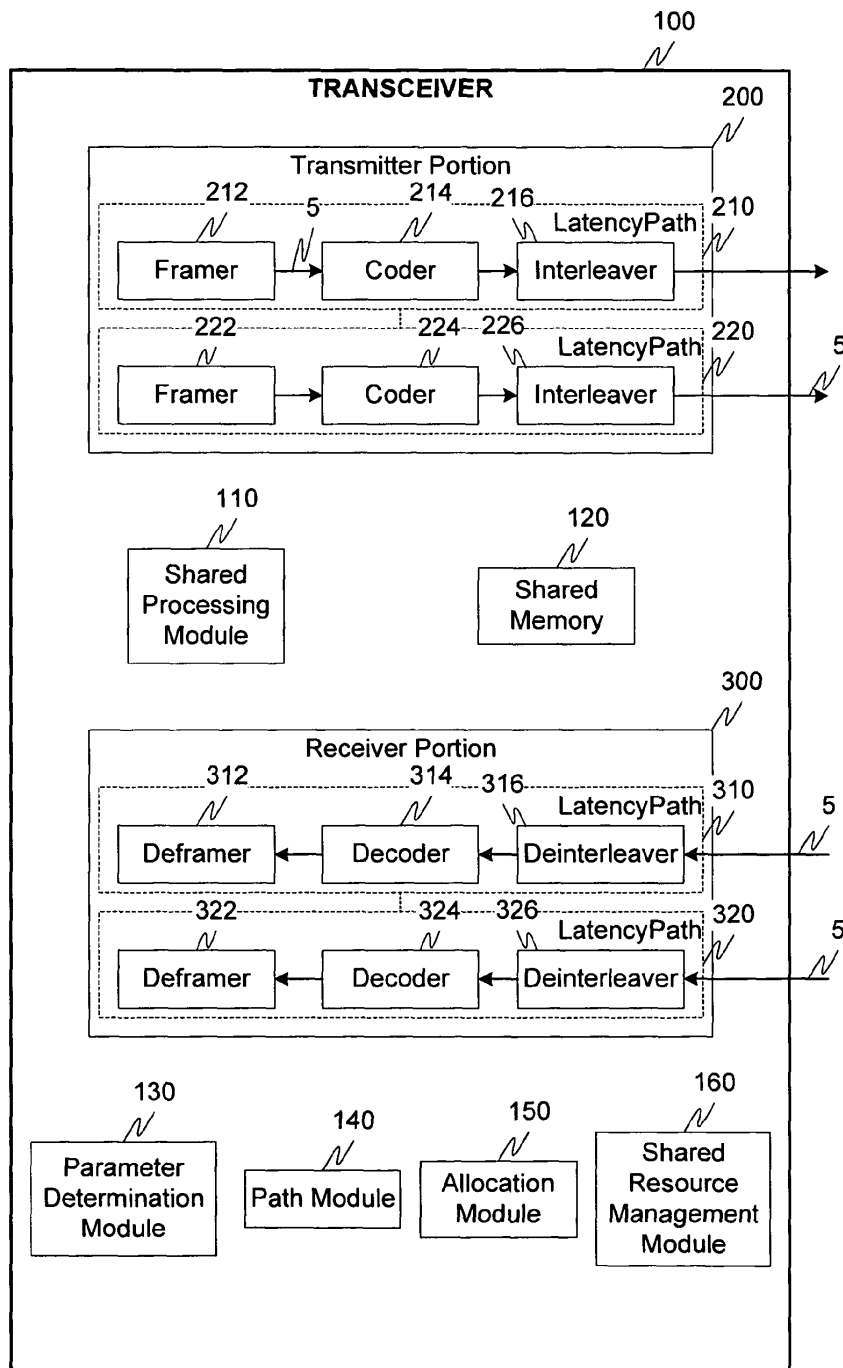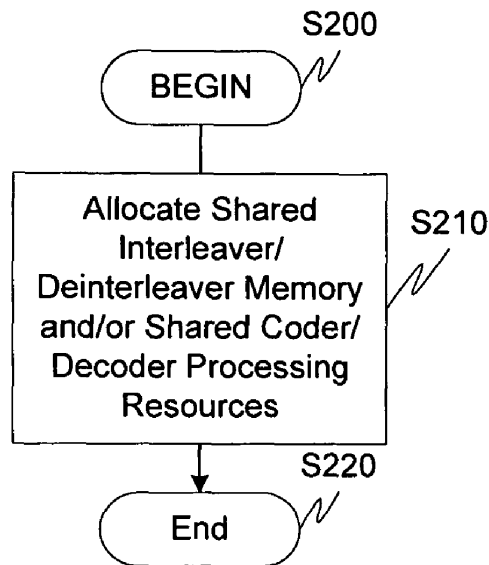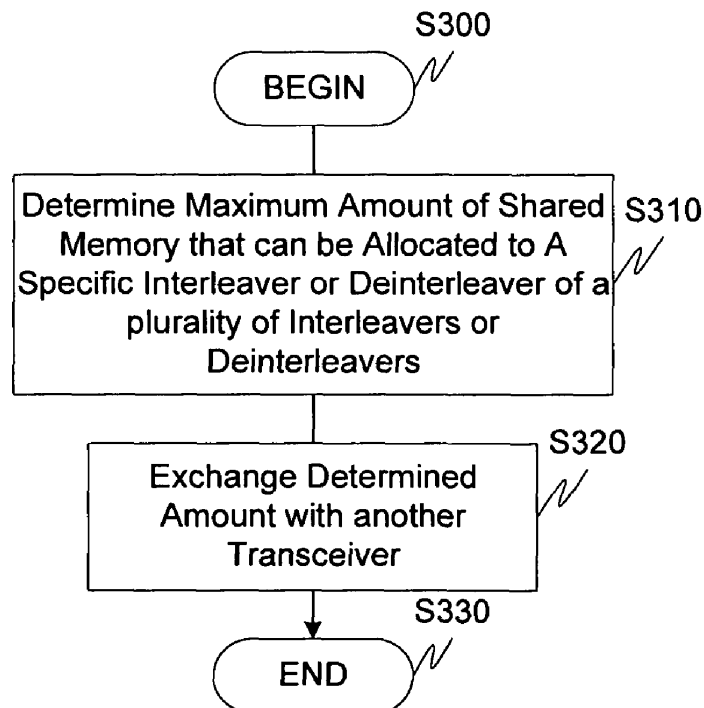
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Fig. 1

S200

BEGIN

S210

Allocate Shared
Interleaver/
Deinterleaver Memory
and/or Shared Coder/
Decoder Processing
Resources

S220

End

Fig. 2

S300

BEGIN

S310

Determine Maximum Amount of Shared
Memory that can be Allocated to A
Specific Interleaver or Deinterleaver of a
plurality of Interleavers or
Deinterleavers

S320

Exchange Determined
Amount with another
Transceiver

S330

END

Fig. 3

BEGIN S400 S410

Determine Number of Latency Paths S410

Exchange Latency Path Information S420

For Each Latency Path S430

Monitor Resource Allocation S440

Determine one or more Parameters S450

Allocate Shared Resource(s) S460

Coordinate Shared Resource Allocation with another Transceiver S470

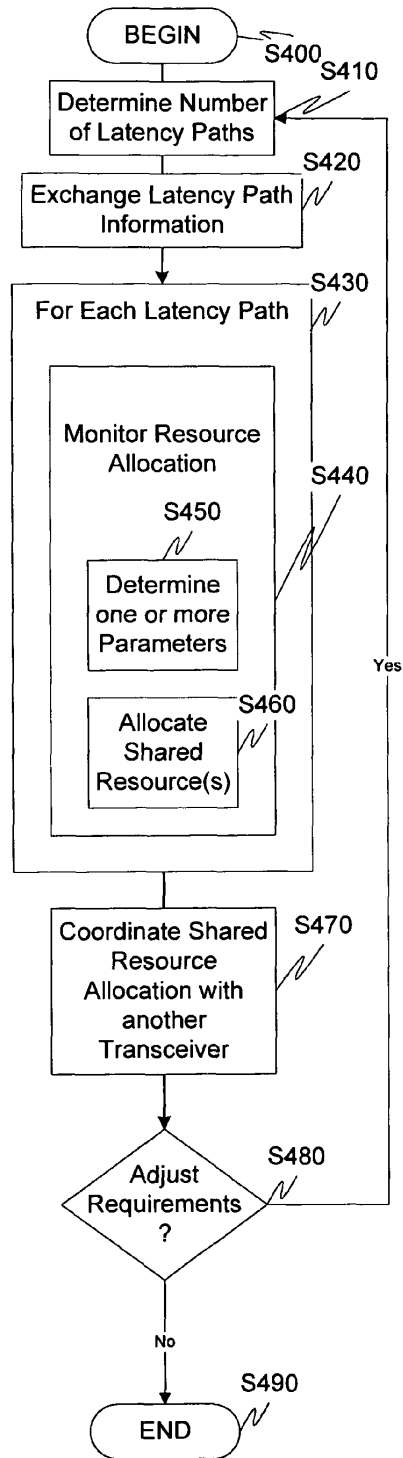Adjust Requirements? S480

Yes

No

END S490

Fig. 4

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