level of the octet and makes the decision of whether the energy level of the octet is less than or equal to a predefined value. If the answer is no, block **1304** transfers the octet to sample queue **304** before returning control to decision block **1302**. If the answer in decision block **1303** is yes, block **1306** inserts the energy value and the position in sample queue **304** of the octet into the sorted list maintained in memory **308**. Finally, block **1307** transfers the octet to sample queue **304** before returning control to decision block **1302**.

FIG. **14** illustrates, in flowchart form, operations that may be performed by another embodiment of insert/remove circuit **302** of FIG. **3**. It is assumed that low energy detector **303** whose operations are illustrated in FIG. **13** is operating in the same manner with respect to sorted list **308**. After being started by block **1400**, block **1401** waits until the PHY requests an octet. When this occurs, control is transferred to decision block **1402**. The latter decision block determines if an octet is ready in the queue. If the answer is no, block **1404** inserts and transmits a silent octet to the PHY. If the answer in decision block **1402** is yes, control is transferred to decision block **1403** which determines if the octet, that is ready, is a low energy octet. If the answer is no, block **1406** transmits the octet to PHY. Note, that block **1406** also operates with respect to the sorted list in memory **308** to properly update that list. After block **1406** has transmitted the octet, control is transferred back to block **1401**.

Returning to decision block **1403**, if the octet, that is ready, is a low energy octet, control is transferred to decision block **1408**. The latter decision block determines if the queue is above or equal to a predefined capacity. At or above this capacity, a low energy octet will be deleted if it is the lowest energy octet presently in the queue. If the answer in decision block **1408** is no, control is transferred to block **1406**. If the answer in decision block **1408** is yes, decision block **1409** determines if the octet, that is ready, is the lowest energy octet in the queue. If the answer is no, control is transferred to block **1406**. If the answer in decision block **1409** is yes, block **1411** deletes the octet, gets another octet and transmits that octet to the PHY before transferring control to block **1413**. Block **1413** recalculates the sorted list stored in memory **308** of FIG. **3** to properly update it and to properly position it for the removal of two octets before transferring control back to block **1401**.

Of course, various changes and modifications to the illustrative embodiment described above will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the invention and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the following claims except in so far as limited by the prior art.

What is claimed is:

1. A method for compensating for unsynchronized data transmission of synchronous data, comprising the steps of:

receiving samples of synchronous data;

maintaining queue of received samples;

detecting a received sample containing low energy;

adding to a count of low energy samples in the queue upon the sample of low energy being placed in the queue; and

deleting one of the low energy samples from the queue upon the queue containing more than a maximum number of samples for the queue and subtracting from the count of low energy samples upon the one of the low energy samples being deleted from the queue.

2. The method of claim **1** comprises the step of subtracting from the count of low energy samples upon the one of the low energy samples being removed from the queue and transmitting the one of the low energy samples to an interface.

3. The method of claim **2** wherein the step of subtracting comprises receiving a request from the interface from the interface.

4. The method of claim **1** further comprises the steps of requesting a sample from the queue by the interface; and

incrementing a count that defines a number of non-low energy samples that have taken from the queue and transmitted to the interface since the last low energy sample was deleted.

5. The method of claim **4** further the steps of determining if a next sample for transmission in the queue is a low energy sample;

determining if number of samples in the queue is greater than a first predefined value;

determining if the count of low energy samples is less than a first predefined counter value;

determining if the count of non-low energy samples is greater than a first predefined count value; and

deleting the next sample for transmission from the queue upon the next sample for transmission in the queue being a low energy sample, the queue containing more than a first predefined value of samples, the count of low energy samples being less than the first predefined counter value and the count of non-low energy samples being greater than the first predefined count value.

6. The method of claim **5** further comprises the steps of decrementing the count of low energy samples; and

setting the count of non-low energy samples equal to zero.

7. The method of claim **4** further the steps of determining if the next sample for transmission in the queue is a low energy sample;

determining if number of samples in the queue is greater than a first predefined value;

determining if the count of low energy samples is greater than a first predefined counter value and less than a second predefined counter value.

determining if the count of non-low energy samples is greater than a first predefined count value and less than a second predefined count value; and

deleting the next sample for transmission from the queue upon the next sample for transmission in the queue being a low energy sample, the number of samples in the queue being greater than the first predefined value, the count of low energy samples being greater than the first predefined counter value and less than the second predefined counter value and the count of non-low energy samples being greater than the first predefined count value and less than the second predefined count value.

8. The method of claim **7** further comprises the steps of decrementing count of non-low energy samples; and

setting the count of low energy samples equal to zero.

9. An apparatus for compensating for unsynchronized data transmission of synchronous data, comprising:

a receiver for receiving samples of synchronous data;

a low energy detector for determining a low energy sample in the received samples and for inserting the received samples into a queue; and

a counter that is incremented by the low energy detector upon the determination of a low energy sample by the low energy detector.