

CLAIMS

What is claimed is:

1. An apparatus comprising:
a DisplayPort adaptation layer logic coupled with a wireless communication
5 interface logic, the DisplayPort adaptation layer logic to send a control packet
indicating a DisplayPort interface is to be used for communication.
2. The apparatus of claim 1, wherein the control packet comprises one of an
Audio / Video (A/V) capability request control frame and an A/V capability
response frame.
- 10 3. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is
further to:
send a request primitive to register the DisplayPort interface; and
receive a confirmation primitive indicating a result of the registration of the
DisplayPort interface.
- 15 4. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is
further to:
send a confirmation primitive in response to receiving a request primitive to
register a DisplayPort interface.
5. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is
20 further to:
send a request primitive to de-register a DisplayPort interface; and
receive a confirmation primitive indicating a result of the de-registration of
the DisplayPort interface.
6. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is
25 further to:
send a confirmation primitive in response to receiving a request primitive to
de-register a DisplayPort interface.
7. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is
further to send a Pass Through (PT) packet comprising a transaction identification
30 (ID), a PT type and data.
8. The apparatus of claim 7, wherein the PT type comprises a video stream
control packet, a HPD notify (long pulse) packet, a HPD sink event packet, a AUX
channel transaction packet, a sideband message packet and a secondary data
packet.

9. The apparatus of claim 1, wherein the wireless communication interface logic is operable at least in part with one of a wireless gigabit alliance (WGA) standard, a Institute of Electrical and Electronics Engineers (IEEE) 1302 wireless family of standards, a Bluetooth standard, a Ultra-wideband (UWB) standard, and
5 a 3rd Generation Partnership Project (3GPP) Long Term Evolution (LTE) standard.
10. An apparatus comprising:
a DisplayPort adaptation layer logic coupled with a wireless communication interface logic, the PAL logic to send static information only during an audio /
10 video (A/V) connection setup phase.
11. The apparatus of claim 10, wherein the static information comprises one or more of a video mode geometry, a synchronization polarity, and a color format.
12. The apparatus of claim 10, wherein the DisplayPort adaptation layer logic is further to send a video stream control packet having an audio mute indication, and
15 wherein the video stream control packet is one of a main stream attribute (MSA) packet and a vertical blanking identification (VB-ID) packet.
13. The apparatus of claim 10, wherein the DisplayPort adaptation layer logic is further to send a position time stamp packet based on a sampling frequency transmitted during the A/V connection setup phase.
- 20 14. The apparatus of claim 10, wherein the DisplayPort adaptation layer logic is further to send a control packet indicating a DisplayPort interface is to be used for communication.
15. The apparatus of claim 14, wherein the control packet comprises one of an A/V capability request control frame and an A/V capability response frame.
- 25 16. An apparatus comprising:
a DisplayPort adaptation layer logic coupled with a wireless communication interface logic, the DisplayPort adaptation layer logic to:
receive an audio / video (A/V) information frame packet during a connection setup phase, wherein the A/V information frame packet comprises static
30 information; and
reproduce the static information for each A/V frame associated with the A/V information frame packet.
17. The apparatus of claim 16, wherein the static information comprises one or more of a video mode geometry, a synchronization polarity, and a color format.

18. The apparatus of claim 16, wherein the DisplayPort adaptation layer logic is further to:

receive a position time stamp packet; and

5 align audio data with video data based at least in part on the position time stamp packet.

19. The apparatus of claim 16, wherein the DisplayPort adaptation layer logic is further to:

receive one or more audio data packets, each audio data packet having a header with an indication of vertical / horizontal (V/H) position; and

10 align each audio data packet with each associated video data packet based at least in part on each indication of the V/H position.

20. The apparatus of claim 16, wherein the wireless communication interface logic is operable at least in part with one of a wireless gigabit alliance (WGA) standard, a Institute of Electrical and Electronics Engineers (IEEE) 1302 wireless
15 family of standards, a Bluetooth standard, a Ultra-wideband (UWB) standard, and a 3rd Generation Partnership Project (3GPP) Long Term Evolution (LTE) standard.

21. A method to map DisplayPort standard over a wireless communication interface, the method comprising:

20 sending a control packet by a DisplayPort source device to a DisplayPort sink device indicating a DisplayPort interface is to be used for communication.

22. The method of claim 21, wherein the control packet comprises one of an Audio / Video (A/V) capability request control frame and an A/V capability response frame.

25 23. The method claim of claim 21, further comprising:

sending a request primitive by a DisplayPort adaptation logic in the DisplayPort source device to register the DisplayPort interface; and

30 receiving a confirmation primitive by the DisplayPort adaptation logic in the DisplayPort source device indicating a result of the registration of the DisplayPort interface.

24. The method claim of claim 21, further comprising:

sending a confirmation primitive by a management entity in the DisplayPort source device in response to receiving a request primitive to register the DisplayPort interface.

25. The method claim of claim 21, further comprising:
sending a request primitive by a DisplayPort adaptation logic in the
DisplayPort source device to de-register a DisplayPort interface; and
receiving a confirmation primitive by the DisplayPort adaptation logic in the
- 5 DisplayPort source device indicating a result of the de-registration of the
DisplayPort interface.
26. The method claim of claim 21, further comprising:
sending a confirmation primitive by a management entity in the DisplayPort
source device in response to receiving a request primitive to de-register a
- 10 DisplayPort interface.
27. The method claim of claim 21, further comprising:
sending a pass through data request primitive by a DisplayPort adaptation
logic in the DisplayPort source device to request a transfer of pass through data;
and
- 15 sending a pass through data indication primitive by the DisplayPort
adaptation logic in the DisplayPort source device to indicate a packet type, a
length, and a payload of the pass through data in response to receiving a pass
through data request confirmation primitive.
28. The method claim of claim 21, further comprising:
sending a pass through data request confirmation primitive by a
- 20 management entity in the DisplayPort source device in response to receiving a
pass through data request request primitive to request a transfer of pass through
data.

CLAIMS

What is claimed is:

1. An apparatus comprising:

5 a DisplayPort adaptation layer logic coupled with a wireless communication interface logic, the DisplayPort adaptation layer logic to send a control packet indicating a DisplayPort interface is to be used for communication, said wireless communication interface logic to convert DisplayPort data to a format suitable for wireless communication;

10 wherein the DisplayPort adaptation layer logic is further to send a Pass Through (PT) packet comprising a transaction identification (ID), a PT type and data; and

 wherein the PT type comprises a video stream control packet, a Hot Plug Detect (HPD) notify (long pulse) packet, a HPD sink event packet, an auxiliary (AUX) channel transaction packet, a sideband message packet and a secondary data packet.

2. The apparatus of claim 1, wherein the control packet comprises one of an Audio/Video (A/V) capability request control frame and an A/V capability response frame.

3. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is further to:

25 send a request primitive to register the DisplayPort interface; and receive a confirmation primitive indicating a result of the registration of the DisplayPort interface.

4. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is further to:

send a confirmation primitive in response to receiving a request primitive to register a DisplayPort interface.

5 5. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is further to:

send a request primitive to de-register a DisplayPort interface; and receive a confirmation primitive indicating a result of the de-registration of the DisplayPort interface.

10 6. The apparatus of claim 1, wherein the DisplayPort adaptation layer logic is further to:

send a confirmation primitive in response to receiving a request primitive to de-register a DisplayPort interface.

15 7. The apparatus of claim 1, wherein the wireless communication interface logic is operable at least in part with one of a wireless gigabit alliance (WGA) standard, a Institute of Electrical and Electronics Engineers (IEEE) 1302 wireless family of standards, a Bluetooth standard, a Ultra-wideband (UWB) standard, and a 3rd Generation Partnership Project (3GPP) Long Term Evolution (LTE) standard.

20 8. A method to map DisplayPort standard over a wireless communication interface, the method comprising:

25 sending a control packet by a DisplayPort source device to a DisplayPort sink device indicating a DisplayPort interface is to be used for wireless communication between the source device and the sink device;

sending a pass through (PT) data request primitive by a DisplayPort adaptation logic in the DisplayPort source device to request a transfer of pass through data;

30 sending a pass through data indication primitive by the DisplayPort adaptation logic in the DisplayPort source device to indicate a packet type, a length, and a

payload of the pass through data in response to receiving a pass through data request confirmation primitive; and

wherein the PT type comprises a video stream control packet, a Hot Plug Detect (HPD) notify (long pulse) packet, a HPD sink event packet, an auxiliary (AUX) channel transaction packet, a sideband message packet and a secondary data packet.

9. The method of claim 8, wherein the control packet comprises one of an Audio/Video (A/V) capability request control frame and an A/V capability response frame.

10. The method claim of claim 8, further comprising:

sending a request primitive by a DisplayPort adaptation logic in the DisplayPort source device to register the DisplayPort interface; and receiving a confirmation primitive by the DisplayPort adaptation logic in the DisplayPort source device indicating a result of the registration of the DisplayPort interface.

11. The method claim of claim 8, further comprising:

sending a confirmation primitive by a management entity in the DisplayPort source device in response to receiving a request primitive to register the DisplayPort interface.

12. The method claim of claim 8, further comprising:

sending a request primitive by a DisplayPort adaptation logic in the DisplayPort source device to de-register a DisplayPort interface; and receiving a confirmation primitive by the DisplayPort adaptation logic in the DisplayPort source device indicating a result of the de-registration of the DisplayPort interface.

13. The method claim of claim 8, further comprising:

sending a confirmation primitive by a management entity in the DisplayPort source device in response to receiving a request primitive to de-register a DisplayPort interface.

5 14. The method claim of claim 8, further comprising:

sending a pass through data request confirmation primitive by a management entity in the DisplayPort source device in response to receiving a pass through data request request primitive to request a transfer of pass through data.

10 15. An apparatus comprising:

a DisplayPort adaptation layer logic coupled with a wireless communication interface logic, the DisplayPort adaptation layer logic to send static information only during an audio/video (A/V) connection setup phase;

15 sending a pass through (PT) data request primitive by a DisplayPort adaptation logic in the DisplayPort source device to request a transfer of pass through data;

20 sending a pass through data indication primitive by the DisplayPort adaptation logic in the DisplayPort source device to indicate a packet type, a length, and a payload of the pass through data in response to receiving a pass through data request confirmation primitive; and

wherein the PT type comprises a video stream control packet, a Hot Plug Detect (HPD) notify (long pulse) packet, a HPD sink event packet, an auxiliary (AUX) channel transaction packet, a sideband message packet and a secondary data packet.