

Beyond SPWG V2.0.....

Tuesday March 19, 2002

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Agenda

- **The Starting Line: SPWG 2.0**
- **The Finish Line**
- **Future Challenges**
 - Higher bandwidth
 - Smaller form-factors
 - Extended displays
- **Next Actions**

SPWG 2.0 Baseline

- **Excellent NB Foundation**

- Mechanical specifications
 - Mounting hardware, interchangeability at same size
 - Connector location simplifies common cable lengths
- Configuration Management via DDC2B/EDID
- Standard video information encoding and signaling via LVDS protocols

Platform Requirements

- **Optimizing video timings for LCD**
- **Display brightness control**
- **Emerging panel usage**
 - Wide formats
 - Smaller panels for mini-notebooks, tablets
 - Industrial applications
- **Future migration support**
 - Higher bandwidth displays
 - Panel power distribution growing
 - Co-existence with other platform technology
 - Wireless (Bluetooth, 802.11x, etc.)
 - Audio, other I/O

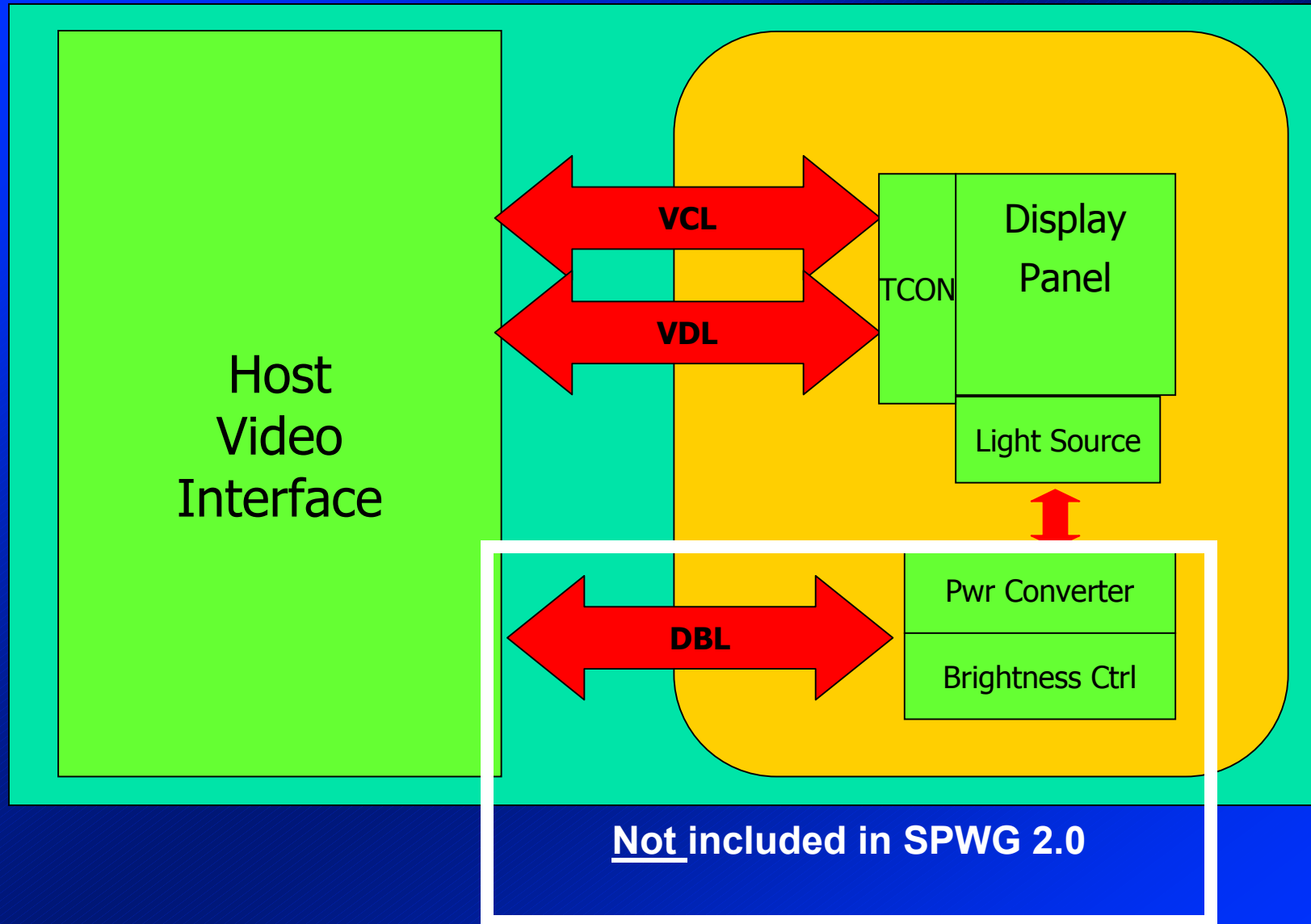
Video Timing Optimization

- **Minimize dot clock rates**
 - Better noise immunity, EMI profiles
 - Eliminate SSC solutions/costs
- **Reduce blanking times**
- **Multiple display timings**
 - Power savings at lower frame rates

Display Brightness Control

- **Cabling/mounting solutions for brightness are just as important as video data**
- **Major opportunity for platform power consumption improvement**
 - CCFL/inverter conversion efficiency
 - Systems control during idle conditions

Expanding SPWG 2.0...



Expand the Scope

- **Include “wide” format panels**
- **Add default video timings for all panel size/resolutions**
- **Support multiple frame rates, especially slower factors**
- **Increase display brightness support**
 - Power efficiency targets
 - Brightness control methods
- **Establish targets for future technology incorporation**

Future Needs

- **Greater color depth, higher resolutions demand greater cabling bandwidth**
- **RF interaction between video transmission and wireless technologies using co-located antenna**
- **New light generation/control sources**
- **Scaleable link bandwidth**

Next Steps

- **Merge Intel's Common Panel Interface Specifications with SPWG**
- **Target areas for immediate review. Establish review forums and incorporation dates.**
- **Establish protocols for new technology review and incorporation**

**Intel MPG Wants to Join Forces to
Establish Effective Industry Specifications.**