



iNEMI

International Electronics Manufacturing Initiative

**2008-9 T.C./
PEG Review –
Netcom**

*Jim McElroy, iNEMI for
John Duffy, Cisco - Chair
Productronica, 11/14/07*

Advancing manufacturing technology

Netcom PEG Target Actions

- **Identify co-chairs, or contributors, or reviewers**
- **Re-create the Netcom emulator spreadsheet**
 - **Segment it from the Office emulator**
 - **Compare data with the 2004 PEG spreadsheet**
- **Add optoelectronic facets to the emulator**
- **Consider whether to add wireless infrastructure equipment to the emulator**
- **Accumulate data to complete blank rows where possible**

Netcom PEG Segments

Parameter Segment	Key Considerations
PWB	Concentrate on high end / complex boards
Assembly Costs	Is the Final Product a whole chassis or a 1U box?
Package Costs	Consider memory costs other than Flash & SRAM?
Business Costs	
Cycle Time	Gather data for Product Production Life
Reliability	Gather data for Vibrational Environment
Devices	Compare with ASIC/Processor roadmaps
Passive Components	
RF Components	Factor cell / WiMax & other wireless technologies?
Display	

Netcom PEG Segments

Parameter Segment	Key Considerations
Memory	Include disk drives?
Components / Package	
PWB / Substrates	
Interconnects	
Electrical	Gather data for DPMO for Components
Power	
Environmental	Gather data for Compliance Dates for RoHS & WEEE
Thermal	Consider the impact of liquid cooling systems?
Supply Chain Locations	
Modeling Tools	

Netcom PEG Optoelectronic Facets

Optoelectronics need to be considered a key part of network equipment

New aspects to include:

- **Package Costs (pluggable devices, modules & discrete components)**
- **Reliability factors (DPMO for pluggable devices & modules)**
- **Device Technologies (xmt / rcvr / grooming)**
- **Communication Technologies (TDM @ 40Gb/s, WDM channels, Modulation schemes)**
- **Environmental / Thermal / Power factors for optical packages**
- **Interconnects (optical connector roadmap)**





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