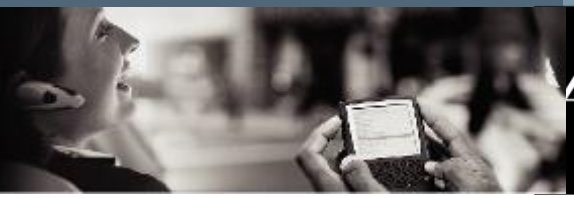
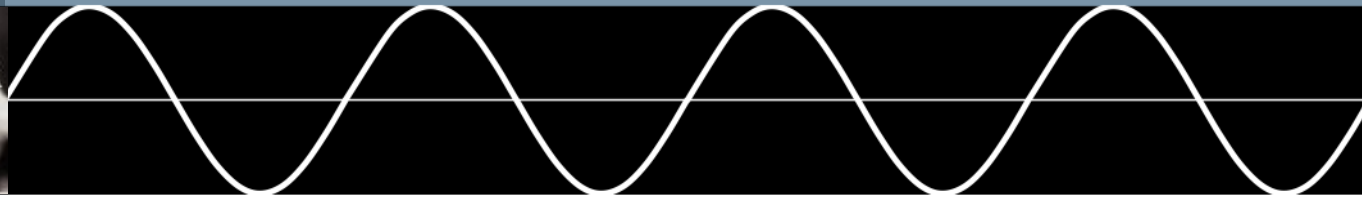
IEEE802.3bu
Power Ad Hoc Report

J. Heath – Linear Technology





LINEAR TECHNOLOGY

Work to Date

- A question/answer document was emailed to the bu reflector
- The purpose was to collect information already produced and collect questions about what has not been asked
- Responses were received from :
  - Bernd Horrmeyer – Phoenix Contact
  - Stefan Buntz – Daimlar
- I am still in the process of entering their content
- I welcome more questions and answers

	IEEE 802.3 bu Power Ad Hoc Questions	question for bu Task Force		question for Use Model		Yes	No	Min	Typical if applicable or desireable	Max	Units	Contibutor	Comment	Helpful References
A	**Wire Size and Cable Length**													
A1	What is the minimum and maximum wire diameter that will work for the data path?	☑						27		22	AWG	Bernd Horrmeyer - Phoenix Contact		
								0.14		0.5	mm^2	Stefan Buntz - Daimler		
A2	What is the minimum and maximum wire diameter that will work for the manufacturing environment?			☑				27		22	AWG	Bernd Horrmeyer - Phoenix Contact		
								0.14		see comment	mm^2	Stefan Buntz - Daimler	Large size just depends on connector/Assembly Process	
A3	What is the maximum cable Length	☑								40	m	Bernd Horrmeyer - Phoenix Contact		
										15	m	RTPG		
B	**Data Channel EMI, EMC, Suseptability**													
B1	What is the sepctral noise mask?	☑						attachment				Bernd Horrmeyer - Phoenix Contact	MICE 3 according to ISO/IEC 24702	mask
B2	What is the minimum impedance vs. frequency allowed?	☑						attachment			Specify	Need contribution RTPG	Attach appripriate document	
B3	What is the maximum spectral noise allowed?			☑						MBN10284	Specify	Stefan Buntz - Daimler	Also see	http://www.fordemc.com/EMC_CS_2009rev1.pdf EMC_Test_Seminar(Tim2).pdf
C	**Power**													
C1	What is the maximum power requirement invesioned today?			☑						100	W	Bernd Horrmeyer - Phoenix Contact		
										10	W	Stefan Buntz - Daimler	For today w/ 12V PSEs	

D	**Voltage**									
D1	What are the minimum and maximum operating voltage requirements?		☑		3.5		48	V	Stefan Buntz - Daimler	48 is future listed were 3.3,5,12
D2	What are the Absolute Maximum, ABSMAX, minimum (may be negative) and maximum voltage requirements?		☑					V		
D3	Do you invesion multiple output voltages now or in the future?		☑							
E	**Saftey**									
E1	Do you require or desire short circuit protection on each power channel?		☑							
E2	Do you require a physical fuse on each power channel?		☑							
E3	Do you desire fuseless or additional short circuit protection? (e.g. the channel will have an adjustable current limit with foldback protection)		☑							
E4	What is the maximum desired time between short circuit detection to voltage fold back?		☑					mSeconds		
E5	What is the maximum desired time between short circuit detection and complete power removal?		☑					mSeconds		
E6	Do you desire over voltage protection?		☑							
F	**System Monitoring**									
F1	Do you desire Current Monitoring		☑							
F2	Do you desire Voltage Monitoring		☑							
G	**System Control**									
G1	Do you desire per channel control of turn-on or turn-off		☑							
H	**Use Models**									
H1	What is the maximum time from power applied to the PSE (ECU?) to power applied to the PD?		☑				100	mSeconds		
H2	What are the sleep and wake up specifications?		☑						Thomas Hogenmueller - BOSCH	http://grouper.ieee.org/