

Summary of IRPS COTS/System Workshop: Handshaking between system uses and COTS Vendors – April 2017

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We had 24 people attended this workshop. The discussion started with 1 slide each brief introduction from 4 moderators to introduce the view, needs and method representing different chain of COTS (Consumer off the Shelf Electronics).

The follow up discussion was active, openly and most of discussion are exploratory with more questions, challenges and wide opinions. Following questions/topics were discussed.

- (1) What is COTS?
- (2) Is it similar to drug development?
- (3) Is it similar to buy tailored cloth vs. in department store?
- (4) Industry doesn't share the data
- (5) Company doesn't worry about lot to lot variation?
- (6) Reliability for COTS depends on the volume
- (7) Industry wants average reliability to be above a threshold
- (8) Products life time matters
- (9) Is redundancy acceptable for COTS parts?
- (10) Limited testing makes things difficult
- (11) Is reliability based on fab data on NBTI, HCI, EM, TDDB, etc. for all commercial and automotive?
- (12) Aging is a major problem with COTS.
- (13) Low volume vs expert knowledge vs. cost is a challenging dilemma
- (14) Different application needs different reliability
- (15) COST user needs expert knowledge of the application
- (16) Automotive parts needs much tight parts distribution, how do you shift/alter the distribution

(17)Recent trend is to use low reliability parts with high system level reliability