

Exhibit 9
(Submitted Under Seal)

Subject: Touch Exec Review (iPod/iPhone) Charts w/Actions

Date: Fri, 21 Nov 2008 21:38:06 -0800

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All,

Enclosed are the charts from the Exec Review from yesterday. Also included on the first two pages are the actions from the review.

Let me know if any of the actions require corrections, or if any were missed.

Thanks for your time.

Jason

----- end message -----

Action Items: 11/20 Executive Review

#	Description	DRI	ECD
1	For full lamination, in addition to experimental studies, establish science-based methodology to study and guarantee by design and specifications: a) LCD minimum resistance to touch panel lamination influencing parameters and b) Touch panel guaranteed maximums for parameters that influence LCD	Kuo/LCM team	Proto1
2	Expedite SOW for SITO with TPK to enable technical engagement. Put together timeline for bring-up of each supplier, to establish deadline for when the SOW must be completed.	Priya	12/31
3	Chemical thinning may have long lead-time for equipment bring-up due to China permit lead-time, start the process ASAP.	Priya/Kuo	
4	Ensure additional testing of LCD's at Grape suppliers does not damage LCD connectors. Ensure non-locking connectors are available in time for testing of LCD's and Grape's at engineering builds.	Jason/ Richard	Proto1
5	Investigate if switching to a different type of glass (other than soda lime, consider Corning Gorilla glass) will improve cutting yields for thinned SITO. Need to study the 0.3 Corning Gorilla glass (Gen 2), which can be chemically strengthened.	James/Kuo	1/15
6	System and Grape team to develop a way to assure a smoother bring up (grape tester emphasis) for EVT2 FATP. Validate before team travels to EVT2. (Include Tony, Julia, and Abel)	Jason	EVT2 BRR
7	Set up a SITO checkpoint after EVT2 to assess the design status prior to approval for DVT.	Jason	1/31
8	Coordinate a small quantity of Wintek DITO to be built to support EVT2 (primarily to support desense testing).	Jason	1/15
9	Confirm that the shield tape is the root cause of the "yellow spot" found in the full lamination investigation results.	Kuo	1/07



Action Items: 11/20 Executive Review

#	Description	DRI	ECD
10	Conduct a peel strength test using glass-to-PSA-to-polarizer.	Kuo	1/07
11	Purchase HTC phones (which have an IPS display) to conduct an early evaluation of IPS full lamination	Jason	12/01
12	System PD and Grape PD to find an adequate location for a pull tab--to allow re-workable PSA to be utilized in the design	Rich/ Steve M.	pre-tool release
13	Present latest cost estimates for Full Lamination at next Exec. review.	Jason	
14			
15			
16			
17			
18			





Grape SITO Executive Review

20 November 2008

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Agenda

- **Action status and SITO Stoplight Review**
- Rationale for SITO in N88 and N90
- SITO Development Status
- N90 Full Lamination/Re-Workable PSA Status
- N90 0.30mm/0.25mm Thinning Status
- N90 Supply Base Proposal



Action Items from 10/16 exec. review

#	Description	Status
1	Investigate glass-to-glass adhesion for BOC concept	BOC de-prioritized
2	Investigate Flextronics in touch business	initial meetings held, considering for trackpads, monitoring for touch screen
3	Review N72B and N18 schedule for SITO intersection and cost opportunities	DITO is POR
4	Understand N82 prox ESD issues and how it might apply to SITO ESD issue	Complete: Meeting with J. Tam took place and lessons learned will be implemented in module process steps.
5	For re-workable lamination validation, measure glass strength before and after rework	DOE in process
6	For re-workable lamination implementation, track units which have been reworked	DOE in process
7	Refresh air-gap vs. full lamination comparison for N90, including 3.85" size, LCD types, cost, capacity, product benefits and risks	N90 full lam is POR; 3.5" is POR LCD type/cost/capacity (Priya/James)
8	Schedule 3.85" proof of concept SITO build targeting alignment with N90 tool release	3.5" is POR
9	Refine estimate of 3.85" 16 row panel X and Y growth	3.5" is POR
10	Provide update on N72 Grape Cal / PostCal issue	offline discussion
11	Investigate in-store tilt assembly replacement strategy for N82 and N88	offline discussion

SITO Stoplight

		Issue / Task	Root Cause	Corrective Action	CA Validation	Test Showing issue
1		Perceivable performance differences SITO vs. DITO	routing traces in active region	<ul style="list-style-type: none"> systematic algorithm correction 	<ul style="list-style-type: none"> 11/25, spec set by Platform Experience 12/12, validation of corner units against spec 	<ul style="list-style-type: none"> drawing with finger or probe robot scan
2		ITO ESD sensitivity and latent field failure	ITO damage due to in process ESD exposure	<ul style="list-style-type: none"> ground ring design on mothersheet anti-ESD protection film or printed protection film ESD discharge path design in module assembly 	EVT2	SITO test and OM inspection
3		Test and Calibration Yield	Current calibration method is not valid for SITO	need to be evaluate system level calibration result	N88 EVT2	module and system level calibration
4		Validate SITO noise interference DPI performance	validation task	Result: SITO DPI on par with DITO at same noise interference level	Complete	Robot DPI testing Noise injection testing

Color code:

high level risk, possible show-stopper

medium level risk, show-stopper not expected

low level risk



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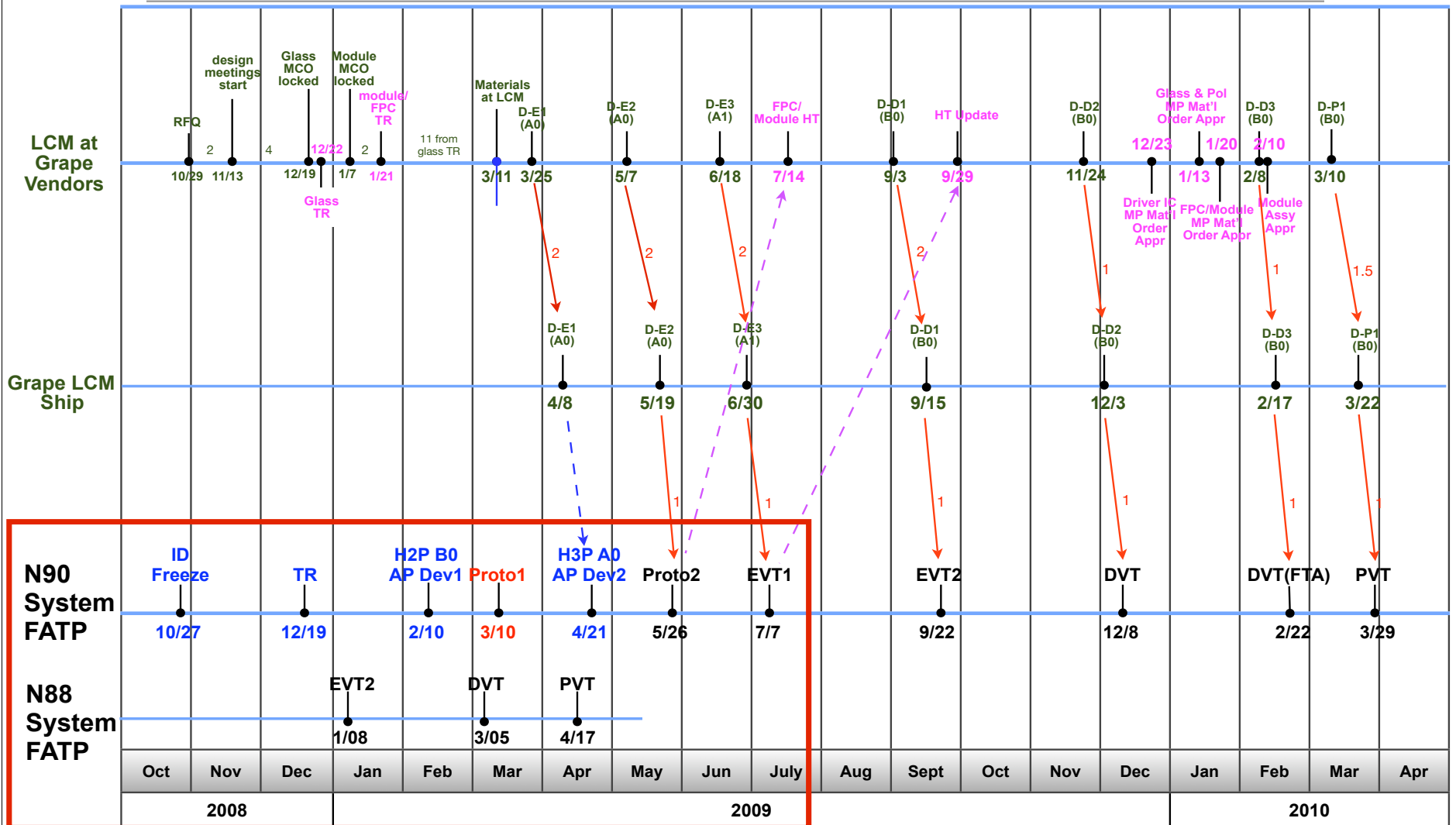


Why SITO for N88 and N90

- Ability to thin Touch Panel glass for future architectures
- SITO is required to support the N90 requirement for 0.30 mm (or possibly thinner) Grape glass
- Work out all performance, process, test, and reliability issues in mass production in N88, at one vendor, prior to distributing the SITO design to all vendors for N90
- The N90 design challenges will then be:
 - Developing SITO TF processes at multiple vendors
 - Developing thinning process at multiple vendors



N88-N90 Schedule



(LCM with Line Inversion)

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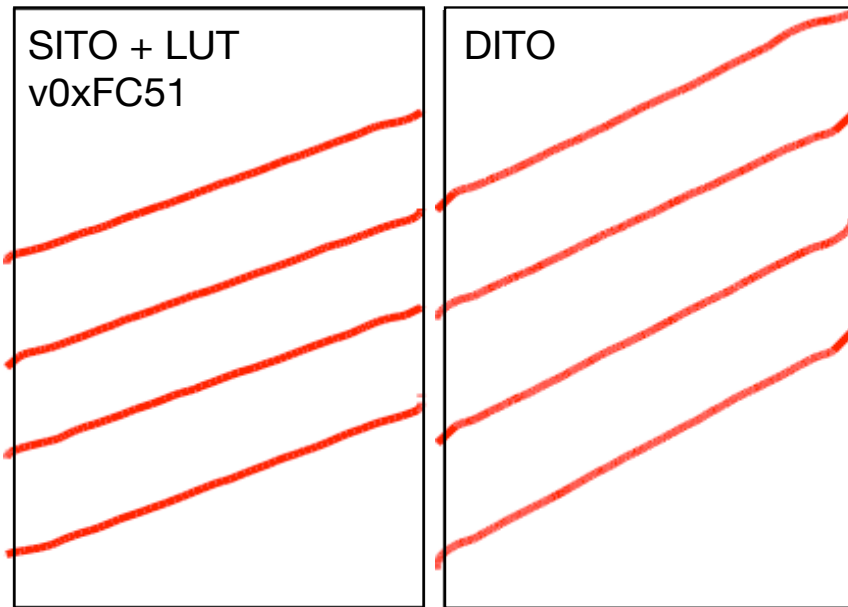
20 November 2008

Agenda

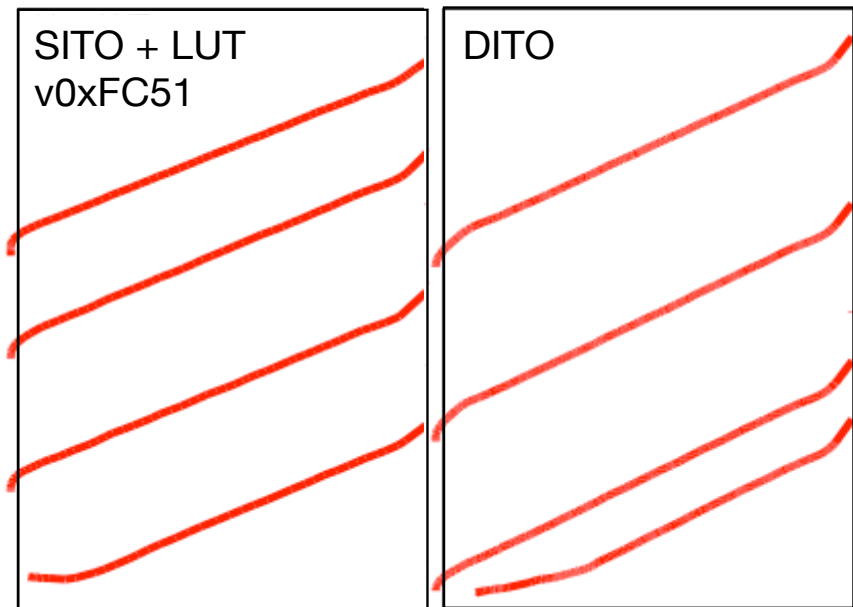
- Action status and SITO Stoplight Review
- Rationale for SITO in N88 and N90
- **SITO Development Status**
 - **Performance**
 - **Yields by Config. (Alt. B is PoR)**
 - **Escalation: SITO in N88 EVT2**
- N90 Full Lamination/Re-Workable PSA Status
- N90 0.30mm/0.25mm Thinning Status
- N90 Supply Base Proposal



DITO vs. SITO Customer Use Comparison



5 mm Probe (~stylus)



10 mm Probe (~finger)

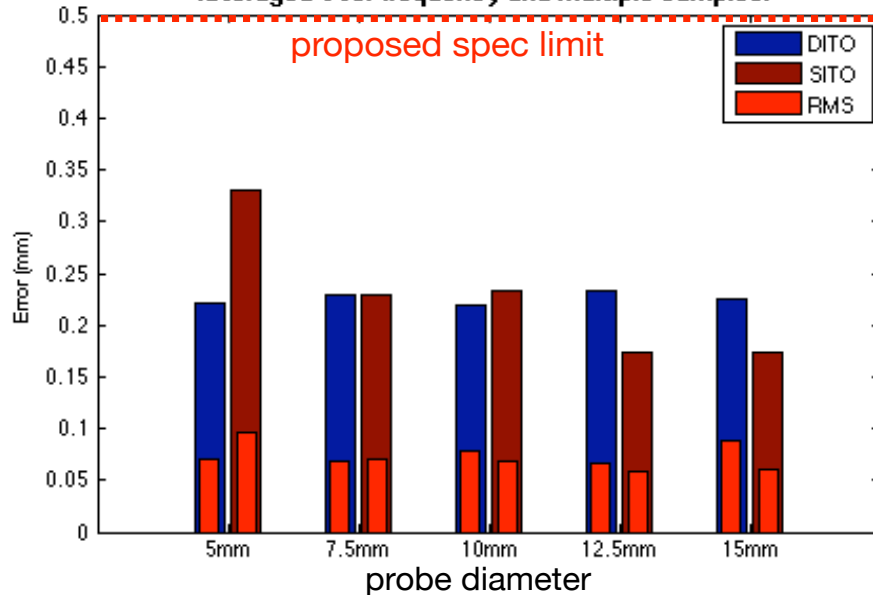
SITO drawing app demo



DITO vs. SITO Quantified Error

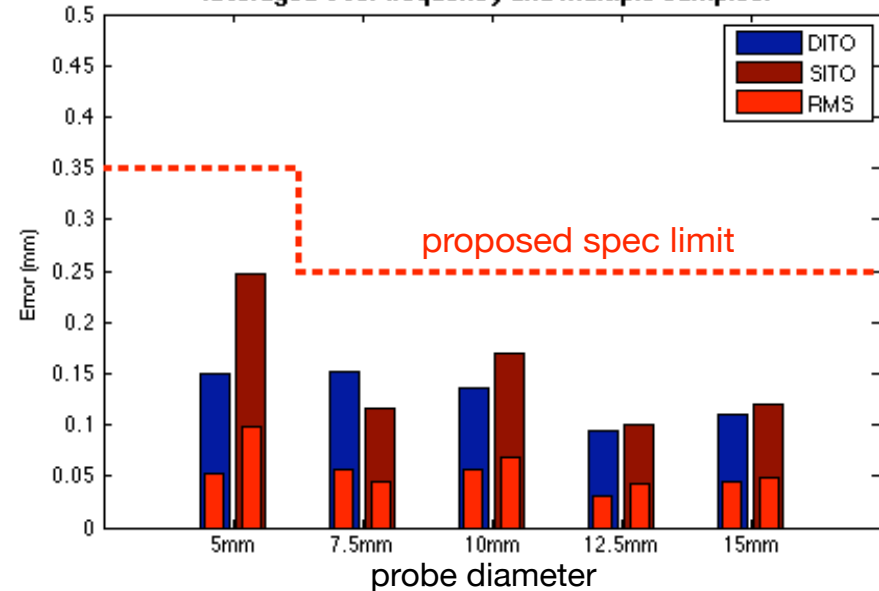
Absolute Error

DITO vs. SITO Max and RMS Absolute Error in Panel Center
(averaged over frequency and multiple samples)



Ripple Error

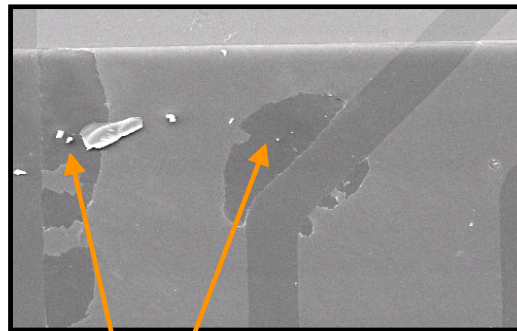
DITO vs. SITO Max and RMS Ripple Error in Panel Center
(averaged over frequency and multiple samples)



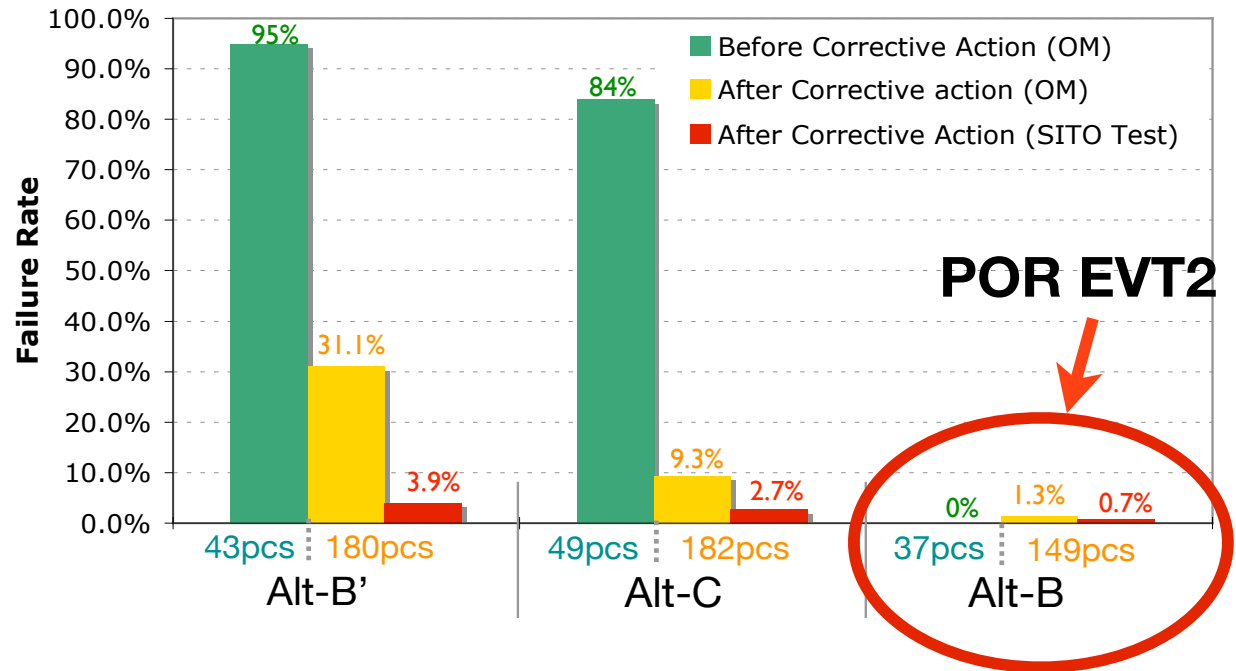
- Proposed spec limits set that all SITO panels must pass
- Final spec limits to be set by Platform Experience demo on 11/25
- Target 12/12 for 1st pass validation of corner units against spec



ITO ESD Damage in Proto3



ITO Damage



- ▶ Counter measures reduced failure rate, but not completely eliminated it.
- ▶ SITO test can not be used to screen out the defects.
- ▶ Continuous improvement needed for EVT2
- ▶ Alt B is POR for EVT2.



Reliability FMEA High Level Risks

Scenario	Hazard	Actions
Module sees static electrical fields at tilt assembly or system assembly	ESD causes module failure, reducing system yield at FATP	<ul style="list-style-type: none"> · Module-level ESD testing · ESD audit at FATP
Unit sees static electrical fields during use	ESD causes ITO damage	<ul style="list-style-type: none"> · System-level ESD testing
Unit built with ESD damage escapes screens and is built into the product.	ITO degradation causes open where ITO line is narrowed	<ul style="list-style-type: none"> · Heat soak testing with known damaged modules
Internal system temperature swings OR externally applied bending stresses during use	De-lamination of ITO from metal in the vias, de-lamination/breaking of ITO crossover traces due to TCE mismatches or bending stress.	<ul style="list-style-type: none"> · Temperature cycling of test panels with many vias
Contamination on the surface of metal/ITO in the vias or at panel edges	Corrosion of metal during touch panel operation over time.	<ul style="list-style-type: none"> · Sweat tests
PSA chemistry contributes to electrochemical corrosion	Metal corrodes, causing open in ITO lines in crossover region	<ul style="list-style-type: none"> · Heat Soak testing
ITO is scratched; relatively narrow ITO traces heighten the risks of a hazardous scratch	ITO degradation causes open where ITO line is scratched	<ul style="list-style-type: none"> - Heat Soak testing



Executive Recommendation

- Grape Team Assessment: SITO performance is close to current N82 DITO (checkpoint on 12/9 for performance spec sign-off)
- Bringing up SITO in mass production for N88 will mitigate the risks for 100% use in N90
- Grape Team Recommendation: Proceed with SITO at Wintek for N88 EVT2



N90 Grape Stoplight

	Risk	Description	Mitigation Plan
High	Full Lamination Mura with IPS	LCM & Grape full lamination may result in LCM Mura. IPS (FFS) is particularly sensitive to cell gap variations.	<ul style="list-style-type: none"> - Need IPS (FFS) LCM samples early in Full Lamination studies to determine feasibility before tool release (1/9). - LCM mura evaluation, pending LCM design freeze and obtaining samples for trial at multiple Grape suppliers - Consider limiting pairings of IPS LCM vendors with Grape Vendors
Medium	Develop SITO thinning capability at multiple Grape vendors in MP	To date, only Wintek has demonstrated one-sided glass thinning (SITO) in small sample sizes.	<ul style="list-style-type: none"> - Obtain a commitment date from two vendors for thinning capability validation build by Proto I. - Evaluating capabilities of all vendors to implement glass thinning with SITO design
High	Performance of Thinned SITO	Performance of thinned SITO with thinner CG not yet characterized (sensitivity to process variations--thickness)	<ul style="list-style-type: none"> - Run simulations of thinned SITO and thin CG to determine risk level. - Characterization and tuning of SITO in N88 will reduce uncertainty of thinned SITO performance, but evaluation of N90 stackup is still required. - Plan to assess thinned SITO in retrofitted N88 systems.
High	Dependence on LCM/driver and CG/frame design maturity and schedules	Verification and validation of grape module will be dependent on any changes to LCM/driver and CG/frame.	<ul style="list-style-type: none"> - Close with the LCM team on implementation strategy/plan. - Work with LCM and System PD teams to highlight M68 lessons learned. - Lock CG/frame design at EVT.

High level risk- possible show stopper Medium level risk, show stopper not expected Low level risk



N90 Grape Stoplight (cont.)

	Risk	Description	Mitigation Plan
	Full Lamination Bubbles	LCM & Grape full lamination with thin PSA may result in lamination bubbles.	- Thin PSA investigation and trial.
	Mechanical Reliability of Thinned non-CS SITO glass	Combination of thinner CG and thinner Grape glass may decrease mechanical reliability	- 0.30mm and 0.25mm SITO glass provided to system team for mechanical evaluations. (air gap only to date) - Planned evaluation of thinned SITO in full lamination stack (mid Dec.)
	OQC and IQC for LCM/driver in Supply Chain	Full lamination requires functional failures of LCMs to be identified as early as feasible before integration with grape.	- Close with the LCM team on implementation strategy/plan - LCM team is developing a "bridge chip" to allow full functional testing at grape vendor IQC and OQC
	Populate SITO to multiple Grape vendors	To date, only Wintek has developed SITO	- Evaluating capabilities of all vendors to implement SITO design - Mature design with one vendor (in N88) and develop processes at other vendors

High level risk- possible show stopper

Medium level risk, show stopper not expected

Low level risk



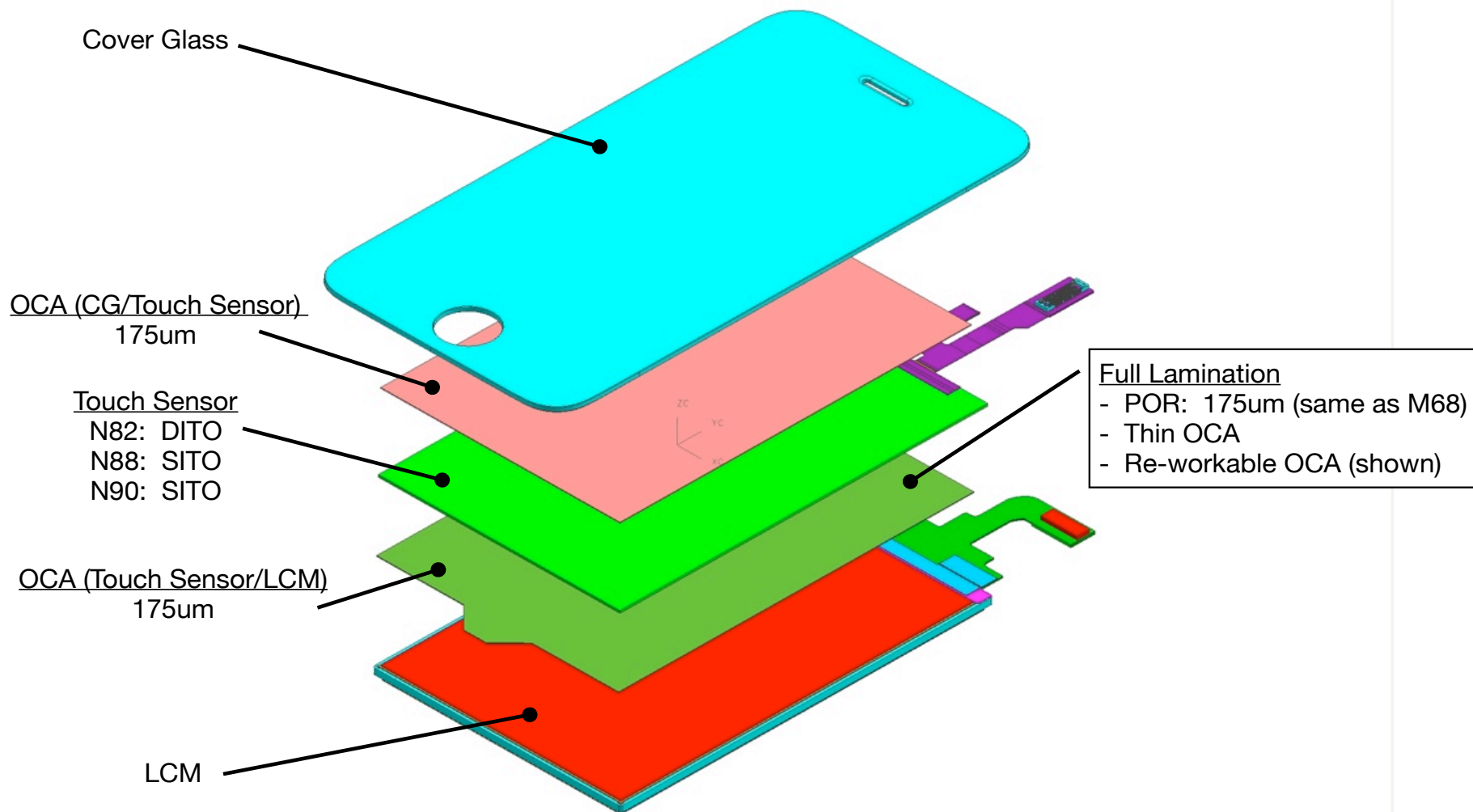
Agenda

- Action status and SITO Stoplight Review
- Rationale for SITO in N88 and N90
- SITO Development Status
- **N90 Full Lamination/Re-Workable PSA Status**
 - **Investigation Description**
 - **Initial results**
 - **Next steps**
- N90 0.30mm/0.25mm Thinning Status
- N90 Supply Base Proposal





Full Lamination (Test Vehicle: N82)



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DOE summary (Test Vehicle: N82)

PSA	LCM	Req Qty	Built Qty	Passed (bubble Free)	Defect	Cosmetic Waived (not included in yield)
Baseline: 175um 3M 8187	Sharp	28	35	32 (91%)	1 particle (3%) 2 residue (6%)	Yellow mark on LCM (100%) LCM Mura (22%)
Thin: 150um 3M 8186	Sharp	48	51	29 (57%)	15 bubble (29%) (OCA material issue) 7 particle (14%)	Yellow mark on LCM (100%) LCM Mura (95%)
Thin: 125um 3M 8185	SamSung	48	50	47 (94%)	2 particle (4%) 1 residue (2%)	Yellow mark on LCM (100%) LCM Mura (0%)
Thin: 100um 3M 8184	SamSung	48	49	43 (88%)	1 bubble (2%) 4 particle (8%) 1 residue (2%)	Yellow mark on LCM (100%) LCM Mura (38%)
Reworkable: 175um 3M X-1044	TMD	60	49	18 (37%)	22 bubble (45%) 9 particle (18%)	Yellow mark on LCM (100%) LCM Mura (100%)
	Sharp	-	10	8 (80%)	1 bubble (10%) 1 particle (10%)	Yellow mark on LCM (100%) LCM Mura (not recorded)
Reworkable: 175um 3M X-1066	TMD	33	34	7 (21%)	27 bubble (79%)	Yellow mark on LCM (100%) LCM Mura (15%)
Reworkable: 178um TPK G2	TMD	48				Data on 11/21

- ▶ Non-reworkable OCA (100~175um) have similar full lamination bubble performance as M68.
- ▶ Reworkable OCA (175um) have much worse full lamination bubble performance than M68. This may due stack-up variation in different LCMs
- ▶ All OCA has yellow mark and some with lamination mura that needs to be addressed



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Material Characterization (Strength)

PSA	Peel Strength (N/cm)		Tensile Strength (N)	Observation
	DITO/OCA	OCA/LCM		
Baseline: 175um 3M 8187	5.3	4.0	215.9	
Thin: 150um 3M 8186				Note: data available 11/27
Thin: 125um 3M 8185				Note: data available 11/27
Thin: 100um 3M 8184				Note: data available 11/27
Reworkable: 175um 3M X-1044	2.4	3.6	133.7	- Low Peel due to stretch release nature - Lower Tensile vs. baseline
Reworkable: 175um 3M X-1033	7.7	6.7	67.3	- Higher Peel vs. X-1044 - Lower Tensile vs. X-1044
Reworkable: 175um X-1056	1.5	1.9	73.4	- Very low peel - Lower Tensile vs. baseline
Reworkable: 175um 3M X-1066				Note: data available 11/27
Reworkable: 178um TPK G2	13.0	0.1	50.9	- Very low peel on low adhesion side - Low tensile

- Thin PSA data: data available 11/27 (driving supplier for data submission)
- Re-workable PSA data do not offer a suitable strength combination in both shear & tensile directions for N90 structure.



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Forward Plan

Full Lamination

Item	Description	Action	DRI	Due Date
1	N90 LCM type lamination evaluation	- obtain FFS/IPS LCM in ~3.54" for full lamination evaluation (mura, yellow mark..etc)	LCD/PPO	12/x/08
2	Full Lamination process (Grape/LCM) using N82	- process optimization to remove Mura - increase process margin - quantify process window	PPO	1/07/09
3	OCA material	- Measure mura vs. surface topology & thickness - additional OCA sources evaluation	PPO	1/07/09
4	Mechanical evaluation	- Module & System level mechanical performance evaluation	PPO/PD/REL	12/15/08
5	Environmental evaluation	- Module level environmental performance evaluation	PPO/PD/REL	12/23/08

High Risk - Very Limited Info/Unknown

Mid Risk - some info, further evaluation needed

Low Risk - initial result positive. Continue optimization



Forward Plan

Re-workable Lamination

Item	Description	Action	DRI	Due Date
1	Rework methods	- Continue rework method DOEs	PPO	1/31/08
2	Re-workable adhesive	- Continue research on suitable material	PPO	1/31/08
3	Mechanical evaluation using current available re-workable PSA	- Module & System level mechanical performance evaluation	PPO/PD/REL	1/31/09
4	Environmental evaluation using current available re-workable PSA	- Module level environmental performance evaluation	PPO/PD/REL	1/31/09

High Risk - Very Limited Info/Unknown

Mid Risk - some info, further evaluation needed

Low Risk - initial result positive. Continue optimization

Initial

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- N90 Supply Base Proposal



Glass Thinning Status Summary

Item	Description	Detail	DRI	Due
1	1st glass thinning trial result (thin film through laser cut)	<ul style="list-style-type: none"> - 0.3mm 77%yield * major issue is handling - 0.25mm 56% yield * Major issue is glass shattered during laser cut 	---	---
2	2nd glass thinning trial result (thin film through laser cut)	<ul style="list-style-type: none"> - 0.3mm 91%yield * handling improvement 	---	---
3	Laser scribe optimization	<ul style="list-style-type: none"> - raw glass scribing parameter did not work on thin SITO below 0.3mm. Glass shattered - MDI will work onsite at Wintek to optimize laser scribing parameters for thin SITO below 0.3mm. 	PPO-MD	12/1/08
4	Glass thinning requirements and process baseline	<ul style="list-style-type: none"> - Specification requirements drafted - Process baseline drafted - requirements and process validation at Grape integrators 	PPO-TF PPO-MD	By Proto1
5	Glass thinning facility setup and supply chain management	<ul style="list-style-type: none"> - Current Grape integrators status: <ul style="list-style-type: none"> * Wintek: limited capacity, only support development * TPK: no thinning facility * Innolux: only mechanical etching - Enable glass thinning capability at Grape integrators either through in-house facility or outsource 	PPO-TF PPO-MD Ops	By EVT



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N90 Supply Base

	Wintek	TPK	Innolux
SITO Exclusivity	ok	SOW needed	ok
SITO Thin Film	on-track	start after SOW	start after proven DITO in N88 EVT2
Thinning Equipment	Hanstar thinning OK, but need SC-B bringup	start after SOW	mechanical thinning for LCD; need chemical thinning line
LCM Full Lam	Need a lot of Apple support	M68 experience	good team, no MP experience
Full Lam Equipment	new equipment required	convert existing equipment	new equipment required
MP confidence			

High level risk- possible show stopper

Medium level risk, show stopper not expected

Low level risk



Full Lamination Capacity

Capacity: K units		Lead Time for New Machine	Note
TPK	Oct-08	5 months	current machine can be converted for LCM lamination; will be a 1-to-1 exchange
air gap	3,500		
full lam	1,750		
Wintek	Oct-08	3 months	current CG laminator will need to go thru major machine change or buy new machine
air gap	3,420		
full lam			
Innolux	Apr-09	3 months	CG laminator possibly can be converted to LCM lamination; will be a 1-to-1 exchange
air gap	1,000		
full lam	500		

- In general, full lamination reduces the capacity to half compared to air-gap lamination. TPK and Innolux machine can be converted.
- Since Wintek does not have conversion capability, it's full lamination capacity is zero if they don't purchase new machine. Depending on the number of the new machine Wintek purchases to match, the full lamination capacity can go as high as 3.4M per month.

- **Backup Charts**

