Dist: L. D. Johnson

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January 31, 1955

TRIP REPORT

To: Lanadale Tube Company Jan. 25 - Jan. 27, 1955

Subject: To investigate the Apple test and test equipment

Personnel Contacted: H. Colgate

G. Pratt

R. Stoffer

Aging and Re-aging

Lansdale factory aging and re-aging schedules are given in the separate sheet entitled "Apple Aging and Re-aging Schedules".

Testing

Entire Lansdale factory testing process was investigated including index stripe measurement. The writer was interested especially in their skew measurement. Lansdale factory testing specifications are shown on the attached sheet titled "apple Test Specification".

Test Equipment

Our DC test equipment and index measurement equipment will operate satisfactorily for the above test specification provided that Textronix 535 and auxiliary circuit will be used.

Test Results on G. E. Apple Tubes

Two General Electric Apple tubes were tested,

Tube A24C3A had excessive arcing. It was seen that there was white power, looked like MgO, around the stem lead of the tube. Because of excessive arcing, this tube was not tested.

Tube A24C2A also had arcing. However, the following data was obtained:

H. V. Brezktown

ercing

H. V. Breakdown (anodes to all)

arcing

H. V. Breakdown (screen to all)

arcing

Convergence

46.5 mm (under cov.)

50

Crid	Orientation (focused)	-90
Skew		1.5
	to Grid Leakage	.2 ma
Grid	2 - all leakage	3.8 ma

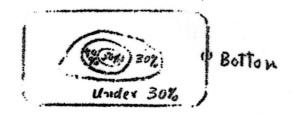
	Been A	Beam B
Cutoff	45V	50V
O bias current	190 ye	190 ma
Cathode Activity	25 20%	20% 25%
G1 - K leakage Spot Size	0	.2 ma
Spot Size	30 mm	30 mm

Screen Quality

There was several imprinted spots on the center part of the screen. Also, tiny blue phosphor particles were on green phosphor stripe, i.e., contaminated.

Index Measurement

Because of excessive arcing, it was difficult to measure accurate value. The following is the approximate measured yield value of MgO.



C. S. Kim

C. S. Kim Color Design Engineering CATHODE-RAY TUBE SUB-DEPT.

/fmd

Apple Aging Schedule (Lansdale Factory)

Time	(min.)	$\mathbb{E}_{\ell}(V)$	I ₀₁ (ma)	E _{cl} (V)	Ecs(A)	E _b (EV)	I _b (ma)
	2.	6.					٠
	3	12					
	1	8	7				
	30 (Beg.) (End.)	8 8	55	Record Record	100	3	Record Record
	1	6.5		0	100	3	
	30 (Beg.) (End.)	6.5		Ô	500 500	3 3	Record Record

Apple Reaging Schedule (Lansdale Factory)

Time	(min.)	E _F (V)	Icl(ma)	Ecl(A)	$\mathbb{E}_{c2}(V)$	ed(XV)	Id(ma)
	1	6			:		
	5	8					
	5	10.	ė s ė				
	1	12.5					
	1	8					*
	15 (Beg.) (End.)	8	55	Record Record	100	3	Record Record
	1	6.5		0	100	3	
	45 (Beg.) (End.)	6.5 6.5		0	500 500	3	Record Record

Apple Test Specifications (Lansdale Factory)

S)	Name	Er(V)	EciA(V)	E-213(V)	Eo2(V)	EAT (KV)	Eal(KV) Eag(KV)	Eg(KV)	Limits and Remarks
,	8 9 9			(3			
-1 cu	HV Breshdown	500	3	3	7500	9	(The turge puttons)	ccone)	No continuous arcing
e	(anode to all)	6,3	8	8	0	7 (1	(EA1 and EA2 tied) 0	tied) 0	No continuous arcing
1	(sereen to all)	6.3	8	8	0	0 (E)	(EAR and Eas tied)	Led) 7	No contirmous arcing
ಬ್ಲ	Heater current Convergence	ଦ୍ୱକ ଦୃଦ୍ଧ	Undeflected Unfocused	oten De	009	25.5 (Tied		d = 1~5 mm with beam A top. Read angle Sc be-
9	Grid Grientation	6,3	Focused		009	25.55 (Tied	^	
~∞	Shew								of focused and reverse focused two beams. d . sin (%c- %) l.5mm max
	GIA OF R	00 00	88	88	909 909 909	88	Tied	~	N 128
(1000 1000	8	8	88	0 R	Tied)	. ~	10 ma
24	Coro-bias current		08	80	888	ชาม น้ำน้ำน้ำ		~~~	allo to ally
HAS	Cathode activity Spot Size	6.3	Unfocused		009	25.5	Tied		70% up from chart 30 nm max with Ige200 pa
기타기	Light Output Index measurement	6,3							25 ft. L. at Ik a 585 ma Above 40% yield