

CCD261-84 SLOWSCAN TEST SHEET	Form No.
TITLE: CCD261-84	Sheet 1 of 2

Associated Document:

Device serial number	09311-22-03	Tester (Initials & Clock No.)	NA 7635	
Grade	4	Date	31-May-13	
		Device type number	261-84-E65	
		Device thickness	150	μm

TEST RESULTS

TEST		RESULT	LIMITS			UNITS
			Grade 0	Grade 1	Grade 2	
GAIN (Amplifier responsivity)	OSL	7.57	7.0 min.			$\mu\text{V}/\text{e}^-$
	OSR	7.69	7.0 min.			$\mu\text{V}/\text{e}^-$
NOISE	OSL	2.4	4.0 max.			rms e^-
	OSR	2.6	4.0 max.			rms e^-
NON-LINEARITY (to k electrons)	OSL	1.6	2.0 max.			%
	OSR	1.6	2.0 max.			%
CTE (Serial)	OSL	99.9997	99.999 min.			%
	OSR	99.9998	99.999 min.			%
CTE (Parallel)		100.0	99.999 min.			%
PARALLEL DEFERRED CHARGE		1.0	3 max.			-
SERIAL DEFERRED CHARGE		2.0	3 max.			-
IMAGE FULL WELL CAPACITY		221.0	150.0 min.			ke^-
REGISTER FULL WELL CAPACITY			0.0			
DSNU DEFECTS	POINT DEFECTS	31	500	1000	2000	max.
	COLUMN DEFECTS	2	For Information Only			
PRNU DEFECTS	POINT DEFECTS	5	For Information Only			max.
	COLUMN DEFECTS	0	For Information Only			
	TRAPS	0	10	20	30	max.
TOTAL SPOTS ¹		36	1000	2000	4000	
TOTAL COLUMNS ¹		2	4	10	20	max.
MEAN DARK SIGNAL		0.0565	2.0 max. at -120°C			$\text{e}^-/\text{pix}/\text{hr}$
AREA DARK SIGNAL (32 x 32 block)		0.153	2.0 max. at -120°C			$\text{e}^-/\text{pix}/\text{hr}$
TEST		RESULT	LIMITS for device variant			UNITS
			Basic NIR. 150 μm			
QUANTUM EFFICIENCY at	300 nm		0			min. %
	350 nm	15.6	0			min. %
	400 nm	36.0	25			min. %
	500 nm	57.4	50			min. %
	650 nm	80.5	75			min. %
	900 nm	90.5	80			min. %
	1000 nm	36.2	30			min. %
PHOTO-RESPONSE NON-UNIFORMITY (1 σ) at	400 nm	1.5	3			max. %
	650 nm	1.4	3			max. %
	900 nm	1.2	3			max. %

Note (1): Minimum separation between adjacent defective columns to be 50 pixels.

Key: n/m = not measured

CUSTOM TESTS (if applicable)



TITLE: CCD261-84 SLOWSCAN TEST SHEET	Form No.
Version: CCD261-84	Sheet 2 of 2

Device serial number	09311-22-03
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<u>Mechanical Measurements:</u>				
Chip Flatness Peak to Valley at -100°C (estimated)		20 max		µm
Package Height Measurement		PASS/FAIL (14.000 ± 0.010 mm)		mm

Key: n/a = not applicable FIO = for information only

Voltage	Value	Min.	Max.	Units	Voltage	Value	Min.	Max.	Units
VOD	28.0	27	32	V	VSS	10.0	0	10	V
VOG1	3.0	1	3	V	VRφ (high)	12.0	9	15	V
VRD	17.0	15	19	V	VφSW (high)	12.0	9	15	V
VOG2	N/A	VOG1 + 1		V	VφR (high)	12.0	9	15	V
VDD	N/A	22	26	V	Vlφ (high)	10.0	8	14	V
VBSS	-50.0			V					

TEST TEMPERATURES

MEASUREMENT	TYPICAL VALUE	ACTUAL VALUE	UNITS
All Measurements	-100	-100.0	°C

NOTES

gain (for QE) determined from x-rays

