



Waterhouse Lane, Chelmsford, Essex CM1 2QU United Kingdom
 Telephone: +44 (0) 1245 493493 Facsimile: +44 (0) 1245 492492
 Internet: www.e2v.com

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TITLE: CCD47-20 SLOWSCAN TEST SHEET	10618E
Version: BACK-ILLUMINATED (Basic process), AIMO	Issue 6 Sheet 1 of 1

Associated Document: A1A-CCD47-20 Backthinned Data Sheet

Device serial number	01512-03-04	Tester (Initials & Clock No.)	Marian
Grade	1	Date	27/4/05
Test data disc number	Doc vol I	Device Type Number	CCD47-20-1-A73

TEST RESULTS

TEST	RESULT	LIMITS			UNITS	
		Grade 0	Grade 1	Grade 2		
GAIN (Amplifier Responsivity)	OSL	3.61	3.0 min., 6.0 max.		$\mu\text{V/e}^-$	
	OSR	3.73	3.0 min., 6.0 max.		$\mu\text{V/e}^-$	
NOISE	OSL	3.7	4.0 max.	4.0 max.	4.0 max.	rms e^-
	OSR	3.9	4.0 max.	4.0 max.	4.0 max.	rms e^-
DEFECTS IN DARKNESS	BRIGHT COLUMNS	0	0	0	2 max.	n/a
	POINT DEFECTS	0	50 max.	80 max.	100 max.	n/a
PHOTO-RESPONSE DEFECTS	TOTAL COLUMNS	0	1 max.	2 max.	6 max.	n/a
	MARK POINT DEFECTS	25	50 max.	100 max.	200 max.	n/a
	TRAPS	0	2 max.	5 max.	12 max.	n/a
MEAN DARK SIGNAL	437	500 max. at +20°C			$e^-/\text{pix/s}$	
AREA DARK SIGNAL (32 x 32 block)	626	1000 max. at +20°C			$e^-/\text{pix/s}$	
DNSU (1 σ)	102	125 max. at +20°C			$e^-/\text{pix/s}$	

TEST	RESULT	LIMITS for Device Variant			UNITS	
		'-306, '-325	'-331, '-930	'-339, '-A73		
QUANTUM EFFICIENCY	at 350 nm	17.4	10 min.	25 min.	15 min.	%
	at 400 nm	58.3	25 min.	55 min.	40 min.	%
	at 500 nm	91.3	55 min.	75 min.	85 min.	%
	at 650 nm	89.6	50 min.	75 min.	85 min.	%
	at 900 nm	35.8	30 min.	30 min.	30 min.	%
PHOTO-RESPONSE NON-UNIFORMITY (1 σ)	at 400 nm	1.7	3.0 max.	3.0 max.	3.0 max.	%
	at 650 nm	0.9	3.0 max.	3.0 max.	3.0 max.	%
	at 900 nm	1.5	5.0 max.	5.0 max.	5.0 max.	%

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

CUSTOM TESTS (if applicable)

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OPERATING CONDITIONS

VOLTAGE	VALUE	MIN.	MAX.	UNITS	TEMPERATURE	VALUE	UNITS
VRD	18	15	19	V	For dark signal measurement	0	°C
VSS	9	8	11	V			
VOD	30	27	32	V	For photo-response defects measurements	-20	°C
V ϕ (high)	12	10	15	V			

NOTES

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