

Symbol	Value	Unit
V_{DD}	7	V
V_{SS}	-15	V
V_{LED}		

NOM02A4-AR03G

Table 5. PHYSICAL SPECIFICATIONS

Parameter	Symbol	Typ	Unit
Scan width	PD _w	216	mm
Number of Photo Detector Arrays	PDA _n	27	arrays
Number of Photo Detectors	PD _n	1728	elements

Table 6. PHYSICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Pixel pitch	PD _{sp}		125		μm
Inter-array spacing					

Table 8. ELECTRO-

DESCRIPTION OF OPERATION

Functional Description

The NOM02A4-AR03G module consists of 27 contact image sensors, each with 64 pixel elements, that are cascaded to provide 1728 photo-detectors with their associated multiplex switches and double-buffered digital shift register that controls its sequential readout. A buffer amplifies the video pixels from the image sensors and output the analog video signal of the module as shown in Figure 2. In operation, the sensors produce an analog image pixel signal (or video signal) proportional to the exposure on the corresponding picture elements on the document. The VOUT signal outputs 1728 pixels for each scan line. The first bit shifted out from VOUT during each scan represents the first pixel on the connector end of the module.

A pictorial of the NOM02A4-AR03G cross section view is shown in Figure 4. Mounted in the module is a one-to-one graded-index micro lens array that focuses the scanned document image onto the sensing plane. Illumination is accomplished by means of an integrated LED light source. All components are housed in a small plastic housing, which

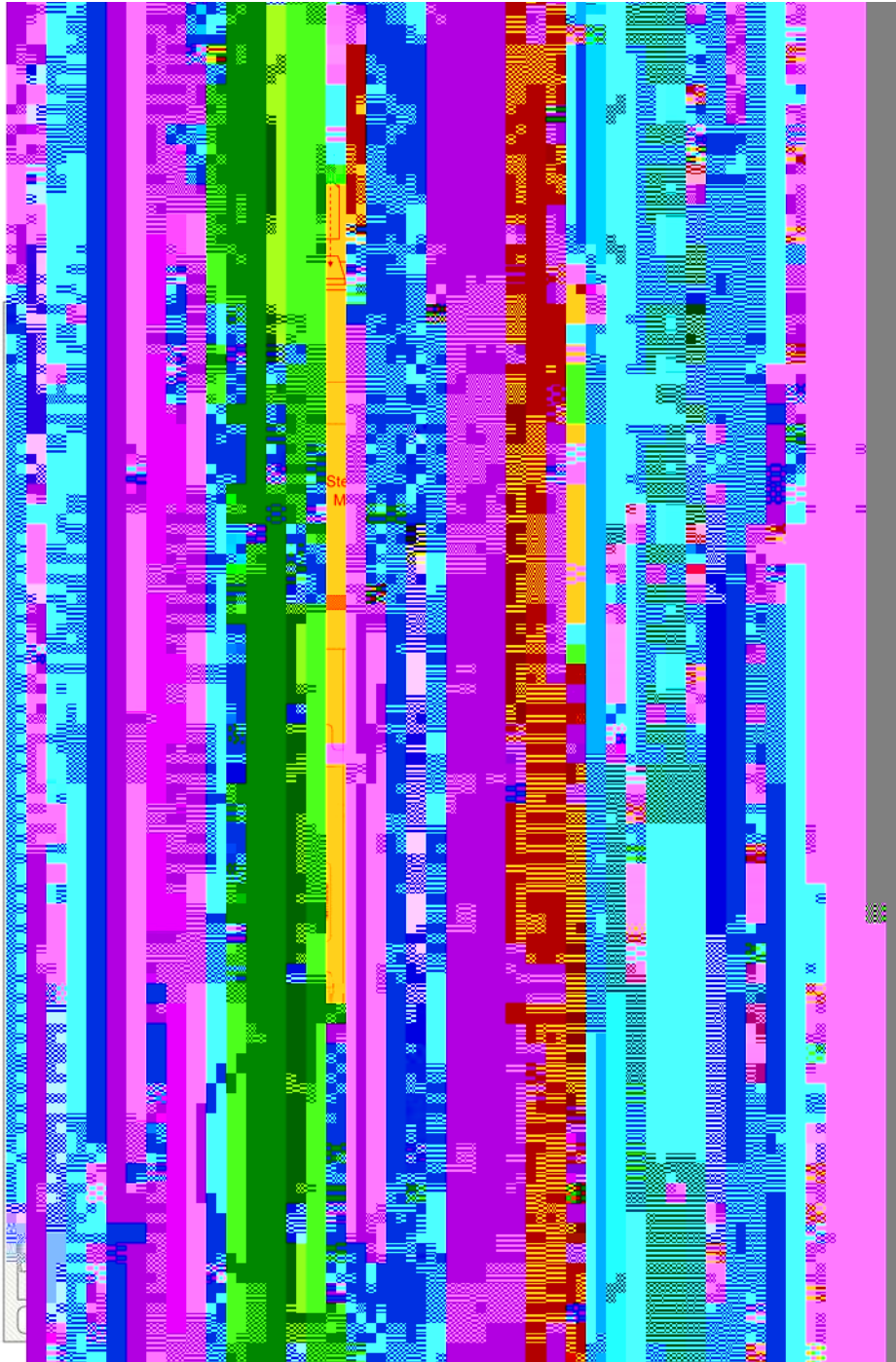


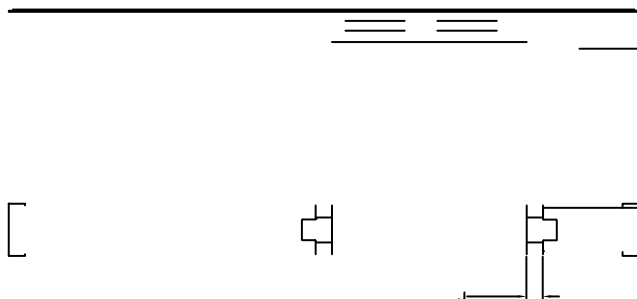
Figure 6. Typical Scanner Assembly

NOM02A4-AR03G

PACKAGE DIMENSIONS

IMAGE SENSOR MODULE A4 CASE MODAC ISSUE A

6.00 REF |



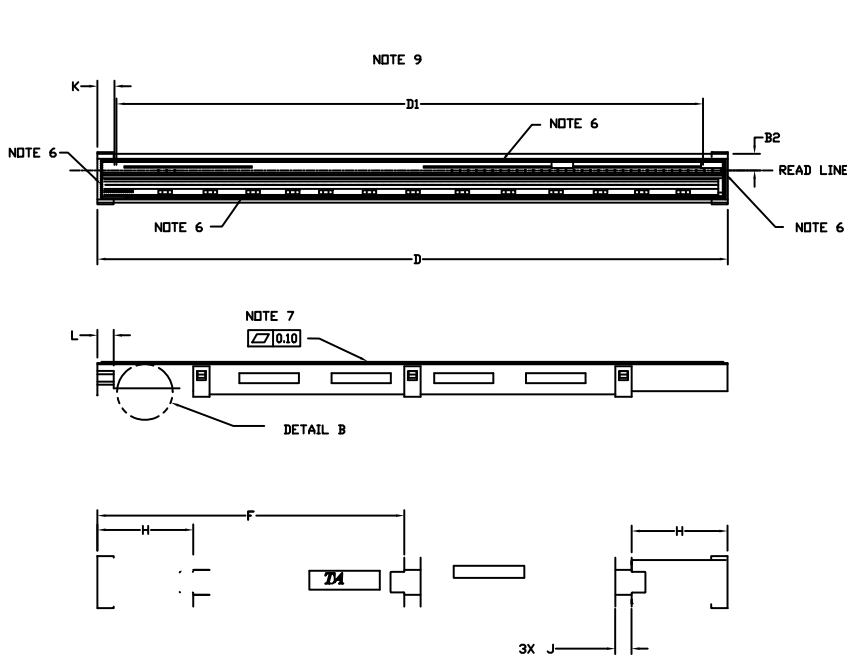
NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEADING EDGE OF THE APPROACH ANGLE ON THE GLASS IS LOWER THAN THE TOP OF THE HOUSING.
4. BORE DEPTH IS 6.0 WITH A 0.3 LEAD-IN CHAMFER.
5. PIN HEADER, MODEL NUMBER EBW-PK23-P010L2-3Z, 1X10 PIN, PITCH 1.25.
6. GLASS IS GLUED ON ALL 4 SIDES.
7. GLASS THICKNESS IS 1.85.
8. USE M2.3 SELF TAPPING SCREWS FOR MOUNTING. TORQUE SCREWS BETWEEN 1.80 KGF-CM AND 2.00 KGF-CM.
9. DIMENSION D1 DENOTES THE SCAN LENGTH.
10. DIMENSION K DENOTES THE POSITION OF THE FIRST PIXEL.

DIM	MILLIMETERS	
	MIN	MAX
A	12.60	13.60
A1	5.45	6.45
A2	13.20	14.20
B	17.70	18.30
B1	18.90	19.50
B2	5.50	6.50
C	15.40	15.60
D	231.60	232.60
D1	216.00 REF	
E	2.10	2.30
F	112.50	113.50
H	34.80	35.80
J	5.70	6.30
K	5.30	7.30
L	6.00 REF	

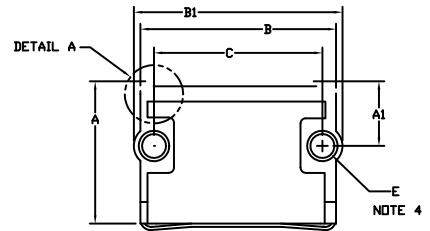
**IMAGE SENSOR MODULE
CASE MODAC
ISSUE A**

DATE 11 MAY 2010



NOTE 3

DETAIL A



PIN 1
NOTE 5

DETAIL B

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