SPECIFICATION

Customer:

Customer's Model No.:

Model No.: **Nova N-4080i** Area Imager Barcode Scanner

Date:

Sample Serial No.:

Spec. Version & Revision Date: **E00-Preliminary** 2015.04.08

Received/Approved by

CHAMPTEK
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Revision History

Version	Date	Context
E00	2015.04.08	Preliminary Version

TABLE OF CONTENTS

A. General Description

The N0VA N-4080i is a high performance, omni-directional area imager bar code scanner. It uses digital imaging technology to provide intuitive and fast reading of 1D and 2D bar codes as well as supporting more advanced features like image capture deactivation. It is designed for various OEM solutions, on-counter reading options.

It supports up to 500mm reading depth of 1D and 2D barcode, its scan rate is up to 120 scans per second in linear emulation and 60 images per second in 2D area mode. Based on CMOS technology for optimal image sensitivity and dynamic range, the N-4080i features scanning speeds faster than traditional 2D imagers.

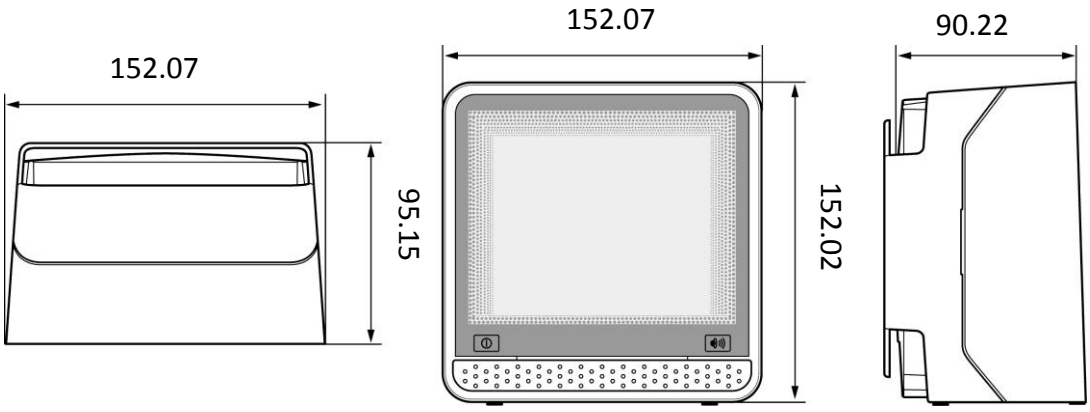
NOVA N-4080i is a high performance area imager scanner, provides customers with the most cost-effective solution in the market and perfectly suitable and definitely the best choice for any retail and logistic environment.

B. Physical Characteristics

Weight	
Body weight	Approx.572g
RS232 Cable weight	Approx.123g
USB Cable weight	Approx. 67g
Material	ABS Plastic
Connector	RJ 48C 10 Pin
Dimension(WxDxH)	152.07 x 152.02 x 90.22 mm
Color Available	Black

Body Dimension

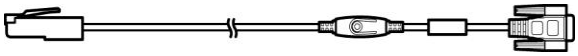
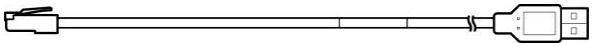
Unit: mm



C. Connecting

Interface Selection

NOVA N-4080i allows you to connect your host system using two different interface cables, RS232 or USB.
On powering up, the scanner determines the type of the interface used and switches to the appropriate protocol.

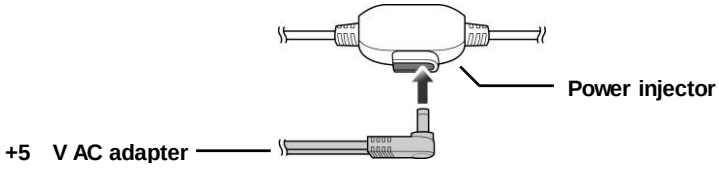
Interface Cable	Connector type
RS232 (Product Number: 0114-S805121)	Sub-D 9-pin
	
USB (Product Number: 0114-S802131)	USB connector
	

D. Powering

N-4080i power is designed by USB+5V, do not need power supply once the interface is USB, but will request power supply for RS232 interface.

Power injector

RS232 cable has a power injector to connect an external power supply.



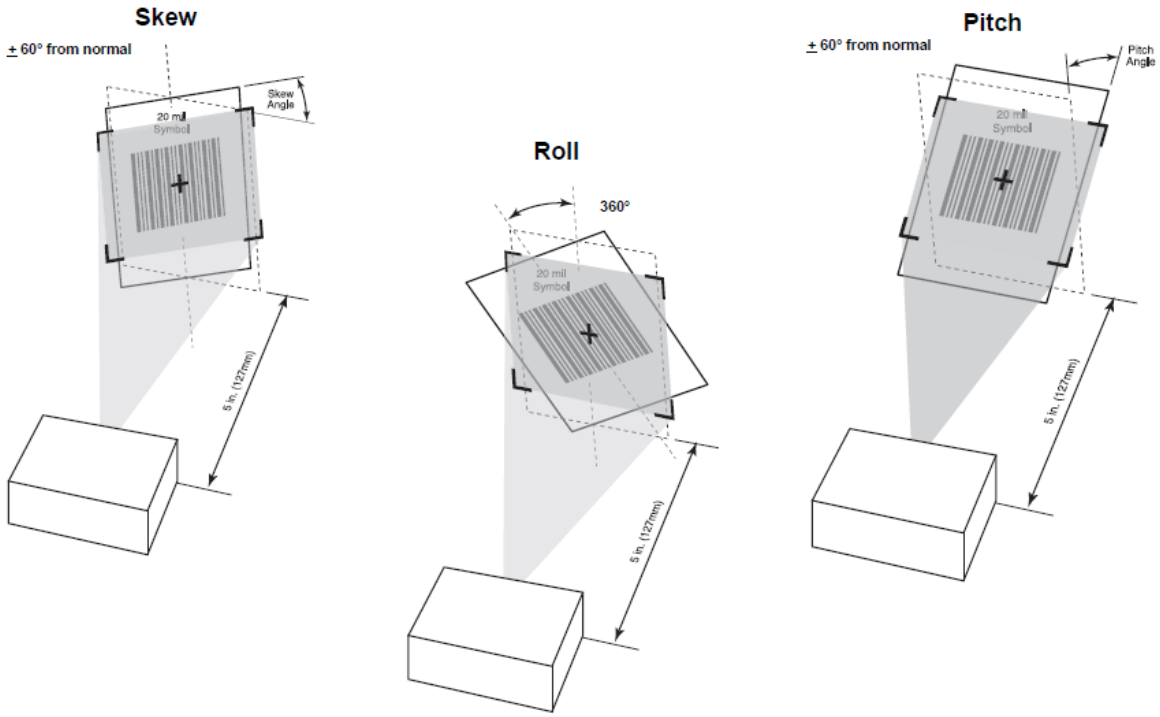
Cable	Power injector
RS232	√
USB	×

E. Electrical Characteristics (check)

Interface	RS232	USB
Supply Voltage	DC Adaptor +5V ±5%	USB Power
Stand-by (Typ.)	230 mA	230 mA
Operation (Typ.)	460 mA	460 mA

F. Performance

Light source	Visible red light 625nm LED
View of filed	Horizontal – 40°, Vertical – 25°
Depth of field	Refer to “Reading Range” Session
Resolution	752 (H) x 480 (V) pixels 5.0 mil (Code 39), 4.0 mil (PDF417)
Scan speed	up to 120 scans per second in linear emulation and 60 images per second in 2D area mode
Pitch	±60°(from front to back)
Skew	±60°(from plane parallel to symbol(side- to-side))
Roll	360°
Interface	RS-232 or USB
Indicators	Beep and LED (Standby Blue, Good read Orange)

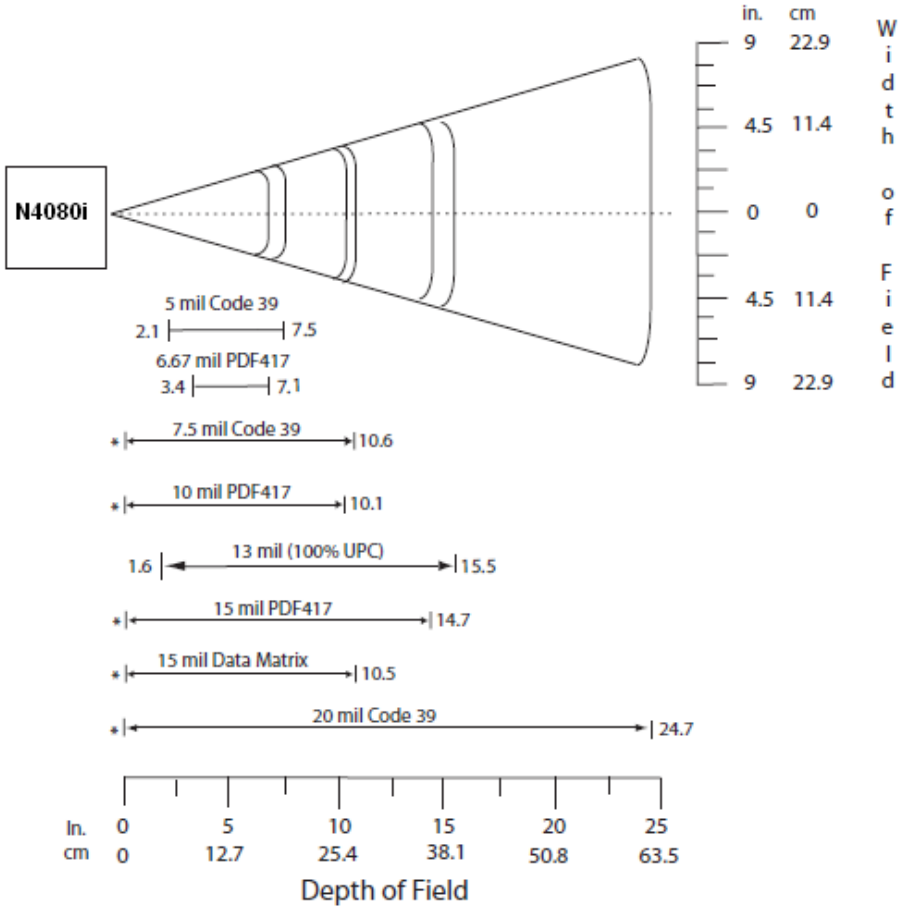


G. Environmental

Operating Temp.	0°C to 50°C
Storage Temp.	-20°C to 70°C
Relative Humidity	20% to 95% (Non-condensing)
Ambient light	100,000 Lux Max. (Sunlight)

H. Reading Range

The following table summarizes the reading distance for the specified codes with both the wide area field and the high density field enabled and active for decoding.



Symbol Density/ Bar Code Type	Bar Code Content/ Contrast Note 2	Typical Working Ranges		Guaranteed Working Ranges	
		Near	Far	Near	Far
5.0 mil Code 39	ABCDEFGH 80% MRD	2.1 in 5.33 cm	7.5 in 19.05 cm	2.5 in 6.35 cm	6.8 in 17.27 cm
6.67 mil PDF417	4 Col, 20 Rows 80% MRD	3.4 in 8.64 cm	7.1 in 18.03 cm	4.1 in 10.41 cm	6.2 in 15.75 cm
7.5 mil Code 39	ABCDEF 80% MRD	Note 1	10.6 in 26.92 cm	Note 1	9.6 in 24.38 cm
10 mil PDF417	3 Col, 17 Rows 80% MRD	Note 1	10.1 in 25.65 cm	Note 1	9.0 in 22.86 cm
13 mil UPC-A	012345678905 80% MRD	1.6 in 5.08 cm	15.5 in 39.37 cm	2.5 in 5.08 cm	14.2 in 36.07 cm
15 mil PDF417	80% MRD	Note 1	14.7 in 37.34 cm	Note 1	13.2 in 33.53 cm
15 mil Data Matrix		Note 1	10.5 in 26.67 cm	TBD	TBD
20 mil Code 39	123 80% MRD	Note 1	24.7 in 62.74 cm	Note 1	21.8 in 55.37 cm

Note 1: Near distance is Field of View (FOV) limited by barcode's size.

I. Readable Symbologies

1D Symbologies	Readable	Default Enable
EAN/UPC	V	V
UCC/EAN128	V	V
ISBN	V	
ISBT	V	
Code 11	V	
Code 39	V	V
Code 93/93i	V	
Code 128	V	V
Interleaved	V	
Matrix	V	V
Instustrial	V	
Standard 2 of 5	V	
Codabar	V	
MSI	V	
Plessey	V	
Telepen	V	
Postal codes	V	
GS1 DataBar	V	V

2D Symbologies	Readable	Default Enable
Data Matrix	V	V
Data Matrix Inverse	V	
PDF 417	V	V
Micro PDF 417	V	
Maxicode	V	
QR code	V	V
QR code Inverse	V	
Aztec (& Inverse)	V	V
EAN.UCC composite	V	
MicroQR code	V	V

J. Reliability

Life Time	
MTBF(Calculated)	50,000 hours
Temp. Test	
High Temp.	70℃; 48 H
Low Temp.	-20℃; 48H
Cable Bending Test	25,000 times minimum (30 times/min @ 500g/90°)
Drop Resistance	39.38 inches(100cm) drop on concrete surface