# BF-48 Series

BF-481/482

**Flash turbo barcode reader**

**Heavy Duty with Elegant and Multi-functional**

## The Grand Flagship Fosters Intriguing Elegance and Multi-functions

### 1. Elegant Design for High-End Handheld Scanner

To meet the high-end and industrial demand market, Birch is proud to release the "heavy duty" and more functionality design handheld scanners with the choices of linear imager long range with Auto Sensor (BF-481), Opticon laser module (BF-482) and more options.

### 2. Built with e-Turbo Flash Decoder

BF-48 series is built with industrial level decoder which supports 200% auto correction for poor-printing barcode reading, low power consumption and "REAL-TIME" high speed 300 scans/second decoding rate. Discriminate most of barcode symbologies including high-end and advanced code such as RSS code, GSI Databar.
With some breakthrough designs in optical, BF-481 is even allowed to support 4-mil, 0.3 print contract ratio printed barcode in full scan rate and real time decoding.

### 3. User Friendly and Easily Setup Procedure

It is simplified installation and integration to interchange the different interface cables and it is allowed to Programmed by Manual or by USB downloading (via USB COM I/F) or by ISP software update (flash ROM BIOS) at user's side.
BF-481 the linear imager optical model is built with "auto sensor" as standard for hand-free operation with programmable auto detect sensibility.

### 4. Remote Control and Advanced Industrial Setting

When using in factory automation or large-scale shopping malls, it always includes a very large space installation. BF-48 series supports most of advanced settings such as RTS/CTS, List, vibration, auto-detect (auto-sensor)….even beep tones.

## Ordering Information:

BF-481: Linear Imager long range scanner, with Auto Sensor, PS2 or RS232 or USB (USB virtual COM or USB HID)

BF-482: Opticon laser scanner, PS2 or RS232 or USB (USB virtual COM or USB HID)

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## Technical Specifications

| Model | BF-481 | BF-482 |
|---|---|---|
| **Optical** | | |
| **Light Source** | 630nm Red LED LAMP | 650nm Visible Laser Diode |
| **Sensor** | Linear CCD image sensor | Visible Laser sensor (Opticon) |
| **Scanning Speed** | 300 scans/sec (Real-Time decode) | 100 scans/sec (Real-Time decode) |
| **Depth of Field** | 250mm | 350mm |
| **Reading Performance** | | |
| **CPU** | 32 bit | |
| **Symbologies** | Code 11, Code-32, Code 39, Code 93, Code 128, UPC-A, UPC-E, JAN/EAN/UPC Add-on, EAN 128, EAN 13, EAN 8, Codabar/Nw7, INT 25, Industrial 25, Matrix 25, Interleaved 25, UK/ Plessey, MSI/Plessey, Telepen, fully RSS code, GS1 Databar | |
| **Resolution** | 4 mil (Code 39, PCS : 0.9) | 5 mil (Code 39, PCS : 0.9) |
| **PSC** | $\geq 0.3$ | $\geq 0.45$ |

### Programming and Setting

(1)  Programming Manual
(2)  USB COM I/F Downloading
(3)  ISP Flash ROM BIOS software update

### Electrical

| | |
|---|---|
| **Interface** | PS2, RS232, USB virtual COM, USB HID |
| **Connector** | Phone Jack 8 Pins |
| **Indicator** | Green LED and beep |
| **Voltage** | DC +5V ±5% |
| **Operating Current** | 65-75 mA |
| **Standby Current** | 5 uA (0.005mA) via keyboard mode |

### Environment

| | |
|---|---|
| **Operating Temp** | 0℃ to 50℃ (32℉ to 122℉) |
| **Storage Temp** | -20℃ to 70℃ (-4℉ to 158℉) |
| **Relative Humidity** | 10% to 95% (Non-condensing) |

### Physical

| | |
|---|---|
| **Material** | ABS Plastic & Rubber |
| **Weight** | Approx 150g (without cable) |

## PIN ASSIGNMENTS

### Keyboard interface

| PHONE JACK 8P | MINI DIN 6 MALE | MINI DIN 6 FEMAL | FUNCTION |
|---|---|---|---|
| 1 | 4 | 4 | Vcc |
| 2 | 5 | - | HOST-CLK |
| 3 | 1 | - | HOST-DATA |
| 4 | - | 1 | KB-DATA |
| 5 | - | 5 | KB-CLK |
| 8 | 3 | 3 | GND |
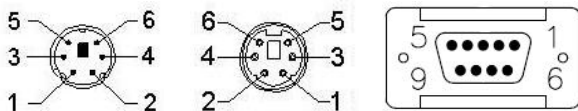
### BF-481 Scan Map
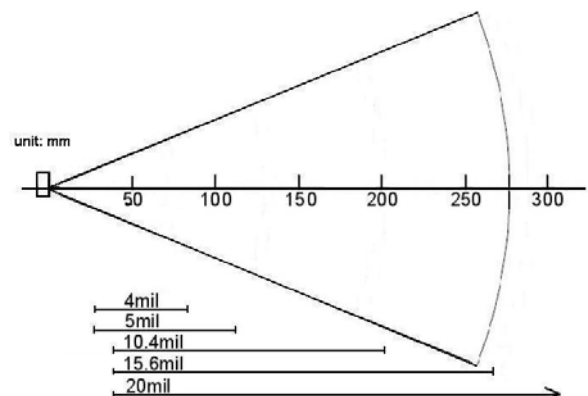


### USB interface

| PHONE JACK 8P | 4P USB | FUNCTION |
|---|---|---|
| 1 | 1 | Vcc |
| 5 | 2 | D- |
| 6 | 3 | D+ |
| 8 | 4 | GND |
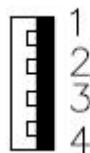
### RS-232 interface

| PHONE JACK 8P | FUNCTION | DSUB-9F | FUNCTION |
|---|---|---|---|
| 1 | Vcc | 2 | TXD |
| 3 | TXD | 3 | RXD |
| 4 | RXD | 5 | GND |
| 5 | CTS | 7 | CTS |
| 6 | RTS | 8 | RTS |
| 8 | GND | 9 | Vcc |

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Contact us for details