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## Symbol LS3578FZ Review

**Product:** LS3578FZ

**Manufacturer:** Symbol

**Type:** Industrial Cordless Laser Scanner

**Support:** 3 year support, lifetime Scan Engine warranty through Symbol, lifetime support through POSGuys.com

The [Symbol LS3578FZ](#) cordless industrial scanner utilizes Fuzzy Logic technology to improve accuracy when scanning dense, damaged, or otherwise difficult to read barcodes.



### Typical uses and environments:

The rugged design, industrial yellow body, and aggressive scan engine put the LS3578FZ most at home in heavy industrial or warehouse-style retail environment.



### Unique Features & Advantages:

Fuzzy Logic technology gives the Symbol LS3578FZ the ability to scan incredibly damaged barcodes, making the scanner ideal for locations where barcodes may be damaged by the elements, such as lumber mills or field inventory control.

### Standard Features:

As with other scanners in the industrial class, the LS3578 features a ruggedized body to protect it from damage that could occur from falls to concrete or harsher climates. The body is designed to withstand multiple drops of 6.5' to concrete. An IP65 seal specification means the LS3578 is totally protected against dust and from water sprays from any direction.

Two LEDs on the top of the scanner shine green when a successful scan is sent, and will change to red if the LS3578FZ is out of range or cannot locate its cradle or host PC. A tone also plays on successful scans, which is loud enough to hear over a relatively noisy environment. When the scanner is out of range of the cradle, it will "bark", or beep twice every minute, to let you know it is out of range.

### Drawbacks:

The only minor drawback we experience regarding the LS3578FZ's features occurred during initial setup. Though POSGuys.com sells the scanner as a kit, with scanner, cradle, interface, and power cables, it is not set up that way through Symbol. What this means is that more assembly is required than with other scanners in the class. Thankfully, this only means that the scanner must be paired to the cradle by scanning the PAIR barcode located on the cradle.



### Performance Testing:

To determine the scanning prowess of the Symbol LS3578FZ, we ran it through a battery of tests designed to determine the optimal focal length, ability to scan wide, dense, multicolored, or dense barcodes, the scanner's resistance to light, and RF range. Our tests showed the LS3578FZ to be an excellent industrial grade cordless barcode scanner.

The effective scan range for a 100% UPC-A barcode was from 1/4" to 25", but that range can be extended to around 7 feet if a less dense encoding is used. For barcode width, the LS3578FZ was able to read up to a 7.4" barcode at a standard encoding density, which holds 65 characters.

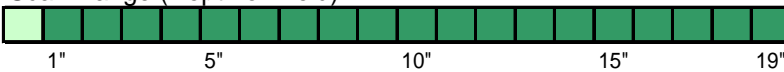
In testing the RF range of the scanner, we were able to get it about 130 feet away from the cradle before sync was lost and the scanner began to “bark” to let us know it was sans cradle. Unfortunately, when we got back in range, our scanner was unable to reconnect to the cradle. That could prove troublesome, especially if the cradle is difficult to access.

The Fuzzy Logic technology, used to get a better read of damaged, worn, or dirty barcodes, allowed our LS3578FZ to read every barcode in our damaged test, including some reprints that were out of focus or out of alignment. The scanner is also fully light immune, able to read barcodes easily despite being in full daylight or having the lamp nearly touching the barcode.

A breakdown of the Symbol LS3578FZ capabilities is listed in table and graph form below.

## Scanner Performance Testing

### Scan Range (Depth of Field)



Well above standard Scan Range  
for industrial environments

### Wide Barcodes (In Inches)



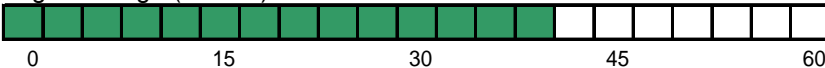
Scans above standard  
for industrial sizes

### High Density Barcodes (In Mil)



Standard range for retail  
and industrial barcode density

### Signal Range (Meters)



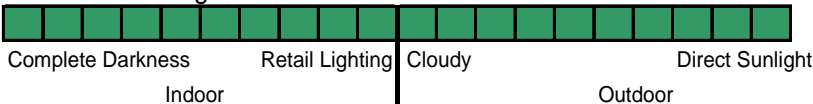
The LS3578FZ was able to scan at a range  
of 40 meters, or about 130 feet.

### Poor Quality Barcodes\*



Could read almost every damaged  
barcode. Excellent for all retail and industrial use

### Resistance to Light



Full Immunity to Light

## 1D Results

Highest Density Barcode Scanned	6mil	Good
Widest Barcode Scanned	187.96mm	Great
Shortest Barcode Scanned	38 mm	Good
Range Ideal Conditions (Standard 100% UPC-A)	1/4 inches – 25 inches	Excellent
Scratched Barcode	3 of 3	Good
Worn Barcode	3 of 3	Good
Warped Barcode	2 of 2	Good

Curved Barcode	2 of 2	Good
Multiple Barcodes in close proximity	Relatively accurate, but dependent on distribution of barcodes relative to thickness of beam	Average
Scan through plastic layers	10 Layers	Good
Multicolored Barcodes Successfully Scanned	Blue, Grey, Black on Brown, Orange, Green	Good
Multicolored Barcodes Not Scanned	Red, Yellow, Black on Dark Grey	Average
Simulated Sunlight Test	Fully Light Immune	Excellent




**Conclusion:**

The Symbol LS3578FZ continues Symbol's tradition of durable, aggressive barcode scanners. If you are looking for a cordless scanner that will provide you with years of worry-free service in you industrial environment, look no further than the LS3578.

To Purchase this product, go to the [Symbol LS3578FZ](#) page.

To see our complete line of barcode scanners, visit our [Barcode Scanners](#) section.

For Additional Reviews, visit our [Product Reviews](#) page.

Similar Products From Symbol	Ideal Setting	Description
 <a href="#">LS2208</a>	All Retail, Light Industrial, Medium to High Volume Scanning	Excellent features for its price. Aggressive scan engine ensures accurate scans for all types of linear barcodes
 <a href="#">LS3008</a>	Light to Medium Industrial, Rough Retail, High Volume Scanning	More aggressive scan engine than LS2208, able to enter raster mode to scan damaged barcodes. IP54 seal protects it from dust & water.
 <a href="#">LS3578</a>	Heavy Industrial, Harsh Environments	Cordless barcode scanner has extended range or fuzzy logic scan engine to increase scanning ability. IP64 seal protects it from the elements.

[POSGuys.com - your single source for barcode scanners, pos software and pos equipment.](#)

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