

Scanner configuration/information

Agile X IS

Type 17-A1B*-1... /

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Reservation: We reserve the right to make technical modifications. Changes, errors and misprints shall not justify any claim for damages.

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1. Built in scan engine

In Agile X IS series is the Zebra 1D/2D Imager SE4500-SR built in.
The scan engine is switched on/off and basic configured over HotTab tool.

The scan engine is internal connect thru serial interface COM port 15.

1.1 Decode Distances

Symbol density/ Barcode type	Barcode content / Contrast ¹	Typical working ranges	
		Near	Far
5.0 mil Code 39	ABCDEFGH 80% MRD	2.1 in 5.33 cm	7.5 in 19.05 cm
6.67 mil PDF417	4 Col, 20 Rows 80% MRD	3.4 in 8.64 cm	7.1 in 18.03 cm
7.5 mil Code 39	ABCDEF 80% MRD	Note 2	10.6 in 26.92 cm
10 mil PDF417	3 Col, 17 Rows 80% MRD	Note 2	10.1 in 25.65 cm
13 mil UPC-A	012345678905 80% MRD	1.6 in 4.06 cm	15.5 in 39.37 cm
15 mil PDF417	80% MRD	Note 2	14.7 in 37.34 cm
15 mil Data Matrix	18 x 18 Modules 80% MRD	2.8 in 7.11 cm	12.4 in 31.50 cm
20 mil Code 39	123 80% MRD	Note 2	24.7 in 62.74 cm

Note 1) Contrast is measured as Mean Reflective Difference (MRD) at 670 nm.

Note 2) Near distances are field-of-view (FOV) limited.

Note 3) Working range specifications at temperature = 23°C, pitch=18°, roll=0°, skew=0°, photographic quality, ambient light ~30 ft-c, humidity 45-70% RH.



The scan engine minimum and maximum ranges depend on the bar code symbology/type and the module width (in mil) used.

The decode range depends on the quality and size of the bar code and on the scan engine's software setting.

The scan engines used comply with laser class CDRH Class II / IEC 825 Class 2

1.2 Decode Zone

The following figure shows the decode zone for the SE4500-SR. Typical values and distances for selected barcode densities listed in table in chapter 1.1.

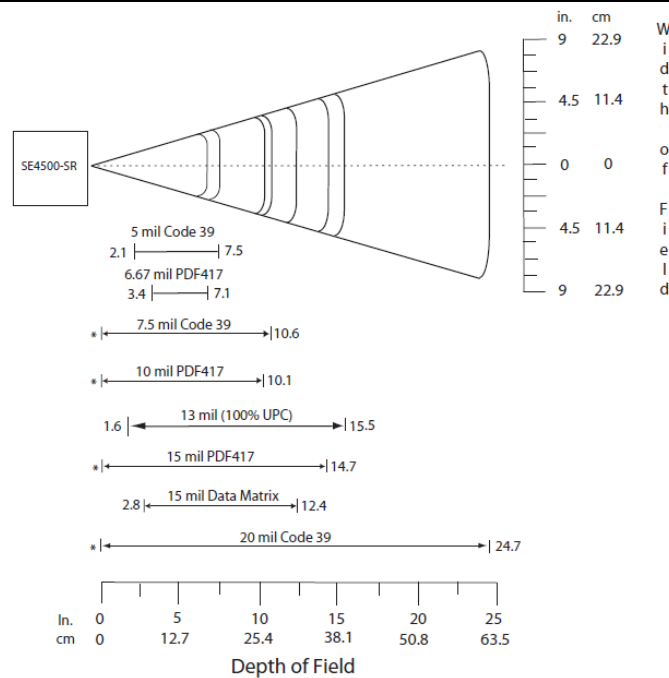
The minimum element width (or "symbol density") is the width in mils of the narrowest element (bar or space) in the symbol.

Note:

The decode zone is from Zebra integration guide for SE4500 scan engine.

Typical performance at 73°F (23°C) on high quality symbols in normal room light.

Vcc = 3.3V





* Minimum distance determined by symbol length and scan angle.

1.3 Decodable barcode types

All supported 1D-Barcodes		All supported 2D-Barcodes (only supported with Imager versions)	
1D-Symbol/Codes		2D-Symbol/Codes	
Code 11	Code 39	Aztec	Micro PDF-417
Code 93	Code 128	Australian 4-state	Maxi Code
Codabar	Coupon code	Canadian 4-state	PDF-417
Chinesisch 2 of 5	Discrete 2 aus 5	Composite AB	QR Code
Interleaved 2 of 5	Trioptic 39	Composite C	TLC39
EAN-8	EAN-13	Data Matrix	UK 4-state
UPCA	UPCE	Dutch Kix	US Planet
UPC/EAN Supplementals	MSI	Japanese 4-state	US Postnet
Webcode	RSS-14	PDF-417 Macro	USPS 4-state (US4CB)
RSS Limited	RSS Expanded	(Macro) Micro PDF-417	microQR

2. Configuration options

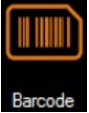

Following configuration options are available.

Tool	Description
HotTab	<p>HotTab provides quick access to the tablet's functions and features, such as turning on/off scan engine, Wifi, Bluetooth, GPS, programming function key, and changing power management.</p> <p>As Windows starts up, HotTab starts and runs in the background. To display the HotTab control utility, press the  (Menu) button located on the front panel, OR launching the HotTab Utility  application.</p> <p>The tool is used to enable/disable scan engine.</p> <p>The tool provides the possibility of simple configuration.</p>
MotoSetting v1.0.2	<p>This is a tool that can be optionally installed.</p> <p>The tool enables the activation/deactivation of barcode types and a limited possibility of barcode-specific settings.</p>
Zebra development kit	<p>Zebra offers a development kit for the scan engine to program your own complete application.</p> <p>The kit includes:</p> <ul style="list-style-type: none"> • SE-4500 Integration Guide • PL3307 Integration Guide (used decoder board) • Universal Installation Guide • SDK with sources and samples <p>The latest version is available on the support download page: https://www.zebra.com/us/en/support-downloads/oem/oem-engines/se4500.html</p> <p>Note:</p> <p>This option is only for software developers that design their own application or that implement scan engine in their current application.</p>

2.1 HotTab Tool

To enable the Barcode Reader feature, perform the following procedure:

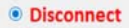

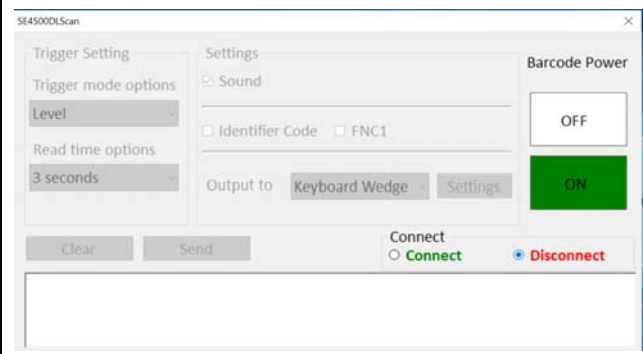
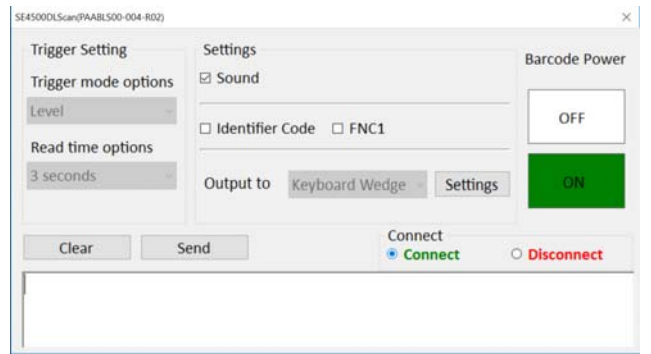
Check the status colour of the Barcode icon:

Item	Status Colour	Description
	Orange	Barcode Reader is enabled. Function key 2 (Fn2) is dedicated to the barcode reader.
	White	Barcode Reader is disabled.

If the Barcode Reader feature is disabled (white), tap on the icon to enable it (orange).





The physical function key 2 (Fn2) is dedicated to the barcode reader for triggering.

Enable the function and a window appears for easy activation, setup and demonstration.

<p>Scan engine is activated</p> <p>HotTab tool is set to .</p> <p>This means that COM15 is free and other scan application can access the scan engine.</p>	<p>Scan engine is activated</p> <p>HotTab tool is set to .</p> <p>This means that COM15 is idle and no other scan application can access the scan engine.</p>
	
<p>Scan engine can be used by another application.</p> <p>E.g. "MotoSetting v1.0.2" to enable/disable barcode symbologies.</p>	<p>Scan engine can be tested in this setup.</p> <p>The tool allows some basic configuration as setup of prefix, suffix, replacement of characters and others.</p>

Select On  so that the barcode reader is activated.

Barcode data can be tested by pressing the Fn2 key. The result is displayed in the bottom field of the window.

	The Barcode reader is internal dedicated to COM port 15.
	<p>Important Note:</p> <p>For use of other tools it is important to open the window above and set it to  and  that the COM port 15 is free for use.</p> <p>Otherwise other tool can't connect to the barcode reader.</p>

2.2 MotoSetting v1.0.2 Tool

Start screen of the tool.

1. Menu bar

2. PULL => start scan

3. RELEASE => stop scan


4. Clear => clear status window

5. R => Restore default parameters

6. Status window

Symbology	Description and what settings are available
UPC/EAN	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [UPC/EAN] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> UPC-A <input checked="" type="checkbox"/> UPC-E <input type="checkbox"/> UPC-E1 <input checked="" type="checkbox"/> EAN-8/JAN 8 <input checked="" type="checkbox"/> EAN-13/JAN 13 <input type="checkbox"/> Bookland EAN <input type="checkbox"/> Bookland ISBN Format <input checked="" type="checkbox"/> Transmit UPC-A Check Digit <input checked="" type="checkbox"/> Transmit UPC-E Check Digit <input checked="" type="checkbox"/> Transmit UPC-E1 Check Digit <input type="checkbox"/> Convert UPC-E to A <input type="checkbox"/> Convert UPC-E1 to A <input type="checkbox"/> EAN-8/JAN-8 Extend <input type="checkbox"/> UCC Coupon Extended Code <input type="checkbox"/> ISSN EAN
Code 128	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Code 128] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Code 128 <input checked="" type="checkbox"/> GS1-128 (formerly UCC/EAN-128) <input checked="" type="checkbox"/> ISBT 128 <input type="checkbox"/> ISBT Concatenation <input checked="" type="checkbox"/> Check ISBT Table
Code 39	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Code 39] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Code 39 <input type="checkbox"/> Trioptic Code 39 <input type="checkbox"/> Code 32 Prefix <input type="checkbox"/> Convert Code 39 to Code 32 (Itali: <input type="checkbox"/> Code 39 Check Digit Verification <input type="checkbox"/> Transmit Code 39 Check Digit <input type="checkbox"/> Code 39 Full ASCII Conversion <input type="checkbox"/> Buffer Code 39
Code 93	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Code 93] <ul style="list-style-type: none"> <input type="checkbox"/> Code 93
Code 11	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Code 11] <ul style="list-style-type: none"> <input type="checkbox"/> Code 11 <input type="checkbox"/> Code 11 Check Digit Verification <input type="checkbox"/> Transmit Code 11 Check Digit(s)

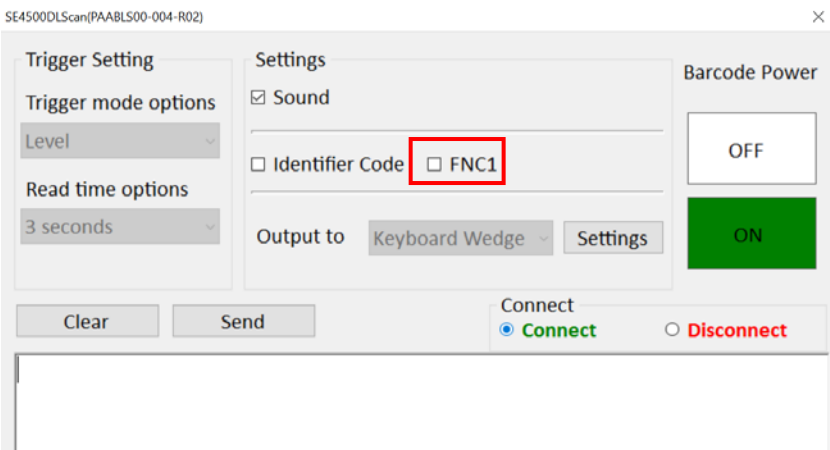
	<input checked="" type="checkbox"/> [Interleaved 2 of 5 (ITF)] <ul style="list-style-type: none"> <input type="checkbox"/> Interleaved 2 of 5 (ITF) <input type="checkbox"/> I 2 of 5 Check Digit Verification <input type="checkbox"/> Transmit I 2 of 5 Check Digit <input type="checkbox"/> Convert I 2 of 5 to EAN 13
Interleaved 2 of 5	<input checked="" type="checkbox"/> [Interleaved 2 of 5 (ITF)] <ul style="list-style-type: none"> <input type="checkbox"/> Interleaved 2 of 5 (ITF) <input type="checkbox"/> I 2 of 5 Check Digit Verification <input type="checkbox"/> Transmit I 2 of 5 Check Digit <input type="checkbox"/> Convert I 2 of 5 to EAN 13
Codabar	<input checked="" type="checkbox"/> [Codabar (NW - 7)] <ul style="list-style-type: none"> <input type="checkbox"/> Codabar <input type="checkbox"/> CLSI Editing <input type="checkbox"/> NOTIS Editing <input type="checkbox"/> Codabar Upper or Lower Case Start
MSI	<input checked="" type="checkbox"/> [MSI] <ul style="list-style-type: none"> <input type="checkbox"/> MSI <input type="checkbox"/> MSI Check Digits <input type="checkbox"/> Transmit MSI Check Digit <input type="checkbox"/> MSI Check Digit Algorithm
Chinese 2 of 5	<input checked="" type="checkbox"/> [Chinese 2 of 5] <ul style="list-style-type: none"> <input type="checkbox"/> Chinese 2 of 5
Matrix 2 of 5	<input checked="" type="checkbox"/> [Matrix 2 of 5] <ul style="list-style-type: none"> <input type="checkbox"/> Matrix 2 of 5 <input type="checkbox"/> Matrix 2 of 5 Check Digit <input type="checkbox"/> Transmit Matrix 2 of 5 Check Digit
Korean 3 of 5	<input checked="" type="checkbox"/> [Korean 3 of 5] <ul style="list-style-type: none"> <input type="checkbox"/> Korean 3 of 5
Postal Codes	<input checked="" type="checkbox"/> [Postal Codes] <ul style="list-style-type: none"> <input type="checkbox"/> US Postnet <input type="checkbox"/> US Planet <input checked="" type="checkbox"/> Transmit US Postal Check Digit <input type="checkbox"/> UK Postal <input checked="" type="checkbox"/> Transmit UK Postal Check Digit <input type="checkbox"/> Japan Postal <input type="checkbox"/> Australia Post <input type="checkbox"/> Netherlands KIX Code <input type="checkbox"/> USPS 4CB/One Code/Intelligent M <input type="checkbox"/> UPU FICS Postal

GS1 DataBar	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [GS1 DataBar] <ul style="list-style-type: none"> <input type="checkbox"/> GS1 DataBar Limited <input checked="" type="checkbox"/> GS1 DataBar (GS1 DataBar Omnidirectional) <input checked="" type="checkbox"/> GS1 DataBar Expanded (GS1 DataBar) <input type="checkbox"/> Convert GS1 DataBar to UPC/EAN
Composite	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Composite] <ul style="list-style-type: none"> <input type="checkbox"/> Composite CC-C <input type="checkbox"/> Composite CC-A/B <input type="checkbox"/> Composite TLC-39 <input type="checkbox"/> GS1-128 Emulation Mode for UCC/E
2D Symbologies	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [2D Symbologies] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> PDF417 <input type="checkbox"/> MicroPDF417 <input type="checkbox"/> Code 128 Emulation <input checked="" type="checkbox"/> Data Matrix <input type="checkbox"/> Maxicode <input checked="" type="checkbox"/> QR Code <input checked="" type="checkbox"/> MicroQR
Macro PDF	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> [Macro PDF] <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Transmit Macro PDF Control Header
	The checkboxes in the screenshots show the default settings of the scan engine.
	The tool automatically stores any change.

3. Configuration samples for HotTab

3.1 FNC1

Every GS1-128 barcode begins with the (FNC1) "Function Code One" character and an Application Identifier (AI) number. The AI defines a specific purpose for the data field after it. The combination of the AI and its data field is referred to as the element string. The AI is represented with parentheses around it in the Human Readable representation below the barcode. Multiple element strings may also be encoded according to GS-1 specifications. Variable element strings should be encoded last in the symbol and FNC1 characters must be encoded between two or more variable length element strings.

<p>Deactivated:</p> <p><input type="checkbox"/> FNC1</p> <p>FNC1 is not shown/transmitted</p> <p>Activated:</p> <p><input checked="" type="checkbox"/> FNC1</p> <p>FNC1 is shown/transmitted</p>	
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Example: (deactivated)

24000018461.0011044455432156926

Example: (activated)

24000018461.001<GS>104445543<GS>2156926

3.2 Replace characters

In HotTab tool => Settings menu you can setup so that defined characters are replaced.

Open

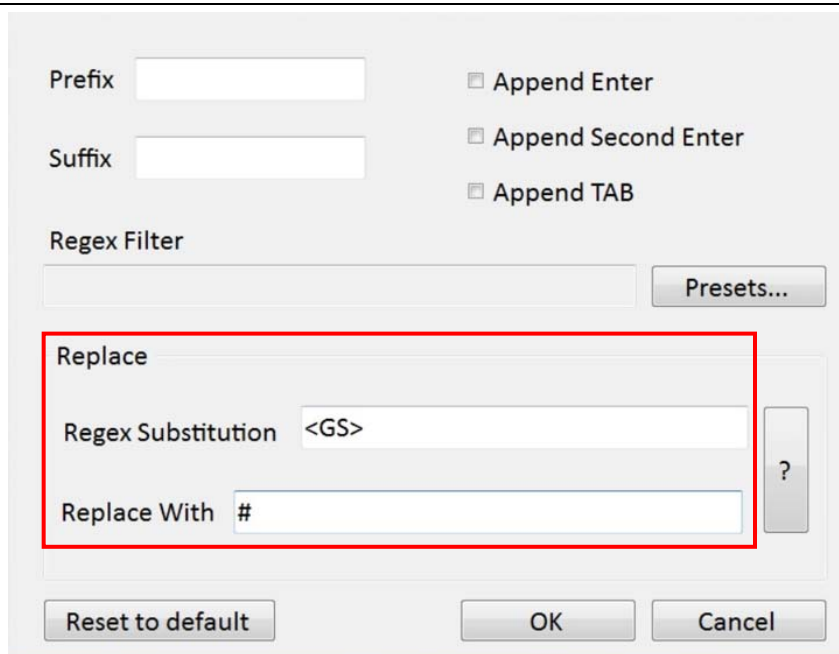
- HotTab
- Barcode
- Settings

Regex Substitution:

Type in the character what you need to replace.

Replace with:

Type in the character what you defined as replacement.



Prefix

Suffix

☐ Append Enter

☐ Append Second Enter

☐ Append TAB

Regex Filter Presets...

Replace

Regex Substitution

Replace With

Reset to default OK Cancel



(240)00018461.001(10)4445543(21)56926

Example: (no replacement setup)

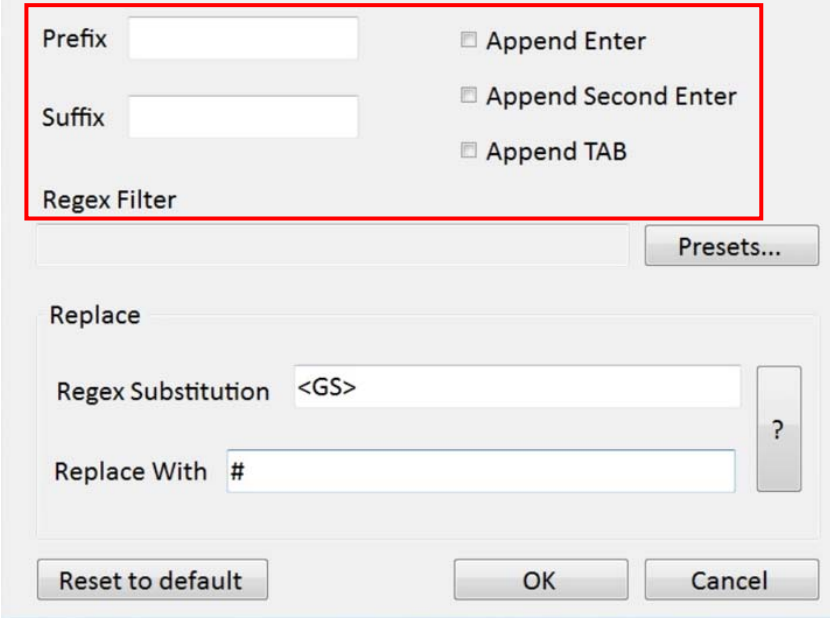


24000018461.001<GS>104445543<GS>2156926

Example: (<GS> replaced by #)

24000018461.001#104445543#2156926

3.3 Prefix & Suffix

In HotTab tool => Settings menu you can setup self-defined characters as prefix and/or suffix or a defined suffix.

<p>Open</p> <ul style="list-style-type: none"> • HotTab • Barcode • Settings <p>Prefix: Type in the character what you need as prefix in front of your barcode data</p> <p>Suffix: Type in the character what you need as suffix behind of your barcode data</p> <p>Append Enter: Set an Enter <CR> as suffix.</p> <p>Append Second Enter: Activate together with "Append ENTER" to have two Enter <CR> as suffix.</p> <p>Append TAB: Set an TAB as suffix.</p>	
<p>Example 1:</p> <p>Prefix: #</p> <p>Suffix: two ENTER <CR></p> 	<p>Setting</p>  <p>CR = Carriage Return</p>
<p>Result:</p> <p>#TestCode128<CR><CR></p>	

Example 2:

Suffix: ENTER <CR>+LineFeed<LF>



Setting

Prefix

☒ Append Enter

Suffix

#\$CR+LF\$#

☒ Append Second Enter

☐ Append TAB

#\$ = enable function keys

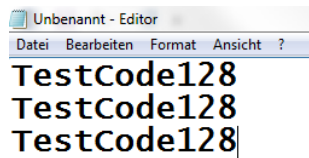
\$# = disable function keys

CR = Carriage Return

LF = Line Feed

Result:

TestCode128<CR><LF>



Example 3:

Suffix: Function key F4



Setting

Prefix

☒ Append Enter

Suffix

#\$F4\$#

☒ Append Second Enter

☐ Append TAB

#\$ = enable function keys

\$# = disable function keys

F4 = Function key F4 (possible is F1 to F24)

Result:

TestCode128<F4>