

iDTRONIC GmbH



BlueBoxShow

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BlueBoxShow, free of charge and included in the BlueBox SDK, is the graphical testing and configuration tool that with just few clicks customizes the functions of any BlueBox RFID devices.

Please note that not all the functions included in this guide will be displayed in any BlueBox. The software itself will show only the parameters that are meant to be managed. This guide refers to BlueBox CX series, but can be used with any BlueBox device.



Connection



MAIN BAR MENU

File: load or save a configuration

Edit: activate/deactivate «beep» on tag event. Open Engineering mode (only for service personnel)

Engineering Mode: reserved for manufacturerUpgrade: safely upgrade the firmwareDemos: spontaneous mode demoAbout: shows information about firmware and hardware

INTERFACE

In order to connect the device to the BlueBo xShow first of all it is necessary to choose the proper interface between Ethernet (TCP) or Serial (RS232 / RS485). For TCP connection the default IP address is 192.168.4.200 (Port 3000). For serial the defaults are baud rate 19200 bps, 8 data bits, 1 stop bit and no parity check. Indeed the correct serial port must be selected first.

Address

Default is 255, but any number between 1-255 can be assigned to a device part of an RS485 network. Note: This device address is tested on all interfaces.

🐌 BLUEBO	X Show		
File Edit	Engineering Mode	Upgrade Dem	nos About
Interface:	тср 🔹 /	Address: 255	- 🥒 🗶 🛱 🖤 📋
ТСР	R5232 R5485		
IP addre 192.168 Port 3000	4.200		

Connect disconnect ireset load config save config

Configuration



Right after the connection the device version is shown in the highlighted blue panel (in the picture BLUEBOX CX UHF LONG RANGE DUAL CHANNEL) The Commands colon contains all the parameters controlled by the BlueBoxShow.

Configuration:	This panel allows to set network Address node of the device, and the serial communication parameters.
Filter Time:	It is used to avoid multiple detections of the same tag. The Filter time says the device to ignore the tag after the detection for the specified time.
Buzzer activation on new tag event:	enables/disable the buzzer on tag detection
Relay 1 activation on tag present:	activate the Relay1, the behaviour is controlled in the I/O configuration section.
Reading antenna Information:	upon tag detection, enables/disables adding the antenna information together with the tag ID
Tag type information:	upon tag detection, enables/disables adding the tag information together with the tag ID
Spontaneous mode:	enables/disables the spontaneous mode
Continuos mode triggered by inputs:	by enabling this option the continuos mode is controlled in the I/O configuration panel
Continuos mode:	enables/disables the continous mode

BLUEBOX Show File Edit Engineering Mode Upgrade Demos About Address: 255 - 🖉 🎽 📬 🗇 Interface: TCP тср **BLUEBOX CX UHF LONG RANGE DUAL CHANNEL** IP address 192.168.4.200 Commands Configuration nfiguratio Port Address: 255 \sim Ethernet Configuration 3000 Remote IP Configurati Baud rate: 19200 Data bits: 8 \sim ···Wiegand Configuration -CAN Bus Configuration Stop bits: 1 \sim Parity: None -I/O Configuration - Spontaneous Configur Filter time: econds O minutes -RF Configuration Flags: Buzzer activation on new tag event --- EPC C1G2 Configuratic Relay 1 activation on tag present (see I/O configuration) --- Dynamic Power Config Temperature Reading antenna information Data Request Tag type information Queue Request Spontaneous mode (see Spontaneous configuration) Records Continuous mode triggered by inputs (see I/O configuration) Output -Reader Status Continuous mode -RF Reading Test RF Power Test RF Sensitivity Test Read Write Default RF ON/OFF - ISO 18000-6C - Inventory -Program EPC Read Write BlockWrite

Read

Default

Write

Ethernet configuration -**Remote IP configuration**





	* Address: 255 *		
СР		BUTEBOX CX THE LONG	RANGE DUAL CHANNEL
IP address		beoebox cx officer	
192.168.4.200	Commands	Ethernet Configuration	
ort	Configuration	MAC Address:	40:D8:55:1A:1B:4D
000	Remote IP Configurati	IP Address:	192.168.4.200
		TCP Port:	3000
	- Spontaneous Configur	Subnet Mask:	255.255.255.0
	EPC C1G2 Configuration	Gateway Address:	0.0.0.0
	Dynamic Power Confi <u>c</u> Temperature		
	Data Request	Read	Write Default

ing Mode Upgrade

File Edit Engineering Mode Upgrade Demos About Interface: TCP Address: 255 · / / / 🖬 🖉 🗎 TCP BLUEBOX CX UHF LONG RANGE DUAL CHANNEL IP address 192.168.4.200 Commands **Remote IP Configuration** Configuration Port Server IP address: 192.168.4.200 Ethernet Configuration 3000 mote IP Configurat Server TCP port: 3000 Wiegand Configuration CAN Bus Configuration Max connection timeout wait time: sec 🔘 min I/O Configuration Spontaneous Configur **RF** Configuration Default Read Write - EPC C1G2 Configuration Dynamic Power Config Temperature Data Request **Oueue Request**

Remote IP Configuration: it is possible to stream the readings to a remote server by specifing the IP address and the TCP listening Port

Read Write

Default

Wiegand configuration – **Can Bus configuration**



Wiegand Configuration: set the Wiegand parameters (it applies only to Wiegand versions)

Interface: TCP	• Address: 255 • 🖉 🖉	: 😫 🖑 📋	
ТСР	В	LUEBOX CX UHF LONG RAN	IGE DUAL CHANNEL
IP address			
192.168.4.200	Commands	Wiegand Configuration	
Port 3000	Configuration - Ethernet Configuratior - Remote IP Configuratio - CAN Bus Configuratior - I/O Configuration - J/O Configuration - Spontaneous Configur - RF Configuration	Protocol Data Format: Interface Wave Pulse Width: Interface Wave Pulse Interval: Start Address of the ID of the Tag:	Wiegand26 ~ 50 us ~ 1 ms ~ 0 ~
	—EPC C1G2 Configuratic —Dynamic Power Config —Temperature —Data Request —Queue Request	Read	Write Default

Engineering Mode Upgrade Demos

Engineering Mode Upgrade Demos

Abou

ТСР		LUEBOX CX UHF LONG R	ANGE DUAL CHANNEL
IP address			
192.168.4.200	Commands	CAN Bus Configuration	
Port 3000	Configuration Ethemet Configuration Remote IP Configuration CAN Bus Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur RF Configuration EPC C1G2 Configuration Dynamic Power Config Temperature Data Request Queue Request	CAN Bus Device Address: CAN Bus Baud Rate: Read	0 v 250 kbit/s v

CAN Bus Configuration: set the CAN Bus parameters (it applies only to CAN Bus versions)

Write Default Read

I/O Configuration – **Spontaneous Configuration**



Input mode 1: sets the behaviour when Input 1 is in ON or OFF state

Input mode 2: not yet implemented in the firmware

Antibump input time: sets the time to manage the antibump (default time is 50 msec)

Trigger mode extend time: extends the reaction time of the input

Gate mode cross time: when enabled the device, for the specified time, is set to idenfy the crossing gate direction

Output 1 activation time: sets the relay closing time

Interfaces: it is possible to choose through the checkboxes, the interfaces where to send the spontaneous messages to

File Edit Engineering Mode Interface: TCP A	Upgrade Demos About ddress: 255 🔹 🖉 🎉	\$ 🔹 🕫 📋	
TCP IP address 192.168.4.200 Port 3000	B Commands Configuration Ethemet Configuration Remote IP Configuration CAN Bus Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur RF Configuration EPC C1G2 Configuratic Dynamic Power Config Temperature	IJOEBOX CX UHF LONG RANGE DUAL CHANNEL I/O Configuration Input 1 mode: Disabled Disabled Disabled Input 2 mode: ON -> Activate antenna 1 & 2 - OFF -> Deactivate antenna 1 OFF -> Activate antenna 1 - OFF -> Deactivate antenna 1 OFF -> Activate antenna 1 - OFF -> Deactivate antenna 1 ON -> Activate antenna 1 - OFF -> Deactivate antenna 1 ON -> Activate antenna 1 - OFF -> Deactivate antenna 1 ON -> Activate antenna 2 - OFF -> Deactivate antenna 2 Trigger mode exter OFF -> Activate antenna 2 - OFF -> Deactivate antenna 2 Gate mode cross time: Disabled Isabled Isable	ra 1 & 2 ra 1 & 2 rec O min rec O min
	Data Request		

File Edit Engineering Mode Upgrade Demos About

- 🖉 🚿 😫 🖉 🗎 Interface: TCP Address: 255 ТСР BLUEBOX CX UHF LONG RANGE DUAL CHANNEL IP address 192.168.4.200 Commands Spontaneous Configuration Configuration Port Interfaces: Serial RS232 / RS485 Ethernet Configuration 3000 Remote IP Configurati Ethernet (TCP server, TCP client) Wiegand Configuration Wiegand interface CAN Bus Configuration I/O Configuration CAN bus interface ontaneous Config RF Configuration EPC C1G2 Configuratio Read Write Default Dynamic Power Config Temperature Data Request Queue Request

Read Write

Default

RF Configuration



RF geographical region: Europe (ETSI) or North America (FCC)

RF output power: from 0dBm to the max. supported (+27 dBm = 500 mW, +30 = 1 W)

RF input sensitivity: the lower, the more tags are detected

RF Channel: it is possible to choose between 10 channels for ETSI and 50 for FCC. Very useful to avoid interferences where more readers are working simultaneously

Antennas: the checkboxes control which antenna is active

RF Channel max allocation time: according to the application it is possible to specify the max allocation time of the specific channel

RF Channel min pause time: according to the application it is possible to specify the pause time of the specific channel

RF chip standby mode: puts the RF chip in standby

File Edit Engineering Mode	Upgrade Demos About		
Interface: TCP - A	ddress: 255 🔹 🖋	😫 🖑 📋	
ТСР	BL	UEBOX CX UHF LONG RANGE [DUAL CHANNEL
IP address			
192.168.4.200	Commands	RF Configuration	
Port 3000	Configuration	RF geographical region:	Europe (ETSI compliant region)
	Wiegand Configuration	RF output power:	~
	CAN Bus Configuration I/O Configuration	RF input sensitivity:	~
		RF Channel:	Default 🗸
	EPC C1G2 Configuration	Antennas:	Antenna 1
	Dynamic Power Config Temperature		Antenna 2
	Data Request	RF channel max allocation time:	✓ ● ms*10 ○ seconds
	Queue Request Records	RF channel min pause time:	✓ ● ms*10 ○ seconds
	····Output ····Reader Status	RF chip standby mode	
	RF Reading Test RF Power Test RF Sensitivity Test	Read W	rite Default



EPC C1G2 Configuration



Inventory mode: Fast take the tag to the acknowleged mode, Standard to the Opened mode. The first is faster the second is more secure. Multi does anticollision procedure, Single no.

T=>R link frequency: defaults suggested, refer to the product manual. **T=>R bit coding:** defaults suggested, refer to the product manual.

Q tuning section

Q tells the reader informations about the number of tags that could be expected in the field according with the equation $n=2^{Q}$ so, if the Q value is set to **0** and the Q algorithm to **fixed** the reader expects 1 tag in the field. When the Q algorithm is set to Dynamic, the reader changes automatically the values to match the actual scenario.

Tags singulation search mode: according to the EPC C1G2 specifications, an UHF tag when energized puts its state from A to B, when selected Dual Target the reader looks for tags that are in A and B state, when selected Single Target the reader looks for tags that are in the specified Target

Session: indicates which is the session managed by the reader. For further informations refers to EPC C1G2 specifications

EPC size: indicates the amount of EPC memory that will be used.

ReadAfterDetect (RAD) info: tells the reader what to read after the tag detection (TID, or custom)

RAD Bank: if Custom is selected then it is possible to specify which memory bank to read from, between EPC, TID or User

RAD blocks: when Custom is selected then it is possible to specify the number of blocks to read

ReadAfter Detect EPC info: select The EPC bank info to include in the tag's ID in ReadAfterDetect mode

ТСР	B	UFBOX CX I	JHF LONG R		DUAL CHAN	INFI	
IP address							
192.168.4.200	Commands	ECP C1G2 Config	juration				
Port 3000	Configuration Ethernet Configuration Remote IP Configuration Wisegard Configuration	Inventory mode: T=>R link frequency:			Fast Multi Tag Fast Multi Tag Fast Single Tag Standrad Multi Tag		~
	CAN Bus Configuration	T=>R bit coding	:		Standard Single	e Tag	
	 I/O Configuration Spontaneous Configur 	Q algorithm:	Dynamic	\sim	Q value:	0	~
	RF Configuration	Q initial:	0	\sim	Q Final:	0	~
	···· <mark>EPC C1G2 Configuratio</mark> ····Dynamic Power Confi <u>c</u>	Max Q adjust rounds:			0		~
	- Temperature	Max inventory cycles:		~			
	Queue Request	Tags singulation search mode:			Dual Target		~
	Records Output	Session:	S0	~	Target:	A	~
	Reader Status	EPC size:	Dynamic	\sim			
	RF Power Test	ReadAfterDetect	(RAD) info:		None		~
	···· RF Sensitivity Test ···· RF ON/OFF	RAD password:	00 00 00 00		RAD bank:	Reserved	~
	⊡ ISO 18000-6C	RAD address:	0		RAD blocks:	0	~
	···· Inventory ····Program EPC	ReadAfterDetect	EPC info:		PC		
	Write						

Q algorithm:	Dynamic	\sim	Q value:	0	
Q initial:	0	\sim	Q Final:	0	
Max Q adjust roun	ds:		0		
Max inventory cycl	es:		0		

Default Read Write

Read: reads the stored values, **Write:** saves the values in the memory (a reboot may be required) **Default:** calls the factory default values

File

Dynamic Power Configuration -Temperature



when set to 'on' the reader changes the power according to the specified parameters. While changing its power, it changes the shape of the lobe as well. This could increase the reading range of the device.

Temperature

Internal Temperature of the device is shown.

IP address			
192.168.4.200	Commands	Dynamic Power Configuration	
Port	Configuration	Dynamic power management mode:	Off
3000	- Ethernet Configuration Remote IP Configuration		
		Power up/down step:	1 · · · · · · · · · · · · · · · · · · ·
	CAN Bus Configuration	Time up/down step:	100ms
	I/O Configuration		
		Read	Write Default
	Dynamic Power Confid		
	Temperature		
File Edit Engineering	Mode Upgrade Demos About	\$ 🛱 🗇 📋	
File Edit Engineering interface: TCP TCP	Mode Upgrade Demos About • Address: 255 • • #	에 확 () 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	IGE DUAL CHANNEL
File Edit Engineering interface: TCP TCP IP address 192.168.4.200	Mode Upgrade Demos About Address: 255 B Commands	SI 😫 🛷 🖀 SLUEBOX CX UHF LONG RAN Temperature	GE DUAL CHANNEL
File Edit Engineering nterface: TCP TCP IP address 192.168.4.200 Port	Mode Upgrade Demos About Address: 255 Commands Configuration	I 目 で 目 LUEBOX CX UHF LONG RAN Temperature	GE DUAL CHANNEL
File Edit Engineering nterface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Commands Configuration	I 目前 の 目前 ILUEBOX CX UHF LONG RAN Temperature	ge dual channel 23 °C
File Edit Engineering nterface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Commands Configuration Remote IP Configuration Remote IP Configuration	SILUEBOX CX UHF LONG RAN	ge dual channel 23 °C
File Edit Engineering interface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Address: 255 Commands Configuration Ethernet Configuration Remote IP Configuration Wiegand Configuration Wiegand Configuration CoNP use Configuration Con	SLUEBOX CX UHF LONG RAN	ge dual channel 23 °C
File Edit Engineering nterface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Address: 255 Commands Configuration Ethemet Configuratior Remote IP Configuratio Wiegand Configuratio CAN Bus Configuratio I/O Configuration I/O Configuration	SLUEBOX CX UHF LONG RAN	ge dual channel 23 °C
File Edit Engineering interface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Address: 255 Commands Configuration Ethemet Configuratior Remote IP Configuratio Wiegand Configuratio CAN Bus Configuratio T/O Configuration Spontaneous Configuratio	SILUEBOX CX UHF LONG RAN	ge dual channel 23 °C
File Edit Engineering Interface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Address: 255 Commands Configuration -Ethemet Configuration -Ethemet IP Configuratio Wiegand Configuration -CAN Bus Configuration -I/O Configuration -Spontaneous Configur RF Configuration -RF Configuration	SILUEBOX CX UHF LONG RAN	ge dual channel 23 °C
File Edit Engineering nterface: TCP TCP IP address 192.168.4.200 Port 3000	Mode Upgrade Demos About Address: 255 Address: 255 Commands Configuration Ethernet Configuration Remote IP Configuration CAN Bus Configuration CAN Bus Configuration Spontaneous Configuration RE Configuratio RE Configuratio RE	SLUEBOX CX UHF LONG RAN	ge dual channel 23 °C

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Read Write Default Default

Read: reads the stored values, **Write:** saves the values in the memory (a reboot may be required) **Default:** calls the factory default values

Interface: TCP

Address: 255



Data request - Queue request



Data Request:

when Request button is pressed the panel shows the tag in the reading range, if infinite request is flagged the reader keep searching until stopped.

Clear: clears the panel.

Export: exports in .csv file the Data Request panel content.

Queue Request:

when Request button is pressed the panel shows all the tags red by the device since the last request. Due to memory limit a total of approx 1000 readings are stored

Export: exports in .csv file the Queue Request panel content

	• Address: 255 • 🖉 🌌	
ТСР	DI	
ID address	BL	UEBOX CX UHF LONG RANGE DUAL CHANNEL
192.168.4.200	Commands	Data Request
Port	Configuration	PC = 34.00 EPC = E2.80.11.05.70.00.02.06.C7.03.00.43 CPC = 00.4E
3000	Ethernet Configuration	ISO 18000-6C, Antenna nr. 1
3000	Remote IP Configurati	
	····Wiegand Configuration	
	···· CAN Bus Configuration	
	-I/O Configuration	
	RF Configuration	
	EPC C1G2 Configuratio	
	Tomographic	
	Data Request	
	Quede riequest	
nie Eur Engineering i	Addunger 255	
TCP	DU	LIEBOX CY LIHE LONG DANGE DUAL CHANNEL
IP address	ы	OLDOX CX OTT LONG RANGE DOAL CHANNEL
IP address	ВЦ	
IP address 192.168.4.200	Commands	Queue Request
IP address 192.168.4.200 Port	Commands	Queue Request
IP address 192.168.4.200 Port	Commands Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configurati	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration Wiegand Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration Wiegand Configuration CAN Bus Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration CAN Bus Configuration -1/O Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur DF Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur RF Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration Ethernet Configuration Remote IP Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur RF Configuration EPC CIG2 Configuration Duragate Down Configuration	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration -Ethernet Configuration -Ethernet Configuration -Remote IP Configuration -CAN Bus Configuration -I/O Configuration -Spontaneous Configur -RF Configuration -EPC C1G2 Configuration -EPC C1G2 Configuration -Dynamic Power Config -Tompositive	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 9B 13 08 94, CRC = 3B 0A ISO 18000-6C, Antenna nr. 1
IP address 192.168.4.200 Port 3000	Commands Configuration -Ethernet Configuratior -Remote IP Configuration -CAN Bus Configuration -I/O Configuration -J/O Configuration -Spontaneous Configur -RF Configuration -EPC C1G2 Configuratic -Dynamic Power Config -Temperature -Data Request	Queue Request PC = 34 00, EPC = E2 00 21 00 20 00 56 91 98 13 08 94, CRC = 38 0A ISO 18000-6C, Antenna nr. 1

Read Write Default

Read: reads the stored values, **Write:** saves the values in the memory (a reboot may be required) **Default:** calls the factory default values

Records

Records – Output



Records:

In this panel are shown the stored readings (for BlueBox with Real Time Clock, time stamp is added)

Number of: returns the number of readings stored in the flash memory

Read All: reads the content of the memory

Re-read: updates and reads the content of the memory

Reset All: clears the flash memory and the panel

Clear: clears the panel only

Export: saves the content as .csv file

File Edit Engineering Mode	Upgrade Demos About				
Interface: TCP •	Address: 255 🔹 🖉 🖉	* 🖈 🗎			
ТСР	BLU	EBOX	CX UHF LONG	RANGE DUAL CHANNEL	
IP address					
192.168.4.200	Commands	Records			
Port	Wiegand Configuration ^ CAN Bus Configuration	Туре	Date/time	ID	Number of
3000		00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B	
	Spontaneous Configur RF Configuration	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(Read All
	EPC C1G2 Configuratio	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(Re-Read
	Dynamic Power Confi <u>c</u> Temperature	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(Reset All
	Data Request	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(
	Queue Request Records	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(Clear
	Output	00	FF/FF/FFFF FF:FF:FF	023400E2002100200056919B1308943B(Export
	···· Reader Status				

Output:

Within this panel it is possible to test the output activating countinuosly or impulsively Relay1 and Relay2

Read Write Default



Reader Status – Reading Test



Reader Status

panel that shows what's on and what's off in the BlueBox



Reading Test:

when set to ON, the readers beeps continuosly when a tag is in the field. This functionality is useful when testing reading ranges.

Read Write Default



RF Power Test – RF Sensitivity Test



RF Power Test

This test Panel returns the RF Power needed to detect a tag on a specific channel.

RF Sensitivity Test

This test Panel returns the RF Sensitivity needed to detect a tag on a specific channel

Read	Write	Default	
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File Edit Engineering M Interface: TCP	v Address: 255 v	# 😫 🖑 📋		
TCP IP address		BLUEBOX CX UHF LC	ONG RANGE DUAL CHANNEL	
192.168.4.200	Commands	RF Sensitivity Test		
Port 3000	Configuration Ethernet Configuration Remote IP Configuratio Wiegand Configuration CAN Bus Configuration I/O Configuration Spontaneous Configur	RF antenna: RF channel:	Antenna 1 1 - 865.7 MHz sensitivity: -59 dBm	~
	RF Configuration EPC C1G2 Configuratic Dynamic Power Config Temperature Data Request		Run	

RF ON/OFF



It switches the RF power on the selected channel.

This can be used in combination with continuous mode + spontaneous mode to stop the automatic detection of tags without having to use configuration command.

File Edit Engineering	Mode Upgrade Demos About		
Interface: TCP	- Address: 255 - 🖉 🖉	1 😆 🗇 📋	
TCP IP address	В	LUEBOX CX UHF LONG RANGE DUAL C	HANNEL
192.168.4.200	Commands	RF ON/OFF	
Port 3000	Configuration Ethernet Configuration Remote IP Configuration Wiegand Configuration	Use selective RF activation / deactivation ON OFF	Antenna 1 \sim
	- CAN Bus Configuration - I/O Configuration - Spontaneous Configur - RF Configuration - EPC C1G2 Configuratio	Set	

Read Write Default

Inventory – Program EPC



Inventory:

When **Request** is pressed, each tag in the reading range appears in the panel. Additionally by flagging the **Get the RSSI of the transponders** it is also possible to have, for each tag, the indication of the **Receive Signal Strenght Indicator** that shows the signal strenght used for the decoding of data. This is not the receiver input level, but a quality indicator.

If Infinite Request is flagged the reader keeps looking for the TAGs in the field steadily until stopped.

address 22.168.4.141 prt int informatory Program EPC Read BlockWrite BlockWrite Cock Kill Magnus S2 Magnus S3 Figure 20 Figur	P		BLUEBOX CX UHF LONG RANGE DUAL CHANNEL
2.168.4.141 Commands ISO 18000-6C - Inventory trt trt DO DO DO DO DO DO DO D	address		
t c c c c c c c c c c c c c c c c c c c	.168.4.141	Commands	ISO 18000-6C - Inventory
Tag Count: 0	rt 00	 ➡ ISO 18000-6C ■ Inventory ■ Program EPC ■ Read ■ Write ■ BlockWrite ■ Lock − Kill ➡ Monza 4QT ⊕ Magnus S2 ⊕ Magnus S3 	Get the RSSI of the transponders
			Tag Count: 0

Program EPC

In order to write the EPC area of a tag it is necessary to select a tag by pressing the magnifier Icon. Once selected, please fill in the blanks and press write.

File Edit Engineering Mode	Upgrade Demos About		
тср		BLUEBOX CX UHF LON	G RANGE DUAL CHANNEL
IP address 192.168.4.141	Commands	ISO 18000-6C - Program EPC	
Port	ISO 18000-6C	ID:	۹
3000	Anvencory Program EPC Read Write BlockWrite Lock Kill Monza 4QT Magnus S2 Magnus S3	Password:	00 00 00 00

Read – Write



Read

By pressing the magnifier, please choose between the tags within the reading range the one to operate with. Then from the scroll down menu select which memory bank read from, the starting address and the number of blocks. End the operation by pressing 'Read' so that the values will be displayed in the panel.

Write

By pressing the magnifier choose between the tags within the reading range the one to operate with. Then from the scroll down menu select which memory bank write to, the starting address and the number of blocks. End the operation by pressing 'write' so that the values will be stored in the tag.

Read	Write	Default
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File Edit Engineering Mode	Upgrade Demos About			
Interface: TCP - A	ddress: 255 🔹 🖋 🎉	😫 🖉 🛅 👘		
Interface: TCP • A TCP IP address 192.168.4.141 Port 3000	ddress: 255	BLUEBOX C) ISO 18000-6C - ID: Password: Bank: Address:	CX UHF LONG RANGE DUAL CHANNEL	
	Monza 4QT Magnus S2 Magnus S3	Block nr. 0	Read	

nterface: TCP	• Address: 255 • 🖉	8 😫 🗇 🗎	
IP address 192.168.4.141	Commands	BLUEBOX C	X UHF LONG RANGE DUAL CHANNEL
3000	- Inventory - Program EPC - Read Write - BlockWrite - Lock - Kill ⊕ Monza 4QT ⊕ Magnus S2 ⊕ Magnus S3	D: Password: Bank: Address: Block nr. 0	00 00 00 00
	< >		Write

Blockwrite - Lock



Blockwrite

By pressing the magnifier choose between the tags within the reading range the one to operate with. Then from the scroll down menu select which memory bank write to, the starting address and the number of blocks. End the operation by pressing 'write' so that the values will be stored in the tag. While 'write' writes one block at a time, blockwrite writes all the blocks in one operation, so its faster, but it is not supported by all the tags.

erface: TCP	• Address: 255 •	/ 💉 😫 🗇 🗐	
p		BLUEBOX C	X UHF LONG RANGE DUAL CHANNEL
address	Commands	ISO 18000-6C	- Write
nt 100	☐ -ISO 18000-6C — Inventory — Program EPC — Read — Write — BlockWrite — Lock — Kill ④ Monza 4QT ④ Magnus S2 ④ Magnus S3	ID: Password: Bank: Address: I Block nr. 0	00 00 00 00 Reserved 0 Nr. Blocks:
	<	>	Write

Lock

By pressing the magnifier, choose between the tags within the reading range the one to operate with. Then from the scroll down menu select which memory bank to lock. End the operation by pressing 'Lock'.

Read	Write	Default
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Read: reads the stored values, **Write:** saves the values in the memory (a reboot may be required) **Default:** calls the factory default values

СР	BLUEBOX CX UHF L			ONG RANGE DUAL CHANNEL		
IP address	Commands	ISO 18000-6C	- Lock			
Port	ISO 18000-6C	ID:				
	Program EPC Read	Password:			00 00 00 00	
	Write BlockWrite	Kill Pwd:	No Change	~	Acc. Pwd:	No Change
	<mark>Lock</mark> Kill	EPC Mem:	No Change	~	TID Mem:	No Change
	⊕-Monza 4QT ⊕-Magnus S2	User Mem:	No Change	~		
				L	ock	

Engineering Mode Upgrade





Kill

By pressing the magnifier, choose between the tags within the reading range the one to operate with. Then input the kill Password. End the operation by pressing 'Kill'.

File Edit Engineering M	1ode Upgrade Demos About	
Interface: TCP	• Address: 255 •	🗶 📫 🗇 🗒
ТСР		BLUEBOX CX UHF LONG RANGE DUAL CHANNEL
IP address		
192.168.4.141	Commands	ISO 18000-6C - Kill
Port 3000	⊡ ISO 18000-6C	ID:
	····Program EPC ····Read ····Write	Password:
	BlockWrite Lock KII ⊕-Monza 4QT ⊕-Mannus S2	Kill
	⊕-Magnus S3	

Read Write Default

Monza 4QT



Monza 4QT

Bluebox UHF CX series, manages the double memory profile of Impinj Monza QT chips. Please refers to the Monza 4QT manual.

D addroce		BLUEBOX CX UHF LON	G RANGE DUAL CHANNEL	
92.168.4.141	Commands	ISO 18000-6C - Monza 4QT - QT	Command	
ort		Tag ID:	0	
000	Inventory Program EPC	Password:	00 00 00 00	
	Read	Read/write:	Read	
	BlockWrite	Persistence:	Temporary	
	LOCK Kill	Short range:	No	
	Command	Memory map:	Private Memory Map	
	⊕-Magnus S2 ⊕-Magnus S3			

Read Write Default

Magnus S2



Magnus S2

Bluebox UHF CX series, manage the RFMicron Magnus Sensor Tags. For further details please refer to the RFMicron Magnus Sensor Tags manual. Press the magnifier in order to select the tag to operate with. From the scroll down menu it is possible to set reading criteria (up or under the threesold), the threesold. After pressing the sent button, the readings are graphically shown in the 'Read Sensor Code' menu.





Read	Write	Default
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Magnus S3



Magnus S3

Bluebox UHF CX series, manage the RFMicron Magnus Sensor Tags. For further details please refer to the RFMicron Magnus Sensor Tags manual. Press the magnifier in order to select the tag to operate with. From the scroll down menu it is possible to set reading criteria (up or under the threesold), the threesold. After pressing the sent button, the readings are graphically shown in the 'Read Sensor Code' and Read Temperature menus.





Read Write Default



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