

Appendix A - DMCC for the Camera Reader - iOS (v2.1.x)

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The following table lists the various DMCC commands supported by the cmbSDK when using the built-in camera for barcode scanning.

Note: Many of these commands are also supported by the MX mobile terminals. Commands that are unique to the camera reader or MX-100 are indicated as such with an X in the last column.

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	BATTERY.CHARGE		Returns the current battery level of the device as a percentage.	
	BEEP		Plays the audible beep (tone).	
GET/SET	BEEP.GOOD	[0-3] [0-2]	Sets the number of beeps (0-3) and the beep tone/pitch (0-2, for low, medium, high). For the built-in camera, only a single beep with no pitch control is supported. Thus, 0 1 turns the beep off, 1 1 turns the beep on.	
GET/SET	CAMERA.ZOOM	0-2	The possible values for the SET command are: 0 - normal (un-zoomed), 1 - zoom at level 1, 2 - zoom at level 2. This zoom level is used during scanning. When scanning ends it reset to 0.	X
GET/SET	CAMERA.ZOOM-PERCENT	[100-MAX] [100-MAX]	Sets/Returns level 1 zoom (default 200% on iOS, 150% on Android), and level 2 zoom (default 400% on iOS, 300% on Android). Note: The camera needs to be started at least once from sdk to have a proper value for max capable zoom (MAX)	X
GET/SET	CODABAR.CODESIZE	ON min max OFF min max	Accepts any length Codabar. Sets min/max length of accepted Codabar.	X X
GET/SET	C11.CHKCHAR	ON OFF	Turns Code 11 check digit on/off.	X

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	C11.CHKCHAR-OPTION	1 2	Requires single checksum. Requires double checksum.	X X
GET/SET	C11.CODESIZE	ON min max OFF min max	Accepts any length Code 11. Sets min/max length of accepted Code 11.	X X
GET/SET	C25.CODESIZE	ON min max OFF min max	Accepts any length Code 25. Sets min/max length of accepted Code 25.	X X
GET/SET	C39.ASCII	ON OFF	Turns Code 39 extended ASCII on/off.	
GET/SET	C39.CODESIZE	ON min max OFF min max	Accepts any length Code 39. Sets min/max length of accepted Code 39.	
GET/SET	C39.CHKCHAR	ON OFF	Turns Code 39 check digit on/off	
GET/SET	C93.ASCII	ON OFF	Turns Code 93 extended ASCII on/off	X
GET/SET	C93.CODESIZE	ON min max OFF min max	Accepts any length Code 93. Sets min/max length of accepted Code 93.	
	CONFIG.DEFAULT		Resets most of the camera API settings to default, except those noted as not resetting (see Appendix B). To reset all settings, use DEVICE.DEFAULT.	
GET/SET	DATA.RESULT-TYPE	0 1 2 4 8	Specifies results to be returned (sum of multiple values): None Text string result (default) XML results XML stats Scan image (see IMAGE.* commands)	
GET/SET	DATABAR.EXPANDED	ON OFF	Turns the DataBar Expanded symbology on/off.	
GET/SET	DATABAR.LIMITED	ON OFF	Turns the DataBar Limited symbology on/off.	
GET/SET	DATABAR.RSS14	ON OFF	Turns the DataBar RSS14 symbology on/off.	X
GET/SET	DATABAR.RSS14STACK	ON OFF	Turns the DataBar RSS14 Stacked symbology on/off.	X

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	DECODER.1D-SYMBOLORIENTATION	0 1 2 3	Use omnidirectional scan orientation. Use horizontal and vertical scan orientation. Use vertical scan orientation. Use horizontal scan orientation.	
GET/SET	DECODER.EFFORT	1-5	Sets the effort level for image analysis/decoding. The default is 2. Do not use 4-5 for online scanning.	X
GET/SET	DECODER.MAX-SCAN-TIMEOUT	1-120	Sets the timeout for the live-stream preview. When the timeout is reached, decoding is paused; the live-stream preview will remain on-screen.	X
GET	DECODER.MAX-THREADS		Returns the max number of CPU threads supported by the device.	X
GET/SET	DECODER.THREADS-USED	[0-MAX]	Specify the max number of CPU threads that the scanner can use during the scanning process.	X
	DEVICE.DEFAULT		Resets the camera API settings to default (see Appendix B).	
GET	DEVICE.FIRMWARE-VER		Gets the device firmware version.	
GET	DEVICE.ID		Returns device ID assigned by Cognex to the scanning device. For a built-in camera, SDK returns 53. For MX-100 Barcode Scanner, SDK returns 56.	
GET/SET	DEVICE.NAME		Returns the name assigned to the device. By default, this is "MX-" plus the last 6 digits of DEVICE.SERIAL-NUMBER.	
GET	DEVICE.SERIAL-NUMBER		Returns the serial number of the device. For a built-in camera, the SDK assigns a pseudo-random number.	
GET	DEVICE.TYPE		Returns the device name assigned by Cognex to the scanning device. For a built-in camera, SDK returns "MX-Mobile". If MX-100 is available, SDK returns "MX-100".	

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	FOCUS.FOCUSTIME	0-10	Sets the camera's auto-focus period (how often the camera should attempt to refocus). The default is 3, but it is 1 for MX-100.	
GET/SET	I2O5.CHKCHAR	ON OFF	Turns Interleaved 2 of 5 check digit on/off.	
GET/SET	I2O5.CODESIZE	ON min max OFF min max	Accepts any length Interleaved 2 of 5. Sets min/max length of accepted Interleaved 2 of 5.	X X
GET/SET	IMAGE.FORMAT	0 1 2	Scanner returns image result in bitmap format. Scanner returns image result in JPEG format. Scanner returns image result in PNG format.	
GET/SET	IMAGE.QUALITY	10, 15, 20, ...90	Specifies JPEG image quality.	
GET/SET	IMAGE.SIZE	0 1 2 3	Scanner returns full size image. Scanner returns 1/4 size image. Scanner returns 1/16 size image. Scanner returns 1/62 size image.	
GET/SET	LIGHT.AIMER	0-1	Disables/enables the aimer (when the scanner starts).	
SET	LIGHT.AIMER-CONFIG	[32-100] [0-15] [32-100]	Sets MX-100's configuration; parameters are aimer intensity, aimer modulation, illumination intensity	X
GET	LIGHT.AIMER-CONFIG	0 1	Get's all of the MX-100 configuration parameters (see above) at one time. Using option 0 reads the settings from the cache; using option 1 always reads from the device.	X
GET/SET	LIGHT.AIMER-INTENSITY	32-100	Sets/gets the aimer LED's intensity (as a percentage)	X
GET/SET	LIGHT.AIMER-MODULATION	0-15	Sets/gets the aimer LED's modulation (blink rate); parameter is milliseconds	X
GET/SET	LIGHT.AIMER-TIMEOUT	0-600	Timeout in seconds for an aimer. This value is always overridden by DECODER.MAX-SCAN-TIMEOUT.	
GET/SET	LIGHT.INTERNAL-ENABLE	ON OFF	Enables/disables illumination (when the scanner starts).	

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	MSI.CHKCHAR	ON OFF	Turns MSI Plessey check digit on/off.	
GET/SET	MSI.CHKCHAR-OPTION	0 1 2 3 4 5	Use mod 10 checksum Use mod 10 mod 10 checksum Use mod 11 checksum (IBM algorithm) Use mod 11 mod 10 checksum (IBM algorithm) Use mod 11 checksum (NCR algorithm) Use mod 11 mod 10 checksum (NCR algorithm)	X X
GET/SET	MSI.CODESIZE	ON min max OFF min max	Accepts any length MSI Plessey. Sets min/max length of accepted MSI Plessey.	X X
GET/SET	SYMBOL.AZTECCODE	ON OFF	Turns the Aztec Code symbology on/off.	
GET/SET	SYMBOL.CODABAR	ON OFF	Turns the Codabar symbology on/off.	
GET/SET	SYMBOL.C11	ON OFF	Turns the Code 11 symbology on/off.	X
GET/SET	SYMBOL.C128	ON OFF	Turns the Code 128 symbology on/off.	
GET/SET	SYMBOL.C25	ON OFF	Turns the Code 25 symbology on/off (standard).	
GET/SET	SYMBOL.C39	ON OFF	Turns the Code 39 symbology on/off.	
GET/SET	SYMBOL.C93	ON OFF	Turns the Code 93 symbology on/off.	
GET/SET	SYMBOL.COOP	ON OFF	Turns the COOP symbology (Code 25 variant) on/off.	X
GET/SET	SYMBOL.DATAMATRIX	ON OFF	Turns the Data Matrix symbology on/off.	
GET/SET	SYMBOL.DATABAR	ON OFF	Turns the DataBar Expanded and Limited symbologies on/off.	
GET/SET	SYMBOL.DOTCODE	ON OFF	Turns the DotCode symbology on/off.	
GET/SET	SYMBOL.IATA	ON OFF	Turns the IATA symbology (Code 25 variant) on/off.	X

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	SYMBOL.INVERTED	ON OFF	Turns the Inverted symbology (Code 25 variant) on/off.	X
GET/SET	SYMBOL.ITF14	ON OFF	Turns the ITF-14 symbology (Code 25 variant) on/off.	X
GET/SET	SYMBOL.UPC-EAN	ON OFF	Turns the UPC-A, UPC-E, EAN-8, and EAN-13 symbologies on/off.	
GET/SET	SYMBOL.MATRIX	ON OFF	Turns the Matrix symbology (Code 25 variant) on/off.	X
GET/SET	SYMBOL.MAXICODE	ON OFF	Turns the MaxiCode symbology on/off.	X
GET/SET	SYMBOL.MSI	ON OFF	Turns the MSI Plessey symbology on/off.	
GET/SET	SYMBOL.PDF417	ON OFF	Turns the PDF417 symbology on/off.	
GET/SET	SYMBOL.PLANET	ON OFF	Turns the PLANET symbology on/off.	
GET/SET	SYMBOL.POSTNET	ON OFF	Turns the POSTNET symbology on/off.	
GET/SET	SYMBOL.4STATE-IMB	ON OFF	Turns the Intelligent Mail Barcode symbology on/off.	
GET/SET	SYMBOL.4STATE-RMC	ON OFF	Turns the Royal Mail Code symbology on/off.	
GET/SET	SYMBOL.QR	ON OFF	Turns the QR and MicroQR symbologies on/off.	
GET/SET	TRIGGER.TYPE	0 1 2 3 4 5	Not supported Manual (default) Not supported Not supported Continuous	
GET/SET	UPC-EAN.EAN13	ON OFF	Turns the EAN-13 symbology on/off.	X
GET/SET	UPC-EAN.EAN8	ON OFF	Turns the EAN-8 symbology on/off.	X
GET/SET	UPC-EAN.UPC-A	ON OFF	Turns the UPC-A symbology on/off.	X
GET/SET	UPC-EAN.UPC-E	ON OFF	Turns the UPC-E symbology on/off.	X

GET/SET	COMMAND	PARAMETER(S)	DESCRIPTION	CAMERAREADER
GET/SET	UPC-EAN.UPCE1	ON OFF	Turns the UPC-E1 symbology on/off.	
GET/SET	UPCE-AN.SUPPLEMENT	0 1-4	Turns off UPC supplemental codes. Turns on UPC supplemental codes.	
GET/SET	VIBRATION.GOOD	ON OFF	Sets/gets whether to vibrate when a code is read (default is ON)	