

 $\frac{https://verifone.cloud/docs/sca-functional-specification/protocol_spec/device_transaction/display_qrcode}{Updated:\ 23-Jul-2025}$

DISPLAY_QRCODE

This command directs the device to pass data of the QR code (provided by user) to be displayed. Here, the user is asking for the ability to pass a string of data to the application, and this will dynamically generate the QR code and display it on the POS.

Device UI Required



Request Packet

Field				Maximum	Value(s)	Description
FUNCTION_TYPE	Required St	tatic alue	N/A	N/A	DEVICE	Type of function.
COMMAND	Required St	tatic alue	N/A	N/A	DISPLAY_QRCODE	E Command name

Field	Rule	Type	Minimum	Maximum	value(s)	Description
QRCODE_DATA	Required	Character	1	200		Textual data that will be constructed into a QR code image for display. This is the QR Code payload. Value represents web URL, coupon code, etc. Example: https://www.verifone.com
DISPLAY_TEXT	Optional	Character	1	150 50 (for e235 device)		Instructions for consumer to use the QR code. If there is no data entered in this field, then no instructions will appear on the screen. Example: Scan the QR code below for up-to-the-minute offers and coupons! Duration of time to
DISPLAY_TIMEOUT	Optional	Numeric	1	300		display the QR code, in seconds. If there is no value specified, the QR screen will remain till the next command from POS or until DONE button is pressed. Example: 30
DISPLAY_BUTTONS	Optional	Binary			Valid values: 0/1	Type of display buttons to be sent. This functionality is not applicable for e235 device.
BUTTON_LABEL	Optional	Character	1	18		Optional text label for DONE button. Button displayed if the value is provided. This functionality is not applicable for e235 device. Example: Continue Finished
POS_RECON	Optional	Character	1	30		POS reconciliation. POS Reconciliation field to be echoed back in response to POS. Example: RetailPOS1

Field	Rule Typ	e Minimun	n Maximum	Value(s)	Description
COUNTER	Required Numer	ric 1	10		COUNTER is used for a given MAC label. Each COUNTER should be higher than the last one. This is used to authenticate the POS. Example: 100
MAC	Base64 Required Encod Data		N/A N	N/A	Message Authentication Code. This is used to authenticate the POS.
MAC_LABEL	Required Charac	cter 1	50		Associated label that tells the device which MAC_KEY to use to decrypt the value of MAC. This is used to authenticate the POS. Example: REG1

Example

Following is an example of request packet

<TRANSACTION>

<FUNCTION_TYPE>DEVICE</function_TYPE>

<COMMAND>DISPLAY_QRCODE</COMMAND>

<QRCODE_DATA>https://www.verifone.com</QRCODE_DATA>

<DISPLAY_TEXT>Scan the QR code below </DISPLAY_TEXT>

<DISPLAY_TIMEOUT>10</DISPLAY_TIMEOUT>

<DISPLAY_BUTTONS>1</DISPLAY_BUTTONS>

<BUTTON_LABEL>PRESS AFTER SCAN</butTON_LABEL>

</TRANSACTION>

Response Packet

Field	Type	Value	Description
RESPONSE_TEXT	Character	 For SUCCESS: Operation SUCCESSFUL For TIMEOUT: Cancelled by Timeout For CANCELLED: Cancelled by Customer 	Processor response text.

Field	Type	Value	Description
RESULT	Character	 For SUCCESS: OK For TIMEOUT: CANCELLED For CANCELLED: CANCELLED 	This indicates the Result details.
RESULT_CODE	Numeric	Expected result code: • -1 : Success • 59000: TIMEOUT • 59001: CANCELLED	This indicates the result code. Refer to Result/Error Codes for details.
TERMINATION_STATUS	S Character	SUCCESS or FAILURE	This indicates the transaction termination status. This is the overall status of the transaction irrespective of approved or declined. Like, if the output is generated then the status is SUCCESS and if no output is generated then the status will be FAILURE. NOTE: Termination status returns SUCCESS for successful operation and FAILURE for timeout and cancelled result.
POS_RECON	Character		POS reconciliation field echoed back if sent in request. Example: RetailPOS1
COUNTER	Numeric		Echoes counter sent in the request. Example: 100

Transaction Performance Metric

Note

These fields are returned, if SCAPERFMETRIC parameter ($\underline{\text{Application Parameters}}$) is enabled.

Field	Type Value	Description
UI_TIME	Time	This indicates the time duration, for which the device screen is displayed (like error message, prompt screen, remove card screen) till any user action is performed in the command execution flow. This field is not applicable to capture the time for the Processing, Authorizing and transaction status screen. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. Example: <ui_time>44.028</ui_time>

Field Type Value

Description

HOST_TIME Time

This indicates the time taken for the Connection to the host, sending request and receives data from the host. This field also take the cumulative time for multiple requests which may sent to the host during the transaction including two legged transactions, timeout requests, Auto Last Tran requests, DCC, Credit app proxy. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. **Example:** <HOST_TIME>1.389</HOST_TIME>

CMD TIME Time

This field indicates the total amount of time for a command, which is executed by the application from request received to the response sent. The format of the returned value would be S.sss, where S is seconds (this can be 0 to any positive integer) and sss is milliseconds. In case of any insignificant time or 0.000 value, will not be returned in the response. **Example:** CMD_TIME>70.765/CMD_TIME>

Example

Following is an example of response packet

```
<RESPONSE>
<RESPONSE_TEXT>Operation SUCCESSFUL</RESPONSE_TEXT>
<RESULT>OK</RESULT>
<RESULT_CODE>-1</RESULT_CODE>
<TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS>
</RESPONSE>
```