



Version 1.0.2

14/06/2026

# Maris Test Application

Version	Date	Change Description	SW Version	Name
1.0.0	12.01.2023	Create test for Jupiter	1.0.0	Nehama Novick
1.0.1	28.09.2023	update add system info	1.0.1	Nehama Novick
1.0.2	14.06.2026	Add sony block fnc 222, active network fnc 55 fix sysinfo fnc 113	1.02	Itamar

## Maris API Test

This app checks and explains the communication with Maris Board.

Notes:

- numbers are in hex, otherwise add the "+" sign before the number. For example: **10** (hex number) / **+16** (decimal number).
- Strings should be entered envelop by "". For example: "192.168.0.33".

# Explanation of the commands:

## help

Displays all commands:

```
D:\work\maris_imx8_api_test\ x + v
help
The following commands and macros are defined:

HELP          - <commandname> Displays help string for named commands and macros
version       - get test application version
list          - list maris board
select        - connect to <"ip">
uart_list     - uart list
uart_select   - connect to <"uart dev">
gversion      - f(11)get maris application version
reboot        - f(15)reboot maris
sdate         - f(09)set date[]
gdate         - f(10)get date[]
update        - update version<"source file(full path)">
glistcam      - f(18)get list of camera types (get csi name)
scsincng      - f(16)set csi config<csi_0-camera_num><csi_1-camera_num> (get camera_number from command 18)
gcsincng      - f(17)get csi config
glistsensorinfo - f(186)get information about all cameras
gsensorinfo   - f(186)get the currently selected video information for all active cameras
ssensorinfo   - f(187)set video info for the selected active cam<device_num 0-N> <mode index>
snet          - f(27)set network params<net 0=eth0,1=usb0,2=wlan0,3=eth1><enabled 0/1><mode 0=dhcp 1>manual 2=dhcp server><usb 0=client 1=OST>
snetman       - f(27)set manual<net 0=eth0,1=usb0,2=wlan0,3=eth1><"ip"><"mask"><"gateway">
snetdhcps     - f(27)set dhcp server<net 0=eth0,1=usb0,2=wlan0,3=eth1><"subnet"><"range min"><"range max">
gnet          - f(28)get net params<net 0=eth0,1=usb0,2=wlan0,3=eth1>
gactvnet      - f(55)get active <net 0=eth0,1=usb0,2=wlan0,3=eth1>
sstreamparam  - f(41)set stream<mux_id><video ch><audio -1=none 0=ch1 1=ch2><protocol 1=TS 2=RTP 3=RTSP 4=RTMP><"dest ip"><dest port>
gcaminfo      - f(22)get camera info<id>
gchinfo       - f(22)get video channel info
setstream     - f(41)set stream <mux_id><"dest ip"><dest port>
gstream       - f(42)get stream <mux_id>
starts        - f(43)set streaming operation<mux-0 0=stop,1=start>...<mux-n 0=stop,1=start>
fastenc       - f(38)set fast encoding <mux><bits><bitrate><fps><w><h>
gfastenc      - f(39)get fast encoding <mux>
sencqialty    - f(47)set encoding <mux>,<mode 0-VBR,1-CBR 2-VBR block><bitrate><gop>
gencqialty    - f(48)get encoding <mux>
sfrmrate      - f(49)set frame rate <mux>,<frame rate 0-full,1-time_lapse>,<fps>
gfrmrate      - f(50)get frame rate<mux>
storage       - f(100)get storage info<dev_index: 0=SD 1=USB 2=Internal Memory>
record        - f(58)set record operation <mux><operation:0=stop,1=start record,2=start record TS><index_mode:0=off,1=on><container:0=TS,1=RAW,2=JPEG><cycle_mode:0
=off,1=on><cycle_time_sec><pre_no>
muxstat       - f(60)get active muxes
cyclictrigger - f(60)exit cyclic<mux>
sdatasrc      - f(106)set data source parameters <id><type 0-unicast,1-multicast,2-uart><ip><port><protocol 0-udp,1-tcp><uart num 0-ttymxc0,1-ttymxc2,2-ttymxc3><ba
ud_rate><flow_ctl><rec_opt 1/2/3>
gdatasrc      - f(107)get data source parameters <id>
format_device - f(164)Format Device <dev_id: 0=SD, 1=USB ,2=Internal Memory><format type: 1=FAT,2=EXT4,3=EXFAT>
sysinfo       - f(113) get board_ver,cpu_type,cpu_no,cpu_speed,date,ip,mac,cam,bname
temperature   - f(110)
sonybrx       - f(222)<sony visca cmd>

imx > |
```

## version

Get the version of Maris API test application

```
imx > version
version
Test application version[1.0.2]
```

## list

Displays the list of identified Maris boards.

```
imx > list
list
0 ip[192.168.0.22]
1 ip[192.168.0.40]
2 ip[192.168.0.41]
imx >
```

## select

Select the IP address of the Maris Board.

In order to send commands you must first do **“select”** command

```
imx > select "192.168.0.40"
select "192.168.0.40"
imx >
```

## reboot

reboot system

```
imx > reboot
reboot
0 = reboot()
```

## gversion

Return the version of Maris Board SW.

```
imx > gversion
gversion
maris application version[2.4.6.0]
```

## gdate

Get Maris Board time and date

## sdate

Set Maris Board time and date(The values are taken from the time of the PC)

## update

Software update command. Enter the path of the source file. The update may take several minutes.

```
imx > update "D:\update-V1.0.5.7-D21_03_2023-10_56_10.tar.bz2"
update "D:\update-V1.0.5.7-D21_03_2023-10_56_10.tar.bz2"
Start update...
src file path[D:\update-V1.0.5.7-D21_03_2023-10_56_10.tar.bz2] dst dir[/management/update_files] dst file_path[/manageme
nt/update_files/update-V1.0.5.7-D21_03_2023-10_56_10.tar.bz2]
Connect FTP failed
connec to FTP failed
Update finish...
```

## **glistcam**

Get the list of camera types and the ID of each camera.

```
imx > glistcam
glistcam
CSI_0 [0] - qanalog
CSI_1 [0] - hdsdi
-1 - None
```

## **scsicng**

set csi config: load drivers to input camera devices:

CSI0 and CSI1.

In the example below show select :

Csi\_0 – qanalog (0)

Csi\_1 – none (-1)

```
imx > scsicng 0 -1
scsicng 0 -1
imx >
```

## **gcsicng**

get csi config: return the current drivers on CSI 0 and CSI1

```
imx > gcsicng
gcsicng
csi0: [0]
csi1: [None]
```

## **glistsensorinfo**

Get all camera device info. It gives the Camera and its modes formats.

For example, on dev-2 it shows all the formats of the USB camera.

```
imx > glistsensorinfo
glistsensorinfo
dev-2 :USB-0:
(001) 640x480 fps:30
(002) 640x480 fps:25
(003) 640x480 fps:20
(004) 640x480 fps:15
(005) 640x480 fps:10
(006) 640x480 fps:5
(007) 160x120 fps:30
dev-3 :USB-1:
(001) 640x360 fps:30
```

## **ssensorinfo**

After the user has all the USB camera formats, this command selects one of them as the current format.

For example:

The user chooses dev-2 mode 6 (Select the video format 640X480 fps),

he need to write :

```
imx > ssensorinfo 2 5
ssensorinfo 2 5
```

## **gsensorinfo**

Get the currently selected video information for all active cameras.

```
imx > gsensorinfo
gsensorinfo
dev-2 :USB-0:
(001) 640x480 fps:30
dev-3 :USB-1:
(001) 640x360 fps:30
```

## **snet**

Set network parameters :

Interface, enabled, mode, USB mode(For USB)

```
imx > snet 0 1 1 0
snet 0 1 1 0
```

## **snetman**

Set network manual

IP, mask and gateway address

```
imx > snetman 0 "192.168.0.30" "255.255.255.0" "192.168.0.1"
snetman 0 "192.168.0.30" "255.255.255.0" "192.168.0.1"
```

## **snetdhcps**

Set network DHCP server

Network ID, subnet, range min, range max

```
imx > snetdhcps 0 "192.168.0.0" "192.168.0.31" "192.168.0.200"  
snetdhcps 0 "192.168.0.0" "192.168.0.31" "192.168.0.200"
```

## **gnet**

Get network parameters

```
imx > gnet 0  
gnet 0  
Network interface: eth0  
Net Mode: DHCP Server  
IP: 192.168.0.90  
Mask: 255.255.255.0  
Gateway: 192.168.0.1  
Subnet: 192.168.0.0  
Range Min: 192.168.0.31  
Range Max: 192.168.0.200
```

## sstreamparams

set stream parameters by mux

```
imx > sstreamparam 0 9 -1 1 "192.168.0.23" +1234
sstreamparam 0 9 -1 1 "192.168.0.23" +1234
mux_id: 0
auto_bits: 0
video: 9
audio: -1
data: 0
protocol: 1
dst_ip: 192.168.0.23
dst_port: 1234
display: 0
```

## gcaminfo

Get camera info.

The user selects a video channel number and receives the information on that video channel.

```
imx > gcaminfo 9
gcaminfo 9
Camera info:
id: 9
dev_type: 1
dev_index: 0
mch: 0
vstate: 2
vmode: 0
fps: 5
devid: 5
format: 89
width: 640
height: 480
eth_ip: 0.0.0.0
eth_port: 0
```

Mapping camera devices  
0...3 : CSI 0.  
0...7 : CSI 1.  
8: virtual camera.  
9...12:USB.  
13...16:Eth

Set stream params		
#	Parameter	Value
0	Mux	0 – 8
1	Vidoe_ch	0...3 : CSI 0. 0...7 : CSI 1. 8: virtual camera. 9...12:USB 13...16:Eth
2	Audio_ch	-1 –None 0 –channel0 1 –channel1
3	protocol	1–TS 2–RTP 3–RTSP 4–RTMP
4	dest Ip	
5	dest port	

## setstream

set stream parameters by mux

```
imx > setstream 2 "192.168.0.249" +1234
setstream 2 "192.168.0.249" +1234
```

## gstream

Get stream parameters by mux

```
imx > gstream 2
gstream 2
Stream Params:
mux: 2
Auto bits: 0
Video ch: 0
Audio ch: -1
Data ch: -1
protocol: 1
display: 0
Destination Port: 1234
Destination IP: 192.168.0.249
```

## starts

Start or stop any Mux. Value 1 to start, 0 to stop.

```
imx > starts 1 0 0 0
starts 1 0 0 0
7 = set_mux(0x1)
```

## fastenc

Set fast encode params

```
imx > fastenc 0 1 +8000 +30 +360 +288
```

## sencqialty

Set video encoding quality

```
imx > sencqialty 0 1 +3000 +30 -1 0  
sencqialty 0 1 +3000 +30 -1 0  
7 = set_encq mux(0) mode(1) bitrate(3000) gop(30) iq(-1),ql(0)
```

## gencqialty

Get video encoding quality

```
imx > gencqialty 0  
gencqialty 0  
10 = get_encq mux(0) mode(1) bitrate(3000) gop(30) iq(-1),ql(0)
```

Set Video Encoding Quality		
#	Parameter	Value
0	Mux	0 – 3
1	Mode	0 – VBR 1 – CBR (default) 2 – VBR Block
2	Bitrate	
3	GOP	
4	IQ	-1 – auto 0 – 51 (values: 0 – Highest, 51 – Lowest)
5	QL	1-50

## sfrmrate

Set video frame rate

```
imx > sfrmrate 0 0 0
sfrmrate 0 0 0
7 = set frate mux(0),mode(0),time_laps(0)
```

## gfrmrate

Get video encoding quality

```
imx > gfrmrate 0
gfrmrate 0
8 = get frate mux(0),mode(0),time_laps(0)
```

Set Video Frame Rate		
#	Parameter	Value
0	Mux	0 – 3
1	Mode	0 – Full 1 – Time Laps
2	Time Laps	

## gchinfo

Get Video Channel Information.

```
imx > gchinfo
gchinfo
get_camera_info_count.1511 ret(4)
show 13 channels
cam_idx:(0),dev_type: (0), linux_dev_index: (0), multi channel: (0), device_status: (2), mode: (2), fps: (25), dev_id: (3)
width: (720), height: (576), eth_ip: (20235004), eth_port: 0
cam_idx:(1),dev_type: (0), linux_dev_index: (0), multi channel: (1), device_status: (2), mode: (2), fps: (25), dev_id: (3)
width: (720), height: (576), eth_ip: (20235072), eth_port: 0
cam_idx:(2),dev_type: (0), linux_dev_index: (0), multi channel: (2), device_status: (1), mode: (2), fps: (25), dev_id: (3)
width: (720), height: (576), eth_ip: (20235140), eth_port: 0
cam_idx:(3),dev_type: (0), linux_dev_index: (0), multi channel: (3), device_status: (1), mode: (2), fps: (25), dev_id: (3)
width: (720), height: (576), eth_ip: (20235208), eth_port: 0
```

## storage

Get storage Information (by device id: 0 = SD, 1 = USB, 2 = Internal Memory).

Here is an example of getting information about internal memory:

```
imx > storage 2
storage 2
get_storage_info.1872 dev_idx(2),device_name(/record),device_status(3),format_type(3),total_size_kb(30535680),part_size_kb(25284608)
use_size(1280) free_size(25283328)
33 = get storage info(2)
```

If the device is not exist you will get this:

```
imx > storage 0
storage 0
get_storage_info.1872 dev_idx(204),device_name(),device_status(0),format_type(0),total_size_kb(0),part_size_kb(0) use_size(0) free_size(0)
7 = get storage info(0)
```

## record

Start record by mux.

Example of simple recording : mux = 0, operation = 1 (start), index = 1, protocol = 0 (Transport), cycle = 0, cycle time = 0

```
imx > record 0 1 1 0 0 0
record 0 1 1 0 0 0
cli_record.1172 set_record_params: mux(0),index_mode(1),protocol(0),cycle_mode(0),cycle_time(0)
cli_record.1177 set_record_operation: mux(0),operation(1)
```

## muxstat

Get muxes status

```
imx > muxstat
muxstat
mux 0:
    *recording
mux 1:
    *streaming
    *recording
mux 2:
mux 3:
mux 4:
mux 5:
mux 6:
mux 7:
```

## Format device:

Device id: 0=SD, 1=USB ,2=Internal Memory  
format type: 1=FAT, 2=EXT4, 3=EXFAT

```
imx > format_device 0 2
```

## Get Active Network Info

Net id: <net 0=eth0,1=usb0,2=wlan0,3=eth1>

```
imx > help gactvn  
help gactvn  
gactvnet      - f(55)get active <net 0=eth0,1=usb0,2=wlan0,3=eth1>  
imx > gactvne  
gactvne  
send_command.181 send msg, ret(5)  
net_id(0) is_actv(1) mac(2E:2A:93:DC:41:BA) ip(192.168.0.25)  
imx > |
```

## temperature

Get Board Temperature

```
imx > temp  
temp  
send_command.181 send msg, ret(4)  
get_temperature.2281 temperature(46)  
imx >
```

## System info

```
imx > help sysinfo
help sysinfo
sysinfo      - f(113) get board_ver,cpu_type,cpu_no,cpu_speed,date,ip,mac,cam,bname
imx > sysinfo
sysinfo
send_command.181 send msg, ret(4)
SystemInfo: retsize(153)
Board version : 1.0
CPU type      : i.MX8MP
CPU number    : 4
CPU speed     : 1800
Date          : Jun 15 2026 : 10:05:21
UDVP         : 2.9.9.4
LDVC         : 117097
FPGA         : 0
IP Addr      : 192.168.0.25
MAC Addr     : 2e:2a:93:dc:41:ba
CAM If       : 0
BoardName    : jupiter-sb
imx > |
```

## Sony block get message

```
sonybrx      - f(222)
imx > sonyb "8101044700000000FF"
sonyb "8101044700000000FF"
sonybrx.2459 send sony cmd[8101044700000000FF] len(18) packet_len(22)
send_command.181 send msg, ret(22)
cli_sonybrx.1346 ret(11) rettxt[9041FF]
imx > |
```