Exostiv Probe

User's Guide

Rev. 1.0.5 - September 8, 2024

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Revision History

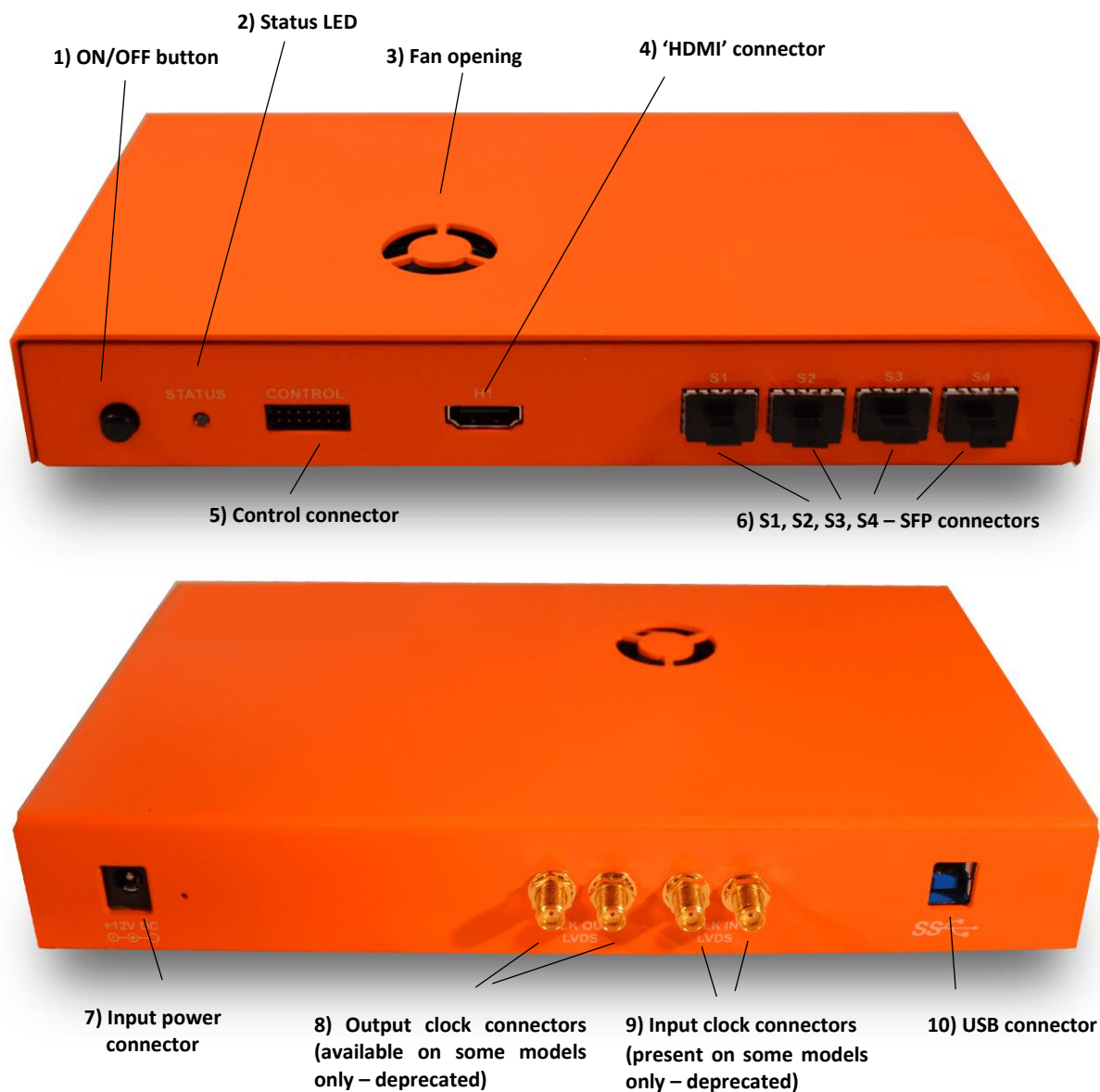| Revision	Modifications
1.0.1	• Initial revision
1.0.2	• Minor corrections
1.0.3	• Legal name and brand update
1.0.4	• Update – deprecated back SMA connectors. Legal company name update.
1.0.5	• Added EP16000 probe type description

EXOSTIV Probe – User's guide

Scope

This user's guide applies to the following hardware equipment:

Model #	Description
EP6000,	EXOSTIV Probe with 1 to 4 channels – speed per channel up to 6.6 Gbps. Other equivalent model numbers: **EP6000X, EP6000I**
EP12000	EXOSTIV Probe with 1 to 4 channels – speed per channel up to 12.5 Gbps
EP16000	EXOSTIV Probe with 4 Channels – speed per channel up to 16.25 Gbps

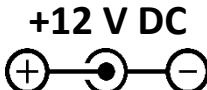## Overview – EP6000 and EP12000

11) Side fan openings

12) Screws

EXOSTIV
EP-6000

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13) Model & Serial number label
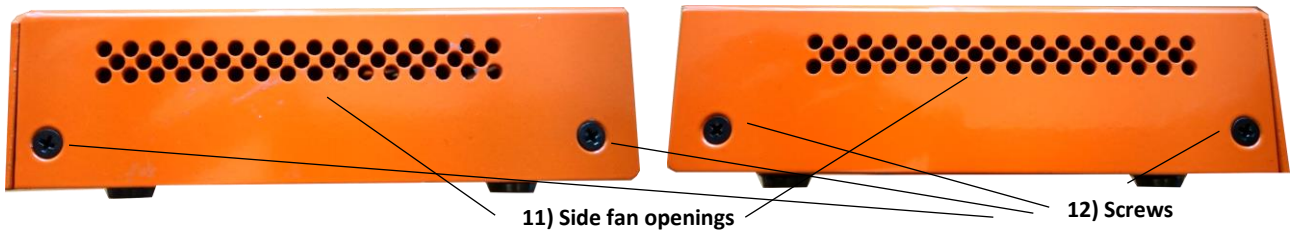
SFP/SFP+ cable

QSFP+ to 4x SFP+ cable with splitter

HDMI cable

Item	Usage	Remark
1) **ON/OFF button**	Push to power probe on and off	Lights up when probe is ON.
2) **Status LED**	Should be ON and Green when probe operates	Check Knowledge Base and/or contact Exostiv Labs if blinks or not green when power is ON.
3) **Fan opening**	The fan underneath functions when probe is ON.	Do not block. Do not insert object or fingers.
4) **'HDMI' connector**	Used to connect to board under test. Should be used with the HDMI cable provided with the probe.	Cannot / should not be used with a standard HDMI (video) interface. Please refer to UG### for connection with target board. Because many HDMI cable on the market provide an insufficient bandwidth, Exostiv Labs does not warrant proper operation with *any* HDMI cable.
5) **Control connector**	Unused. Do not connect.	
6) **SFP Connectors (labeled S1, S2, S3, S4)**	Used to connect to board under test. Should be used with SFP/SFP+ cables providing sufficient bandwidth.	
7) **Input power connector**	Use the provided power supply adapter. Respect the connector polarity and max. voltage. **+12 V DC** $\oplus$ ── ● ── $\ominus$	Use the power adapter provided with the Probe: AC/DC switching 100-240V AC, 50 – 60 Hz, output 12V / 2A
8) **Output clock connectors**	**Deprecated functionality.** Unused. Do not connect.	Connectors are not available on some models.
9) **Input clock connectors**	Unused. Do not connect.	Connectors are not available on some models.
10) **USB connector**	To be used with USB 3.0 type B to A cable and the proper USB host port (workstation side).	Compatible with USB 2.0 and USB 3.0 ports.
11) **Side fan openings**	Airflow exits.	Do not block. Do not insert object or fingers.
12) **Screws**		Do not attempt to dismantle or open the device. Doing so would void the warranty.
13) **Model & Serial number label**	Label with the Probe model and its serial number.	

EP6000 – EP12000 : Instructions of use

- Connect probe to power adapter and plug the power adapter. (7))
- Connect the probe to a PC with the USB cable (10))
- Choose the connection with the target board and use the corresponding HDMI or 1 to 4 SFP/SFP+ cables.(4) or 6)).
- Use ON/OFF button to turn Probe ON (7)).

EXOSTIV Probe can only be used and controlled with software provided by Exostiv Labs. Any other usage is strictly forbidden.
Please check EXOSTIV Dashboard installation guide and user's guide.

EP6000 – EP12000 : Interfaces voltages and specifications

Connector reference	I/O standard – voltage – specification	Remark
4) 'HDMI' connector	Check UG102 – Interfacing EP Series – User's guide.	
5) Control connector	Not applicable	Not used – do not connect
6) SFP connector	Check UG102 – Interfacing EP Series – User's guide.	
7) Input power connector	12 V DC Power supply	Respect voltage and polarity as follows: **+12 V DC** $\oplus\!-\!\bullet\!\!-\!\ominus$ Use the provided power supply.
8) Output clock connectors	Deprecated.	Do not use or connect.
9) Input clock connectors	Not used.	Do not use or connect.
10) USB connector	Not applicable	Use with standard USB type B to A cable, USB 3.0 and USB2.0 or USB 3.0 port at the host.

EP6000 – EP12000 : General precautions and safety recommendations.

- Handle the probe and insert, extract cables gently.
- Do not throw, keep dry.
- Recommended ambient temperature range: commercial (0°C to 70°C)
- Fan openings (3 and 11) should not be blocked. Do not insert fingers or objects.
- Do not try to dismantle or open the device. Doing so would void the warranty.
- This is a low voltage device.
- No inspection or control required.

EP6000 – EP12000 : Troubleshooting

During normal operation, the ON/OFF button (1)) should be light up, the Status LED (2)) should be green and still and the fan should be functioning.

Go to https://www.exostivlabs.com/support for further technical support resources.

Overview – EP16000

2) Fan opening

7) Side fan openings

4) QSFP28 connector

3) ARF-6 connector

+12V DC

1) Power switch

5) Input power connector

6) USB Connector

Item	Usage	Remark
1) Power switch	Switch to power probe on and off	-
2) Fan opening	The fan underneath functions when probe is ON.	Do not block. Do not insert object or fingers.
3) ARF6 connector	Used to connect to board under test. Use proper bandwidth cables.	
4) QSFP28 connector	Used to connect to board under test. Use proper bandwidth cables.	
5) Input power connector	Use the provided power supply adapter. Respect the connector polarity and max. voltage. **+12 V DC**	Use the power adapter provided with the Probe: AC/DC switching 100-240V AC, 50 – 60 Hz, output 12V / 2A
6) USB connector	To be used with USB 3.0 type micro-B to A cable and the proper USB host port (workstation side).	Compatible with USB 2.0 and USB 3.0 ports.
7) Side fan openings	Airflow exits.	Do not block. Do not insert object or fingers.
8) Screws		Do not attempt to dismantle or open the device. Doing so would void the warranty.

EP16000 : Instructions of use

- Connect probe to power adapter and plug the power adapter. (5)
- Connect the probe to a PC with the USB cable (6)
- Choose the connection with the target board and use the corresponding cables.(4) or (3).
- Use Power switch to turn Probe ON (1).

EXOSTIV Probe can only be used and controlled with software provided by Exostiv Labs. Any other usage is strictly forbidden. Please check corresponding user's guides.

EP16000 : General precautions and safety recommendations.

- Handle the probe and insert, extract cables gently.
- Do not throw, keep dry.
- Recommended ambient temperature range: commercial (0°C to 70°C)
- Fan openings should not be blocked. Do not insert fingers or objects.
- Do not try to dismantle or open the device. Doing so would void the warranty.
- This is a low voltage device.

No inspection or control required

EP16000 : Troubleshooting

During normal operation, the fan should be functioning.

Go to https://www.exostivlabs.com/support for further technical support resources.

Regulatory compliance

This equipment complies with the following European Regulations:
2006/42/CE, 2014/35/EU, 2014/30/EU.
Full declaration of Conformity is available on request.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

(1)   This device may not cause harmful interference, and

(2)   This device must accept any interference received, including interference that may cause undesired operation

Caution

Any changes or modifications of the device, not expressly approved by Exostiv Labs Srl, that could modify the FCC compliance of the device, could void the user's authority to operate the equipment.

Information to the user

Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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