

EMERALD

Technical Guidelines

Connection & Firmware Update



Table of Contents

Connecting the USB-C to 5Gbps Network adapter	3
Status connection LEDs	3
Installation	3
Driver Installation	3
Connecting EMERALD to a workstation	5
Upgrading the EMERALD firmware	7

Connecting the USB-C to 5Gbps Network adapter

The 5G network accesses to your laptop, using a USB-C port. This USB 3.0 Type-C to Gigabit network adapter gives you wired Ethernet network and Internet access. The NBASE-T adapter is 4-speed compatible, including IEEE 802.3bz (2.5G/5GBASE-T), IEEE 802.3U (100BASE-TX) and 802.3ab (1000BASE-T).

Status connection LEDs

Solid Orange: indicates that the CAT5/6a cable is linked to the RJ45 port with a link speed of 5Gpbs

Solid Green: Indicates that the CAT5/6a cable is linked to the RJ45 port with a link speed of 100Mbps, 1Gbps or 2.5Gbps

Flashing LED: Indicates network activity

Installation

Connect a CAT5/6a cable to the RJ45 Port of the Network Adapter and the other end to a Network Device

Connect the USB-C Connector on the Network Adapter and the other end to a USC-C port on the Host Computer

Driver Installation

If the Driver do not automatically download once you connected the Network Adapter to the Host Computer

- 1. A message that a virtual CD is loaded will appear
- 2. Click on the message, the CD Drive screen will open

Image: State PC SCD Drive (D) CDROM Date modified Type Size Image: Oracle access Image: Documents Sci Image: Charles Sci Image: Cha	de Home Share		Drive Tools CD Drive (D:) CDROM					-		×
Durks Access Imme Durks modified Type Size Downloads Imme Z/7/2019 158 AM Compressed taipped] 318 KB Downloads Imme Z/7/2019 158 AM Compressed taipped] 318 KB Downloads Imme Z/7/2019 158 AM Compressed taipped] 287 KB Potumes Imme Z/7/2019 158 AM Compressed taipped] 287 KB Muric Imme Z/7/2019 158 AM Compressed taipped] 287 KB Total Imme Z/7/2019 158 AM Compressed taipped] 287 KB Total Imme Z/7/2019 158 AM Compressed taipped] 287 KB Total Imme Z/7/2019 158 AM Compressed taipped] 287 KB Total Imme Z/7/2019 158 AM Compressed taipped] 287 KB Total Imme Z/7/2019 158 AM Compressed taipped] 287 KB Dotal Imme Z/7/2019 158 AM Compressed taipped] 287 KB Dotal Imme Z/7/2019 158 AM Z/7/2019 158 AM Z/7/2019 158 AM Dotaitaitape Imme Z/	→ × ↑ 🕹 > Thi	nis P	PC > CD Drive (D:) CDROM				~ 0	Search CD Drive (D:) CD	ROM	۶
	^	1	Name ^	Date modified	Туре	Size				
Deatap Deatap Deatap Deatap Deatap Deatap Maic Petures Velos Loal Dirk (C) C) Coll Dirk (D) CD Aquentia AQtc	Curck access Desktop Downloads Downloads Documents Documents		Aquentia, AQtion, USB, 364, y1, 7.0.0 mii Aquentia, AQtion, USB, jeb, y1, 7.0.0 mii	2/7/2019 1:58 AM 2/7/2019 1:58 AM	Compressed (zipped) Compressed (zipped)		318 KB 287 KB			
E Pictures Whiteos Local Dirk (C) CD Drive (D) CD LA Aquentia AQtic	Desktop Documents Downloads Music									
CD Drive (D) CD I Aquantia AQte	Videos									
Anumatica & Otic	CD Drive (D:) CD									

- 3. Click on the folder that is compatible with the Host Computer and unzip the content on the folder
- 4. Click on the Installer Package, the Installation Wizard will appear.



- 5. Follow the on-screen instructions to complete the installation
- 6. Once the installation is complete, you may be prompted to restart the Host Computer. If not automatically requested, it is still recommended to restart the Host Computer.

Connecting EMERALD to a workstation

EMERALD does not use Bootp Server connector like legacy Zetec RDAU instrumentation.

For connecting an EMERALD to a Host Computer running UltraVision, you need to use a Fix IP Address. To configure the network adapter:

- Select the Network Adapter and edit its properties. (If using the USB-C to 5Gbps Network adapter provided with the EMERALD instrument please refer to <u>Connecting the USB-C to 5Gbps</u> <u>Network adapter</u> section for the installations instructions).
- 2. Select the Version 4 Internet Protocol option and click on the Properties button.

📱 Instruments Properties	×
Networking Sharing	
Connect using:	
🚅 ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter	
Configure This connection uses the following items:]
Version 6 du protocole Internet (TCP/IPv6)	1
Install Uninstall Properties	
Description Protocole TCP/IP. Le protocole de réseau étendu par défaut qui permet la communication entre différents réseaux interconnectés.	
OK Cance	1

3. Select the Use the following IP address option and enter a fixed IP address such as 192.168.0.1. Set the Subnet mask to 255.255.255.0

Version 4 du protocole Internet (TCP/IPv4)	Properties X
General	
You can get IP settings assigned automatic this capability. Otherwise, you need to ask for the appropriate IP settings.	ally if your network supports your network administrator
Obtain an IP address automatically	
• Use the following IP address:	
IP address: 19	92.168.0.1
Subnet mask: 25	55.255.255.0
Default gateway:	
Obtain DNS server address automatic	ally
• Use the following DNS server address	es:
Preferred DNS server:	
Alternate DNS server:	
☐ Validate settings upon exit	Advanced
	OK Cancel

- 4. Click on Ok to set the new IP address and then on OK again to close the Network Properties window
- 5. Connect the EMERALD unit using a CAT5/6a cable to the network adapter.
- 6. Open UltraVision software (version 3.4R11 or later) and click on the Connect to Instrument option

Startup		
Connect to Instrument	Calculator and Ray Tracing	Analyze Data

7. When the EMERALD unit is powered up, it will appear as a connection option

1	nstrument Connection					>	×
	Name	Description	IP	Firmware	Simulator	Details	٦
	EMERALD	Powerful Phased Array System	192.168.0.100	5.0B4			Ľ
							1
			Simulator	Conne	ect	Cancel	1
F	merald: 192 168 0 100						
-	neralu. 132.100.0.100						

8. Select the instrument to connect and click on the Connect button

Upgrading the EMERALD firmware

 If the UltraVision Classic version that you are running requires a more recent firmware version than the version currently installed in the EMERALD, the *Firmware* field will be yellow highlighted

Instrument Connection					×
Name	Description	IP	Firmware	Simulator	Details
EMERALD	Powerful Phased Array System	192.168.0.100	5.0B4		
		Simulator	Conne	ant	Cancel
		Simulator	Conne	BCI	Cancer
Emerald: 192.168.0.100					

2. To upgrade the firmware, copy the new firmware version file in a directory of your choice on the PC, and click on the **Details** button

	Emerald Details	x
Instrument Connection Name EMERALD Emeraid: 192.168.0.100	Device Cards Card Card Card Card Card Card Charal PolyAdress	mware Simulator Details 84 Connect Cancel
	Network settings Update firmware Close]

 Click the Update firmware button, browse to the location of the firmware version file, and click Open

🖳 Please select	a firmware file for	the EMERALD instrument				
Look in:	3.11R4_x64	~	G 🤌 📂 🛄 -			
<u>_</u>	Name	^	Date modified	Туре	Size	
	Emerald_5.0E	34.zip	05-Oct-21 1:30 AM	Compressed (zipp	13,8	
Quick access	Emerald_5.0E	35.zip	22-Oct-21 2:40 AM	Compressed (zipp	13,8	
	Emerald_5.0E	35T3.zip	18-Oct-21 8:42 AM	Compressed (zipp	13,8	
	Emerald_5.0E	36T1.zip	25-Oct-21 3:55 PM	Compressed (zipp	13,9	
Desktop						
_	1	Type: Compressed (zipped) Folder	1			
Librarian	S S	Size: 13.5 MB Date modified: 25-Oct-21 3:55 PM				
Libraries	L;		1			
My PC						
Network	<				>	
	File name:	Emerald_5.0B6T1.zip		~ (Open	
	Files of type:	EMERALD firmware files (*.zip)		~ C	ancel	

4. The firmware will be rapidly installed, and the software will give notice of the successful update

	Emerald Details	
Instrument Connection	Device Cards Card Card Card Card Mame Emerald	mware Simulator Details
	The firmware was updated successfully. You may need to reboot the instrument manually.	
	ОК	onnect Cancel
_	Network settings Update firmware Close	ی۔ اور اور اور اور اور اور اور اور اور اور

 Click OK to proceed, in most cases the EMERALD will reboot automatically and the following screen will appear (if not, just shut down and reboot the unit); the firmware version in the EMERALD now matches with the UltraVision Classic software version and the Firmware field is not highlighted

Instrument Connection					×
Name	Description	IP	Firmware	Simulator	Details
EMERALD	Powerful Phased Array System	192.168.0.100	5.0B6		
		Simulator	Conne	ect	Cancel
Emerald: 192.168.0.100					

6. Click on the Connect button

Quality

All work is performed in accordance with ZETEC Quality standards program, which complies with 10CFR50 Appendix B, ISO 9001:2015 and ISO/IEC 17025:2015.





Toll free: 800.643.1771 (USA)

info@zetec.com

www.ZETEC.com