

BONN Amplifier Automation Integration via USB (Virtual Serial Port)

Driver Installation

The amplifier's USB interface is a virtual serial port. This means that the automation measurement software will connect to an amplifier's USB port like a regular serial port device. The virtual serial port requires a driver, which usually already is part of your windows 7 operating system. However, if not recognized or when using windows xp, please download, install and follow the instructions of the FTDI VCP driver. When installation successfully completed, a new serial port at windows device manager will be displayed:

🚔 Geräte-Manager		
Datei Aktion Ansicht ?		
(= =) 🖬 📓 🖬 🛝 😫 📢 🖏	Eigenschaften von USB Serial Port (COM2)	×
BONN-WS79 Anschlüsse (COM & LPT) ECP-Druckeranschluss (LPT1) Kommunikationsanschluss (COM1) USB Senal Port (COM2) Audio-, Video- und Gamecor Computer Diskettenlaufwerkcontroller DVD/CD-ROM-Laufwerke DVD/CD-ROM-Laufwerke Grafikkarte Grafikkarte Grafikkarte Jungo Laufwerke Mäuse und andere Zeigegeräte Monitore Monitore Monitore Smartcard-Leser Systemgeräte Systemgeräte USB-Controller	Allgemein Anschlusseinstellungen Treiber Details USB Senal Port (COM2) Gerätetyp: Anschlüsse (COM & LPT) Hersteller: FTDI Ort: USB Senal Converter Gerätestatus Das Gerät funktioniert einwandfrei. OK	Abbrechen



Please note: often a new COM port gets assigned a port number higher than 4. Some (especially older) software may not recognize such high port numbers. Via the property window of the COM device at the device manager, you can assign another lower COM port number:

Geräte-Manager				
Datei Aktion Ansicht	?	17-1		
	📅 💐 😭 🙀 d	5		
E BONN-WS79 Anschlüsse (CON ECP-Drucker Kommunikau	4 & LPT) anschluss (LPT 1) onschachluss (COM 1) ort (COM 13)			
	kcontroller	aften von USB Serial Port (CO in Anschlusseinstellungen Treib	MIB) er Details	×
 	ufwerke Human Interfa	Bits pro Sekunde	9600]
⊕ ➡ Grafikkarte ⊕ ੑ IDE ATA/ATAPI-	Controller	Datenbits	8]
⊕ Laufwerke ⊕ Mäuse und ande	re Zeigegerät	Paritāt	Keine	
	ents GPIB Inte	Stoppbits	Keine	
The Zwerk adapte The				
⊕ 1 Systemgeräte ⊕ 100 Control		_		
	rweiterte Einstellung	en für COM13		<u>? ×</u>
	COM-Anschlussnumm	er: COM13	•	ОК
	USB Packetgrößen – Reduzieren Sie die W	erte, un COM2 (bereits belegt) COM2 (bereits belegt) COM4 (bereits belegt) COM5 (bereits belegt)	Baudraten zu beheb	en. Standard
	Erhöhen Sie die Wert Empfangen (Bytes):	e für eir COM6 (bereits belegt) COM7 (bereits belegt) COM8 (bereits belegt)		
	Senden (Bytes):	COM9 (bereits belegt) COM10 (bereits belegt) COM11 (bereits belegt) COM12 (bereits belegt)		
	BM Einstellungen	COM12 COM13 COM14	Allgemeine Optionen	
	Reduzieren Sie die W verringern.	erte, un COM15 COM16 COM17	PlugPlay für serielle	Schnittstelle 🔽
	Wartezeit (ms):	COM18 COM19 COM20	Serieller Drucker Abbrechen der Kom	munikation, wenn das Gerät
	Timeouts	COM21 COM22 COM23	ausgeschaltet wird Event bei unvorherg Geräts	jesehener Entfernung des
	Minimale Anzahle der (ms):	Lese-TI COM24 COM25	Beim Schließen der M Abschalten der Mod	/erbindung RTS aktiv setzen
	(ms):	COM27 COM28 COM28	Hochfahren des Ger	ats
		COM29 COM30	-	



Connection Test

For testing a virtual serial connection to the amplifier any serial terminal program can be used (we were using HTerm):

d = HTerm 0.8.1beta - [hterm.cfg]			_O×
Connect Port COM2 R Baud	19200 💌 Data 8	Stop 1 Parity Even	CTS Flow control
Newline at LF Show newline CTS DSR Q Q			
Received Data			
1 5 10 15 20 25 30 35 40 BONN, BLWA 0102-30, 118272m BONN, BLWA 0102-30, 118272m BONN, BLWA 0102-30, 118272m BONN, BLWA 0102-30, 118272m BONN, BLWA 0102-30, 118272m Selection (-)	45 50 5	5 60 65 70 75 8	0 85 90
Input control Input options Clear transmitted V Asci Hex Dec Bin Send on Type ASC V *IDN2	enter LF	Send file DTR RTS	× ASend
Transmitted data			×
1 5 10 15 20 25 30 35 40 *IDN?m *IDN?m	45 50 5	5 60 65 70 75 80	85 90 •
	History 1/10/10	Not connected	li.
			¥
	History -/10/10	Not connected	li

Please note: serial port parameters are marked by red circles above. Common GPIB commands can be used. Alternatively, the connection may be tested by using our RF Amplifier Control program, which can be downloaded. Extract the Zip file (password usb) into any location and run the exe file.



When connection is successfully established, amplifier control center will display following:

BONN RF-Ampli	fier Control Cente	:r		
<u>Eile 2</u>				
± 🔌 🗞	USB Serial Port (C	:OM2)		_
An r Control	\sim \sim			
2		U	0	**
Remote Control	Panel Control	Activate	Standby	Reset
Device ID Status Mode	BONN, BLWA 0102-	30, 118272		
User Defined Com	mands and Queries	5		Send
Command.				
Reply:	2			
Connected to USB Se	rial Port (COM2)			



Integration into Automation Software

National Instruments

For a detailed description please refer to National Instrument's Website: www.ni.com/gettingstarted/setuphardware/instrumentcontrol/serialconnect.htm

Rohde&Schwarz EMC32

At EMC32, you will find a similar screenshot to:

MC32 Test Report Table Extras Window	?					
Devices:	Configured Devices:			⊯×	≛=≅: ⊡ ≞_≞	
	Name	Device	Type In	nterface Ad	dr/SN State	1
ARTxGx Amplifier	BONN Amplifier	Amplifiers	BONN Ampli L	AN 192	2.168 Virtual	
ASE Pulse Amplifier	🜔 Bonn USB Amplifier	Amplifiers	Bonn USB U	ISB ?	Virtual	1
BBA100 Amplifier	Room USB Amplifier - Ro	nn IICR Amplifiar - An	anlifiarc			V
Bonn USB Amplifier		nin OSB Ampimer - An	iphilers			
Canorio Amelifia	General Properties Test					- 10
TSRSP Amplifier						
🗄 🐨 🛐 Antennas						
🗄 🌃 AntennaTowers			Stat	e		
🗄 🚫 AwgGenerators	Tura		- Orde			
🗄 🚮 FieldProbes	Type	-	C	Physical (Vithual	
🕀 🛜 Generators	JUSB	<u> </u>		i iliyələdi 🔹	e) viitoidi	
🗄 🕛 Interlock	1					
🗄 🙆 LISNs 🛛 📥						
🗄 🔤 Monitoring						
MultiFieldProbes						
	Description		Serial I	number		
			?			
			No.			
			Firmwa	are Version		
SwitchUnits						
			Calibra	ation valid until	1 2 2 1	
Transducers					Configure	
	0r 1					
	and the second second	16				
OK Cancel						