Application Note



Introduction

A port is associated with an IP address of the host, as well as the type of protocol used for communication. In plain English, the purpose of ports is to uniquely identify different applications or processes running on a single computer and thereby enable them to share a single physical connection to a packet-switched network like the Internet.

A firewall controls access and exit between networks based on IP addresses and port numbers, so if remote access to for instance a W-CLOUD server or a RS-BA1 server for ICOM IC-9100 receiver control is desired, the firewall must be configured to open the appropriate inbound ports. If a device, a server or an application must access the network an outbound port must also be opened. In Windows 7 inbound and outbound ports must be separately opened.

Applications and devices may use TCP or UDP depending on their specific requirements, but W-CLOUD, W-CODE and WiNRADiO devices use TCP because of its built in error detection and retransmission features. UDP has much less protocol overhead, but is unreliable. The example below shows the configuration of an inbound port, but the procedure is exactly the same for outbound ports.

Configuration of a Port

In Control Panel select "Windows Firewall".

File Edit View Tools Help	▼ 🚺 Se
File Edit View Tools Help	
Adjust your computer's settings	
🗡 Action Center 👸 Administrative Tools 💽 AutoPlay 😻 Backup and Restor	e SitLocker Drive Encryption
💦 Color Management 👸 Credential Manager 🚔 Date and Time 🜒 Default Programs	Desktop Gadgets
🚽 Device Manager 🔬 Devices and Printers 💐 Display 👔	ity Ease of Access Center
📝 Flash Player 💦 Folder Options 🗼 Fonts 📑 Getting Started	HomeGroup
🔑 Indexing Options 🌍 Intel® PROSet/Wireless Tools 🚱 Internet Options 🔮 Java	Keyboard
🔯 Location and Other Sensors 🥥 Hall 🧳 Nouse 🙀 Network and Sharin	ng Center Notification Area Icons
🔗 IV/IDIA Systemsteuerung 🔮 0DBC 🎄 Parental Controls 📓 Performance Informance Inform	mation and Personalization
Phone and Hodem power Options Programs and Features Realtek HD Audio F	Manager 🙀 Recovery
Region and Language 🌸 RemoteApp and Desktop 🧑 Revo Uninstaller Pro 🎯 Sound	Speech Recognition
🔞 Sync Center 📃 System 📃 Taskbar and Start Henu 😱 Troubleshooting	User Accounts
👔 Windows CardSpace 🔛 Windows Defender	Center 🦉 Windows Update

Application Note



Select "Advanced settings"

	ll Control Panel Items 👻 Windows Firewall		
File Edit View Tools Help			
Control Panel Home	Help protect your computer with Windows I	Firewall	
Allow a program or feature through Windows Firewall	Windows Firewall can help prevent hackers or malic Internet or a network.	ious software from gaining access to your computer through the	
Change notification settings	How does a firewall help protect my computer?		
Turn Windows Firewall on or off	What are network locations?		
Restore defaults	📝 Home or work (private) networks	Connected	
Advanced settings	Networks at home or work where you know and t	rust the people and devices on the network	
Troubleshoot my network	Windows Firewall state:	On	
	Incoming connections:	Block all connections to programs that are not on the list of allowed programs	
	Active home or work (private) networks:	Sec	
	Notification state:	Notify me when Windows Firewall blocks a new program	
	Public networks	Not Connected	

After selection of "Inbound Rules" (left panel) and "New Rule" (right panel) the "New Inbound Rule Wizzard" appears, which takes you through the five steps required to configure a port.

"Rule Type" - Create the type of rule which applies (in this case the type is "Port").

🍰 Windows Firewall with Advanc	ed Security											_ 8 ×
File Action View Help												
🗢 🔿 🔰 📷 🔂 📷												
Mindows Firewall with Advanced S	Inbound Rules										Actions	
Inbound Rules	Name	Group	Profile	Enabled	Action	Override	Program	Local Address	Remote Address	Proto:	Inbound Rules	
Connection Security Rules	G39DDC Port		All	Yes	Allow	No	Any	Any	Any	TCP	New Rule	
Monitoring	CodeMeter Runtime Server		Public	Yes	Allow	No	C:\Progr		Any	TCP		
	CodeMeter Runtime Server		Private	Yes	Allow	No	C:\Progr		Any	TCP	Filter by Profile	•
	CodeMeter Runtime Server		Private	Yes	Allow	No	C:\Progr		Any	UDP	Filter by State	•
	CodeMeter Runtime Server		Public	Yes	Allow	No	C:\Progr		Any	UDP	Filter by Group	•
	💮 New Inbound Rule Wizard						×	Any	Any	Any TCP		
	Rule Type							Any Any	Any Any	UDP	View	,
	Select the type of firewall rule to create.							Any	Any	UDP -	Q Refresh	
	Sold the type of mewaltale to create.							Any	Any	TCP	Export List	
	Steps:							Any	Any	UDP		
/		What type of rule would you like to c	reate?					Any	Any	TCP	P Help	
/	 Rule Type 	What type of fale would you like to c	roato :					Any	Any	UDP	G39DDC Port	
	Protocol and Ports							Any	Any	TCP	Disable Rule	
	 Action 	C Program						Any	Any	TCP		
	Profile	Rule that controls connections fo	r a program.					Any	Any	TCP	di Cut	
		C						Any	Local subnet	UDP	Сору	
	 Name 	Port						Any	Local subnet	TCP	X Delete	
		Rule that controls connections fo	r a TCP or UDP po	irt.				Any Any	Any Local subnet	TCP TCP		
		C Predefined:						Any	Any	TCP	Properties	
		BranchCache - Content Retrieva	I (I leas HTTP)				a	Any	Local subnet	TCP	7 Help	
		Rule that controls connections fo		ianca		_	-	Any	Any	TCP		
			a windows expe	ience.				Any	Local subnet	UDP		
		C Custom						Any	Any	ICMP\		
		Custom rule.						Any	Any	ICMP\		
								Any	Any	UDP		
								Any	Any	UDP		
								Any	Any	IGMP		
								Any	Any	TCP		
								Any	Any	IPv6		
		and the second second						Any	Local subnet	ICMP\		
		Learn more about rule types						Any Any	Local subnet	ICMP\		
								Any	Local subnet	ICMP\ ICMP\		
								Any	Any	ICMP\		
				< Back	Next >		ncel	Any	Any	ICMP		
				V D GDR	ivent >			Any	Any	ICMP\		
								Any	Any	ICMP\		
	Core Networking - Router Advertiser	nent (IC Core Networking	All	Yes	Allow	No	System	Any	fe80::/64	ICMP\		
	Core Networking - Router Solicitation		All	Yes	Allow	No	System	Any	Any	ICMP\		
<	1 T	· · · · ·					[··· ·	•	•			
											,	
1.0		0									, , ,	14:05
Start Windows Firewall	Corel PHOTO-PAINT X6	Windows Firewall									* ()	14:05
											1	

Application Note



"Protocols and Ports" - Enter the protocol type and port number required by the application or device for which a port must be opened.

👷 New Inbound Rule Wizar	rd	
Protocol and Ports		
Specify the protocols and ports t	to which this rule applies.	
Steps:		
Rule Type	Does this rule apply to TCP or UDP?	
Protocol and Ports	• TCP	
Action	C UDP	
Profile		
Name	Does this rule apply to all local ports or specific local ports?	
	O All local ports	
	Specific local ports: 2200	
	Example: 80, 443, 5000-5010	
	Learn more about protocol and ports	
		C 1
	< Back Next >	Cancel

"Action" – Determine the action to be taken if a connection matches the specified conditions.

💮 New Inbound Rule Wiz	ard	X
Action	when a connection matches the conditions specified in the rule.	
Steps:		
 Rule Type Protocol and Ports Action 	 What action should be taken when a connection matches the specified conditions? Allow the connection This includes connections that are protected with IPsec as well as those are not. 	
ProfileName	Allow the connection if it is secure This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.	
	Customize C Block the connection	

Application Note



"Profile" – Enter the locations where the rule you have created earlier apply. Normally all locations should be ticked.



"Name" – Create an easily remembered name for the rule.

🕷 New Inbound Rule Wizard		2
Name		
Specify the name and description	of this rule.	
Steps:		
Rule Type		
Protocol and Ports		
Action		
Profile		
Name	G39DDC (TCP-in)	
	Description (optional):	
	Port 2200	
	,	
	< Back Finish Cancel	1
	Carter Carter	

Application Note



Since more than thirty years Wavecom Elektronik AG has developed, manufactured and distributed high quality devices and software for the decoding and retrieval of information from wireless data communication in all frequency bands. The nature of the data communication may be arbitrary, but commonly contains text, images and voice. The company is internationally established within this industry and maintains a longstanding, world-wide network of distributors and business partners.

Product Information

Products	http://www.wavecom.ch/product-summary.php
Datasheets	http://www.wavecom.ch/brochures.php
Specifications	http://www.wavecom.ch/product-specifications.php
Documentation	http://www.wavecom.ch/manuals.php
Online help	http://www.wavecom.ch/content/ext/DecoderOnlineHelp/default.htm
Software warranty	One year free releases and bug fixes, update by DVD
Hardware warranty	Two years hardware warranty
Prices	http://www.wavecom.ch/contact-us.php

System Requirements

	Minimum	Recommended
CPU	Core i5 or Core i7 2.8 GHz	Core i7-6700 3.4 GHz
Memory	4 - 8 GB RAM	16 - 32 GB RAM
OS	Windows 7	Windows 10 32-bit or 64-bit

Distributors and Regional Contacts

You will find a list of distributors and regional contacts at http://www.wavecom.ch/distributors.php



WAVECOM ELEKTRONIK AG 8090 Zurich, Switzerland E-Mail: sales@wavecom.ch Internet: www.wavecom.ch

© WAVECOM ELEKTRONIK AG 2025 - All rights reserved

Microsoft, Encarta, MSN and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. ICOM® logo is a registered trademark of Radixon Group Pty. Ltd. and Rosetta Laboratories Pty Ltd.