

LINXON myRGA THEORY AND OPERATION

Module 400: How to Communicate with the RGA







- Develop and demonstrate expertise with LINXON myRGA
- Understand how myRGAs are connected to, and communicate with, computer systems.

MAIN OBJECTIVES



- Identify IP address and subnetwork structure
- Change a PCs IP address
- Identify myRGA's default IP address
- Change myRGA's IP Address

OUTLINE





- 2 Connecting myRGA to a network
- 3 Changing the RGA's IP address
- 4 Changing the PC's IP address



Network troubleshooting



1 ETHERNET TCP/IP NETWORKING PRINCIPLES

IP ADDRESSES



- IP addresses are assigned to identify specific devices on a given network
- Static IP Address vs. DHCP (Dynamic Host Communication Protocol)
 - Static IP Address (manually setting an IP address) is recommended
 - If the IP address changes then communication will be lost between the software and the RGA.
 - DHCP IP Address is automatically set by the host
- IPv4 Addresses
 - Example 192.168.1.100

SUBNETWORKS



Subnetworking is a method of logically dividing an IP network

- IP Address Unique identifier for each device
- Subnet Mask Determines the portion of the IP address that is the network prefix
- Network Prefix Same for all devices on a subnet

	Example 1	Example 2	
IP address	192.168.1.104	192.168.1.105	
Subnet mask	255.255.255.0 255.255.0.0		
Network prefix	192.168.1.0	192.168.0.0	

myRGA DEFAULT IP ADDRESS



Factory Default IP Address

 Every myRGA is shipped from the factory with a default IP address of:

192.168.1.100



2 CONNECTING myRGA TO A NETWORK

How to Communicate with the RGA

CONNECTING myRGA TO A NETWORK



There are a few questions you need to ask before starting with the connection process:

- Upon which type of network will myRGA be installed?
 - Direct connection to a PC?
 - Local network?
- Is more than one myRGA going to be set up at this time?

CONNECTING ONE RGA TO ONE COMPUTER





CONNECTING A SINGLE RGA TO A LOCAL NETWORK





CONNECTING MULTIPLE RGAS TO ONE COMPUTER



PC with one Ethernet (LAN) Port and an Ethernet Switch



-OR-

PC with multiple Ethernet (LAN) Ports



CONNECTING MULTIPLE RGAs TO A LOCAL NETWORK







3 CHANGING THE RGA'S IP ADDRESS

How to Communicate with the RGA



SETTING RGA IP ADDESS

The onboard web server can be used to change the IP address of an RGA

unxon Diogrio					
System Status				Power Supply	
	5500.00 µA	Release	1.04.2-TEST4	+24V	0.00V
	70 V	Monitor Firmware	1.00.00	+15V	0.00V
lan energy	0 mV	Control Firmware	1.00.00	+5V	0.00V
Focus potential	0.00 V	Powr, Suppl. Fw.	1.00.00	+3,3V	0.00V
Anode potential	0.00 V	API	0	-5V	0.00V
Filament potential	0.00 V	Board Revision			
Filament current	0.00 A			System Events	
RF Frequency	0 kHz	CPU			
RF Power	0 mW	+24V	0.00V		
Box temperature	0.0 °C	+15V	0.00V		
Filamt, 1 On Time	Oh	+5V	0.00 V		
Filamt, 2 On Time	0 h	+3.3V	0.00V		
EM On Time	On	+1.5V	0.00V		
	711 h	+1.2V	0.00 V		
IS TP Trips					
(mu)	19				



4 CHANGING THE PC'S IP ADDRESS

How to Communicate with the RGA

How to Communicate with the RGA

CHANGING THEPC'S IP ADDRESS

To ensure the myRGA can • properly communicate with the connected computer, the computer must have the correct network setup





CHANGING THE PC'S IP ADDRESS







CHANGING THE PC'S IP ADDRESS



Local Area Connection Properties
Networking Sharing
Connect using:
Intel(R) 82579LM Gigabit Network Connection
Configure
This connection uses the following items:
Client for Microsoft Networks
🗹 💂 QoS Packet Scheduler
🗹 📑 File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Internet Protocol Version 4 (TCP/IPv4)
🗹 🔺 Link-Layer Topology Discovery Mapper I/O Driver 🧳
🗹 🛶 Link-Layer Topology Discovery Responder
Install Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

internet Protocol Version 4 (TCP/IPv4) Properties					
General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Obtain an IP address automatically O Use the following IP address:					
IP address:	192 . 168 . 1 . 105				
Subnet mask:	255.255.0.0				
Default gateway:	• • •				
Obtain DNS server address automatically					
Use the following DNS server addresses:					
Preferred DNS server:					
Alternate DNS server:	• • •				
Validate settings upon exit	Advanced				
	OK Cancel				



5 NETWORK TROUBLESHOOTING



NETWORK TROUBLESHOOTING

Ping RGA IP Address?	Onboard Web Server Com?	Suggested Steps
NO	N/A	Check the IP address of the myRGA and the PC to ensure compatibility
YES	NO	Check Firewall, Antivirus (port 80) permissions and Windows permissions (administrator privileges)

SUMMARY



Now that you have completed this module you should be able to;

- Identify IP address and subnetwork structure
- Change a PC's IP address
- Identify the myRGA default IP address
- Change the myRGA IP address



THANK YOU!

You have completed the

RGA Hardware and How an RGA Works module!

You may come back and review the content of this module at any time.