123 Manual, LP-288ai V2.0 TURBO OFDM Compact Outdoor Radio with Throughput Booster. INSTALLATION IN CLIENT MODE WITH FIRMWARE V2.0.3B2P1

LP288aiV23B2_M123_ENC01W



123 Manual, LP-288ai V2.0 TURBO OFDM Compact Outdoor Radio with Throughput Booster. INSTALLATION IN CLIENT MODE WITH FIRMWARE V2.0.3B2P1





Check the content of the box, as shown in Figure 1.



2 Prepare the cable with the connector, as shown in **Figures 2-1**, **2-2** and **2-3**.







Figure 2-2

Figure 2-3



Connect the cable, as shown in Figure 3.





Connect to electric power, as shown in Figure 6.





Go to the properties of your network card and select Internet Local Area Connection Properties ? X Protocol and then Properties, as shown in Figure 7. General Advanced Connect using: Intel(R) PRO/1000 MT Mobile Conne Configure... This connection uses the following items: ST NWLink NetBIOS NwLink IPX/SPX/NetBIOS Compatible Transport Prot Internet Protocol (TCP/IP) > Install. Unnitial Properties Description Figure 7 Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. Show icon in notification area when connected Notify me when this connection has limited or no connectivity. 0K Cancel

8

Select **Use the following IP address** and type an IP address in the LP-288ai IP range by default; for this example we have selected the 192.168.1.201 address. The LP-288ai has the 192.168.1.2 address by default. In **Subnet mask** type 255.255.255.0, in **Default gateway** the destination router address, in **DNS** you shall enter the network DNS so the corresponding queries can be sent to the network DNS, as shown in **Figure 8**. Once you have finished, select **OK** twice.

	👍 Local Area Connection Properties	Internet Protocol (TCP/IP) Properties
	General Advanced	General
Figure 8	Connect using: Intel(R) PR0/1000 MT Mobile Conne This connection uses the following items: This connection u	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. O Dotain an IP address automatically Use the following IP address: IP address: IP address: Subnet mask: 192.168.1.201 Subnet mask: 192.255.255.0
	Instal Unental Prop Description Transmission Control Protocol/Internet Protocol. The d wide area network protocol that provides communicati access diverse interconnected networks	Default gateway: 192 , 168 , 1 , 1 Obsen 045 server address submatically Use the following DNS server addresses: Preferred DNS server 192 158 1 1
	Show icon in notification area when connected Notify me when this connection has limited or no connection	Alternate DNS server:
	- DP	OK Cancel



It is important to mention that the LP-288ai will be a client of the destination network in this configuration. Please, see the following diagram (Figure 9).



In this diagram, the destination network is yellow. In this one you have a router providing Internet connection and it also has the delivery of addresses in the segment 192.168.1.x enabled, having reserved the remaining addresses to the scope. Such router will only deliver addresses from 100 to 200 and provides Internet connection. The blue segment is the network of your LP-288ai, where it has the default address 1192.168.1.3, as shown in **Figure 9**.

10

Open the web browser of your preference and type the default address **192.168.1.20**, as shown in **Figure 10**.



11

The equipment will request a user and a password. The LP-288ai has two user levels, one with all the privileges, which is **super** by default with **super** as password, and another with fewer privileges with admin as user and admin as password. Type **super** in user and password and select **OK**, as shown in **Figure 11**.

onnect to 192.	168.1.20
7	1.4
The server 192.1 username and pa	168.1.20 at Secure Realm requires a assword.
Warning: This ser password be sen without a secure	rver is requesting that your username and it in an insecure manner (basic authentication connection).
User name:	🖸 super 💽
Password:	•••••
	Remember my password



Select **IP Configuration** and change the IP address to 192.168.1.3 (for this example). Save changes by clicking on **Update**, as shown in **Figure 12**.

	THE NATIONAL ENDINGS IN SECTIONERS.		
	Basic Site Survey Administration	IP Mode: © Static IP C Dynamic IP (DHCP Client) DHCP Relay: © Disable C Enable	
ure 12	HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	IP Address: 192 , 168 , 1 .3 Subnet Mask: 255 , 255 , 255 , 0 Default Gateway Address: 0 , 0 , 0 , 0 Domain Name Server IP Address: 0 , 0 , 0 , 0	
	Advanced Radio Setting Security Setting MAC Addr Control Protocol Filter SIMP Configuration Miscellaneous		

13

Once you have saved changes select **Reboot** to make them effective, as shown in **Figure 13**.

	Chicp.//192.100.1.20		
	SLANPRO	Basic ->IP Configuration Update Reboot	
	THE NATURAL DIDLES IN ARTHORNES	Reminder: Please reboot for changes to take effect	
	Basic Site Survey Administration HTTP Server	IP Mode: C Static IP C Dynamic IP (DHCP Client) DHCP Relay: C Disable C Enable	
	IP Configuration Operation Mode Remote AP List Statistics SUTE Settion	IP Address: 192 . 168 . 1 . 3 Subnet Mask: 255 . 255 . 0	
	Shire Setting	Default Gateway Address: 0 .0 .0	
Figure 13	Advanced Radio Setting Security Setting	Domain Name Server IP Address: 0 .0 .0	
	MAC Addr Control Protocol Filter SNMP Configuration		
	Miscellaneous Qos Setting		
	Vidit Setulig		_

14

The equipment will display the process of rebooting and changes, as shown in **Figure 14**.









The equipment will save changes, but they won't become effective unless you reboot it. Select Reboot, as shown in Figure 18. It is important to mention that you can configure the equipment so that it only connects to the destination AP by using Remote MAC, so we recommend you to read the 123 manual about point to point and point to multi-point (LP288aiV2_M123_END01W).



19

The equipment will display the process of rebooting and changes, as shown in Figure 19.



20

Select Advanced/Security Setting and in Security Mode select the encryption mode. Remember you must select the same encryption as the destination AP, as shown in Figure 20.

Chttp://192.168.1.3/ Advanced -> Security Setting Update Reboot Basic Security Mode: Disabled ٠ Site Survey Disabled Administration WEF WPA_PSK HTTP Server IP Configuration WPA2 PSK Operation Mode Remote AP List Statistics SNTP Setting Advanced Radio Settin Security Setting AC Addr Contro Protocol Filter IMP Configuration Miscellaneous Qos Setting Vian Setting System Log

Favorites

You must type the corresponding encryption phrase in **PassPhrase** field, as well as the encryption type in **Cypher Type**. Select **Update** to save changes, as shown in **Figure 21**. Remember this type must be the same as destination AP.

	the second se	- Edultria
	Advanced ->Security Setting	Reboot
Basic	Security Mode: WPA2_PSK 💌	
Administration		
HTTP Server	PassPhrase 01234567890	
IP Configuration		
Operation Mode	Cipher Type: TKIP 💌	
Remote AP List		
Statistics		
SNTP Setting		
Advanced		
Radio Setting		
Security Setting		
MAC Addr Control		
Protocol Filter		
SNMP Configuration		
Miscellaneous		
Qos Setting		
Vlan Setting		

22				
Once you have saved changes select Reboot to make	🙀 Favorites	€http://192.168.1.3/		
them effective, as shown in Figure 22.	STILL NOT	LANPRO	Advanced ->Security Setting Reminder:	Update Reboot Please reboot for changes to take effect
		Basic Site Survey Administration HTTP Server	Security Mode:	WPA2_PSK
		IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	PassPhrase: [Cipher Type:]	01234567890 TKIP -
Figure 22	SP	Advanced Radio Setting Security Setting MAC Addr Control Protocol Filter MIP Configuration Miscellaneous Cos Setting Vian Setting		
23 A progress bar indicating the equipment is reporting				
will be displayed, as shown in Figure 23 .		ANPRO		
Figure 23	n	Basic Stre Survey Administration HTTP Server (P Configuration Operation Mode Remote AP List Statistics SHTP Setting Advanced Radio Setting Security Setting MAC Addr Control Protocol Filter	If the browart fails	REBOOTING

To check connectivity, run the **Ping** command in a command window to the equipment IP you are connecting to (in this case 192.168.1.2). To do this, select **Start** or **Inicio**, then **Run** or **Ejecutar**, type the **cmd** command, and select **OK**, as shown in **Figures 24-1** and **24-2**.

Paint	Printers and Faxes	Run		? >
Command Prompt	<u>Help and Support</u> <u>Search</u>	Type the name of Internet resource	of a program, folder, do e, and Windows will ope	cument, or in it for you.
All Programs 🕨	<u> R</u> un	Open: and		1
	Opens a program, folder, d	0	K Cancel	Browse
t 🔛 🥥 🏉 »				
	Figure 24-1			Figure 24
	Figure 24-1			F

Type the **ping** command followed by the IP of the destination equipment (192.168.1.2 for this case), and press **Enter**. You will observe the answer of destination equipment, as shown in **Figures 25-1 and 25-2**.



🛤 Command Prompt	-101>
C:>>ping 192.168.1.2	
Pinging 192.168.1.2 with 32 bytes of data:	
Reply from 192.168.1.2: bytes=32 time=5ms TTL=64 Reply from 192.168.1.2: bytes=32 time=2ms TTL=64 Reply from 192.168.1.2: bytes=32 time=2ms TTL=64 Reply from 192.168.1.2: bytes=32 time=2ms TTL=64	
Ping statistics for 192.168.1.2: Packets: Sent = 4, Received = 4, Lost = 0 (0% 1 Approximate round trip times in milli-seconds: Minimum = 2ms, Maximum = 5ms, Average = 2ms	oss),
C:\>	× ×



Figure 25-2

26

Important Recommendation (Optional)

Proceed to change the passwords of the users **admin** and **super** of your equipment. To change **admin** password, select **Basic/Administration** and type the new password on the corresponding field, then select **Update**, as shown in **Figure 26**.

SLANPRO	Basic ->Administratio	n Update	Rebo
Basic Site Survey Administration	Device Name: User Name:	admin	
HTTP Server JP Configuration Operation Mode Remote AP List	Password:	•••••	
Statistics SNTP Setting			



Proceed to change the password of user **super**. Remember you have to be authenticated as user super to make this change. Select **Super User/ Super User** option and type the new password, select **Update**, as shown in **Figure 29**.

super.	Pavorites (# http://192.168.1.3,		and the second
d as user	SLANPRO	Super User ->Super User Update	Reboot
er User/			
bassword,	Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP setting	User Name: Super Password:	
Figure 29	Advanced Radio Setting Security Setting MAC Addr Control Protocol Tiller SMMP Comfguration Miscellaneous Oos Setting Vian Setting System Log Pair Connection Status Association Status MAC Learning Table Super User Super User Firmware Ugarde		



Appendix 1: Consider that the correct selection of the frequency channel is a vital factor for your wireless network performance. The LP-288ai equipment operates in ISM the 5 GHz frequency band and it has more frequency channels which do NOT overlap between them (because of the spacing in frequency among channels). However, there is the possibility that where you are installing your wireless network, other transmission sources in the 5 GHz band exist. As a consequence, the signal of your wireless network can be interfered by other devices if they operate in the same frequency channel in the 5 GHz band. To avoid this, you can make a network survey through the **Site Survey** option and detect which frequency channels are being used in the site. The idea is to select or configure your LP-288ai in the frequency channel that you see clear or not used. In the unlikely event that all the channels are busy, it is recommended to use the frequency channel whose transmission power is the lowest in the site.

Appendix 2: In **Operation Mode / Advanced Settings**, there are several options for the **Distance** parameter. This one allows the user to select the approximate distance between the AP device and the Slave device (or between AP devices). In case you select the proper distance, the LP-288ai will handle the latency on a long distance path. This allows reducing the error rate and increasing the transmission speed (**Figure 32**).