2.2.6 High Power Amplifiers (HPAs)

The High Power Amplifiers the transmitted signal from a base station at the final stage of the Booster and vice versa.



<iDEN UL HPA>



<iDEN DL HPA>

2.2.6 EMI Noise Filter



2.2.7 Communication & LED Board



* Hardware Installation



1. Setting for Command and Control

* iDEN MINI operates on a customer provided PC based platform with the following system requirements.

Windows® XP	Strong recommended	
128 MB RAM or more		
Pentium III processor or more	keyboard	
RJ-45 jack		

Step 1 Open My Network Places.



Step 2 Click the "View network connections".

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Address S My Network Places	💌 🋃 Go
Network Tasks Image: Comparison of the	

Step 3 Push the right button of mouse and select the properties.



Step 4 Click the properties of TCP/IP.

. Local Area Connection Properties 🛛 🛛 💽	
General Authentication Advanced	
Connect using:	
Intel(R) PR0/100 VE Network Conne	
This connection uses the following items:	
 ✓ Image: Client for Microsoft Networks ✓ Image: File and Printer Sharing for Microsoft Networks ✓ Image: QoS Packet Scheduler ✓ Tinternet Protocol (TCP/IP) 	
Install Uninstall Properties	D
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	
OK Cancel	

Step 5 Set the values and OK as the following. Close all windows.

rnet Protocol (TCP/IP) P	roperties			
neral				
ou can get IP settings assigned s capability. Otherwise, you new e appropriate IP settings. O Obtain an IP address autom	automatically if your network supports ed to ask your network administrator for natically			
Use the following IP address	s:			
IP address:	192.168.0.1			
Subnet mask:	255 . 255 . 255 . 0			
Default gateway:				
 Obtain DNS server address Use the following DNS serv Preferred DNS server: Alternate DNS server: 	automatically er addresses:			
	Advanced.			

Step 6 Open a new explorer window.



Step 7 Type <u>http://192.168.0.1:83</u> in the address box and press "Enter" key.

R-tron - LOGIN - Microsoft Internet Explorer	
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Address 🗃 http://192.168.0.2:83/	So Links »
Rtion	<u>a</u>
Login	
1D:	
Password:	
Login Reset	
Bone	Internet

Step 8 Login with "administrator" of ID and "1234" of password and "OK".

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2 Done	🥥 Internet

2. Command and Control on the Web GUI.

A. iDEN 800.

a. To control the iDEN 800, check the box of iDEN 800.



b. The operating bandwidth, 18MHz-bandwidth and 7MHz-bandwidth, is possibly selected. Select the operating bandwidth and push the "APPLY" and check the bandwidth.



c. The operating frequency is able to be selected. Select the operating frequency and push the "APPLY" and check the bandwidth and frequency.



B. iDEN 900.

a. To control the iDEN 900, check the box of iDEN 900.

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Address Address Address Address Address	3/iden900.htm				Image: Second	Go Links »
			N			^
Rhon	Network Information		System Information			
Date: 01-01-1970	IP Address:	192.168.0.2	Model Number:			
Time: 00:20:48	Cascade Code:	RTRONTEST00002	MAX Output Power/Gain:			
Heartbeat 💍	Latitude:	N12.123456	Firmware Version:		1.0	
	Longhade.	W1231123430	Web Got Version.		*.0	
· · · · · · · · · · · · · · · · · · ·][0- CH- M		
[<u>Security</u>]	Alarms	Parameter Setup		On Site Alarm Range	LOW HIGH	
f clash 1	Reported to Sprint On Site Alarm	1. Return To Factory Defaults	INITIALIZE RESTORE		A	
	RSSI(DL Input Power) 👝 🕒 Power supply unit	2. Bandwidth/Frequency		DL Input Power	-70 v -30 v dBm	
[<u>Network</u>]	DL Output Power 🛛 😑 DL Input Power	9	935~940 💌			
(control)	VSWR 🧧 🖲 Output Power		MH2 934.8~939.8	DL Total Output Power	0 v 30 v dBm	
	Under Current 💿 💿 Temperature	3. DL Gain(40dB ~ 65dB)	934.6~939.6 80 APPLY		🛆	
	Over remperature DC voltage		······································	UL Total Output Power	30 dBm	
IDEN900		4. UL Gain(40dB ~ 65dB)	80 V APPLY	-	17 0 10 0 -	
		E DI Automatia Laural Control(d		remperature	-17 V 10 V	
[<u>Upload</u>]	Parameter Status	S. DE Adtomatic Lever Control(u		DC Voltage	n 🛆 30 🛆 y	
[Reboot]	Bandwidth/Frequency 5/935~940 MHz		ON	De Voltage		
	DL Gain 80 dB	6. UL Automatic Level Control(d	Bm) 12 APPLY	DC Current	0 0 10 A	
	UL Gain 80 dB		V		<u>v</u>	
[Alexand 10 - 4	DL ALC OFF	7 Dt Amelifian	ON	Power Supply Unit	12 V	
[Alarm nistory]	UL ALC OFF	8 UL Amplifier			APPLY	
[<u>Loqout</u>]	DL Amplifer ON	9. Automatic Shutdown				
	UL Amplifier OFF	di A	8m seconds times	Alarms Reported To S	print	
	Automatic Shutdown OFF	33	10 15	Alarm is on in case of		
	DL Input -69 dBm		UN APPLT	RSSI(DL Input Power)	-60 dBm	
	DL Total Output 11 dBm					
	DL 900MHz Output 2 dBm			DL Output Power	< U -3 dBm	
Done					Internel	t

b. On the iDEN 900, 5MHz-bandwith is only available.

Select the operating frequency and push the "APPLY" and check the bandwidth and frequency.



C. DL and UL gain setting.

a. Set the DL gain and UL gain, 50dB to 80dB, and push the "APPLY" button.



* Set the gain of iDEN 900 as same as the iDEN 800 gain setting.

D. HPA on and off.

a. Press the "ON" and "OFF" and check the status.



The maximum output power for operating is +25dBm on both DL and UL.

* Reference

The Operating Bandwidth & Frequencies

iDEN 800 & 900



	Bandwidth	Operating Frequency	
	18MHz-bandwidth		851~869MHz
		Downlink	851~868.8MHz
			851~868.6MHz
			806~824MHz
		Uplink	806~823.8MHz
iDEN 800			806~823.6MHz
	7MHz-bandwidth	Downlink	862~869MHz
			862~868.8MHz
			862~868.6MHz
		Uplink	817~824MHz
			817~823.8MHz
			817~823.6MHz
	5MHz-bandwidth		935~940MHz
iDEN 900		Downlink	935~939.8MHz
			935~939.6MHz
		Uplink	896~901MHz
			896~900.8MHz
			896~900.6MHz

Operating bandwidth and Frequencies of iDEN