

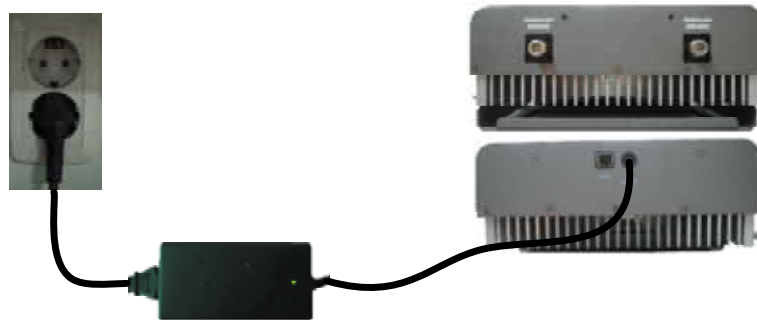
# **RSN-CDMA-23**

## **Tune-Up Procedure**

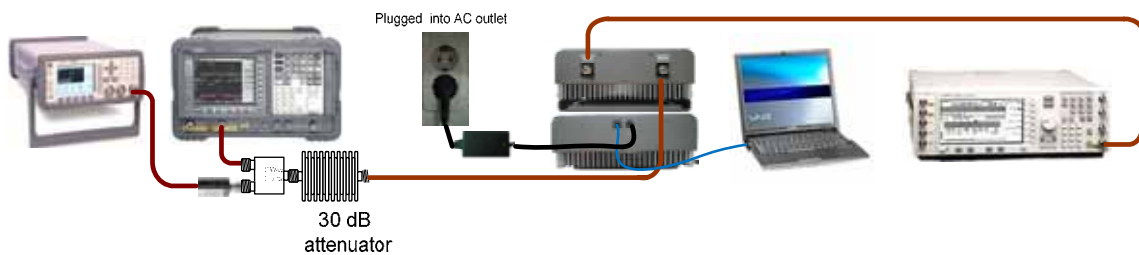
**R-tron Inc.**

## 1. Power ON

- Connect the AC-DC Adaptor power cord.
- Plug the power cord into a wall outlet.
- Check if the green LED at the bottom turns on.



## 2. Tx Test Configurations



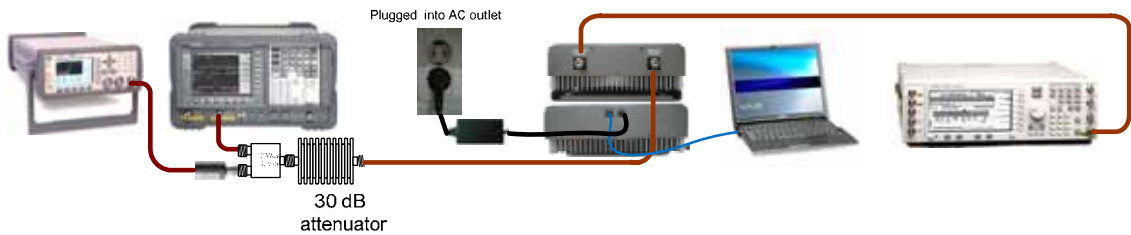
### ◆ Tx Gain Specification

Parameter	Down Link
Gain	80dB

Input Level	Output Level
-57dBm	23dBm
-67dBm	13dBm

3. Rx Test Configurations



◆ Rx Gain Specification

Parameter	Up Link
Gain	80dB

Input Level	Output Level
-57dBm	23dBm
-67dBm	13dBm

#### 4. Setting for Command and Control through the Web GUI

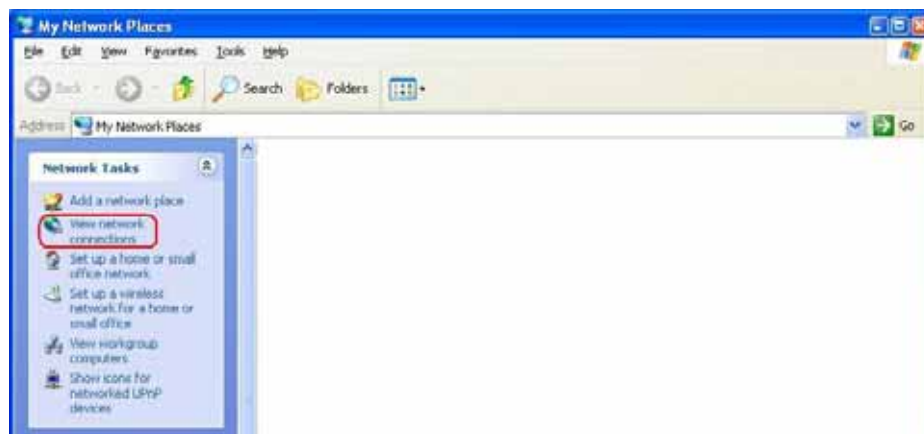
\* CDMA MINI operates on a customer provided PC based platform with the following system requirements.

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

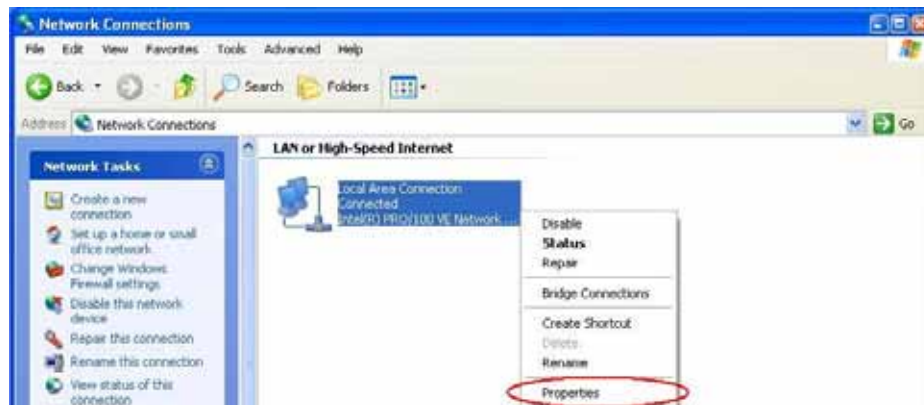
Step 1 Open My Network Places.



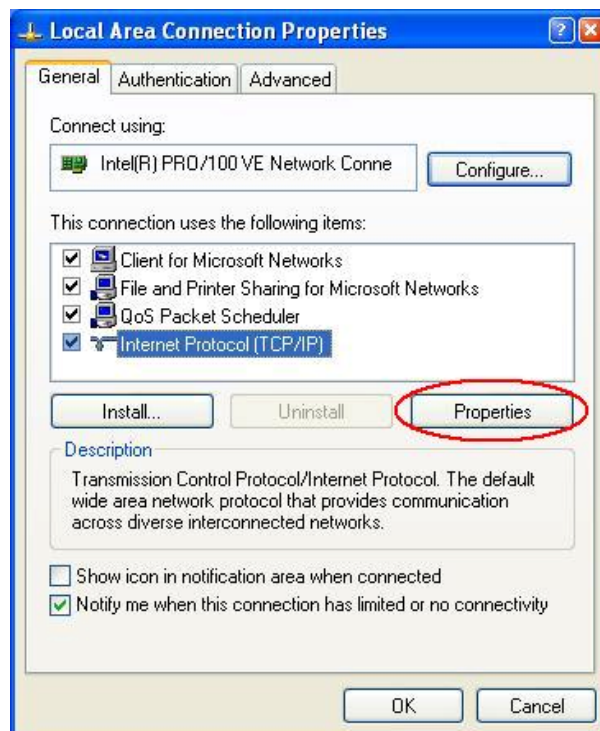
Step 2 Click the “View network connections”.



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



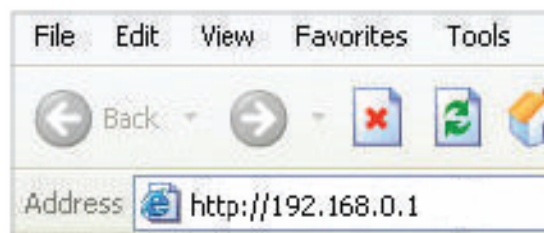
Step 4 Click the properties of TCP/IP.



Step 5 Check Obtain an IP address automatically and click OK. Close all windows.



Step 6 Open your Web browser and type “192.168.0.1” into the URL address box.  
Then press the Enter Key



<b>Network Information</b>  <div> Date: 05/27/2009  Time: 10:25:03  Technical Support: 1-888-21R-TRON  Serial Number: RTR2+CD060300011 </div>		<b>System Information</b> <div> Model Number: RSN-CDMA 23  Maximum Output Power/Gain: 30dBm / 80dB  Software Version: V 0.10  Web OUI Version: V 0.10 </div>	
<b>Amp Control</b> DL Amp: <span>OFF</span> <span>ON</span> <span>OFF</span> UL Amp: <span>OFF</span> <span>ON</span> <span>OFF</span>		<b>Easy Setup &amp; Isolation Test</b> Factory Default: <span>Execute</span> Easy Setup: <span>Execute</span> Available Gain: 80 dB Isolation Test: <span>Execute</span>	
<b>Power Status</b> <div> Downlink: <span>--</span> dBm    Uplink: <span>--</span> dBm  Output Power: <span>--</span> dBm    Input Power: <span>--</span> dBm </div>		<b>Band Setup</b> Bandwidth: 5    5 MHz <span>APPLY</span> Band: B3    B3 Band <span>APPLY</span>	
<b>Power Control</b> ALC [Automatic Level Control] DL ALC Level: 23 dBm <span>23</span> [0 ~ 23] <span>APPLY</span> UL Gain Offset: -3 dB <span>-3</span> [-6 ~ 0] <span>APPLY</span> ALC Status: <span>OFF</span> <span>ON</span> <span>OFF</span>		<b>Alarms and Current Status</b> Alarm Range DL Input Power: <span>OK</span> <span>-70 ~ -26</span> dBm Output Power: <span>OK</span> <span>0 ~ 28</span> dBm Temperature: <span>OK</span> 113.0 <span>&gt; 176</span> F DC Voltage: <span>OK</span> 6.1 <span>10 ~ 14</span> V DC Current: <span>OK</span> 2.3 <span>0 ~ 7</span> A ASD(Soft): <span>OK</span>	
<b>Manual Gain Control</b> DL Gain: 80 dB <span>80</span> [50 ~ 90] <span>APPLY</span> UL Gain: 77 dB <span>77</span> [50 ~ 90] <span>APPLY</span>		<b>Message Board</b> <div style="background-color: black; height: 20px; width: 100%;"></div> Auto Refresh: <span>Refresh</span>	
<b>ASD (Automatic Shut Down)</b> DL ASD Level: 28 dB <span>28</span> ASD Status: <span>OFF</span> <span>ON</span> <span>OFF</span>			

## 5. Command and Control On the Web GUI

### 5.1 DL and UL Bandwidth Selection

- a. The operating bandwidth, 5MHz, 10MHz, 15MHz, 5+5MHz, 10+5MHz, 15+5MHz, bandwidth is possibly selected.

Select the operating bandwidth and push the “APPLY” and check the bandwidth.

Network Information		System Information	
		Model Number: RSN-CDMA-23	
Date: 05/27/2009		Maximum Output Power/Gain: 30dBm / 80dB	
Time: 10:31:52		Software Version: V 0.10	
Technical Support: 1-888-318-TRON		Web GUI Version: V 0.10	
Serial Number: RTR24CD080300011			
<b>Amp Control</b>		<b>Easy Setup &amp; Isolation Test</b>	
DL Amp: OFF [ON] [OFF]		Factory Default: [Execute]	
UL Amp: OFF [ON] [OFF]		Easy Setup: [Execute]	
		Available Gain: 80 dB Isolation Test: [Execute]	
<b>Power Status</b>		<b>Band Setup</b>	
Downlink: -- dBm Uplink: -- dBm		Bandwidth: 5 MHz [APPLY]	
Output Power: -- dBm		Band: 83 [APPLY]	
Input Power: -- dBm			
<b>Power Control</b>		<b>Alarms and Current Status</b>	
ALC [Automatic Level Control]		DL Input Power: -- dBm	
DL ALC Level: 23 dBm [23] [0 ~ 23] [APPLY]		Output Power: -- dBm	
UL Gain Offset: -3 dB [-3] [-6 ~ 0] [APPLY]		Temperature: 114.8 F > 176 F	
ALC Status: OFF [ON] [OFF]		DC Voltage: 6.1 V 10 ~ 14 V	
		DC Current: 2.3 A 0 ~ 7 A	
<b>Manual Gain Control</b>		ASD (Soft): [ON] [OFF]	
DL Gain: 80 dB [80] [50 ~ 80] [APPLY]			
UL Gain: 77 dB [77] [50 ~ 80] [APPLY]			
<b>ASD (Automatic Shut Down)</b>		<b>Message Board</b>	
DL ASD Level: 28 dB [28] [APPLY]			
ASD Status: OFF [ON] [OFF]		Auto Refresh: [Refresh]	



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

<b>Network Information</b>  Date: 05/27/2009 Time: 10:21:53 Technical Support: 1-888-318-TRON Serial Number: RTP24CD000300011		<b>System Information</b> Model Number: RSN-CDMA-23 Maximum Output Power/Gain: 30dBm / 90dB Software Version: V 0.10 Web GUI Version: V 0.10	
<b>Amp Control</b> DL Amp: OFF [ON] [OFF] UL Amp: OFF [ON] [OFF]		<b>Easy Setup &amp; Isolation Test</b> Factory Default: [Execute] Available Gain: 80 dB Easy Setup: [Execute] Isolation Test: [Execute]	
<b>Power Status</b> Downlink: -- dBm    Uplink: -- dBm Output Power: -- dBm    Input Power: -- dBm		<b>Band Setup</b> Bandwidth: 5 [5] MHz [APPLY] Band: 63 [B3] [APPLY]	
<b>Power Control</b> <b>ALC [Automatic Level Control]</b> DL ALC Level: 23 dBm [23] [0 ~ 23] [APPLY] UL Gain Offset: -3 dB [-3] [-6 ~ 0] [APPLY] ALC Status: OFF [ON] [OFF]		<b>Alarms and Current Status</b> DL Input Power: [Green] [Alarm Range: -70 ~ -26 dBm] Output Power: [Green] [Alarm Range: 0 ~ 28 dBm] Temperature: [Green] 114.8 [Alarm Range: > 176 F] DC Voltage: [Green] 6.1 [Alarm Range: 10 ~ 14 V] DC Current: [Green] 2.3 [Alarm Range: 0 ~ 7 A] ASD(Soft): [Green]	
<b>Manual Gain Control</b> DL Gain: 80 dB [80] [50 ~ 90] [APPLY] UL Gain: 77 dB [77] [50 ~ 90] [APPLY]		<b>ASD [Automatic Shut Down]</b> DL ASD Level: 28 dB [28] [APPLY] ASD Status: OFF [ON] [OFF]	
<b>Message Board</b> Auto Refresh [Refresh]			

## 5.2 DL and UL DL and UL gain setting

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

<b>Network Information</b>  Date: 05/27/2009 Time: 10:25:03 Technical Support: 1-888-318-TRON Serial Number: RTP24CD000300011		<b>System Information</b> Model Number: RSN-CDMA-23 Maximum Output Power/Gain: 30dBm / 90dB Software Version: V 0.10 Web GUI Version: V 0.10	
<b>Amp Control</b> DL Amp: OFF [ON] [OFF] UL Amp: OFF [ON] [OFF]		<b>Easy Setup &amp; Isolation Test</b> Factory Default: [Execute] Available Gain: 80 dB Easy Setup: [Execute] Isolation Test: [Execute]	
<b>Power Status</b> Downlink: -- dBm    Uplink: -- dBm Output Power: -- dBm    Input Power: -- dBm		<b>Band Setup</b> Bandwidth: 5 [5] MHz [APPLY] Band: 63 [B3] [APPLY]	
<b>Power Control</b> <b>ALC [Automatic Level Control]</b> DL ALC Level: 23 dBm [23] [0 ~ 23] [APPLY] UL Gain Offset: -3 dB [-3] [-6 ~ 0] [APPLY] ALC Status: OFF [ON] [OFF]		<b>Alarms and Current Status</b> DL Input Power: [Green] [Alarm Range: -70 ~ -26 dBm] Output Power: [Green] [Alarm Range: 0 ~ 28 dBm] Temperature: [Green] 113.0 [Alarm Range: > 176 F] DC Voltage: [Green] 6.1 [Alarm Range: 10 ~ 14 V] DC Current: [Green] 2.3 [Alarm Range: 0 ~ 7 A] ASD(Soft): [Green]	
<b>Manual Gain Control</b> DL Gain: 80 dB [80] [50 ~ 90] [APPLY] UL Gain: 77 dB [77] [50 ~ 90] [APPLY]		<b>ASD [Automatic Shut Down]</b> DL ASD Level: 28 dB [28] [APPLY] ASD Status: OFF [ON] [OFF]	
<b>Message Board</b> Auto Refresh [Refresh]			

## 5.2 HPA On and OFF

a. Press the “ON” and “OFF” and check the status.

Network Information		System Information	
 Date: 05/27/2009 Time: 10:25:03 Technical Support: 1-888-31R-TRON Serial Number: RTR24CD080300011		Model Number: RSN-CDMA-23 Maximum Output Power/Gain: 30dBm / 60dB Software Version: V 0.10 Web GUI Version: V 0.10	
<b>Amp Control</b> DL Amp: OFF <input type="button" value="ON"/> <input type="button" value="OFF"/> UL Amp: OFF <input type="button" value="ON"/> <input type="button" value="OFF"/>		<b>Easy Setup &amp; Isolation Test</b> Factory Default: <input type="button" value="Execute"/> Easy Setup: <input type="button" value="Execute"/> Available Gain: 60 dB Isolation Test: <input type="button" value="Execute"/>	
<b>Power Status</b> Downlink: -- dBm Uplink: -- dBm Output Power: -- dBm Input Power: -- dBm		<b>Band Setup</b> Bandwidth: 5 5 MHz <input type="button" value="APPLY"/> Band: B3 B3 Band <input type="button" value="APPLY"/>	
<b>Power Control</b> ALC [Automatic Level Control] DL ALC Level: 23 dBm [0 ~ 23] <input type="button" value="APPLY"/> UL Gain Offset: -3 dB [-6 ~ 0] <input type="button" value="APPLY"/> ALC Status: OFF <input type="button" value="ON"/> <input type="button" value="OFF"/>		<b>Alarms and Current Status</b> Alarm Range DL Input Power: <input type="button" value="70 ~ 26"/> dBm Output Power: <input type="button" value="0 ~ 28"/> dBm Temperature: 113.0 > 176 F DC Voltage: 6.1 10 ~ 14 V DC Current: 2.3 0 ~ 7 A ASD(Soft): <input type="button" value=""/>	
<b>Manual Gain Control</b> DL Gain: 90 dB [50 ~ 90] <input type="button" value="APPLY"/> UL Gain: 77 dB [50 ~ 80] <input type="button" value="APPLY"/>		<b>Message Board</b> Auto Refresh: <input type="button" value="Refresh"/>	
<b>ASD [Automatic Shut Down]</b> DL ASD Level: 28 dB <input type="button" value="APPLY"/> ASD Status: OFF <input type="button" value="ON"/> <input type="button" value="OFF"/>			

The maximum output power for operating is +23 dBm on both Tx and Rx.