## 2.2.4. MCU (Main Control Unit)

MCU is the control unit of iDEN MINI. It controls and monitors operational parameters. It also generates alarms, an event log and many other functions of the iDEN MINI.



Figure 8. Main Control Unit

FIII Map
----------

Port	Connected to
J1	MCU Vcc(+12V)
J3	USB Port(Manufacturer use only)
J4	PSU Alarms
J5	Door Alarm
J6	Status LEDs
J7	iDEN 800 PLL,B/S,OUT DET
J8	iDEN 900 PLL,B/S,OUT DET
J9	Tx HPA
J10	Rx HPA
J11	RJ-45 port

## 2.2.5. Power Supply

The Power Supply Unit (PSU) supplies a steady DC power to iDEN MINI by drawing power from the general in-wall AC outlets.



Figure 9. Power Supply

#### Specifications

lt	em	Specifications
	Operating Temp	-10°C~50°C/14°F~122°F
Environmental	Humidity	20%~90%RH
	Cooling method	Natural air
Vo	Itage	AC110~125V
Current		6A Max / 6V, 12V, 27VDC
Frequency		50~60Hz typ
Leakage Current		0.5mA max.@110V AC

## 2.2.6. HPAs (High Power Amplifiers)



The High Power Amplifiers (HPAs) amplifies the transmitted signal from a base station at the final stage of the repeater and vice versa.

Figure 10. HPAs(High Power Amplifiers)

# 3. Hardware Installation

The installation procedure is as follows:

- Check List of Items
- Mounting
- Grounding
- RF Connection
- Power up

## 3.1 Check List of Items

Index	Items	Q'ty	
1	IDEN MINI		1
2	Power Cord		1
3	Screws for Mounting		4
4	Template for marking of the pilot holes		1

#### Items



Figure 11. Items

#### 3.2 Mounting



iDEN MINI is easy to mount using the assembled mounting bracket, which has Ø9 holes for the provided 5/16" fixing screws.

Figure 12. Mounting

- Step 1. Remove the cover of double-coated foam tape squares at each corner on the back side of the template.
- Step 2. Stick the provided template to the wall using the tape squares while adjusting the horizon.
- Step 3. Mark with a pen for the holes and drill the marks or drill holes directly on the mark in the template.
- Step 4. Put the screws or bolts into the holes.
- Step 5. Mount the iDEN MINI on the right position.

#### 

Firmly affix the equipment on the wall of a building and Check necessary.

### 3.3 Grounding

#### \Lambda WARNING

Dangerously high voltages may occur and damage the equipment if the equipment is not grounded properly.

A rod on the left side is intended for a building ground. Connect the ground cable to the rod.



Figure 13. Grounding

#### 3.4 **RF Cable Connection**

- a. Connect a cable from a donor antenna to the DONOR ANTENNA Port.
- **b.** Connect a cable from the **SERVICE ANTENNA** Port to a repeater's service antenna.



Figure 14. Configuration: RF Cable Connection

## 3.5 Power Up

- **a.** Connect the power cord.
- **b.** Plug the power cord into a wall outlet.
- c. Check if the green LED at the bottom turns on.



Figure 15. Power Cord Connection

# 4. Command and Control through the Hyper Terminal



## 4.1 Setting for Command and Control through the Hyper Terminal



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

Windows® 2000 or Windows® XP	
128 MB RAM or more	
Pentium III processor or more	keyboard
RJ-45 jack	

Step 1 Open My Network Places.

Distant Lopiner	😏 My Computer
	🕎 My Network Flaces
	Grand Parel
	Set Program Access and Defaults
	() Help and Support
	P Search
All Brograms	El Bun

Step 2 Click the "View network connections".



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



Connect using: Intel(R) PRO/100 VE Network Conne Configu This connection uses the following items: Client for Microsoft Networks Given File and Printer Sharing for Microsoft Networks Given Client Scheduler Given Thermet Protocol (TCP/IP)	ıre
Intel(R) PR0/100 VE Network Conne Configu Configu This connection uses the following items: Configu Client for Microsoft Networks Configu Con	ıre
This connection uses the following items: Client for Microsoft Networks Glient for Microsoft Networks Glient for Microsoft Networks Client Scheduler Glient Frotocol (TCP/IP)	
Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Internet Protocol (TCP/IP)	
Pile and Printer Sharing for Microsoft Networks     OS Packet Scheduler     Finternet Protocol (TCP/IP)	
Gos Facket Scheduler     Finternet Protocol (TCP/IP)	
	_
Install Uninstall C Properti	es
Description	
Transmission Control Protocol/Internet Protocol. The defa	ult
across diverse interconnected networks.	
Show icon in notification area when connected Notifu me when this connection has limited or no connect	tivitu
	arity

# Step 4 Click the properties of TCP/IP.

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

edt	to ask	your	netv	vork	ad	min	istra	tor f
natic	cally							
s: –								
	C	192.	168	).	0	9369 9369	2	
		255 .	255	i.2	55		0	
		192.	168	<b>.</b>	0		1	
: aut /er a	itomati addres	cally ses:		*		-95 200		
			7	». //	<u></u>	· ·	· · · ·	

Step 6 Execute the Hyper Terminal.



Step 7 Name the session and OK.

Contract from Contract of the Contract of	
× • • • • • • • • • • • • • • • • • • •	

Step 8 Select the TCP/IP (Winsock).

Connect To	2	3
Nextel		
Enter details for	the phone number that you want to dial:	
<u>Country/region</u> :	United States (1)	
Ar <u>e</u> a code:	01	
Phone number:		
Connect using:	СОМ1	
	COM1 TCP/IP (Winsock)	
	OK Cancel	

Step 9 Set the values as the following and OK.

Connect To	2 🛛
Nextel	
Enter details for	the host that you want to call:
Host address:	192.168.0.3
Port number:	23
Connect using:	TCP/IP (Winsock)
	OK Cancel

# 4.2 Command and Control through the Hyper Terminal

Step 1. To see the current status, hit "Enter" key only.

😍 Nextel - Hyper Ferminal	
File Edit Wew Call Transfer Help	-
D 📽 🗉 🕉 🗥 🗃 🖬	
iDEN-30       800/900       Repeater         THPA: Off       RHPA: Off         Temp: 41       Volt: 27       Current: 0         TX ALC: Off       TX Level: 30dBm         RX ALC: Off       RX Level: 30dBm         RSD: Off       Level: 35dBm         TM Gain: 80dB       RX Gain: 80dB         Bandwidth:18Mhz       Frequency: 851.0 - 869.0         TX/RX Input:       -70dBm         TX/RX S00Mhz       Output: 4dBm         V Gain: 80dB       RX GAIN: 80dB         Bandwidth:5Mhz       Frequency: 955.0 - 940.0         TX/RX Input:       -70dBm         TX/RX S00Mhz       -70dBm         TX/RX Total Output:       -4         Bandwidth: 5Mhz       Frequency: 935.0 - 940.0         TX/RX Input:       -70dBm         TX/RX Total Output:       -70dBm         TX/RX Total Output:       4dBm         TX/RX 900Mhz       0utput: <td< td=""><td></td></td<>	