

ATTACHMENT M – USER’S MANUAL



15.2. User Manual

User Manual

PCM-830

 Telson I&C



Contents

- Basic features of PCM-830
 - Mobile Phone on/off
 - Access Internet
 - Sending Fax
 - Receiving Fax
 - Receive/ Make a call
 - Receiving/Sending Message
- Menu



Precautions with PCM-830

Cautions in Use

- Because PCM-830 operates only in the state where management program has been already running, be sure to run the management program before using PCM-830. (The management program is included in the CD provided.)
- Calling, Internet and fax service can be used only after the message "Welcome to M.com" is displayed in the PCM-830 management program.
- Be sure to follow the following procedures when using PCM-830:
 - To start: First, insert PCM-830 in the PCMCIA slot and then, use PCM-830 by running the management program.
 - To end: First, end the management program and then, remove PCM-830 from the PCMCIA slot.
 - Removing Weinet from the slot during the operation may cause computer down or damage of PCM-830. Accordingly, be sure to follow the above procedures to prevent such problems.

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Basic Features of PCM-830

Manual Guide

- Minimization key
To minimize the program

- Terminating call lamp

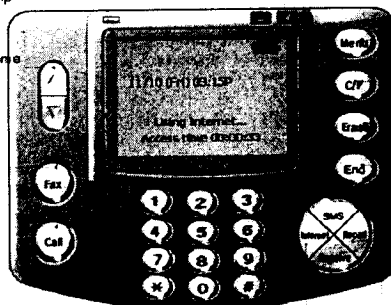
- Speech volume control key
To control speech volume

- Fax key
To use fax service

- Originating call key
To make a call

- Internet key
To connect to Internet

- Receiving call key
To receive a call



- Power key
To end the program

- Menu key
To search menu

- Setting key
To set communication ports and others

- Deleting key
To delete characters or numbers displayed

- End key
To disconnect a call, Internet or fax

- Message key
To receive or send a message

- Recall key
To make a call to the latest number

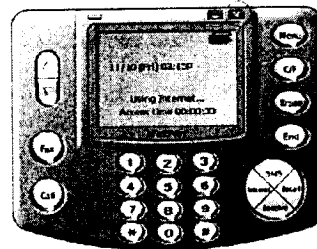
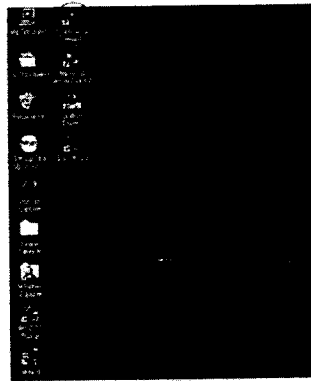
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Basic Features of PCM-830

Manual Guide

- Mobile Phone On
run the PCM-830 management program
- Mobile Phone Off
To end the PCM-830 management program, click "Power Key"



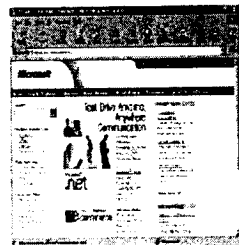
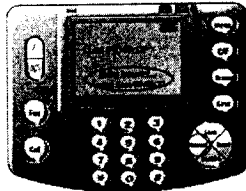
3



Basic Features of PCM-830

Manual Guide

- Connecting to Internet



To display the following window, press the "Internet" key. Press the "Connect" button, and then "Completed Connection Set-up" window is displayed and you are connected to <http://www.telsonic.co.kr>. On the display window of the terminal, "In use as Internet" is displayed.



To disconnect Internet, press the "Disconnect" button after pressing the "Connect End" key. (In case the "Connect" window is not displayed, you can find it on the job indication line.)



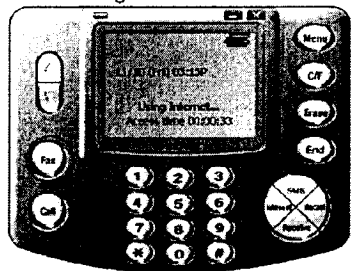
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Basic Features of PCM-830

Manual Guide

• Sending Fax



Press the 'Fax Key' button, and then 'Internet Connection' window is displayed. Press the 'Connect' button and then you are connected to <http://www.telsonic.co.kr> to log in, click the 'Talk box'

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Basic Features of PCM-830

Manual Guide

• Receiving Fax



- To display "Sending Fax Window", Press "Sending Fax"
- Press "Transmit" after input contents
- To end sending fax, disconnect internet

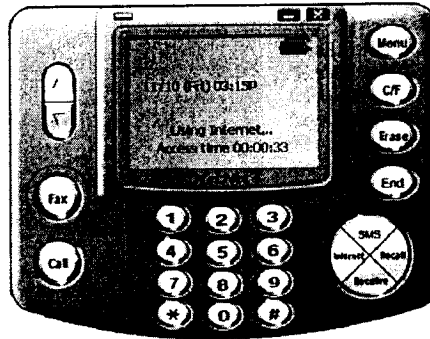
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Basic Features of PCM-830

Manual Guide

• Receiving Fax



- Press "Receiving letter", the list of received fax is displayed.
- To end "Receiving Fax", disconnect Internet.

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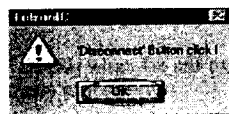


Basic Features of PCM-830

Manual Guide

• Cautions

When you end the PCM-830 program during the use of fax or Internet, the following figure is displayed.



-When you press the "Y" button to end the Weinert program, the "Connect" window below is displayed. Before ending the PCM-830 program, be sure to press the "Disconnect" button to end fax or Internet. Having done so, press the "OK" button to end the PCM-830 program.
(If you end the PCM-830 program only, you are still connected to Internet and service charge will be imposed continuously. Be sure to press the "Disconnect" button when ending PCM-830.)

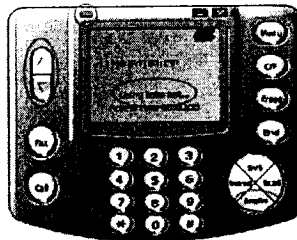
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Basic Features of PCM-830

Manual Guide

• Receiving Call



- If a call arrives, the lamp is turned on.
- Telephone rings and "Called" is displayed.
- Press the "Receiving call" key or press the "Ear-microphone" button connected to PCM-830. (You can also press the character key on keyboard to receive a call.)
- Press the "Ear-microphone" button connected to PCM-830 or press the "End" key when you end a call.
- You can adjust speech volume by clicking the direction key.



Ear-microphone

- An ear-microphone must be used in order to use the voice call feature of PCM-830.
- With the ear-microphone connected to PCM-830, execute "Call" to connect the call.
 - To end a call, press the "Ear-microphone" button.
 - When a call arrives, press the "Ear-microphone" button to receive the call.

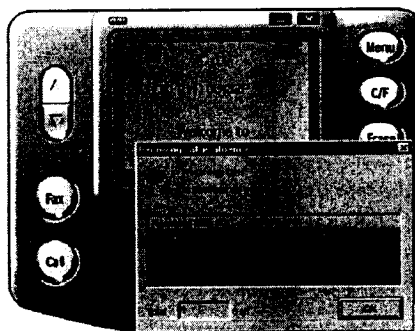
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Basic Features of PCM-830

Manual Guide

• Call In Absence



Display when the call arrived and how many times call arrived in case user is in absence.

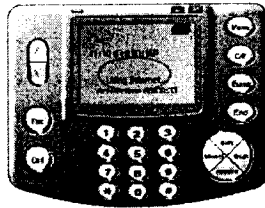
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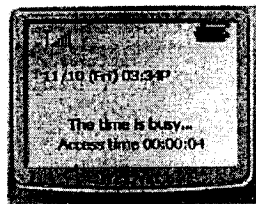
Basic Features of PCM-830

Manual Guide

• Make a call



- After pressing telephone number with "Country Code", and then press "Originating call key"
- When the call is connected, start conversation
- Press "end key" when you finish conversation.



You can make a call using the number key and enter key of keyboard.

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Basic Features of PCM-830

Manual Guide

• Recall



When you press "Recall Key", You can make a call easily without pressing the latest number

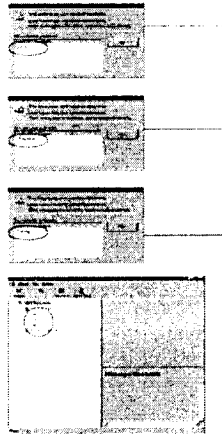
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Basic Features of PCM-830

Manual Guide

• Receiving Message



When the message arrives, the "Receiving Message Display" window is displayed like a beside picture

To display receiving message folder, press "receiving message"

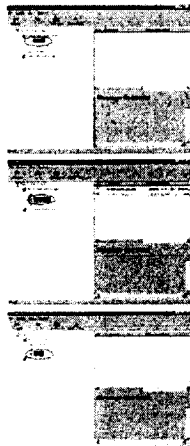
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Basic Features of PCM-830

Manual Guide

• Sending message



Call : The received call message is saved.

Character Message: The received letter message is saved.

Voice Message: The received voice is saved.
(The reply telephone number and the number of voice message in voice mailing box is displayed in the contents of message)

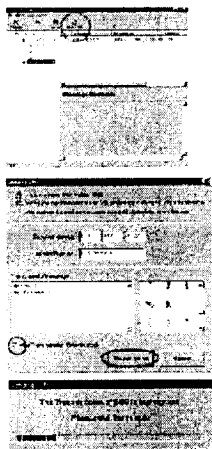
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Basic Features of PCM-830

Manual Guide

- Sending message



-Press the "Message" key , and then "Short Message Service (SMS) Work Manager" is displayed

-Press the "Send character" button, and then the "Send Character message" window is displayed.

Enter the telephone number and message, and then, press the "send" button. To save the messages sent, check "Save after sending".

The 'Sending character message' window is displayed.



Basic Features of PCM-830

Menu

Sending/Receiving Fax

- Speed key Ctrl+F

Connects to fax service. (See "Sending/Receiving Fax")

Connecting to Internet

- Speed key Ctrl+I

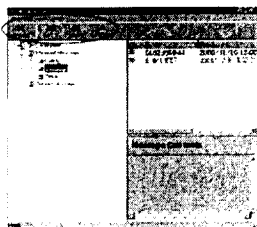
Connects to Internet (See "Connecting to Internet")

Managing SMS

- Speed key Ctrl+S

The "SMS Work Manager" window is displayed.

(See "Sending/Receiving Message")

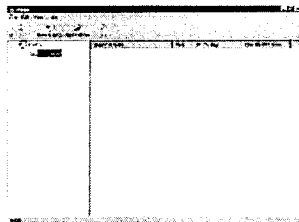


- Delete: Deletes the selected message.
- Call: A call is made to the reply number of the selected message. (But, the voice message is connected to voice mailing box.)
- Disconnect a call: Ends the call.
- Send character: The message is sent out to the reply number of the selected message. (But, in case there is no voice message or reply number, you should enter the number)

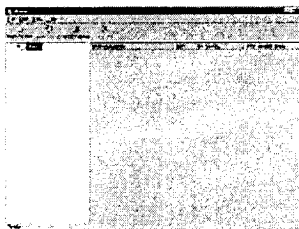


Basic Features of PCM-830

Menu



- Memo
Speed key Ctrl + M
You can write briefly, edit and print in memo



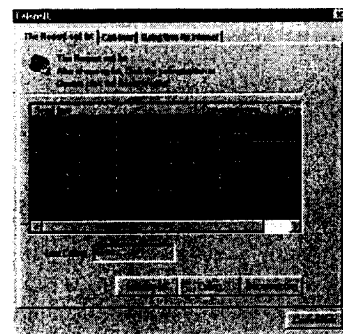
- Yellow Page
Speed key Ctrl + A
You can manage telephone numbers as group, make a call, send character message choosing telephone number and when you click right button of mouse and then press "calling", you can make a call

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Basic Features of PCM-830

Menu



- Statistics
-Speed key F2
-Latest list of calls
Only the originating call is displayed. You can display, select and call to, or delete the telephone numbers saved in the call list.
- Originating time: Displays the time when you make a call.
- Call number : Displays the telephone number you make a call.
- Call duration: Displays call duration.
- Last call: Displays the duration of the last call made in hour, minute and second unit. (Only displays the call duration of the latest call made.)
- List reset: Deletes all the lists.
- Calling: Makes a call by selecting the number in the call lists.

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Basic Features of PCM-830

Menu

• Statistics

The screenshot shows a web interface for the PCM-830. It has a title bar that says "Internet". Below the title bar, there's a header "The fastest call for Call time duration for internet". There are three main sections: "Total Call Time" with a value of "0:00", "Number of Originating Calls" with a value of "0", and "Originating Call Duration" with a value of "0:00". There are also buttons for "Reset" and "Call Duration".

Call Duration

- Total call duration: Displays the total number of calls made and total call duration. (The call duration displayed includes the sending and receiving calls.)
- Number of originating calls: Displays the number of originating calls made.
- Originating call duration: Displays the call duration of originating calls.
- Reset: Deletes call duration information.

* Call duration displayed in this feature does not match with call charge.



Basic Features of PCM-830

Menu

• Statistics

The screenshot shows a web interface for the PCM-830. It has a title bar that says "Internet". Below the title bar, there's a header "The fastest call for Call time duration for internet". There are three main sections: "Internet using duration" with a value of "0:00", "Total Internet using duration" with a value of "0:00", and "Recent Internet accessing duration" with a value of "0:00". There are also buttons for "Reset" and "Call Duration".

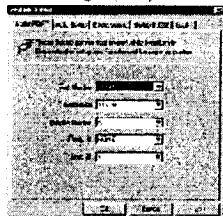
- Internet using duration
- Internet using duration displayed in this feature does not match with call charge.
- Total Internet using duration : Displays total using duration to access Internet.
- The recent Internet accessing duration: Displays the latest Internet accessing duration
- Reset : Deletes Internet using duration information.



Basic Features of PCM-830

Menu

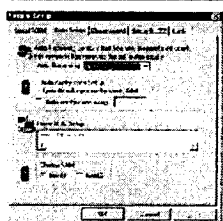
• Setting-up System Environment



- Communication Ports

Port number, number of transmission rate data bits, parity bit and stop bit can be set up.

• Setup is performed as in the case of port in which PCM-830 is installed. (To confirm the port in which PCM-830 is installed, select "Control Panel"->"Modem"->"PCM-830", and then the registered information.



- Automatic Receiving Set-up

This feature is used for automatic call connection after phone rings the designated number of times.

- Automatic Long Distance Number

This feature is used to set up the automatic dial function of Direct Distance Dialing (DDD).

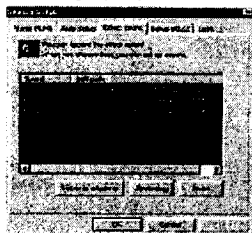
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Basic Features of PCM-830

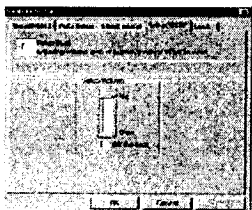
Menu

• Setting-up System Environment



Effect Sound

- Designate a effect sound



Setting-up buzzer sound

- Control buzzer volume in PCMCIA CARD

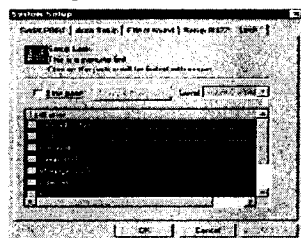
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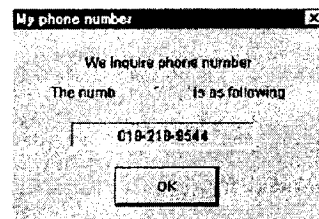
Basic Features of PCM-830

Menu

- Setting-up System Environment



Lock



Check own telephone number

If you need further more information, contact the following homepage
www.Telsonic.co.kr

1. THE PRODUCT

1.1 FEATURES

A rotatable helical antenna system, consisting of a helical element is located in the fitting at 90° , for use in a PCMCIA portable cellular telephone and modem unit.

1.2 PRODUCT NUMBER

E.M.W.Antenna Part Number BAA-00-PM830

1.3 UNITS AND DEFINITIONS

Unless otherwise stated, SI units are used.

Tx	Transmit Band
Rx	Receive Band
PCB	Printed Circuit Board
VSWR	Voltage Standing Wave Ratio
Room Temperature	+20 $\pm$ 3°C
dBd	dB relative to a dipole
CW	Continuos Wave
g	acceleration of gravity $\cong$ 9.81 m/s ²
RH	Relative Humidity

2. ELECTRICAL DATA

2.1 FREQUENCY BANDS

2.1.1 Transmit Band (Tx)

824-849 MHz

2.1.2 Receive Band (Rx)

869-894 MHz

2.2 IMPEDANCE

2.2.1 Nominal Value

50Ω

2.2.2 Method

E.M.W.Antenna will supply engineering assistance to get the best possible matching of the antenna system both in custody position and operational position modes.

The impedance over the frequency bands shall be as close as possible to 50Ω after matching. Both free space and talk position are considered.

2.2.3 Matching

The matching the handset shall be equivalent to figure 2.2.3

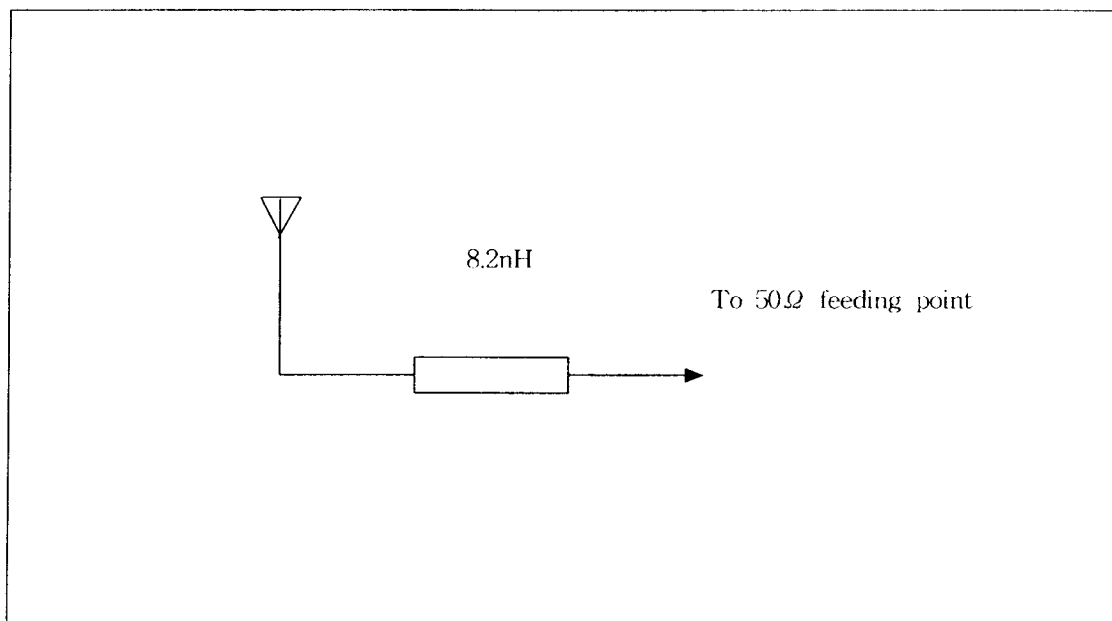


Figure 2.2.3. Matching circuit

2.3 VSWR

The impedance matching should be optimized in the more critical talk position, with restrictions below.

2.3.1 Free space

Typical Maximum Values

Mode	Tx	Rx
Custody Position	2 : 1	2 : 1
Operational Position	2 : 1	2 : 1

2.3.2 Measuring Method

A 50 Ω coaxial cable is connected (soldered) to the 50 Ω point, at the duplex-filter connection(ANT.), on the PCB. The connection of the coaxial cable shall be done to introduce a minimum of mismatch. As much as possible the coaxial cable arrangement shall prevent influences from induced currents on the cable. In the other end, the coaxial cable is connected to a network analyzer. The measurements are performed at room temperature. The PCMCIA unit, including the PCB, must not in any significant way differ from the mass produced PCMCIA unit, i.e. the antenna feeding network has to be equivalent to the network in mass production. The specification shall be met in the entire frequency band. Free space means that the PCMCIA unit is placed on a non-conductive surface of PCMCIA unit plastic.

2.4 GAIN

2.4.1 Typical Minimum Values in Maximum Direction

Mode	Tx	Rx
Custody Position	-1 dBd	-1 dBd
Operational Position	0 dBd	0 dBd

2.4.2 Measuring Method

The connection is done according 2.4.2. Radiation patterns are measured at 6 different frequencies : $T_{x_{min}}$, $T_{x_{mid}}$, $T_{x_{max}}$: $R_{x_{min}}$, $R_{x_{mid}}$, and $R_{x_{max}}$. The antenna is measured in 2 orthogonal E-planes(XZ Plane, YZ Plane), according to figure 2.4.2 (b), in free space. The antenna is also measured in the H-plane as well as in talk position.

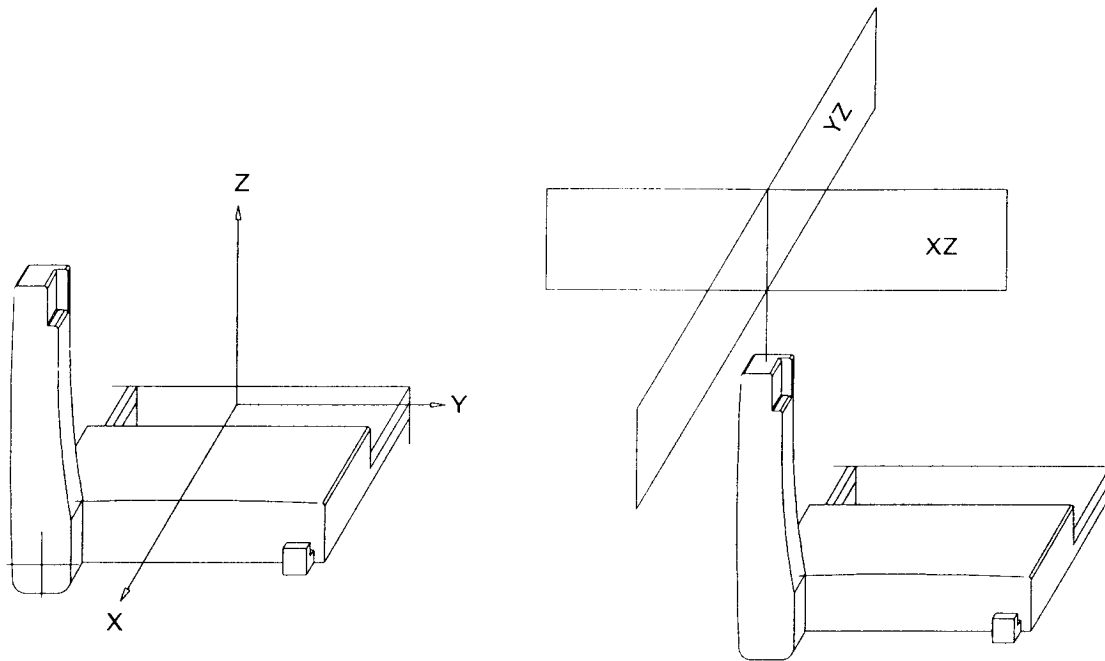


Figure 2.4.2. Measuring Gain. (a) Axis of PCMCIA unit. (b) E-Plane of PCMCIA unit.

2.5 POWER RATING

2.5.1 Maximum Value

$$P = 1 \sim 3W(CW)$$

2.5.2 Demands

No visual deterioration shall occur during the test. The antenna shall satisfy the electrical and mechanical demands, according to 2.3.1 and 2.4.1, after the test.

2.5.3 Measuring Method

The connection is according to 2.3.2. The specified power, P , is applied for 5 minutes at room temperature.

3. MECHANICAL DATA

3.1 APPEARANCE

The appearance shall be according to the BAA-00-PM830 specification drawing on page 12.

3.2 OPERATIONAL FORCE

3.2.1 Force

$$F_b = 0.3 \sim 0.9N$$

3.2.2 Measuring Method

The antenna is assembled to the test equipment according to figure 3.2.2. A force is applied perpendicular to the antenna 45 mm upper the bottom of the fitting. The antenna is rotate until the specified angle 90° .

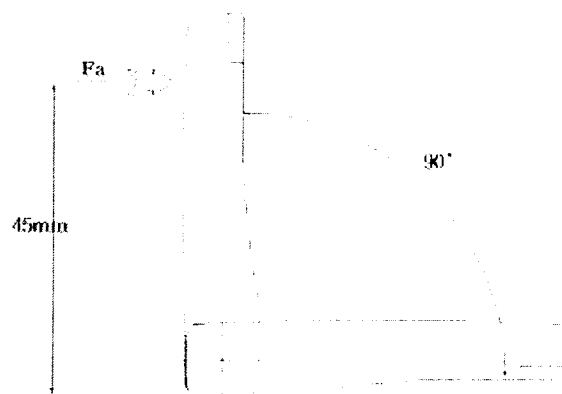


Figure 3.2.2. Test of Operational Force

3.3 DURABLE TEST OF OPERATIONAL FORCE

3.3.1 Operational Cycle

12,000 CYCLE

3.3.2 Demands

Operational force is according to 3.2.1, after the test

No visual deterioration shall occur, after the test. The antenna shall satisfy the electrical and mechanical demands, according to 2.3.1 and 2.4.1, after the test.

3.3.3 Measuring Method

The antenna is assembled to the test equipment according to figure 3.2.3. A force is applied perpendicular to the antenna 45 mm upper the bottom of the fitting. The antenna is rotate until the specified angle 90° , to make a respectful petition. This is 1 cycle. 1 cycle is defined 15 second.

3.4 BENDING TEST

3.4.1 Force

$$F_b = 30N$$

3.4.2 Demands

No visual deterioration shall occur during the test. The antenna shall satisfy the electrical and mechanical demands, according to 2.3.1 and 2.4.1, after the test.

3.4.3 Measuring Method

The antenna is assembled to the test equipment according to figure 3.4.3. A force is applied perpendicular to the antenna 45 mm upper the bottom of the test chassis.

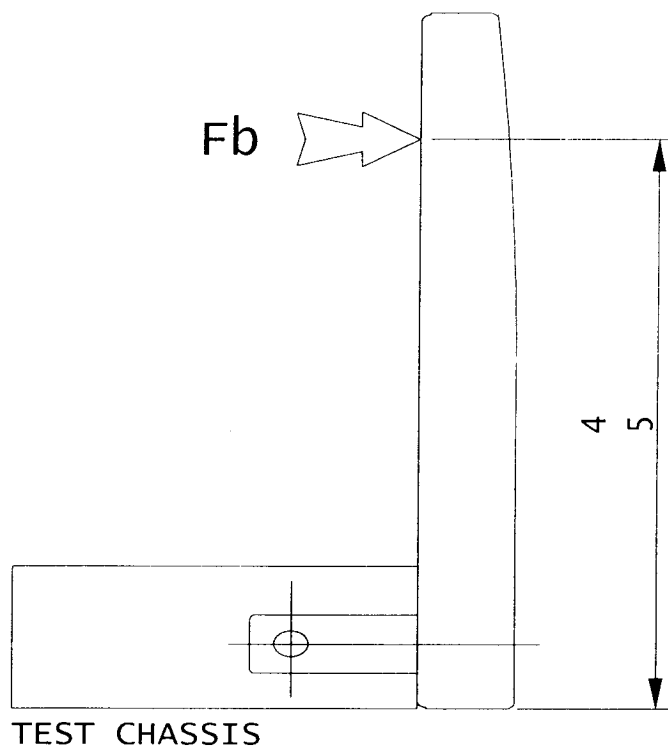


Figure 3.4.3. Bending Test