

InnerWireless, Inc.

Richardson, Texas

InnerWireless Access Point Interface

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1 FRONT CHAPTER

1.1 POLICY for InnerMobile® System Warranty and Support Services

1.1.1 INNERMOBILE® SYSTEM STANDARD WARRANTY

InnerWireless, Inc. warrants, for a period of one (1) year beginning upon the sign off of the InnerWireless Acceptance Test Procedure (ATP) for the identified InnerMobile® System provided herein, to be free from defects in materials and workmanship, and will operate and conform according to the product specifications. Warranty provided does not assure uninterrupted operation of the equipment, nor does it include any repairs necessitated by Customer's, or third party's, improper or unauthorized use or modification of the System. Customer accepts all responsibility for the physical security of the System.

Warranty includes all parts and materials, with exceptions (see below), to meet the engineered specification contained in the contract. Customer will approve the engineered specifications per the InnerWireless acceptance and signoff procedure.

InnerMobile® Equipment included in warranty:

In the event that service is disabled or degraded from it's original design, InnerWireless warrants all original equipment installed as part of the InnerMobile® System. The original equipment as it relates to the specific installation may include the following.

- Coax cable required to deliver the RF signal through out each floor of the building
- Jumper cables and connectors required to assemble the InnerMobile® System
- Access Point Interface (API) utilized as part of the InnerMobile® System
- Any antenna required to radiate the RF signal to the intended areas

InnerWireless, Inc., at its sole discretion, will repair or replace any components of the InnerMobile® System that are found to be faulty. Any replacements will be shipped from InnerWireless Inc. via next day delivery from the time the parts are available. InnerWireless will not maintain, or allow for the storage of spare components at the customer site.

All warranty work shall be performed after notification by Customer that the system, or portion of the system, is inoperative, and Customer has followed the published procedures to troubleshoot and repair the failure without success.

This warranty is expressly in lieu of any other warranties, express or implied, including any implied warranty of merchantability or warranty of fitness for a particular purpose, and of any other obligation or liability on the part of InnerWireless: InnerWireless neither assumes nor authorizes any other person to assume for it any liability in connection with its products. In no event shall InnerWireless be liable for any indirect, incidental, special or consequential damages arising out of the sale, manufacture or use of any of its products. In any event, the total liability of InnerWireless arising from any cause of action or claim whatsoever, whether (1) in contract, (2) in tort (including negligence, whether sole, joint, contributory, concurrent or otherwise), (3) under strict liability, (4) under any environmental or antipollution law or regulation, (5) connected with any toxic or hazardous substance or constituent, (6) arising out of any representation or instruction, or under any warranty, (7) or otherwise, arising out of, connected with, or resulting from the design, manufacture, sale, resale, delivery, repair, replacement or use of products or the furnishing of any service shall in no event exceed the price allocable to and paid to

InnerWireless for the individual unit of products or service or part thereof which gives rise to the cause of action or claim.

1.2 TO RETURN EQUIPMENT FOR REPAIR:

- Be able to communicate to InnerWireless the nature of the problem with the equipment
- Provide to InnerWireless your specific company name, ship to address, contact name and phone number.
- Call the customer service center to set up appropriate return address, per the component being returned for repair.
- InnerWireless return address:

InnerWireless, Inc. Repair Services
1155 Kas Drive, Suite 200
Richardson, TX, 75081
1-866-472-9898

1.3 CONVENTIONS

In this manual the following special formats are used:

! Warning

WARNINGS CONTAIN INFORMATION REGARDING DANGEROUS FUNCTIONS.

1.4 RF EXPOSURE COMPLIANCE

! Warning

TO COMPLY WITH FCC RF EXPOSURE COMPLIANCE REQUIREMENTS, ANTENNAS USED FOR THIS PRODUCT MUST BE FIXED MOUNTED ON INDOOR PERMANENT STRUCTURES, PROVIDING A SEPARATION DISTANCE OF AT LEAST 20 CM FROM ALL PERSONS DURING NORMAL OPERATION.

1.5 PRECAUTIONS

PERSONAL AND EQUIPMENT SAFETY

- Changes or modifications to this device not expressly approved by the manufacturer could void the user's authority to operate the equipment.
- Refer to the User's Manual supplied by Cisco Systems, Inc. for information on the Access Point usage and installation.
- Disconnect both power sources before servicing any equipment.

! Warning

THE USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

2 PURPOSE AND SCOPE

This manual provides InnerWireless' certified installers with guidelines for successful deployment of the InnerWireless Access Point Interface.

3 802.11 ACCESS POINT CONNECTION TO WDS SYSTEM

802.11 access points (AP) will be interconnected to the InnerWireless WDS system via a custom Access Point Interface.

The installation requires no special tools or installation techniques. The most important item to remember is interconnecting the access point via the correct port of the Access Point Interface (labeled 2.4GHz port). Figure 1 depicts an interconnection diagram. Also note that a Reverse Polarity TNC to N-Male jumper cable is used to interconnect the access point to the Access Point Interface.

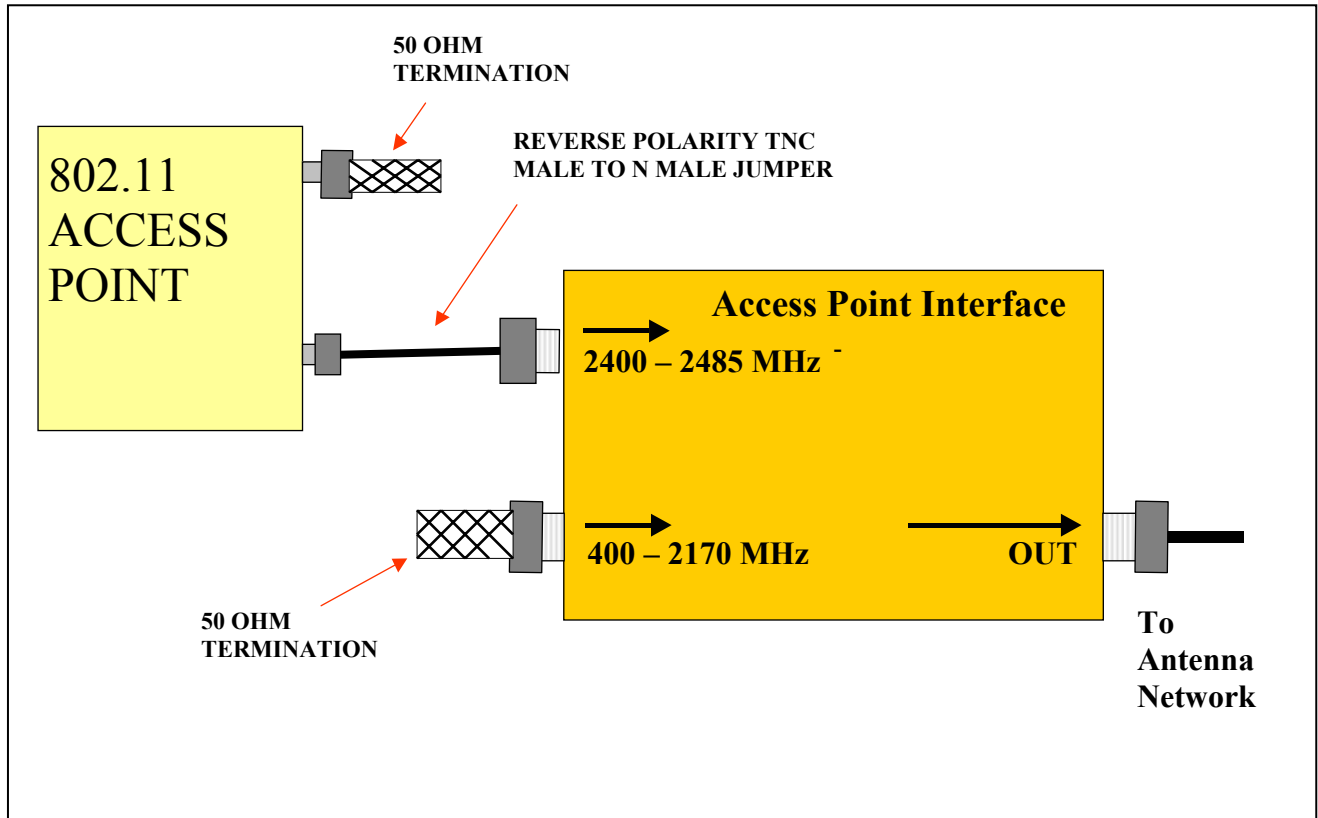


Figure 1 - 802.11 Access Point to Interconnection to WDS

The InnerMobile® System supports 4 types of antenna elements;

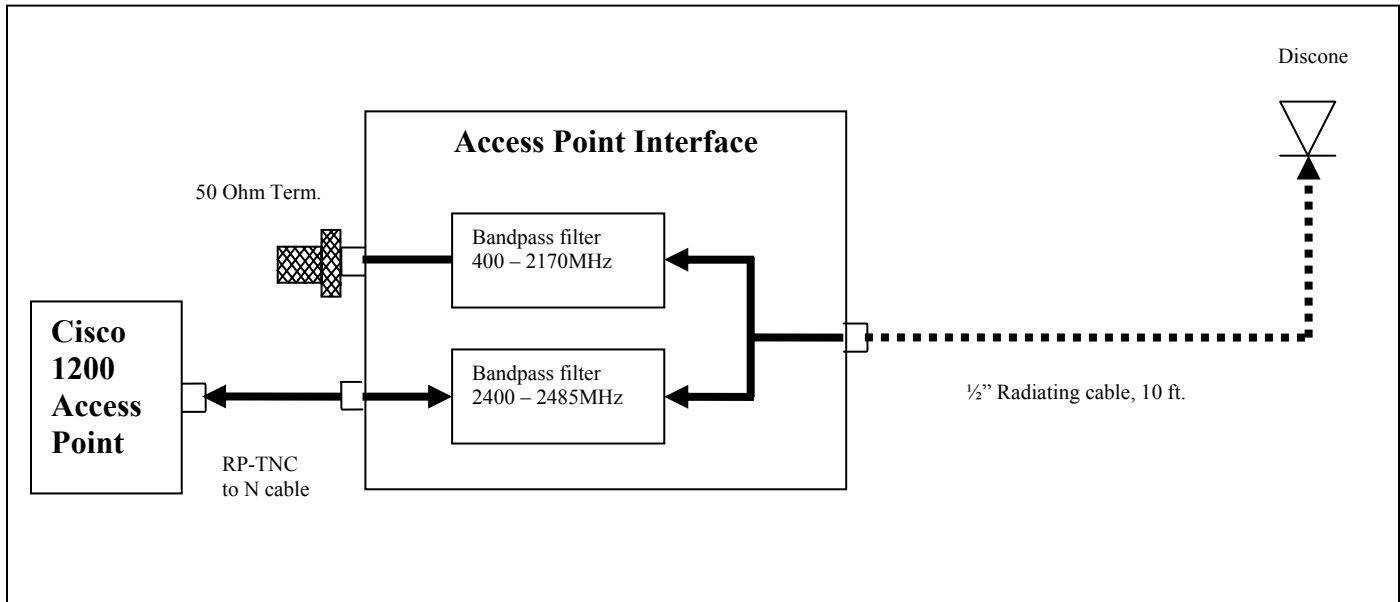
- Log Periodic Antenna
- Thin (PCB) Log Periodic Antenna
- Discone Antenna
- ½" Radiating cable

Antenna Type	Gain (dBi)
LPA	7.1
PCB LPA	7.1
Discone	5.8
½" Radiating cable	<0.0

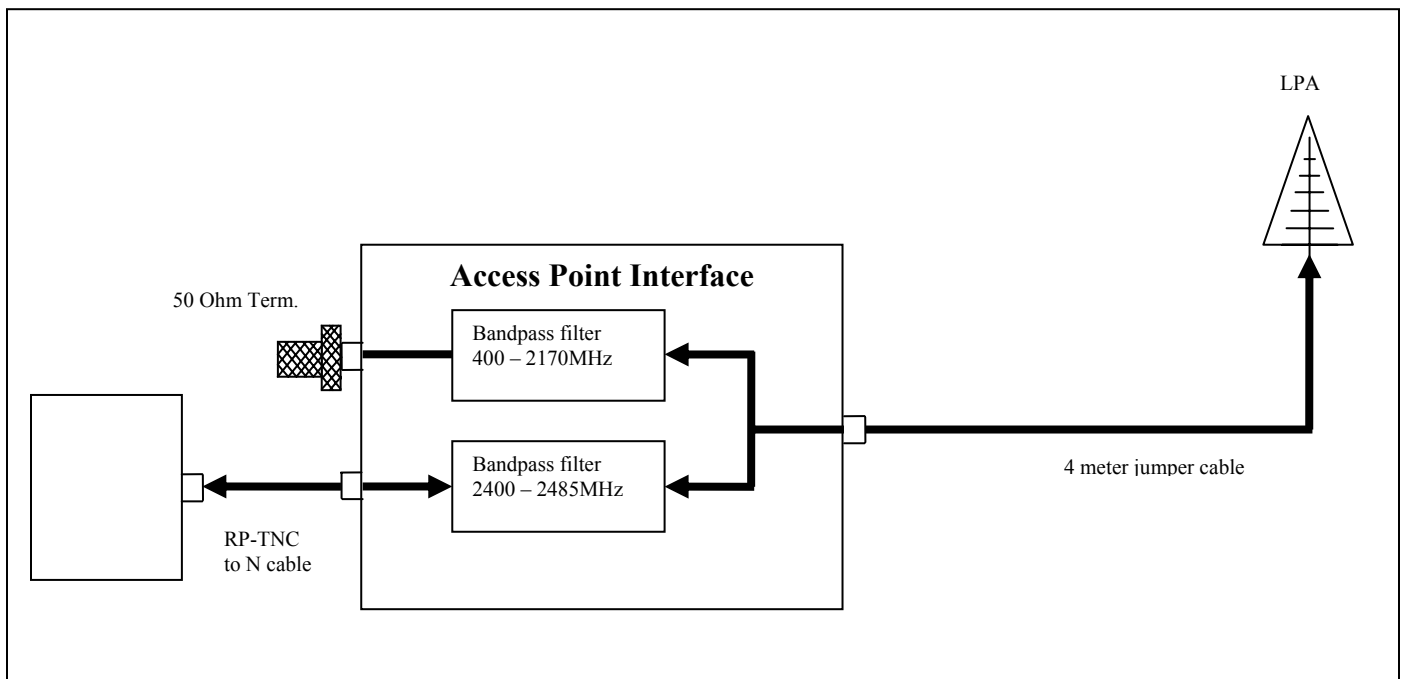
The 3 basic network configurations are;

! Warning

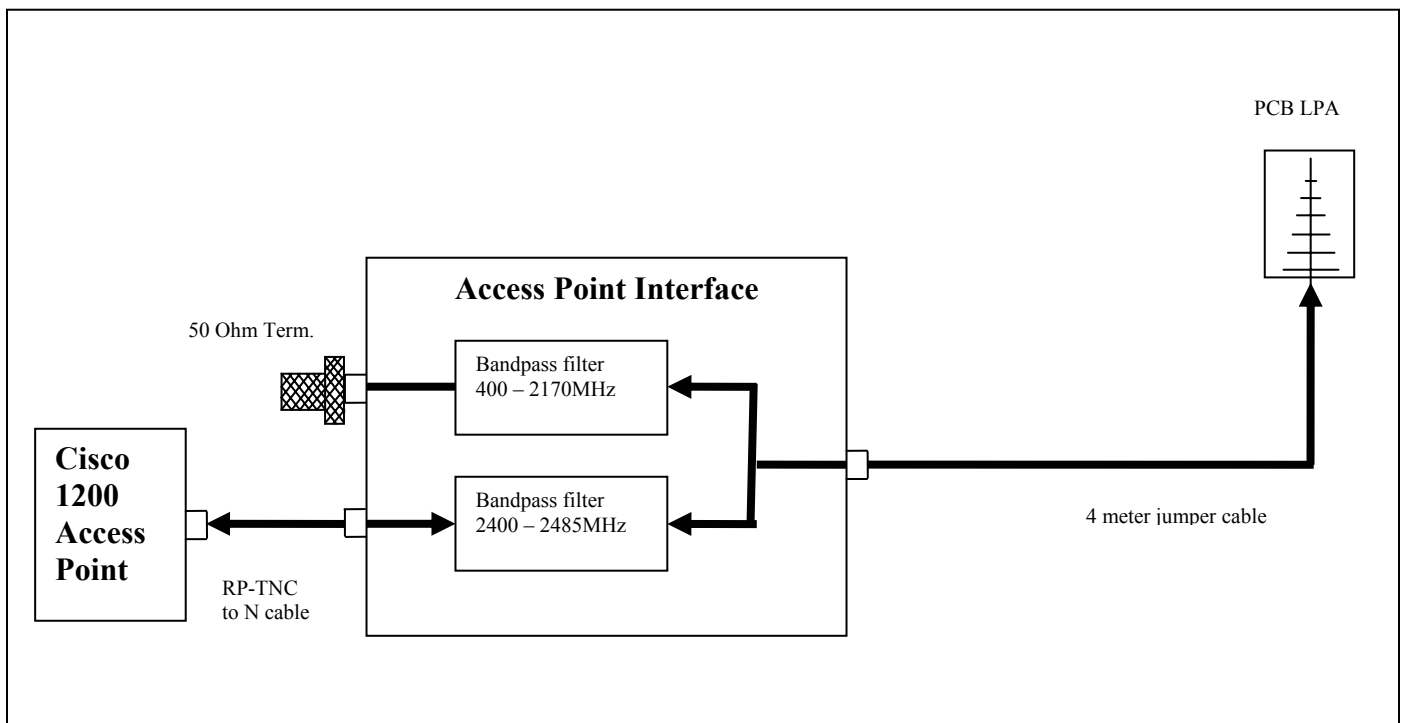
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Basic configuration with 1/2" Radiating cable and Discone antenna



Basic configuration with a 4 meter jumper cable and LPA antenna



Basic configuration with 4 meter jumper cable and PCB LPA antenna