

EXHIBIT 1

**Overview of Experimentation and
Description of Products to Be Tested.**

(By Joseph W. Knapp, Lucent Technologies, Nov.5, 1997)

1.0 INTRODUCTION

Lucent Technologies is in the process of developing a Point-to-Multipoint (PTMP), **Fixed Wireless** Local Loop Access product which will operate in the 10 to 40 GHz US and International microwave bands. Initial products will be designed for the DEMS(24 GHz), LMDS(28/31 GHz), and possibly the 37/39 GHz bands in the US. The latter 37/39 GHz band is currently authorized for point to point applications only but potential use for PTMP is being encouraged by the FCC. These PTMP products will provide alternates to wired local access for potential Competitive Access Providers. These PTMP systems will utilize many of Lucent's existing digital transmission products to process and distribute multiplexed digitized voice and data signals both at end-user (EU) sites (customer premises) and at the Network Interface. New PTMP radio equipment by Lucent and/or other OEM radio suppliers will provide for the transmission function between the EU and Network interface points. For it's initial PTMP product offering, Lucent plans to select and utilize the radio product(s) from one or more of the OEM suppliers currently developing such PTMP radio products.

The above selection process will require considerable experimentation and evaluation on over-the-air test bed systems at one or more Lucent facilities and subsequently at other trial sites located throughout the US. In the test bed evaluations, the multiple supplier PTMP radio products will be integrated into a network with the Lucent EU and Network interface products necessary to accurately simulate the local access environment. Such tests are necessary to determine if and how the cost and grade-of-service objectives required to meet Competitive Access Provider requirements can be met. If these evaluations have a positive result, Lucent will move ahead with this development project and will develop it's own, more integrated PTMP radio elements in order to reduce overall system cost. In that case, Lucent will continue to use the Lucent based test bed sites to support that development process. Once firm prototype systems are available, tests will be done at other selected sites in the US to further evaluate performance and applicability. It is for these purposes that Lucent is requesting this experimental license.

While it would be expedient to get an experimental license covering all the potential frequency bands for these PTMP products at the outset, Lucent is not yet prepared to file for such a license since many of the bands being considered for such PTMP application, especially in the international arena, are still in the study stage by various spectrum control and standards bodies. As a result, this application is currently limited to the US DEMS, LMDS, and 37/39 GHz bands mentioned above. Additional frequencies will be applied for as they and their associated application rules become more certain. Hopefully

an expeditious means can be found for updating this license to accommodate these new bands as they become available. This is necessary, since these new bands are likely to be authorized at an ever increasing rate in the near future, especially in the international arena. Relative to scheduling of this experimental activity, Lucent would like to start testing in the LMDS and 37/39 GHz bands early in the first quarter of 1998.

The primary function of this Exhibit is to provide the technical information required by Item 10 in the Form 442 application (that is: a description of the product to be tested, the test procedures and Lucent's view of how the experiments to be conducted will contribute to the "Radio Art"). However, since the 442 application is not formatted to deal with PTMP systems ,especially in Items 4, 5 and 6, the responses for those items are also presented in the information which follows. The information relating to those specific items are highlighted in the descriptive information which follows in Sections 2 and 3.

Before presenting the descriptive material required in this exhibit, it important to note that Lucent already has filed for and received a 6 month STA type experimental license for similar testing in the 24 GHz DEMS band (See FCC STA File No. S-3065-XX-97, Call Sign KS2XAL, issued on 10/24/97). While the experimental license being requested here will replace that STA license, it is worth mentioning that the general descriptive information regarding the product, test arrangements, and contribution to radio art, being filed with this new request is essentially the same as that presented for that STA except for the following changes:

Changes Relative to Existing 24 GHz DEMS Band STA License Request

1. increase the frequency coverage to permit testing in the 28/31 GHz LMDS band and 37/39 GHz bands as well as the 24 GHz DEMS band (see Exhibit 2)
2. increase the permitted experimental cell size centered on the Lucent's N.Andover roof top Base Station from a radius of 2000 feet to a radius of 10 miles
3. expand license coverage to permit experimentation in these bands at multiple locations throughout the domestic US with radii of up to 10 miles
4. increase the maximum allowed Base Station and End User Transmitter Power from +27 dBm to +30 dBm
5. increase the gain range of End User directional antenna from (34-42)dB to (32-48) dB
6. change to allow the use of 1-8 sector Base Station antennas instead of 4-8 sectors
7. change the gain range of Base Station sector antennas from (17 -23) dB to (8-24) dB
8. change the maximum MEAN EIRP levels at the Base Station and EU transmitters from +48 and +65 dBm respectively to +54 and +78 dBm respectively.

2.0 DESCRIPTION OF PRODUCT TO BE TESTED

Since the PTMP radio products being considered for this use are currently in the evaluation and development stage, many of the details related to the radio transmitting and receiving elements (digital modulation and multiplexing techniques, bandwidth

utilization, channelization plans , antenna characteristics, protection arrangements, etc.) are not yet fully determined. In addition, the potential suppliers to be evaluated by Lucent may use different techniques to achieve the PTMP digital transmission characteristics necessary to implement such a system (ATM vs Constant Bit Rate Data, for example). However, there is enough similarity between the PTMP radio supplier's offerings, as well as with the potential Lucent product being planned, to permit a generic description that should be sufficient for the purpose of this experimental license application. That description is given in the following subsections.

2.1 End User, Base Station and Cell Configurations

The Fixed Wireless Local Access product being developed by Lucent, will utilize multiple band microwave radio Transmitter/Receiver (T/R) units in a Point-to-Multipoint transmission configuration to provide for two way transmission between multiple, fixed position, EU sites (located at residences or businesses) and a common base station or nodal site (NODE). This NODE and the cluster of multiple EUs communicating with it, form a CELL similar to, but smaller than, the CELLS used in PCS systems because of the higher frequencies used. Each EU T/R in one of these CELLS will utilize a high-gain directional antenna to communicate with it's assigned NODE site on a point-to-point , line-of-sight or near-line-of-sight basis. Radio T/RS at a NODE , on the other hand, will utilize a multiple wide beam sector antenna to communicate on a PTMP basis with the multiple EUs within it's CELL. The number of sectors used at the NODE will be set by the density of EUs in it's CELL. When coverage beyond the range of a single CELL is required, adjacent CELLS deployed in repetitive patterns similar to those used in PCS systems will be used.

2.11 Cell Design and Frequency Reuse:

Normally a single T/R pair with different transmitting and receiving frequencies within the channelization plan allocated for the specific band is assigned to each sector at a NODE. Multiple T/Rs (depending on the number of channels (frequencies) that are necessary to communicate with the EUs assigned to that sector) may also be used , however. When the location of the EUs assigned to a NODE requires the use of a multiple sector antenna , one or more T/Rs, each operating on different T/R frequency pair(s) than those of it's neighboring sector, will be used to avoid interference between the adjacent sectors .

In order to achieve efficient frequency reuse, both within a nodal cell, and from one cell to another, the current plan is to use sector antennas that are designed to have an even number of sectors at full growth (2, 4, 6....M, etc). A frequency/sector plan that uses M/2 T/R frequency pairs distributed sequentially around a NODE's M antenna sectors can then be used to avoid interference between adjacent sectors. This circular frequency/sector plan allows each of the M/2 frequencies to be used twice at a NODE, since the reuse occurs in sectors that are diametrically opposite or back-to-back to each other. The use of the circular rotation pattern of the M/2 frequencies in a CELL's sectors will also permit the same M/2 frequencies to be used in adjacent CELLS. This is achieved by rotating the circular sector/frequency pattern by one sector either clockwise or counter clockwise relative to it's neighbor as each successive cell is added. The use of

this cell to cell rotational scheme provides a reasonable spacing before overreach from the sector in one cell shows up as co-channel interference in another cell's sector using the same frequency. Techniques for using unequal sectors are also being studied, however, since the location/density of EUs in a CELL may often warrant such a configuration.

2.12 NODE to EU and EU to NODE Transmission Frequencies (Contains Sections Applicable to Item 4A on Form 442)

The frequencies used for the EU to NODE and NODE to EU will, in each case, comply with the FCC's rules for the specific DEMS, LMDS or 37/39 GHz band being used. The frequency bands and channel frequencies being requested for experimentation in these bands are discussed and detailed in Exhibit 2.

2.2 Radio Modulation and Multiplexing, Data Rates, Bandwidths and Emission Type (Contains Sections Applicable to Items 4E, 4F and 4G on Form 442)

As mentioned earlier, the detailed characteristics of the radio T/Rs to be used in these experimental tests will vary, depending on the particular supplier's product being evaluated. However, all of the products to be tested, whether OEM or Lucent, will be designed with the following general payload handling characteristics:

2.21 Modulation Type (Item 4F):

One or more digital, multi-state modulation techniques, such as , QPSK, 16QAM, 64QAM will generally be used. The initial products being developed are being designed to allow static selections of the payload bandwidths to be delivered to EUs. However, the PTMP radio products being evaluated will ultimately be designed to utilize techniques to change the modulation level (that is the bits/Hz) on a dynamic, EU request, basis. This Dynamic-Bandwidth-On-Demand feature is necessary to meet the needs of the Competitive Access Providers who are the primary customers seeking these PTMP products.

2.22 Multiplexing Techniques (Item 4F):

One or more multiplexing schemes such as TDM, TDMA, FDM, FDMA, and/or SDMA techniques will be used, to deal with the multiple EU signals which are serviced at a NODE on multiple frequencies. One or more of these techniques may be used to achieve the efficient bandwidth utilization required for a cost effective PTMP system. Choices here will most likely vary by frequency band because of the different bandwidths and channelization plans involved.

2.23 Modulation Signal (Item 4F):

Radio modems will be designed to accommodate digital input signals at baud rates between a lower fractional T1 rate of about 0.5 mbaud up to a rate of about 155 mbaud.

2.24 Emission Type (Item 4E):

The signal content, modulation formats, and multiplexing techniques to be used with these PTMP products will most likely fit an A7 category.

2.25 Necessary Bandwidth (Item 4G):

The necessary bandwidth for each product to be evaluated under this license will vary from band to band as well as within each band since it depends on the specific payload and modulation formats selected. However it can be stated that the Necessary Bandwidth (based on 99 % power) for all of the products in each of the frequency bands will not exceed the channel bandwidths allocated for each band. In general the necessary bandwidth will be a sub-multiple of the channel bandwidths allocated in the rules since the allocated channels will generally be subdivided to achieve the multiple frequencies necessary within each cell to achieve efficient use.

2.3 Radio Transmitter and Antenna Parameters (Contains Sections Applicable to Items 4B,4C, 4D, 6A, and 6B on Form 442)

2.31 Transmitter Power Levels (Item 4B):

For the products to be evaluated in our experiments, the radio transmitter power levels will range between +20 and +30 dBm for both the NODE and EU transmitters. Transmitter power control is also generally used on these products to help compensate for propagation variations.

2.32 EU Antenna Characteristics (Item 6A, 6B):

The EU antennas to be used during these tests will vary both in design and size but, unlike the NODE antennas, they will be highly directional with antenna gains ranging between 32 and 48 dB over the frequency ranges involved. The corresponding 3-dB beamwidths will range between a 1 to 3 degrees. In this case, the high gain/low beamwidth values are applicable to the upper frequency range and the low gain/high beamwidth numbers are applicable to the low end frequencies.

The horizontal orientation of these EU antennas will range over a full circle 360 degrees, since they can be located anywhere in a Cell relative to the NODE site. In the vertical plane the beam from the EU antenna will generally be tilted upward to reach the NODE antenna which is normally, but not necessarily, at the highest point in a cell. However, downward tilted EU antennas are also possible since the base station could be located at a lower elevation than that of the EU. As a result, no specific vertical antenna orientation can be stated, but a range of +/- 65 degrees relative to the horizontal will most likely cover most situations

2.33 NODE Antenna Characteristics (Item 6A, 6B):

Like the EU antennas, the NODE antennas to be evaluated, will also vary in design and size. However, they will be of the wide beam omni-directional type and will use one or more sectors, as necessary, to reach all of the EUs within the experimental Cell. The NODE antennas used in these tests will have from 1 to 8 sectors and thus will have horizontal beamwidths ranging from a full circle, 360 degrees to a 45 degree pie sector respectively. In the vertical plane, these antennas will typically have 3-dB beamwidths up to about 25 degrees. In typical situations where the NODE antenna is at a higher elevation than all of the EUs, the center of its beam will be tilted downward so the top of the beam in the vertical plane is below 0 degrees horizontal. Situations requiring upward tilted

NODE antennas may be encountered however, and therefore, like the EU antenna case, no specific vertical plane tilt value can be stated. In these cases, a vertical tilt range of +/- 45 degrees will most likely be adequate for most situations, however. For the 1-8 sector range of antennas to be evaluated, the NODE antenna gains will range between 8 and 24 dB over the range of frequency bands to be evaluated.

2.34 EU and NODE Transmitter EIRP (Item 4C):

Based on the +30 dBm maximum EU and NODE transmitter power levels and the maximum antenna gains noted above (48 dB and 24 dB for EU and NODE antennas respectively) the maximum mean EIRPs are +78 dBm and +54 dBm at the EU and NODE sites respectively.

2.4 General Compliance With Regulations

Our initial review of the PTMP radio products to be evaluated indicates that all are being designed to comply with the existing rules and regulations set forth in Part 101. They will also conform to the other parts of the of the FCC's existing Title 47 Rules which apply to the OEM radio products selected for evaluation in our test beds .

3.0 TEST PLAN

(Contains Sections Applicable to Item 5B and 5D on Form 442)

3.1..Testing At Lucent's N. Andover Manufacturing Facility

Relative to the experimentation and evaluation testing to be done under this Experimental License, Lucent will initially establish multiple Test Bed Systems at it's manufacturing and development location at 1600 Osgood St. in N. Andover, Massachusetts. In these Test Bed Systems, one or more multiple sector NODE sites will be established on the roof of one of it's main buildings and multiple EU sites will be set up around this NODE to establish a working PTMP system. Initially all of the EU sites will be located on Lucent's property within 2000 feet of the nodal site. During these tests, however EU sites beyond the confines of Lucent's property will also be established to permit a proper evaluation of the proposed multipoint products. Some of these off property EU sites may be on other Lucent buildings in the nearby area but in most cases they will be at non-company sites that are arranged for by prior negotiation. During both the on-property and off-property testing, the EU sites may be relocated from time to time to study the impact of propagation anomalies (reflections , scattering, foliage attenuation etc). The orientation of the NODE roof site antennas may also be changed somewhat for this same purpose. For the N. Andover, off-property testing, the maximum distance between the factory located NODE site and remote EU sites will be limited to 10 miles. Lucent's property and the surrounding area provides ample opportunities to simulate many typical propagation situations. This should provide some useful data for determining how efficient such PTMP systems can be at providing coverage in various situations. The potential for interference into possible assigned users in any of these bands will of course be checked via a qualified coordination consultant before any of these on or off property tests are made. The coordinates of the main

building on which the NODE(s) will be located are 42 deg:43 min:54 sec N. Latitude and 71 deg:06 min:55 sec W. Longitude.

3.2 Testing At Other Sites in the Domestic US

In a second phase of testing Lucent plans to use its experimental license to conduct similar evaluation tests at other sites throughout the domestic US. This phase of testing will involve demonstration trials for potential customers at domestic sites convenient to them. In addition, Lucent requests permission under this license to perform evaluation tests at other domestic US sites that it may choose in order to evaluate product function and reliability. This will permit Lucent to make the comprehensive tests necessary to more fully determine the applicability of this new PTMP Fixed Wireless product family from a geographic point of view.

3.3 N. Andover Test Bed Goals

Lucent's primary goal for the experimental testing and evaluations in the N. Andover Test Beds is to permit a selection of one or more PTMP radio products which, when integrated with Lucent's broad range of digital voice and data processing, multiplexing, switching, and operating support systems, will afford Wireless Competitive Access Providers the opportunity to compete with their wired counterparts. Preliminary discussions with each of the potential PTMP radio providers to arrange for appropriate interfaces between their PTMP radio products and the Lucent equipment with which they are to be integrated has already been done. Therefore, these experiments can begin by simply installing the selected radio products in the test beds which exist at Lucent's N. Andover location. This set up has been carefully selected to accurately simulate a typical access system. It includes a realistic simulation of an interface with the Public Switched Telephone Network as well as with a Data Network. Lucent has all of the facilities necessary for such a simulation, including a 5E Electronic Switch, at its N. Andover location. Once installed and turned up for service, each of these systems will be evaluated for operational performance under environmental and stress conditions that are representative of normal operating conditions. This will be done from the viewpoint of evaluating both the hardware and software aspects of the integrated product.

During these N. Andover experimental tests, Lucent will evaluate the performance of the PTMP radio products involved by observing the impact of naturally occurring stress (rain and multipath fading, interference, etc) as well as the impact to simulated stress conditions (co-channel interference, adjacent channel interference, high traffic loading conditions, etc). A careful analysis of the interaction between the dynamics associated with the PTMP radio product and the performance of the rest of the Lucent based integrated system will be ongoing during these stress conditions. Extensive monitoring of all involved equipment will be implemented to help isolate the source of any anomalies that do occur. This monitoring will also permit close evaluation of overall system operation during the naturally occurring radio stress conditions as well.

3.4 Goals For Tests At Other US Locations

Once the local test bed evaluations are completed and any resulting design issues resolved, other sites will be selected throughout the US to perform similar evaluations of this PTMP product in actual working environments. In most cases, these tests will be done at potential customer sites for demonstration purposes and may result in systems being turned up for service under customer licenses. However, it may be necessary for Lucent to select other sites, as well, in order to acquire the data necessary to determine the full range of product applicability. In these multi-site tests, the statistical performance variations encountered due to geographic location and environmental conditions will be closely monitored. This will help to establish the capabilities of this product relative to customers expectations and will provide the necessary application information for successful deployment in the future.

4.0 CONTRIBUTION TO RADIO ART

From Lucent's perspective, the experiments and evaluation to be performed under this license will help to demonstrate if a cost effective solution for providing PTMP Fixed Wireless Access Systems is really a possibility in the near future. They will also help to show what the real costs of achieving the grade of service necessary for such an application are, as well as whether, and for what capacity level, all of the so-called related millimeter wave based systems can be developed. A great deal of "hype" currently exists about the capability of these new millimeter wave bands to provide local loop access products that can be used to compete effectively with those using wired access. This evaluation will help to prove or disprove this potential by showing how some of the technical obstacles, (like excessive propagation loss due to foliage and rain) which ultimately make it difficult to get the degree of reliable coverage desired at these frequencies may be overcome. The information obtained from these tests may also help to show where, if not for this purpose, these new frequency bands might be used effectively.

EXHIBIT 2

Frequency Bands To Be Used During Experimental Testing

(By Joseph W. Knapp , Lucent Technologies, Nov. 5, 1997)

24 GHz DEMS BAND

In accord with the FCC rules for the 24 GHz DEMS band¹, the operating frequency bands for EU to NODE and NODE to EU directions will be assigned to a service provider in a Standard Metropolitan Statistical Area (SMSA) as 40 MHz frequency pairs from the 5 authorized frequency pairs (Ch's 35-39), below:

CHAN NO.	NODE to EU	EU to NODE
	GHz	GHz
35	24.250-24.290	25.050-25.090
36	24.290-24.330	25.090-25.130
37	24.330-24.370	25.130-25.170
38	24.370-24.410	25.170-25.210
39	24.410-24.450	25.210-25.250

One or more of these channels may be assigned to a licensee if on the basis of need. Since each of these authorized frequency pairs may also be subdivided as needed by the assignee, the actual transmitter operating frequencies for the point-to-point EU to NODE and the PTMP NODE to EU directions will generally be a frequency centered on a narrower sub-band within each of the authorized 40 MHz bands. These frequencies and their associated bandwidths will depend on the modulation formats and digital capacity options designed into each PTMP radio product by the supplier.

For Lucent's experiments, the point-to-multipoint Nodal Site will be configured to radiate from an antenna with 1 or more sectors. As a result, multiple frequencies residing in one of the (5) lower band, 40 MHz channels authorized for this direction of transmission will be used for transmitting to the EUs. Similarly for the End User to NODE direction, one or more frequencies residing in the upper-band 40 MHz channel that is assigned to be used on a paired basis with the NODE to EU channels selected will be used. Therefore, to permit comprehensive testing of all equipment/frequency configurations, Lucent is requesting an experimental license that will permit testing on any one of the allocated channel pairs in this 24 GHz band.

¹ See Fcc Order FCC 97-95 Released March 14,1997

28/31 GHz LMDS BAND

In accord with the FCC rules for the LMDS band² the operating frequency bands for EU to NODE and NODE to EU directions will be assigned to a service provider in a Basic Trading Area (BTA) as the whole of BLOCK A or B as shown below:

BLOCK	FREQUENCY GHz	PTMP DIRECTION APPLICATION
I	27.500 -28.350	NODE to EU or EU to NODE
A	29.100 - 29.250	NODE to EU Only
I	31.075 - 31.225	NODE to EU or EU to NODE
I	31.000-31.075	NODE to EU or EU to NODE
B		
I	31.225-31.300	NODE to EU or EU to NODE

Since each of these authorized frequency blocks may be subdivided as needed by the assignee, the actual transmitter operating frequencies for the point-to-point EU to NODE and the PTMP NODE to EU directions will generally be a frequency centered on a narrower sub-band within each of the authorized frequency blocks. These frequencies and their associated bandwidths will depend on the modulation formats and digital capacity options designed into each PTMP radio product by the supplier.

For Lucent's experiments, the point-to-multipoint Nodal Site will be configured to radiate from an antenna with 1 or more sectors. As a result, multiple frequencies residing in the A or the B BLOCK may be used for transmitting in the directions indicated. Similarly for the End User to NODE direction, one or more frequencies residing in the A or B BLOCKS (excluding the 29.1-29.5 A block frequency range which is restricted to the NODE to EU direction) will be used. Therefore, to permit comprehensive testing of all equipment/frequency configurations, Lucent is requesting an experimental license that will permit testing on any frequency authorized in the A or B BLOCKS.

37/39 GHz BAND

² See FCC Order FCC 97-82 Released March 13, 1997

In accord with the FCC rules for the 37/39 GHz band³ the operating frequency bands for the currently allowed point-to-point applications⁴ fall in the following ranges:

1 37 GHz Band: 37.000 - 38.600 GHz

2 39 GHz Band: 38.600 - 40.000 GHz

Based on the new Part 21.701 in the 12/15/95 FCC 95-500 Order, these bands are channelized into 50 MHz wide channel blocks which are grouped for assignment to licensees on a paired or unpaired channel basis. In this frequency plan there are (28) 50 MHz paired channels and (4) 50 MHz unpaired channels assigned as shown in the following tables.

37/39 GHz Paired Channel Block			
Chan No	Freq. Range -GHz	Chan No	Freq. Range -GHz
1 A	38.600 — 38.650	1 B	39.300 — 39.350
2 A	38.650 — 38.700	2 B	39.350 — 39.400
3 A	38.700 — 38.750	3 B	39.400 — 39.450
4 A	38.750 — 38.800	4 B	39.450 — 39.500
5 A	38.800 — 38.850	5 B	39.500 — 39.550
6 A	38.850 — 38.900	6 B	39.550 — 39.600
7 A	38.900 — 38.950	7 B	39.600 — 39.650
8 A	38.950 — 39.000	8 B	39.650 — 39.700
9 A	39.000 — 39.050	9 B	39.700 — 39.750
10 A	39.050 — 39.100	10 B	39.750 — 39.800
11 A	39.100 — 39.150	11 B	39.800 — 39.850
12 A	39.150 — 39.200	12 B	39.850 — 39.900
13 A	39.200 — 39.250	13 B	39.900 — 39.950
14 A	39.250 — 39.300	14 B	39.950 — 40.000
15 A	37.000 — 37.050	15 B	37.700 — 37.750
16 A	37.050 — 37.100	16 B	37.750 — 37.800
17 A	37.100 — 37.150	17 B	37.800 — 37.850
18 A	37.150 — 37.200	18 B	37.850 — 37.900
19 A	37.200 — 37.250	19 B	37.900 — 37.950
20 A	37.250 — 37.300	20 B	37.950 — 38.000
21 A	37.300 — 37.350	21 B	38.000 — 38.050
22 A	37.350 — 37.400	22 B	38.050 — 38.100
23 A	37.400 — 37.450	23 B	38.100 — 38.150
24 A	37.450 — 37.500	24 B	38.150 — 38.200
25 A	37.500 — 37.550	25 B	38.200 — 38.250
26 A	37.550 — 37.600	26 B	38.250 — 38.300
27 A	37.600 — 37.650	27 B	38.300 — 38.350
28 A	37.650 — 37.700	28 B	38.350 — 38.400

³ See FCC Order FCC 95-500 Released December 15, 1995

⁴ While PTMP operation is not currently authorized in the 37/39 band, it is assumed that such operation, if authorized in the future, would operate under the same frequency plan.

37 GHz Unpaired Channel Block		
Chan. No.	Freq. Range - GHz	
29	38.400	38.450
30	38.450	38.500
31	38.500	38.550
32	38.550	38.600

Under the proposed point-to-point rules, up to 4 of the paired channels and/or 2 of the unpaired channels can be assigned to a service provider in a Basic Trading Area (BTA). The rules also permit each of these authorized frequency blocks to be subdivided (or grouped if contiguous) as needed by the assignee. Assuming that these same rules would be carried over for PTMP applications of this band, the actual transmitter operating frequencies for the point-to-point EU to NODE and the PTMP NODE to EU directions will generally be a frequency centered on a narrower sub-band within each of the authorized frequency blocks. These frequencies and their associated bandwidths will depend on the modulation formats and digital capacity options designed into each PTMP radio product by the supplier.

For Lucent's experimentation, the point-to-multipoint Nodal Site will be configured to radiate from an antenna with 1 or more sectors. As a result, multiple frequencies residing in the paired or unpaired blocks may be used to transmit in both the NODE to EU and EU to NODE directions. Therefore, to permit comprehensive testing of all equipment/frequency configurations, Lucent is requesting an experimental license that will permit testing on any one of the allocated paired or unpaired channels in the allotted 37/39 GHz band.