

## STA /EXPERIMENTAL LICNESE INFORMATION

### Type of Service Requested:

New Experimental License (X)2yr or ( ) 5yr –requires special justification

New Special Temporary Authority (STA, 6month)

Modify/Extend existing Experimental License

Call letters or file number: \_\_\_\_\_

**Full Company Name: Fujitsu Network Communications**

**FRN of Company or Contact:**

**Company Federal Tax ID or EIN (U.S. based companies):**

|                                  |  |
|----------------------------------|--|
| <b>Full Contact Name:</b>        | <b>Randy Parker</b>                          |
| <b>Contact Mailing Address:</b>  | 2801 Telecom Parkway<br>Richardson, TX 75082 |
| <b>Contact Telephone Number:</b> | 972-479-4155                                 |
| <b>Contact Fax Number</b>        | 972-479-3008                                 |
| <b>Contact email address</b>     | randy.parker@us.fujitsu.com                  |

## Reason for the Experimental License

### Description of Experiment or Research (detailed) –

Fujitsu Network Communications would like to apply for the experimental license of the 3.4-3.7 GHz spectrum used in campus for the following purposes:

- Product quality and performance testing on Fujitsu Wireless WiMAX products including Base Station and CPE
- Customer Demo purpose
- Technical training purpose

### Specific Objectives to be covered (detailed) –

- To ensure our product quality with adequate testing in a real field environment
- Showcase our product capability to our customers
- Use for external and internal training

**NOTE: The equipment to be used in this experiment will not be available in the United States, it is being developed for sale and for use only outside the USA. The applicant recognizes the frequencies associated with this experiment are not allocated for commercial or non-governmental use in the United States.**

**List of attached documents, if any:** None

### **Transmitter Equipment and Station Details**

|  |                          |
|--|--------------------------|
| <b>Base Station Equipment Mfr and P/N:</b> | Mfr: Fujitsu Models: TBD |
|--|--------------------------|

|  |           |   |      |
|--|-----------|---|------|
| <b>Number of Fixed Units:</b>  |           | 2   |      |
| <b>Location of Fixed Antennas</b><br>North 32 59 15<br>West 96 39 24 |           | 1) 2801 Telecom Parkway, Richardson, TX.<br>75082 |      |
|  |           | 2)  |      |
|  |           | 3)  |      |
| <b><u>NAD 27</u></b><br><b><u>X</u></b>                              | <b>XX</b> | <b><u>NAD 83</u></b>                              | Etc) |
|  |           |   |      |

|  |                          |
|--|--------------------------|
| <b>(X) Mobile or (X) Fixed Subscriber Station Equipment Mfr and P/N:</b> | Mfr: Fujitsu Models: TBD |
|--|--------------------------|

|   |      |
|---|------|
| <b>Number of Mobile Units</b>   | 3    |
| <b>Radius of Mobile or Subscriber Unit location from Fixed station(s)<br/>25 km</b> | 1)   |
|   | 2)   |
|   | 3)   |
|   | Etc) |
|   |      |

## **Base Station TX Parameters**

| <b>Station Number</b>        | <b>LOW (MHz)</b> | <b>HIGH(MHz)</b> | <b>% Tolerance</b> |
|------------------------------|------------------|------------------|--------------------|
| 1)HiperMAX-2 3.6-3.7GHz TDD  | 3600             | 3650             | +/-8ppm            |
| 2) HiperMAX-2 3.4-3.5GHz TDD | 3400             | 3500             | +/-8ppm            |

| <b>Station Antenna Details</b> | <b>Type (e.g, monopole, yagi, etc.)</b> | <b>Gain (dBi)</b> | <b>Beam Width (H)</b>          | <b>Beam Width (V)</b> | <b>HAAT (meters)</b> |
|--------------------------------|---|-------------------|--------------------------------|-----------------------|----------------------|
| 1)HiperMAX-2 3.6-3.7GHz TDD    | Sector Antenna                          | 10 dBi            | 60° (60 deg)<br>120° (120 deg) | 8° (60, 120 deg)      | 18                   |
| 2)HiperMAX-2 3.4-3.5GHz TDD    | Sector Antenna                          | 10 dBi            | 60° (60 deg)<br>120° (120 deg) | 8° (60, 120 deg)      | 18                   |

| <b>Station Number</b>       | <b>Modulation</b>                   | <b>Emission Designator</b> | <b>Bandwidth (MHz)</b>      | <b>Power Out dBm</b> |
|-----------------------------|-------------------------------------|----------------------------|-----------------------------|----------------------|
| 1)HiperMAX-2 3.6-3.7GHz TDD | Adaptive with 16, 64QAM, QPSK, BPSK | 10M0D7W                    | 10.7 Mbps DL<br>9.7 Mbps UL | 35                   |
| 2)HiperMAX-2 3.4-3.5GHz TDD | Adaptive with 16, 64QAM, QPSK, BPSK | 10M0D7W                    | 10.7 Mbps DL<br>9.7 Mbps UL | 35                   |

**Note:** The antennas are located in a large industrial park occupied by Fujitsu Network Communications. The land is fairly flat and is free of tall obstructions that might shield the antennas from view

## Mobile/Fixed CPE Station TX Parameters

| Station Number               | LOW (MHz) | HIGH(MHz) | % Tolerance |
|------------------------------|-----------|-----------|-------------|
| 1) ProST 3.6-3.8GHz TDD      | 3600      | 3800      | +/-8ppm     |
| 2) ProST-WiFi 3.6-3.8GHz TDD | 3600      | 3800      | +/-8ppm     |
| 3) EasyST 3.6-3.8GHz TDD     | 3600      | 3800      | +/-8ppm     |

| Station Antenna Details      | Type (e.g, monopole, yagi, etc.) | Gain (dB)                   | Beam Width (H) | Beam Width (V) | HAAT (meters) |
|------------------------------|----------------------------------|-----------------------------|----------------|----------------|---------------|
| 1) ProST 3.6-3.8GHz TDD      | Integrated or external           | 17 dBi typical (integrated) | 10°            | 18°            | 5             |
| 2) ProST-WiFi 3.6-3.8GHz TDD | Integrated or external           | 17 dBi typical (integrated) | 10°            | 18°            | 5             |
| 3) EasyST 3.6-3.8GHz TDD     | Clip-on Cylinder or window       | 6-7 dBi typical             | 90°            | 25°            | 5             |

| Station Number               | Modulation                          | Emission Designator | Bandwidth (MHz)  | Power Out dBm   |
|------------------------------|-------------------------------------|---------------------|--|-----------------|
| 3) EasyST, indoor, TDD       | Adaptive with 16, 64QAM, QPSK, BPSK | 10M0D7W             | 18 Mbps at 5 MHz channel<br>37 Mbps at 10 MHz                            | 17dBm at 64QAM  |
| 1) ProST 3.6-3.8GHz TDD      | Adaptive with 16, 64QAM, QPSK, BPSK | 5M00D7W             | 18 Mbps at 5 MHz channel<br>13.1 Mbps at 3.5 MHz<br>6.5 Mbps at 1.75 MHz | 20dBm at 64 QAM |
| 2) ProST-WiFi 3.6-3.8GHz TDD | Adaptive with 16, 64QAM, QPSK, BPSK | 5M00D7W             | 18 Mbps at 5 MHz channel<br>13.1 Mbps at 3.5 MHz<br>6.5 Mbps at 1.75 MHz | 20dBm at 64 QAM |
| 3) EasyST 3.6-3.8GHz TDD     | Adaptive with 16, 64QAM, QPSK, BPSK | 5M00D7W             | 18 Mbps at 5 MHz channel<br>13.1 Mbps at 3.5 MHz<br>6.5 Mbps at 1.75 MHz | 20dBm at 64 QAM |