

**United States of America  
FEDERAL COMMUNICATIONS COMMISSION  
EXPERIMENTAL  
RADIO STATION CONSTRUCTION PERMIT  
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD     FX

(Class of Station)

WD2XFP

(Call Sign)

0051-EX-ML-2004

(File Number)

NAME Hughes Network Systems, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(i) of the Commission's Rules

Station Locations

- (1) Germantown (MONTGOMERY), MD - NL 39-10-43; WL 77-14-41
- (2) Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49
- (3) Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49
- (4) Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49
- (5) Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49
- (6) Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49
- (7) Germantown (MONTGOMERY), MD - NL 39-10-45; WL 77-14-52
- (8) Germantown (MONTGOMERY), MD - NL 39-10-45; WL 77-14-52

Frequency Information

Germantown (MONTGOMERY), MD - NL 39-10-43; WL 77-14-41

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 19700-20200 MHz | FX            | 500MG7W             | 385 uW (ERP)     |                           |

This authorization effective November 17, 2004 and  
will expire 3:00 A.M. EST May 01, 2006

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



## Frequency Information

Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 29500-30000 MHz | FX            | 2M61G7W<br>20M9G7W  | 67.2 kW (ERP)    |                           |
| 29500-30000 MHz | FX            | 650KG7W             | 16.8 kW (ERP)    |                           |

Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 29500-30000 MHz | FX            | 2M61G7W<br>20M9G7W  | 233 kW (ERP)     |                           |
| 29500-30000 MHz | FX            | 650KG7W             | 58.2 kW (ERP)    |                           |

Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 29500-30000 MHz | FX            | 20M9G7W             | 1.3 MW (ERP)     |                           |
| 29500-30000 MHz | FX            | 2M61G7W             | 520 kW (ERP)     |                           |
| 29500-30000 MHz | FX            | 650KG7W             | 130 kW (ERP)     |                           |

## Frequency Information

Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 29500-30000 MHz | FX            | 20M9G7W<br>2M61G7W  | 153.8 kW (ERP)   |                           |
| 29500-30000 MHz | FX            | 650KG7W             | 38.5 kW (ERP)    |                           |

Germantown (MONTGOMERY), MD - NL 39-10-46; WL 77-14-49

| Frequency       | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-----------------|---------------|---------------------|------------------|---------------------------|
| 29500-30000 MHz | FX            | 2M61G7W<br>20M9G7W  | 88.5 kW (ERP)    |                           |
| 29500-30000 MHz | FX            | 650KG7W             | 22.1 kW (ERP)    |                           |

Germantown (MONTGOMERY), MD - NL 39-10-45; WL 77-14-52

| Frequency     | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|------------------|---------------------------|
| 19.7-20.2 GHz | FX            | 500MG7W             | 2.9 kW (ERP)     |                           |

## Frequency Information

Germantown (MONTGOMERY), MD - NL 39-10-45; WL 77-14-52

| Frequency   | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 29.5-30 GHz | FX            | 650KG7W             | 473 kW (ERP)     |                           |
| 29.5-30 GHz | FX            | 2M61G7W             | 1.892 MW (ERP)   |                           |
| 29.5-30 GHz | FX            | 20M9G7W             | 16.56 MW (ERP)   |                           |

## Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.