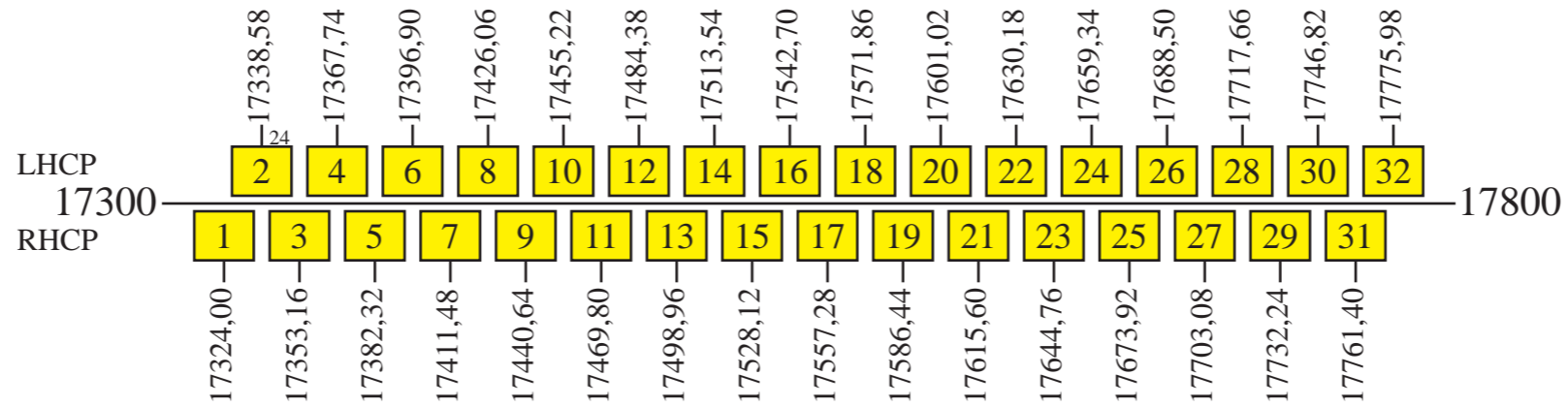


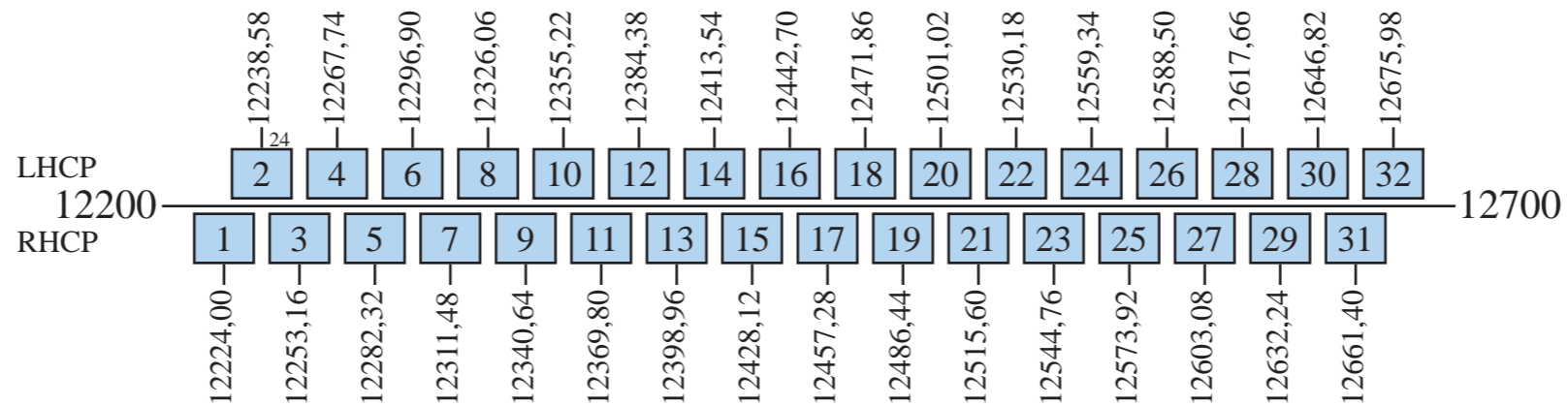
# Echostar XVI

## Frequency Plan

### Uplink Beam R01 (Cheyenne, WY) or R02 (Gilbert, AZ)



### Downlink Beam Conus and Puerto Rico

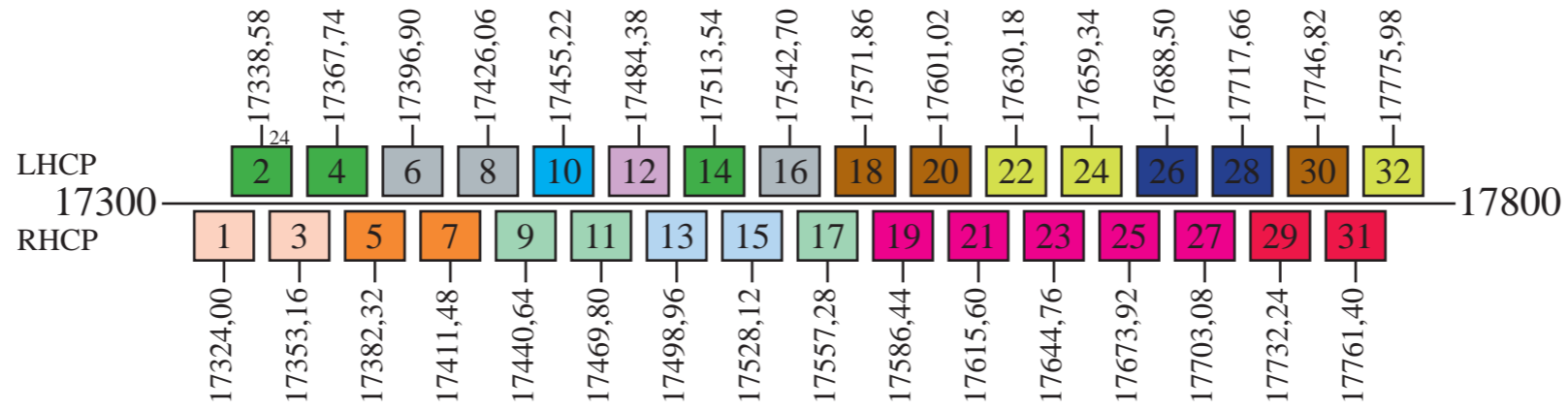


- Command 1: 17307,00 L Conus
- Command 2: 17795,50 R Conus
- Command 3: 17307,00 L Omni
- Command 4: 17795,50 R Omni
- Telemetry 1: 12694,00 R Conus
- Telemetry 2: 12695,00 R Conus
- Telemetry 3: 12696,50 R Conus
- Telemetry 4: 11697,50 R Conus
- Telemetry 5: 12694,00 R Omni
- Telemetry 6: 12695,00 R Omni
- Telemetry 7: 12696,50 R Omni
- Telemetry 8: 11697,50 R Omni
- Beacon 1: 17799,75 R Cheyenne, WY

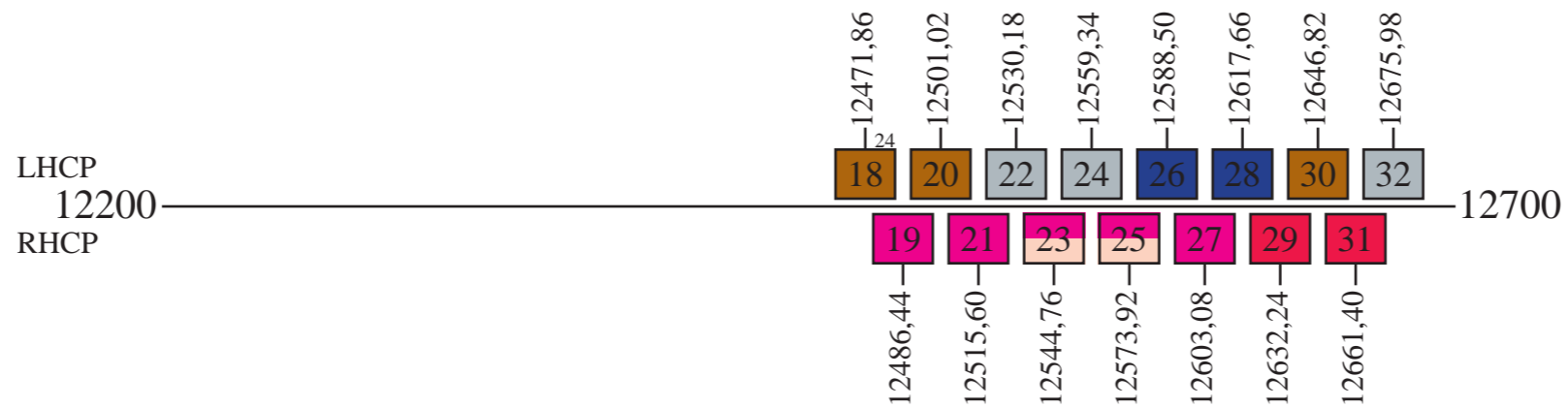
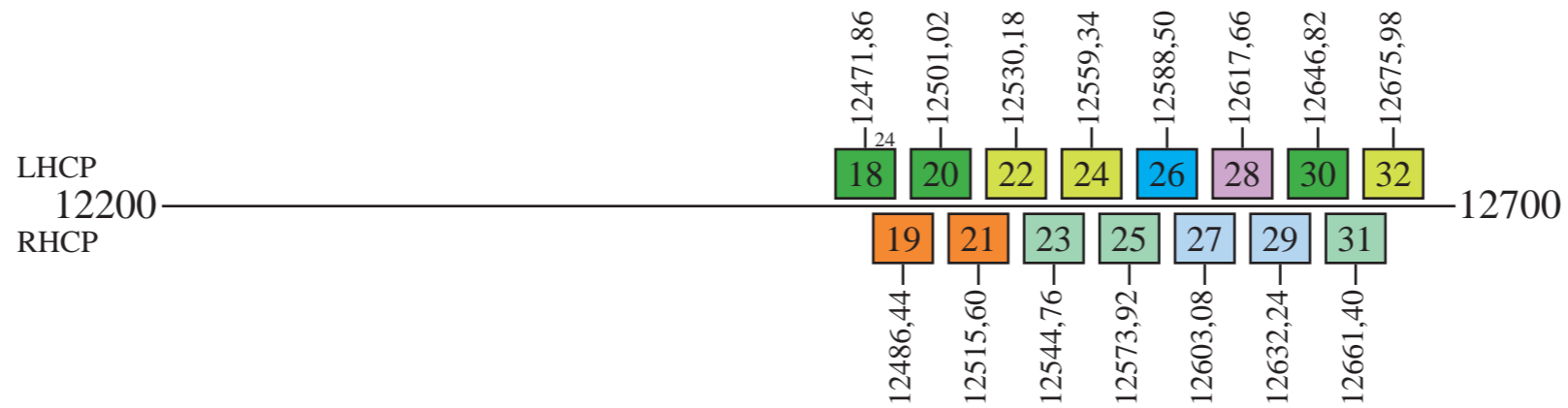
# Echostar XVI

## Frequency Plan

### Uplink Beam R01 (Cheyenne, WY)



### Downlink Spot Beam

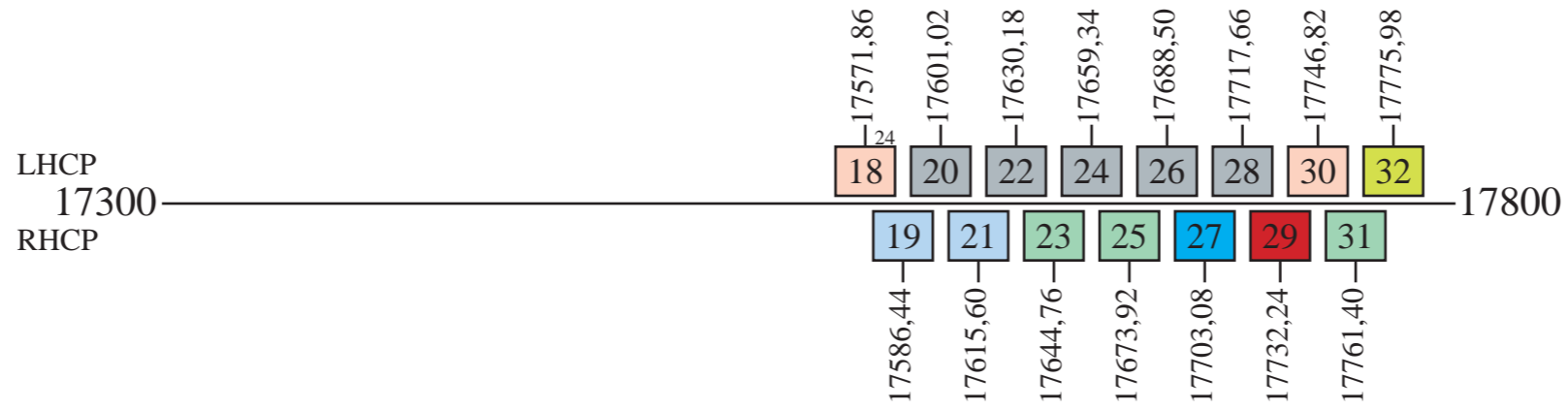


- |              |                    |              |              |              |
|--------------|--------------------|--------------|--------------|--------------|
| Spot Beam 02 | Spot Beam 22       | Spot Beam 28 | Spot Beam 50 | Spot Beam 70 |
| Spot Beam 12 | Spot Beam 23       | Spot Beam 32 | Spot Beam 55 |              |
| Spot Beam 13 | Spot Beam 24 or 27 | Spot Beam 48 | Spot Beam 68 |              |

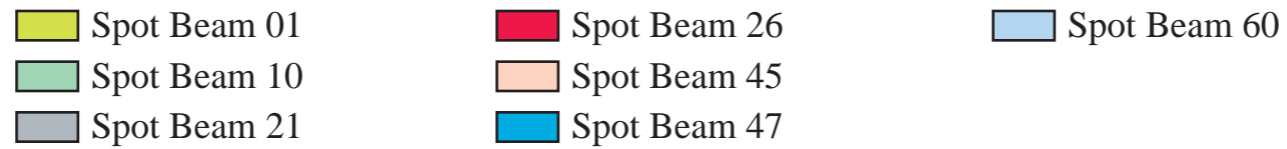
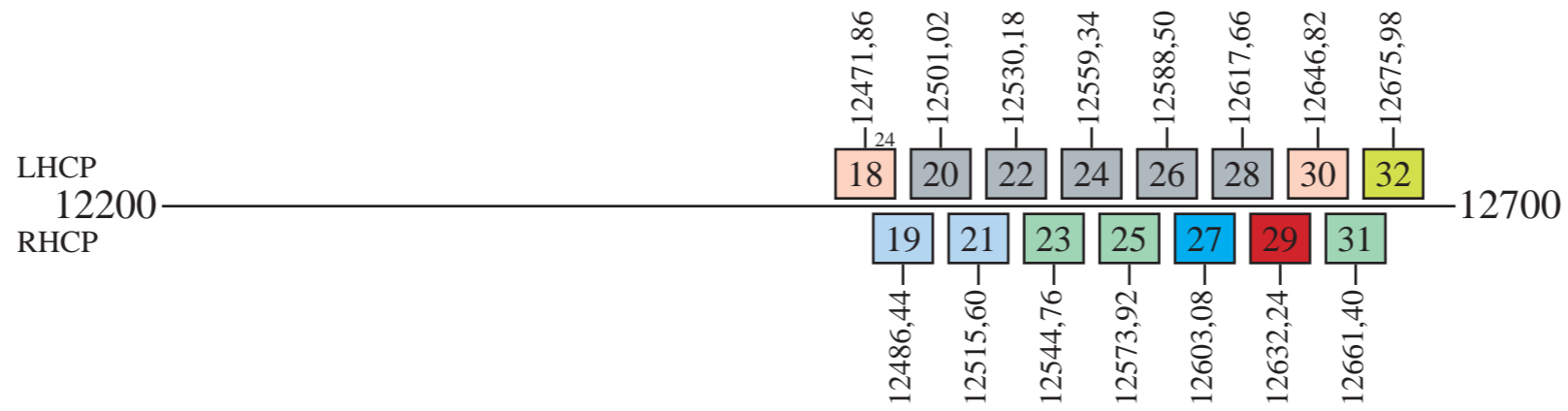
# Echostar XVI

## Frequency Plan

### Uplink Beam R02 (Gilbert, AZ)



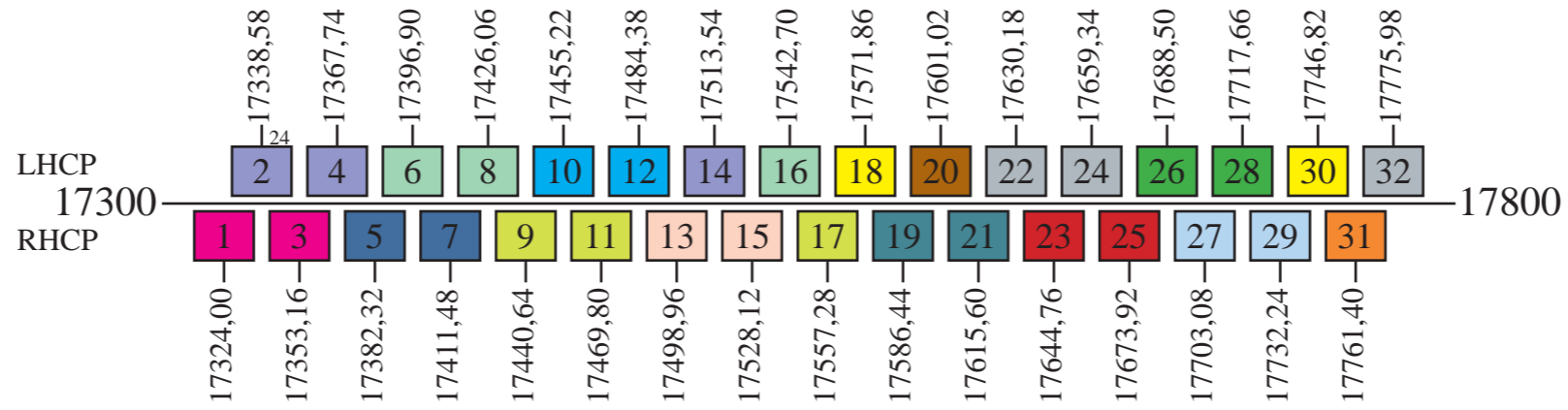
### Downlink Spot Beam



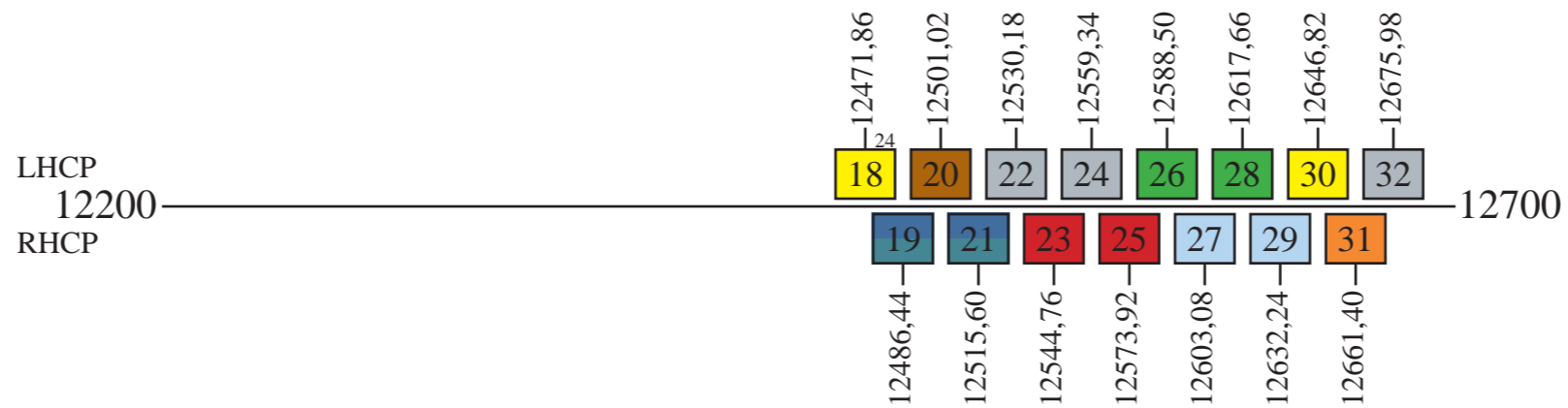
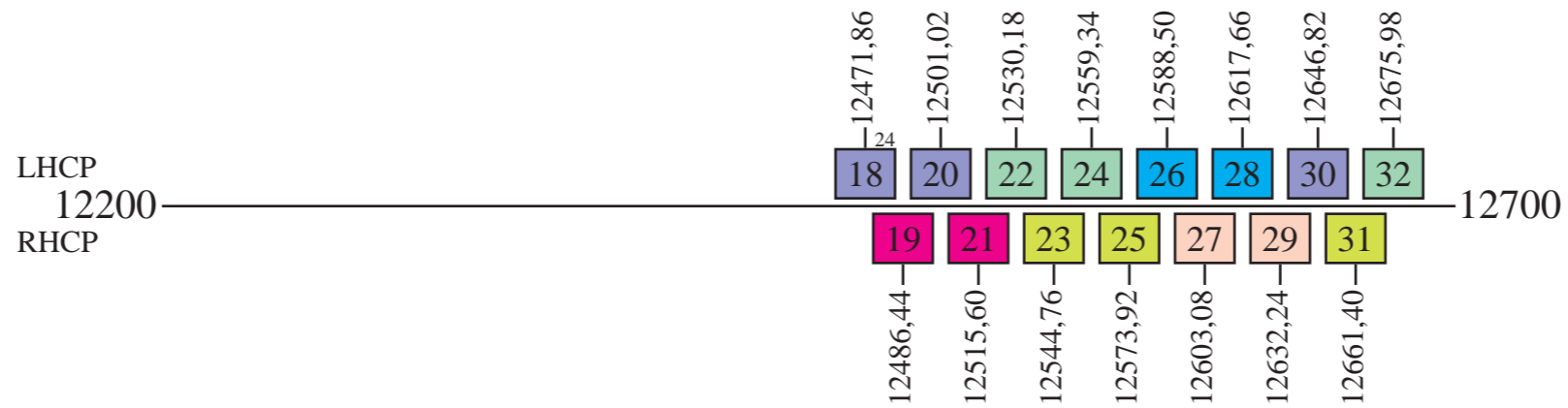
# Echostar XVI

## Frequency Plan

### Uplink Beam R03 (Monee, IL)



### Downlink Spot Beam

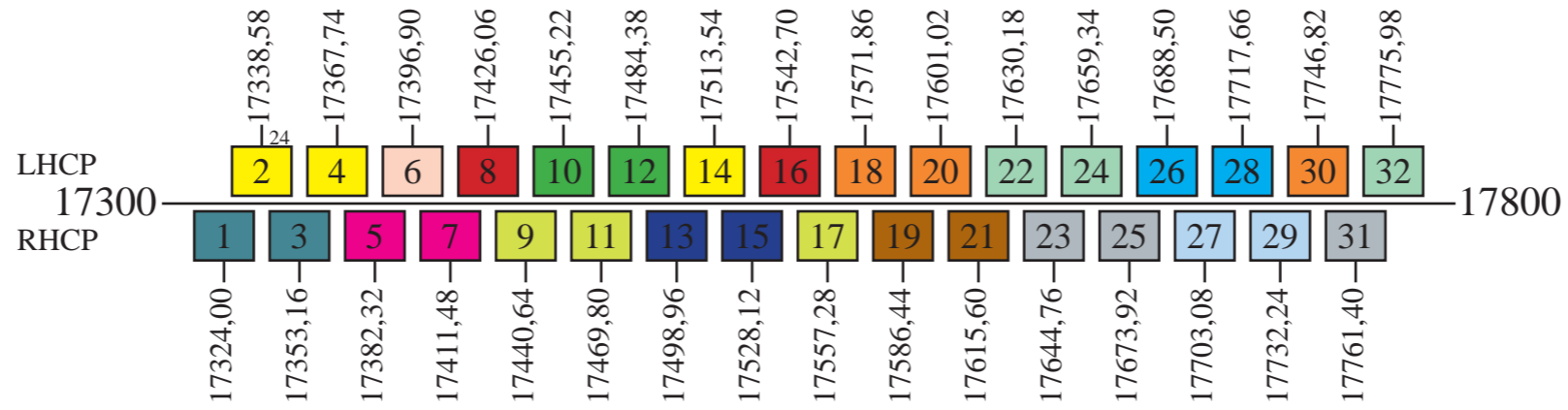


- |              |              |                    |              |              |
|--------------|--------------|--------------------|--------------|--------------|
| Spot Beam 06 | Spot Beam 18 | Spot Beam 35       | Spot Beam 49 | Spot Beam 58 |
| Spot Beam 08 | Spot Beam 31 | Spot Beam 41       | Spot Beam 54 | Spot Beam 61 |
| Spot Beam 11 | Spot Beam 34 | Spot Beam 44 or 46 | Spot Beam 57 | Spot Beam 63 |

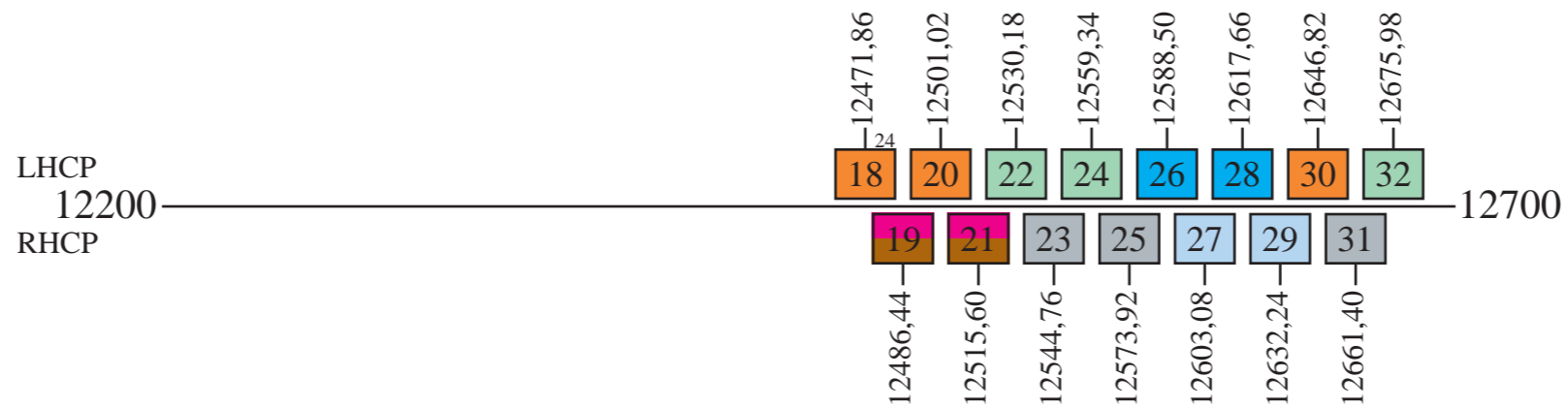
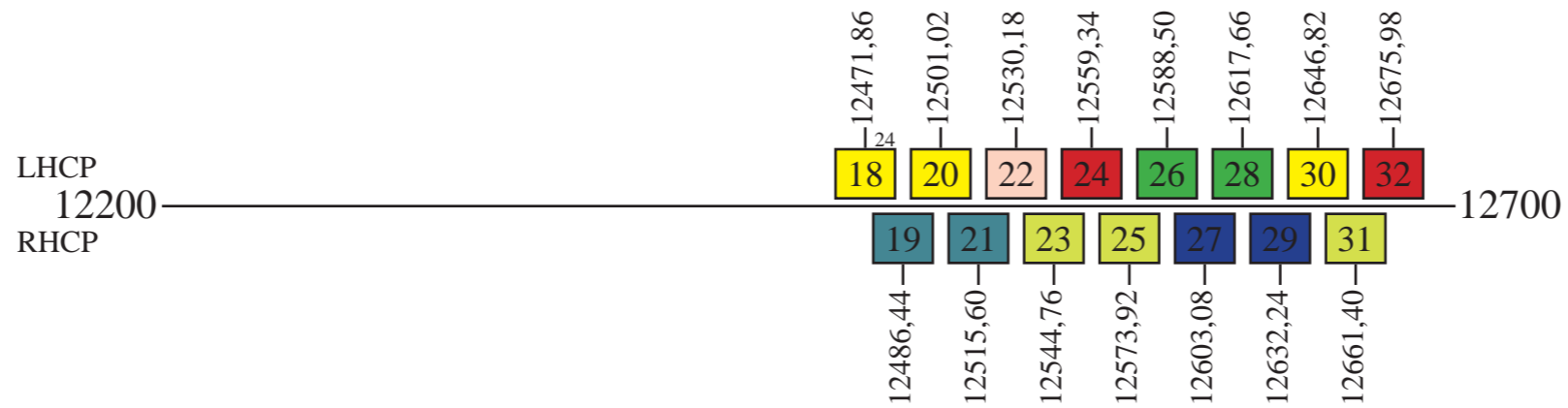
# Echostar XVI

## Frequency Plan

### Uplink Beam R04 (Mt.Jackson, VA)



### Downlink Spot Beam

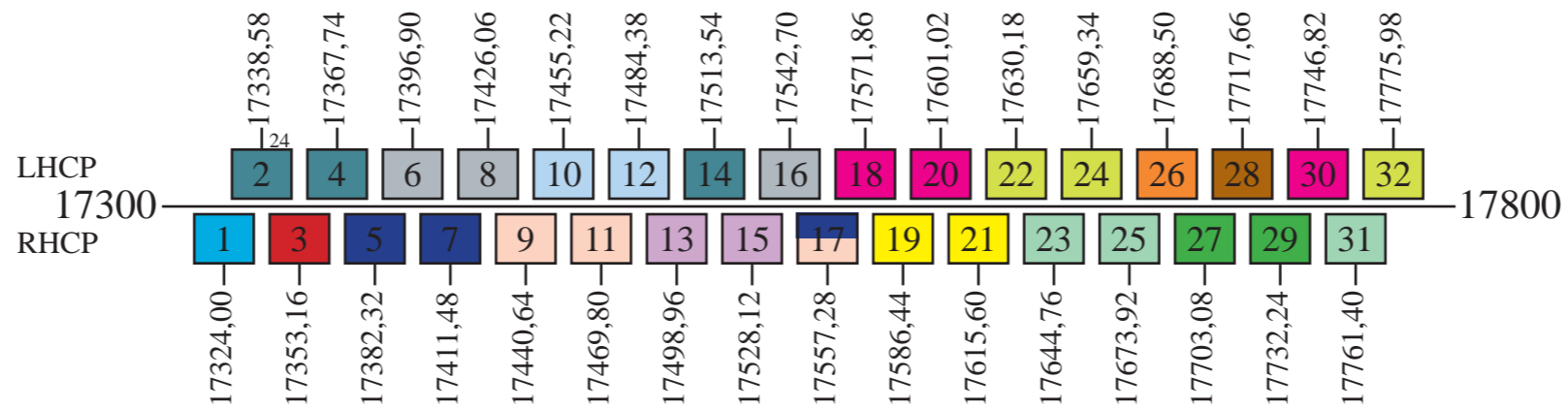


- |   |   |   |   |   |
|---|---|---|---|---|
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Spot Beam 03 | <span style="display:inline-block; width:15px; height:15px; background-color:#FF0000; border:1px solid black;"></span> Spot Beam 09 | <span style="display:inline-block; width:15px; height:15px; background-color:#ADD8E6; border:1px solid black;"></span> Spot Beam 30 | <span style="display:inline-block; width:15px; height:15px; background-color:#8B4513; border:1px solid black;"></span> Spot Beam 51 | <span style="display:inline-block; width:15px; height:15px; background-color:#FFFF00; border:1px solid black;"></span> Spot Beam 56 |
| <span style="display:inline-block; width:15px; height:15px; background-color:#90EE90; border:1px solid black;"></span> Spot Beam 05 | <span style="display:inline-block; width:15px; height:15px; background-color:#FFDAB9; border:1px solid black;"></span> Spot Beam 22 | <span style="display:inline-block; width:15px; height:15px; background-color:#00008B; border:1px solid black;"></span> Spot Beam 33 | <span style="display:inline-block; width:15px; height:15px; background-color:#FF8C00; border:1px solid black;"></span> Spot Beam 52 | <span style="display:inline-block; width:15px; height:15px; background-color:#2F4F4F; border:1px solid black;"></span> Spot Beam 59 |
| <span style="display:inline-block; width:15px; height:15px; background-color:#A9A9A9; border:1px solid black;"></span> Spot Beam 07 | <span style="display:inline-block; width:15px; height:15px; background-color:#00CED1; border:1px solid black;"></span> Spot Beam 29 | <span style="display:inline-block; width:15px; height:15px; background-color:#008000; border:1px solid black;"></span> Spot Beam 36 | <span style="display:inline-block; width:15px; height:15px; background-color:#FF00FF; border:1px solid black;"></span> Spot Beam 53 |   |

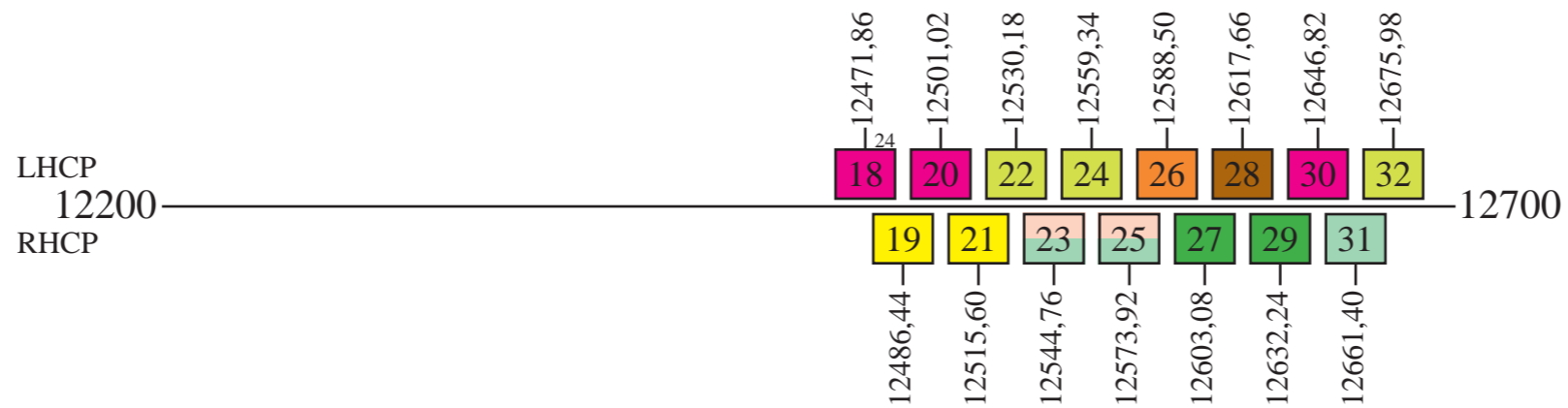
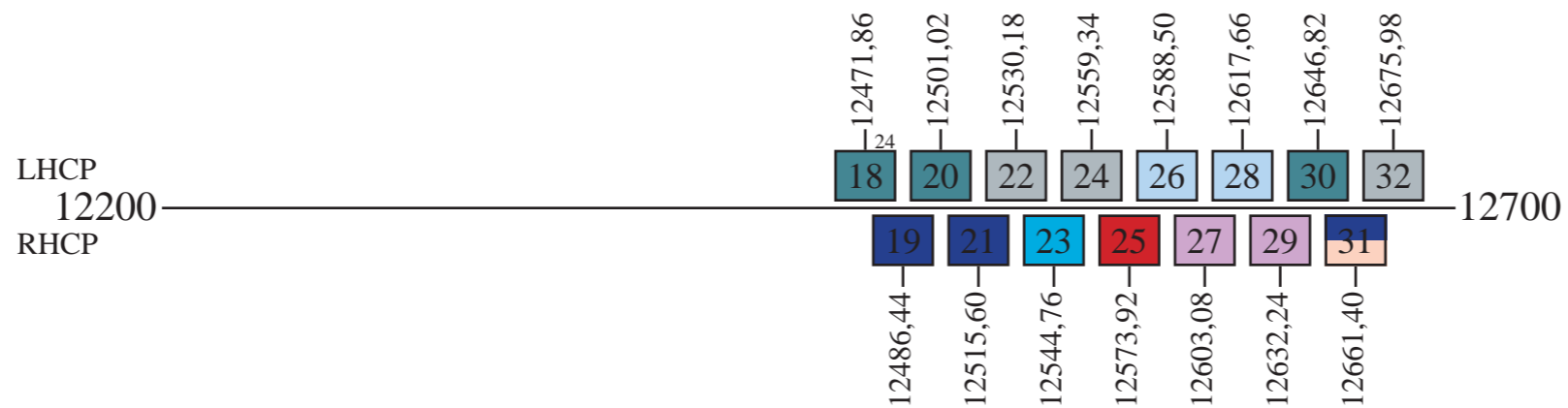
# Echostar XVI

## Frequency Plan

### Uplink Beam R05 (New Braunfels, TX)



### Downlink Spot Beam

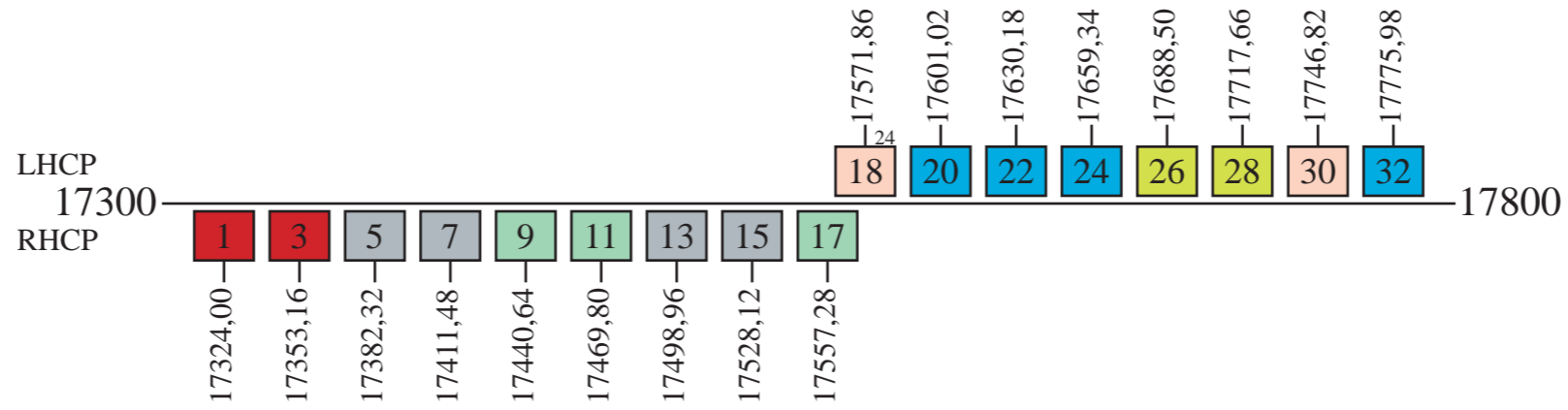


- |              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| Spot Beam 04 | Spot Beam 16 | Spot Beam 37 | Spot Beam 40 | Spot Beam 64 |
| Spot Beam 14 | Spot Beam 17 | Spot Beam 38 | Spot Beam 42 | Spot Beam 66 |
| Spot Beam 15 | Spot Beam 23 | Spot Beam 39 | Spot Beam 62 | Spot Beam 67 |

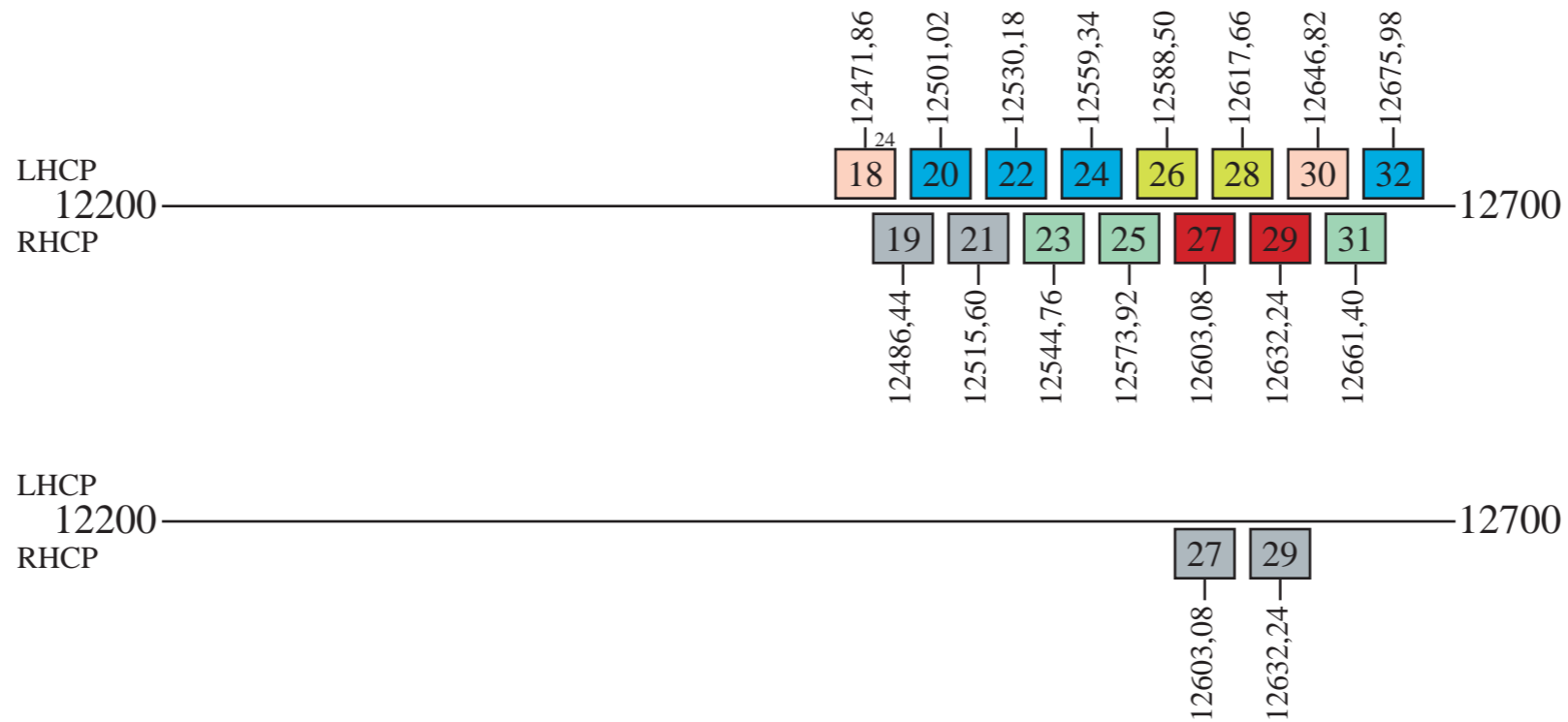
# Echostar XVI

## Frequency Plan

### Uplink Beam R06 (Spokane, WA)



### Downlink Spot Beam



- Spot Beam 19
- Spot Beam 20 or 25
- Spot Beam 20 or 71
- Spot Beam 43
- Spot Beam 65
- Spot Beam 69