

# Satellite Earth Station Antennas

## Simulsat 5



### Features

- Market Leader in Multibeam Technology Since 1979
- One Antenna Performs Like 35 Parabolics
- Fixed Antenna With No Moving Parts to Service
- Commercial Quality Composite Construction
- Programming Movement: Due to Constant Satellite Programming Changes, Simulsat Users Can Add Another Feed Without Having to Purchase Another Antenna
- Receives, With Uniform Performance, Signals From All Satellites Within a 70 Degree View Arc.

### Summary

The Simulsat™ 5 Multibeam Earth Station is the world's only antenna that can simultaneously receive signals from up to 35 satellites within a 70° view arc, with equal performance on each satellite. Simulsat is approximately equivalent in cost to three commercial C-Band parabolic antennas, but performs like 35. Since an increasing number of applications require multiple satellite reception, return on initial investment is immediate.

### Benefits

- Increased Revenue Stream
- Lowers Overall Costs – Return on Initial Investment is Immediate
- Requires Less Space – Simulsat is the size of 1 ½ parabolics
- Curbs Real Estate Costs – Best Alternative to Antenna Farms
- Outperforms Retrofits – Simulsat receives, with uniform performance, signals from all satellites within a 70 degree view arc.

### Applications

- Broadcasters
- Cable Television
- Universities/Distance Learning
- Television and Radio
- Military/Government
- Corporations

# Specifications: Simulsat 5 Multibeam Antenna

## ELECTRICAL

|                                   |               |
|-----------------------------------|---------------|
| Frequency                         | 3.7 - 4.2 GHz |
| Gain (+/- dB across the view arc) | 44 dBi        |
| Beamwidth                         | 1.0 degree    |
| VSWR                              | 1.3           |
| Feed Cross-Pol. Isolation         | 35 dB         |

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## MECHANICAL

|                              |                                      |
|------------------------------|--------------------------------------|
| Reflector Size               | 5.0 x 8.8 meters (16.5' x 28.0 feet) |
| Mount                        | Galvanized                           |
| Arc Coverage                 | 70 Degrees                           |
| Number of Simultaneous Feeds | Up to 35 Satellites                  |
| Reflector Construction       | Composite Fiberglass                 |
| Reflector Pieces             | 3 Sections                           |
| Mount Type (Fixed)           | Low or High Mount                    |

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## SHIPPING INFORMATION

|                                   |                      |
|-----------------------------------|----------------------|
| Shipping Weight                   | 2,250 kg (4,960 lbs) |
| Max Weight (Off-Load Ship Crates) | 1,154 kg (2,543 lbs) |

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## ENVIRONMENTAL

|                            |                                |
|----------------------------|--------------------------------|
| Wind Loading - Operational | 144.8 km/h (90 mph)            |
| Wind Loading - Survival    | 201.2 km/h (125 mph)           |
| Foundation Size (Area)     | 4.0 x 4.3 meter (13 x 14 feet) |

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## FOUNDATION CONCRETE

|                      |                   |
|----------------------|-------------------|
| 144.8 Km/h (90 mph)  | 6.9m <sup>3</sup> |
| 201.2 km/h (125 mph) | 13m <sup>3</sup>  |