

SIMULSAT

**MULTIBEAM EARTH STATION
PRODUCT FAMILY**



What is SIMULSAT?

Simulsat is the world's only true full-arc multiple satellite antenna that is capable of receiving satellite transmissions from 35 or more satellites simultaneously, without adjustment or degradation in performance from one satellite to the next. **Simulsat** is 2° compliant with the ability to capture signals from all C & Ku Band satellites within a 70° view arc.

Over the last 30 years, ATCi has been the world leader in multibeam technology, and the ATCi proprietary **Simulsat** has provided programming to more than 30 million cable subscribers in the U.S. and abroad.

Because satellite programming is constantly changing, satellite broadcast users need to constantly adapt to new and different channels and satellites.

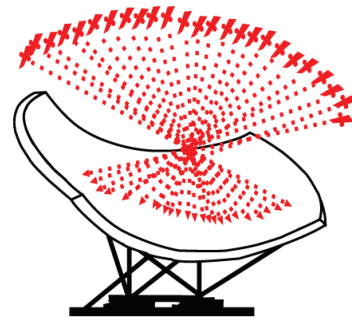
Simulsat antennas have long provided the ultimate multibeam antenna solution to these needs. The **Simulsat** improves users' ability to take advantage of immediate and future revenue opportunities without the need for an antenna farm and without the trouble of additional permits or foundations that multiple antennas require.

Many systems have retrofitted parabolic dishes with dual or triple feeds in order to view more than one satellite. Multi-feed parabolics can view satellites across a 10° arc. However, since parabolics have but one true focal point, the adjacent satellites are offset, resulting in a degradation in reception quality on the fringe satellites. The **Simulsat** receives all satellites across a 70° arc with uniform performance.

The **Simulsat** curbs real estate costs because it is the size of about 3 parabolic dishes of equivalent performance. For those who are faced by high land costs and limited space, **Simulsat** is the solution.

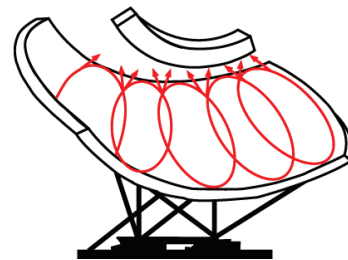
Available in 2 different size and performance variations, the **Simulsat** is the ultimate solution for Broadcasters, Cable Television, Universities/Distance Learning, Television and Radio, Military/Government and Business Corporations with multiple satellite reception requirements worldwide.

How **SIMULSAT** Views 35 Satellites Simultaneously



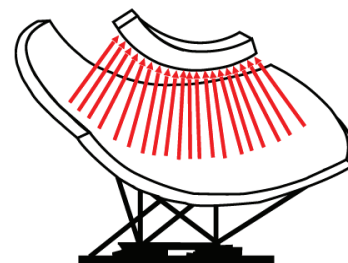
70° View Arc

The unique design of the Simulsat captures signals across a 70° view arc. All satellites are received with uniform performance.



Up to 35 Focal Points

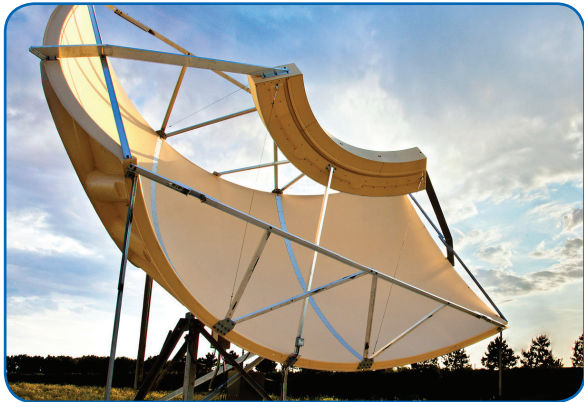
Each satellite illuminates a specific area on the Simulsat. The signals reflect to their corresponding C or Ku-Band feed and then are relayed to your receiver.



Uniform Signal Reception

The Simulsat design recreates the signal capabilities of 35 C/Ku Parabolic antennas with consistent signal quality across the entire arc.

SIMULSAT SOLUTION vs. THE ANTENNA FARM



LOWERS OVERALL COSTS

Return on initial investment is immediate.

SAVES SPACE / REAL ESTATE

One Simulsat does the work of 35 parabolic antennas in the total coverage area of about 3 parking spaces.

VISUAL APPEAL

Simulsat's single antenna approach is more aesthetically pleasing than an antenna farm.

SEES MORE TRANSPONDERS

Simulsat receives nearly 1,000 satellite channels simultaneously. Parabolic antennas only see 24 - 32 transponders at a time.

SAVES ON MAINTENANCE

Simulsat is a fixed antenna. It is not necessary to move the antenna as programming changes from satellite to satellite.

THE SIMULSAT FAMILY



SIMULSAT 5B

- Receives, with uniform performance, signals from all satellites within a 70° view arc.
- C and Ku-Band Capability
- Performs equivalent to 4.5m TVRO C-Band Prime Focus Parabolic Antennas
- Performs equivalent to 2.4m TVRO Ku-Band Prime Focus Parabolic Antennas
- Requires Less Space - Takes up the same space as 3 parking spaces



SIMULSAT 7A

- ATCi's Latest Advanced Model
- ATCi's Largest Simulsat Model - geared toward large cable systems, teleports and broadcasters.
- More Arc Coverage - Receives, with uniform performance, signals from all satellites within a 70° - 75° view arc.
- C and Ku-Band Capability
- Performs equivalent to 6m TVRO C-Band Parabolic Prime Focus Antennas
- Performs equivalent to 2.4m TVRO Ku-Band Parabolic Prime Focus Antennas

SIMULSAT SPECIFICATIONS*

	Simulsat 5B		Simulsat 7A	
ELECTRICAL	C-Band	Ku-Band	C-Band	Ku-Band
Frequency	3.4- 4.2 GHz	10.7-12.75 GHz	3.4 - 4.2 GHz	10.7 - 12.75 GHz
Gain (± 1dB avg across the view arc)	44.5 dBi	47.5 dBi	46.5 dBi	47.5 dBi
Beamwidth	1.0°	0.4°	0.8°	0.25°
VSWR	1.3	1.3	1.3	1.3
Feed Cross-Pol. Isolation	35 dB	35 dB	35 dB	35 dB
MECHANICAL				
Reflector Size	17' 2" x 31' 5" (5.2m x 9.6m)		23' x 42' (7.0m x 12.8m)	
Mount	Galvanized Steel		Galvanized Steel	
Arc Coverage	70°		70° - 75°	
Number of Simultaneous Feeds	Up to 35 Satellites		Up to 37 Satellites	
Reflector Construction	Composite Fiberglass		Composite Fiberglass	
Reflector Pieces	3 Panels		5 Panels	
Mount Type (Mixed)	Low / Standard / High Mount		Standard / High Mount	
SHIPPING INFORMATION				
Shipping Weight	6,300 lbs (2,858 kg)		27,444 lbs (12,448 kg)	
Max Weight (Off-Load Ship Crates)	3,400 lbs (1,542 kg)		6,752 lbs (3,063 kg)	
ENVIRONMENTAL				
Wind Loading - Operational	90 mph (144.8 km/h)		90 mph (144.8 km/h)	
Wind Loading - Survival	125 mph (201.2 km/h)		125 mph (201.2 km/h)	
FOUNDATION CONCRETE				
Foundation Area (90 and 125 mph)	13' x 14' (4.0m x 4.3m)		22' 4" x 30' 7" (6.8m x 9.3m)	
Foundation Volume 90 mph (144.8 km/h) 125 mph (201.2 km/h)	27.0 yd ³ (21.0m ³) 30.3 yd ³ (23.2m ³)		101.2 yd ³ (77.35m ³) 113.9 yd ³ (87.1m ³)	

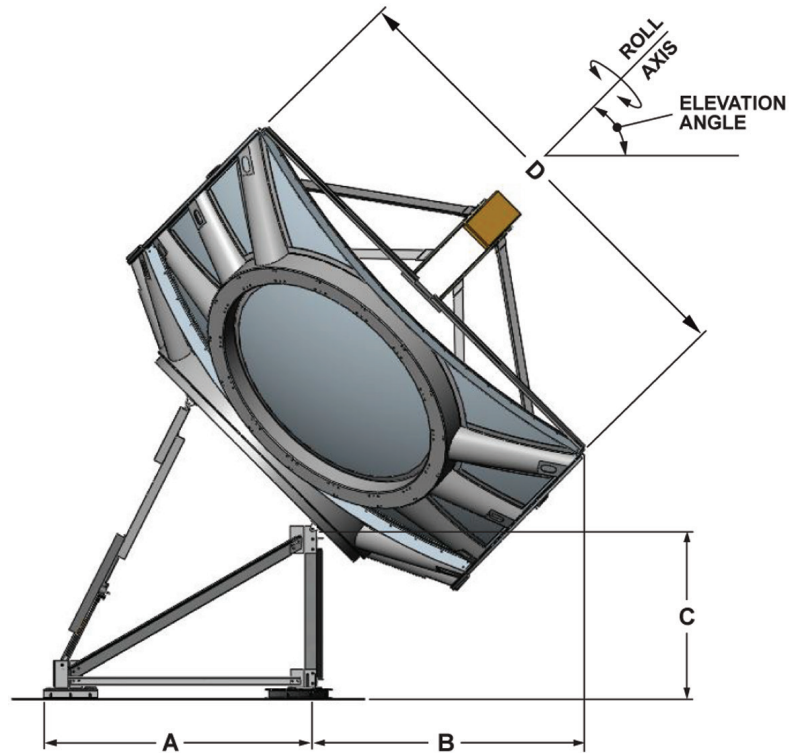
* Specifications Subject to Finalization

SIMULSAT DIMENSIONS

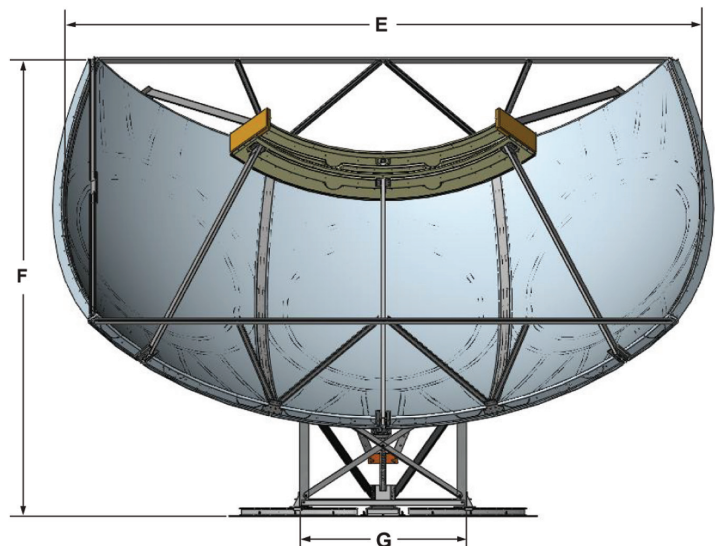
NOTE:

General Pictorial View,
For example, "B" and "F"
vary with elevation angle.

Contact ATCi
for site specific configurations

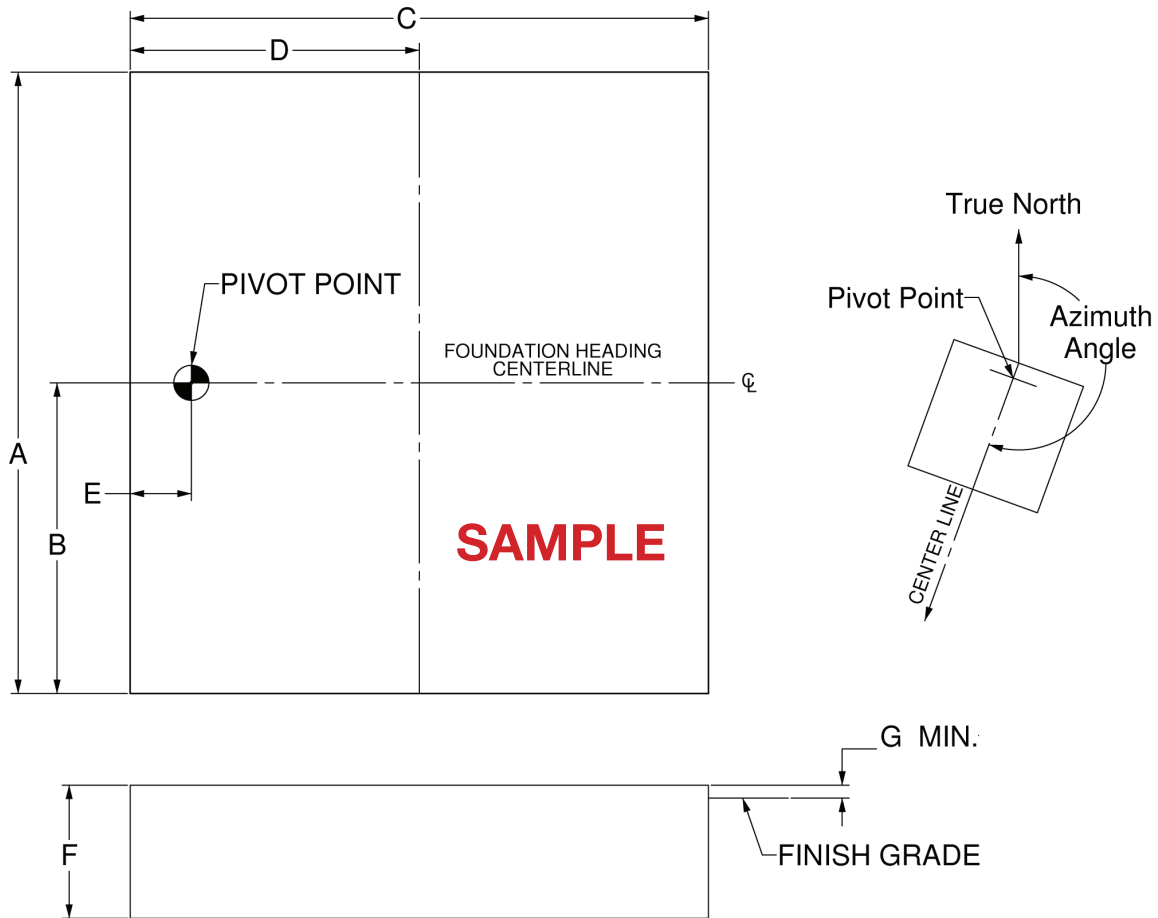


ANTENNA	Simulsat 5B	Simulsat 7A
A	9'-10" (3.00m)	17'- 4" (5.29m)
B	10'- 1" (3.10m)	14'-10" (4.53m)
C	6'- 2" (1.88m)	8'- 6" (2.60m)
D	16'- 8" (5.08m)	23'- 0" (7.02m)
E	29'- 1" (8.86m)	43'- 5" (13.24m)
F	20'-10" (6.36m)	32'-6"- 0" (9.90m)
G	7'- 11" (2.42m)	20'- 0" (6.10m)



SIMULSAT FOUNDATION LAYOUT

NOT FOR CONSTRUCTION PURPOSES (ALL DIMENSIONS APPROXIMATE)



Antenna	A	B	C	D	E	F	G
Simulsat 5B 125 mph	14'- 0" (4.27m)	7'- 0" (2.13m)	13'- 0" (3.96m)	6'- 6" (1.98m)	1'- 4.5" (.405m)	3'-0" (.91m)	3.5" (.09m)
Simulsat 5B 160 mph	16'- 0" (4.9m)	8'- 0" (2.44m)	16'- 0" (4.9m)	8'- 0" (2.44m)	2'- 4" (.70m)	4'- 6" (1.37m)	3.5" (.09m)
Simulsat 7A 90 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.42m)	4'-0" (1.22m)	3.5" (.09m)
Simulsat 7A 125 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.42m)	4'- 6" (1.37m)	3.5" (.09m)
Simulsat 7A 160 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.42m)	5'- 0" (1.52m)	3.5" (.09m)

Join the List of Satisfied ATCi Simulsat Customers Including:

Cable TV

Cable One
Cablevision
Charter
Comcast
Cox Communications
Insight Communications
Frontier
Suddenlink
Time Warner

Corporate Business

Intelsat
Microsoft
Motorola
National Captioning Institute
PanAmSat
SES Americom
Level 3
Qualcomm
Ericsson
Associated Press
Intel

Television and Broadcast

CBS
CNBC
Bonneville Satellite
Fox Network
HBO
Meredith Broadcasting
Media World
MSNBC
NBC
Nielsen Media
XM Radio

Universities and Colleges

BYU
Penn State University
Stanford
USC
U of Texas - MD Anderson Cancer Center

Military and Government

ATCi has supplied Simulsat and related products to military and government agencies throughout the U.S. and abroad under confidential contracts.

Rural Telco and Municipalities

Columbia Power and Water
Fayetteville Power and Electric
Iowa Network Services
Ketchikan Public Utility
Murray Electric System
Project Mutual - Idaho
South Dakota Network
Panhandle Telecommunications

International

Cablevision - Colombia
Wind Telecom - Dominican Republic
ESPN Deportes - Mexico
Alcatel - Mexico
Cablemas - Mexico
Globocabo - Brazil
Hong Kong Telecom - China
KDDI - Japan
SBS - South Korea
ST Teleport - Singapore
Telespazio - Italy
Columbus Communications
and many more!



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