



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 20 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.

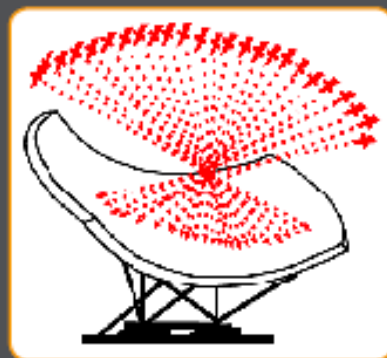
Because satellite programming is constantly changing, satellite broadcast users need to constantly adapt to new and different channels and satellites. Simulsat antennas have long provided the ultimate multibeam antenna solution to these needs. The Simulsat improves users' ability to take advantage of 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 2 parabolic dishes of equivalent performance. For those who are faced by high land costs and limited space, Simulsat is the solution.

Available in 3 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



Saves Space. 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.

Lowers Overall Costs. Return on initial investment is immediate.

The **Simulsat** Family



◀ **Simulsat 5**

- Most Frequently Installed Model Worldwide
- Cost Effective Multibeam
- C and Ku-Band Capability
- Performs equivalent to 4.5 Meter C-Band Prime Focus Parabolic Antennas
- Receives, with uniform performance, signals from all satellites within a 70° view arc.
- Requires Less Space - Takes up the same space as 3 parking spaces

Simulsat C/Ku ▶

- ATCi's newest most technologically advanced Simulsat to date.
- Performs equivalent to 4.6 Meter C-Band Prime Focus Antennas
- 3 Times Improved Surface Tolerance Performance Over Standard Simulsat 5
- Designed Using State-of-the-Art CNC (Computer Numerical Control) Tooling



◀ **Simulsat 7**

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

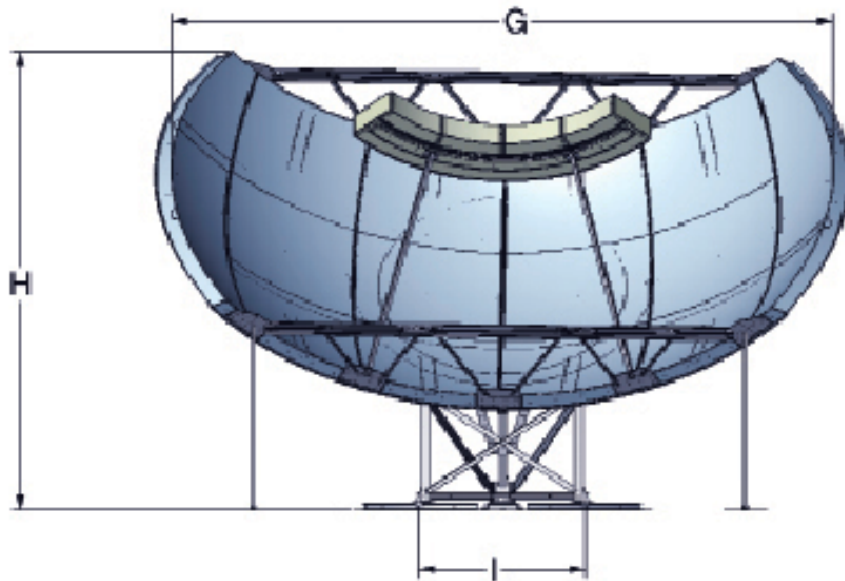
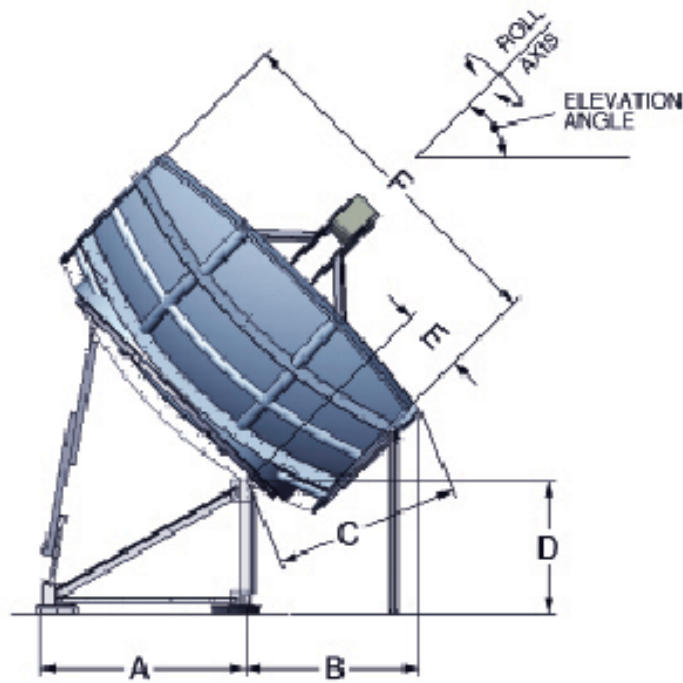


Simulsat Specifications

	Simulsat 5	Simulsat C/Ku		Simulsat 7
ELECTRICAL		C-Band	Ku-Band	
Frequency	3.4 - 4.2 GHz	3.4- 4.2 GHz	10.7-12.75 GHz	3.4 - 4.2 GHz
Gain (\pm 1dB avg across the arc)	44 dBi	44.5 dBi	47.5 dBi	46 dBi
Beamwidth	1.0°	1.0°	0.4°	0.8°
VSWR	1.3	1.3	1.3	1.3
Feed Cross-Pol. Isolation	35 dB	35 dB	35 dB	35 dB
MECHANICAL				
Reflector Size	16.5' x 28.0' (5.0 x 8.8 Meters)	16.5' x 31.6' (5.0 x 9.8 m)		23' x 42' (7.0 x 12.8 m)
Mount	Galvanized Steel	Galvanized Steel		Galvanized Steel
Arc Coverage	70°	70°		75°
Number of Simultaneous Feeds	Up to 35 Satellites	Up to 35 Satellites		Up to 37 Satellites
Reflector Construction	Composite Fiberglass	Composite Fiberglass		Composite Fiberglass
Reflector Pieces	3 Sections	6 Sections		5 Sections
Mount Type (Mixed)	Low / Standard / High Mount Low HW / Standard HW	Low / Standard / High Mount Low HW / Standard HW		Standard / High Mount
SHIPPING INFORMATION				
Shipping Weight	5,045 lbs (2,288 kg)	6,460 lbs (3,913 kg)		27,444 lbs (12,448 kg)
Max Weight (Off-Load Ship Crates)	3,200 lbs (1,497 kg)	3,030 lbs (1,402 kg)		8,500 lbs (3,855 kg)
ENVIRONMENTAL				
Wind Loading - Operational	90 mph (144.8 km/h)	90 mph (144.8 km/h)		90 mph (144.8 km/h)
Wind Loading - Survival	125 mph (201.2 km/h) 160 mph (257.5 km/h)	125 mph (201.2 km/h) 160 mph (257.5 km/h)		125 mph (201.2 km/h)
Foundation Size (Area)	125 mph 13' x 14' (4.0 x 4.3 m) 160 mph 16' x 16' (4.9m x 4.9m)	125 mph 13' x 14' (4.0 x 4.3 m) 160 mph 16' x 16' (4.9m x 4.9m)		20' x 30' (6.1 x 9.1 m)
FOUNDATION CONCRETE				
Foundation Concrete 90 mph (144.8 km/h)	6.9 m ²	6.9 m ²		13.2 m ²
Foundation Concrete 125 mph (201.1 km/h)	13.9 m ²	13.9 m ²		23 m ²



Simulsat Dimensions

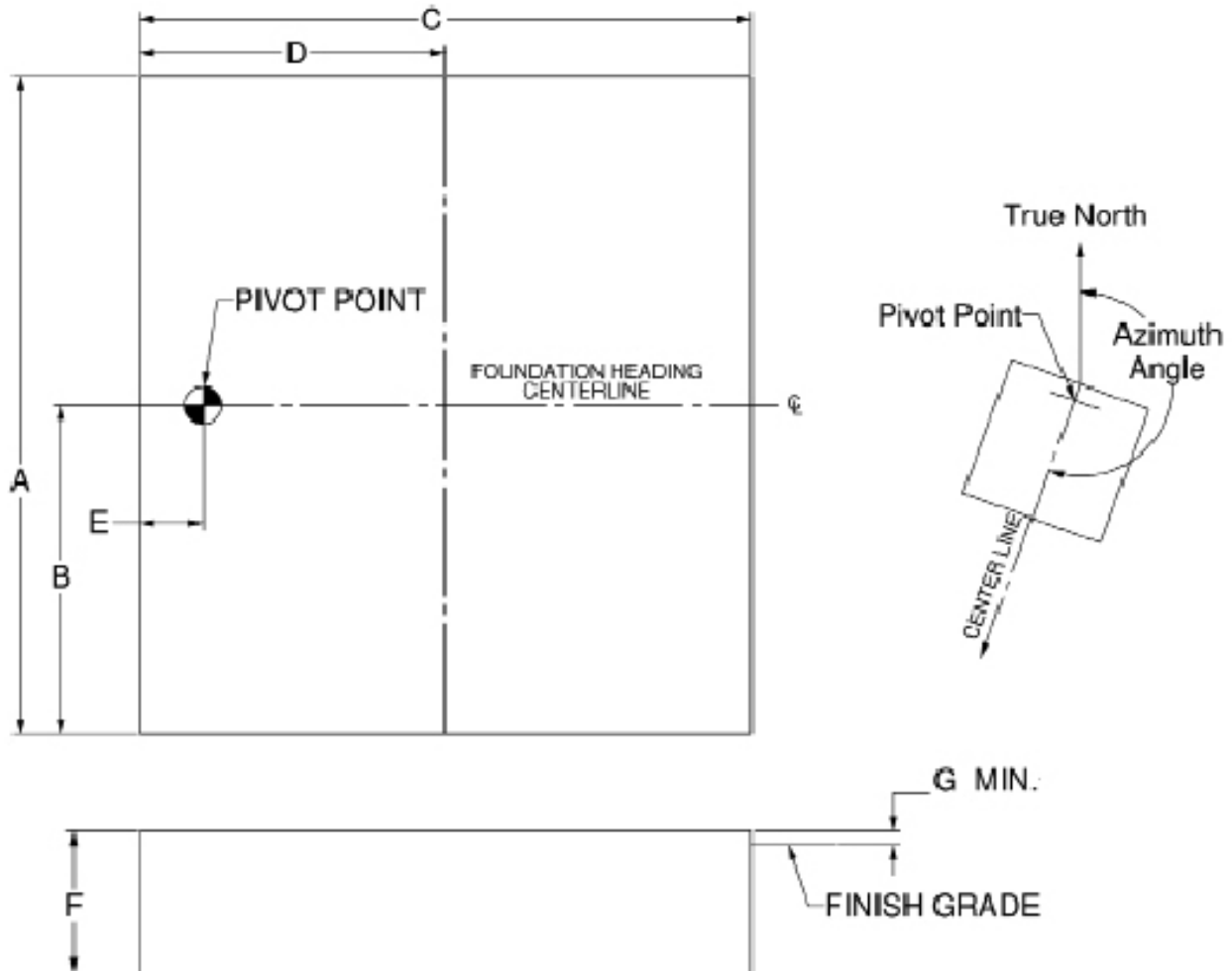


Note:
 Simulsat Dimensions
 B & H Will Vary with Site Location

ANTENNA	A	B	C	D	E	F	G	H	I
Simulsat 5	9'-10" (3.00m)	9'-2" (2.80m)	7'-0" (2.14m)	6'-2" (1.88m)	6'-0" (1.83m)	16'-6" (5.03m)	27'-9" (8.46m)	20'-0" (6.10m)	7'-11" (2.42m)
Simulsat C/Ku	9'-10" (3.00m)	7'-11" (2.42m)	7'-9" (2.37m)	6'-2" (1.88m)	3'-2" (0.97m)	16'-7" (5.08m)	30'-8" (9.35m)	21'-5" (6.53m)	7'-11" (2.42m)
Simulsat 7	17'-4" (5.29m)	14'-10" (4.53m)	16'-0" (4.88m)	8'-6" (2.60m)	5'-0" (1.53m)	23'-0" (7.02m)	43'-5" (13.24m)	31'-0" (9.45m)	20'-0" (6.10m)

Simulsat Foundation Layout

NOT FOR CONSTRUCTION PURPOSES
(ALL DIMENSIONS APPROXIMATE)



Antenna	A	B	C	D	E	F	G
SS5 or C/Ku 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)
SS5 or C/Ku 125 mph	16'- 0" (4.9m)	8'- 0" (2.44m)	16'- 0" (4.87m)	8'- 0" (2.44m)	2'- 4" (.70m)	4'- 6" (1.37m)	3.5" (.09m)
Simulsat 7 90 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.73m)	4'- 0" (1.22m)	3.5" (.09m)
Simulsat 7 125 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.73m)	4'- 6" (1.37m)	3.5" (.09m)
Simulsat 7 160 mph	30'- 7" (9.3m)	15'- 3.5" (4.66m)	22'- 4" (6.79m)	11'- 2" (3.39m)	1'- 4 3/4" (.73m)	5'- 0" (1.52m)	3.5" (.09m)

Join the List of Satisfied ATCi Simulsat Customers Including:

CATV & Wireless Cable

Cable One
Cablevision
Charter
Comcast
Cox Communications
Insight Communications
Time Warner
Connexion Technologies

Corporate Business

Intelsat
Microsoft
Motorola
National Captioning Institute
PanAmSat
SES Americom
Level 3
Qualcomm
Tandberg TV
Associated Press

Television and Broadcast

CNBC
Fox Network
HBO
MSNBC
NBC
Nielsen Media
XM Radio
Bonneville Satellite

Universities and Colleges

Penn State University
Stanford
USC

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
Matanuska Telephone Association (MTA)
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 Communication *and many more!*



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