SureCall

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SureCall

- Surecall Introduction & Innovation
- Market Size & Opportunity
- System components and layout
- Product Options
- 5G
- Site Survey and Design Support
- IDeACom Partner Testimonial

ABOUT SURECALL

Founded in 2001 and headquartered in Fremont, California, SureCall is the signal booster technology leader.

Patent portfolio covers key areas of 4G and 5G signal boosters, including mmWave 5G booster technology, Force5, N-Range and EZ 4G type solutions in addition to Extended Range Technology.

Award Winning

- Inc. 5000 Fastest Growing Private Company (2020, 2019, 2018, 2017, 2016)
- CES Innovation Award Winner (2020, 2017)
- WFX New Product Award (2019)
- Residential Systems 2021 Picks

SureCall

Innovation

2001 SureCall was Founded

SureCall was founded in 2001 and launched our 1st dual band solutions.

2003 Tri-Band (3G) System

Launched the 1st tri-band booster (Flex Pro) allowing for enhancement of 3G service.

2009 1ST 5-Band (4G) System

Applied and were issued patent for 5-band booster (Force5 and Fusion5) technology. SureCall currently holds more than 20 U.S. Patents, published or pending.

2012 Remote Management

Rolled out the 1st remote management system..

2017 Guardian Public Safety BDA

SureCall entered the public safety market with the Guardian family of products.

2018 Force8 - 5G Solution

SureCall launched the Force8 and became the 1st 5G booster .

2020 Horizon 5G mmWave

SureCall announced partnership with Verizon to build out their 5G mmWave nationwide network.

2021 Focused on 5G

SureCall is committed to continue to advance the offerings that 5G bring to the market.

BENEFITS OF SURECALL'S SIGNAL BOOSTER PLATFORM TO ENHANCE IN-BUILDING COVERAGE

FCC and Carrier Approved

Rapid deployment to extend coverage area in any building type

Low-cost hardware and installation

Network Protection Technology

- Automatic Gain Control (AGC)
- Oscillation Detection and Prevention
- Minimize noise Impact to tower
- High Linearity

Easy Maintenance and Installation with SureCall Cloud / Remote Management

No fiber or any other additional spectrum resources required for backhaul

Industry Leading 3-Year Warranty

SureCall

How Big is the Market?

Market Size and Growth

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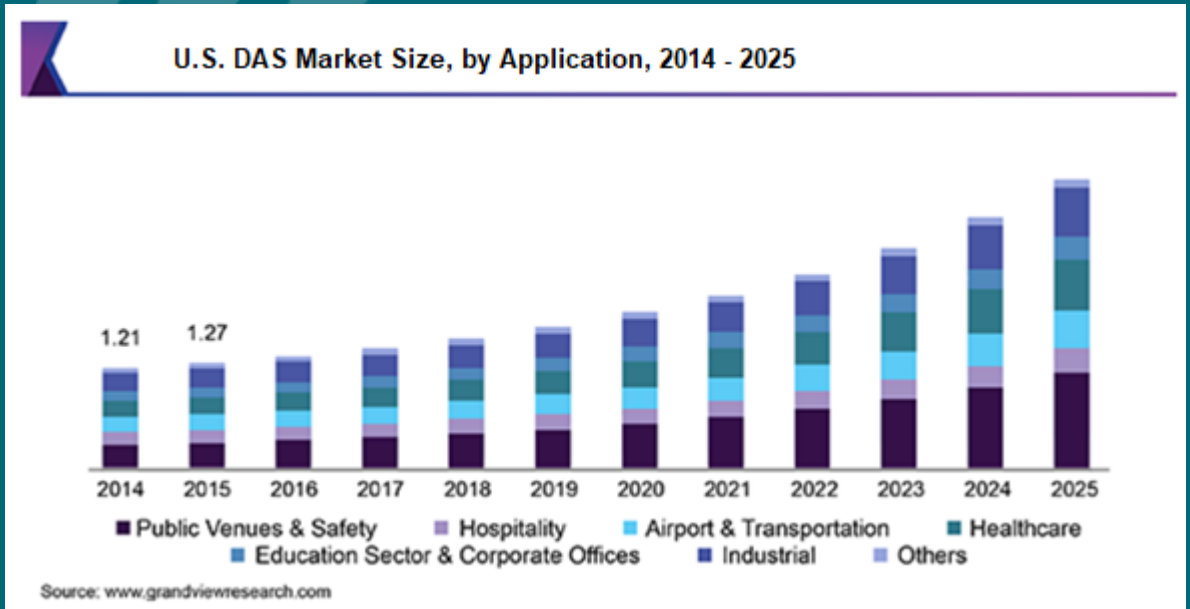


Source: Grand View Research, 2018

Distributed Antenna Systems Market Report Scope

Report Attribute	Details
Market size value in 2020	USD 7,834.9
Revenue forecast in 2025	USD 13,788.5
Growth Rate	CAGR of 11.4% from 2019 to 2025
Base year for estimation	2018
Historical data	2014 - 2017
Forecast period	2019 - 2025

- **80%** of cellular use today happens indoors
- **68%** of customers complain of poor in-building coverage
- **70%** 911 calls start inside

SureCall

Vertical Market Opportunities

Quick Deployment– Carrier approved products allow for immediate deployment.

SureCall Product is a Solid Choice– SureCall's signal boosters are scalable and built to support cellular connectivity inside any building up to 350,000 sq. ft.

Schools

Parking Garages

Hospitality

Commercial Buildings

MDUs

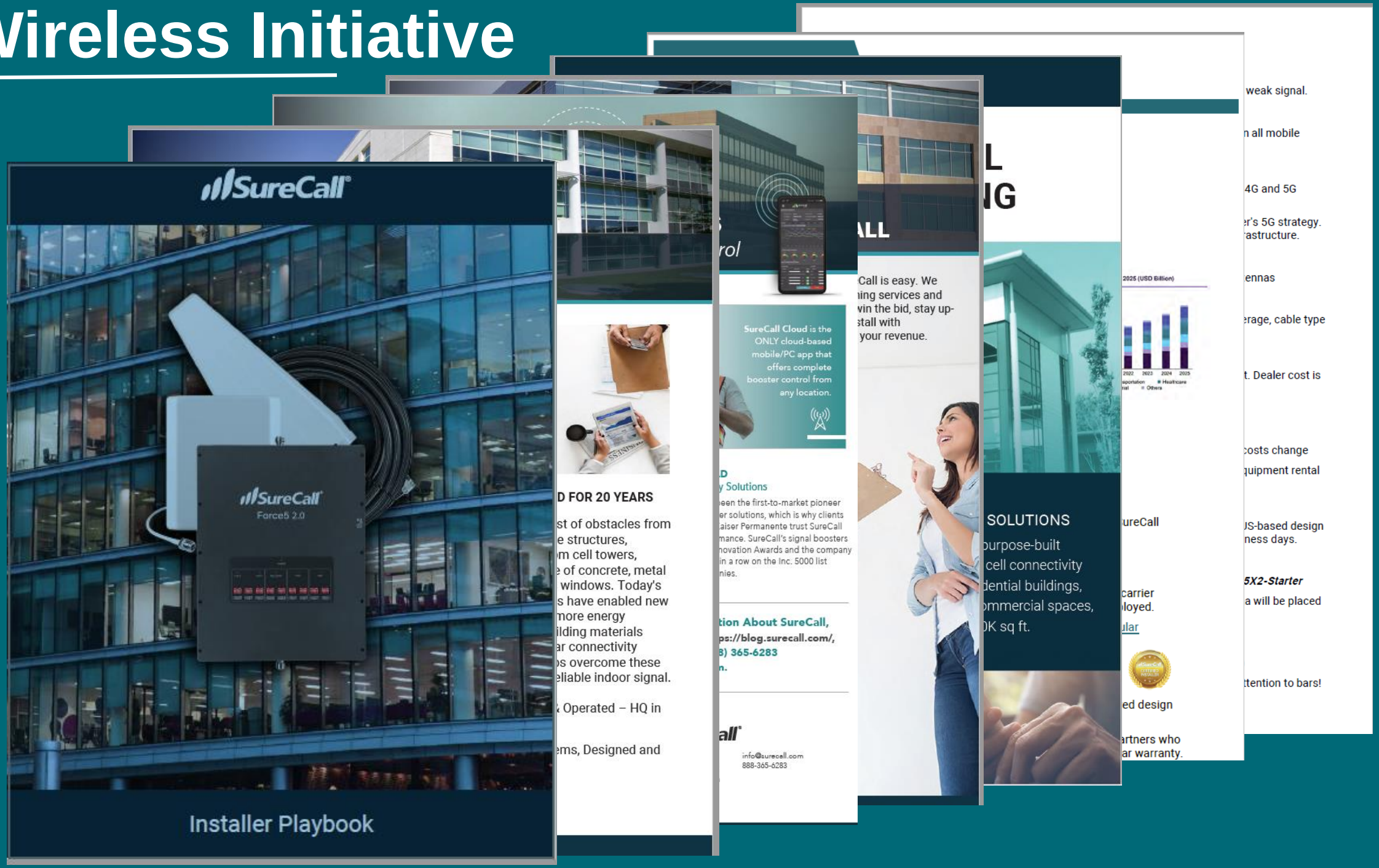
Large Homes

Grocery Stores

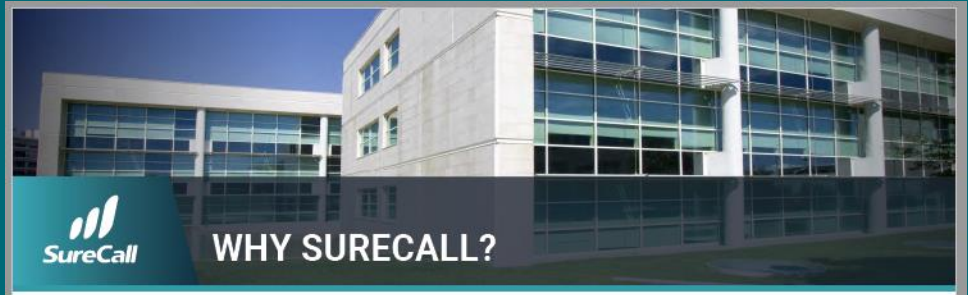
Warehouses

Medical Buildings

Wireless Initiative



Installer Playbook



WHY SURECALL?

SureCall offers the most powerful cell signal boosters available on the market at competitive price points with protected dealer margins and the industry's best booster technology.

Scalable and purpose-built booster products support cellular connectivity inside large offices, residential buildings, schools, MDUs, warehouses, and commercial spaces, up to 500,000 sq ft. Our signal boosters require no recurring fees and feature plug-n-play install with no programming needed.

Fusion5X 2.0 Yagi Panel Kit

SURECALL - TRUSTED FOR 20 YEARS

Cell signal faces a host of obstacles from natural and man-made structures, including distance from cell towers, dense buildings made of concrete, metal roofs and low-e glass windows. Today's construction materials have enabled new buildings to become more energy efficient but these building materials greatly weaken cellular connectivity indoors. SureCall helps overcome these obstacles to deliver reliable indoor signal.

- Proudly US Owned & Operated – HQ in Fremont, California
- FCC Approved Systems, Designed and Tested in the USA

SURECALL CELL BOOSTERS

Best-In-Class Performance and Control

SURECALL PROFESSIONAL Installer Products offer

- Most powerful cell signal boosters available
- Support for all carriers and devices across all bands
- Cloud remote management capabilities
- Free system design services
- One-time install & no recurring fees
- FCC-approved booster systems
- US-based tech support
- Industry-leading warranty

CLOUD-BASED Remote Monitoring

SureCall Cloud is the ONLY cloud-based mobile/PC app that offers complete booster control from any location. With an intuitive user interface, robust data reports, performance optimization, and remote management capabilities, SureCall Cloud gives users the ability to provide 24/7 assurance of uptime with quick and seamless off-site adjustments to maximize the value of your in-building booster deployment.

FREE System Design Services

SureCall offers FREE basic system design configurations for projects over 10K sq. ft. with multiple indoor antennas. SureCall's expert design services team would assist during the planning, implementation and optimization stages to ensure 100% success and customer satisfaction.

iBwave Design Services

SureCall also offers iBwave designs for a small fee for large buildings with multiple indoor antennas. iBwave's Prediction Mapping allows you to see exactly how the proposed deployment's coverage will flow throughout the building, so you'll know what the system will deliver even before it has been installed.

Industry-Leading Warranty and Support Suite

Your peace of mind is important to us, which is why all SureCall products come with our industry-leading customer satisfaction suite. This includes 24/7 lifetime US-based tech support, a 3-year Warranty, and a 60-day money-back guarantee.

LEADING THE WORLD
in Cellular Connectivity Solutions

Since 2001, SureCall has been the first-to-market pioneer of innovative signal booster solutions, which is why clients like NASA, Chrysler and Kaiser Permanente trust SureCall for our quality and performance. SureCall's signal boosters have won multiple CES Innovation Awards and the company is enjoying its fourth year in a row on the Inc. 5000 list of fastest-growing companies.

For More Information About SureCall,
visit our blog at https://blog.surecall.com/,
or contact us at (888) 365-6283
or info@surecall.com.

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SureCall

Installer Playbook

GETTING STARTED WITH SURECALL

STEP 01 — SURECALL TRAINING
Our professional certified training course offers an in-depth look at signal booster solutions and how to promote, spec and install the applicable SureCall product set based on your customer's needs.

STEP 02 — INTRODUCE TO CUSTOMERS
Educate customers about the demand for signal boosters with our customer-facing product flyers, technical data sheets and case studies that are available for each product.

STEP 03 — SYSTEM DESIGNS
Submit your site survey findings, RF signal readings and floor plans directly to our US-based design experts and we'll develop a comprehensive configuration diagram, design layout and BOM.

STEP 04 — DEPLOYMENT & OFF-SITE ACCESS
SureCall provides tools to optimize the booster during install, as well as, manage remotely from off-site with SureCall Cloud app for the option of recurring monthly revenue for remote system management.

Getting started with SureCall is easy. We offer a wide array of training services and resources that help you win the bid, stay up-to-date with products, install with confidence and increase your revenue.

Trusted for 20 years by NASA, Marriott, Chrysler and other Fortune 500 companies to help keep their employees and associates connected and productive with reliable indoor signal.

FUSION5X 2.0 STARTER KIT

Certify with SureCall and get the Fusion5X 2.0 Starter Kit for $850

Help keep your customers connected with SureCall's high-performance wireless solutions that improve coverage for all users and help reduce dropped calls inside buildings that suffer from weak cell signal. SureCall offers multiple booster kits with variety of antenna configurations that provide the flexibility to meet the needs of any building or floorplan.

- Best-in-class RF performance for large residences and mid-size commercial buildings
- Increases voice, text and data signals for all North American carriers and devices
- +16 dBm downlink power for maximum indoor coverage
- Patented SureIQ Technology balances signals ensuring 24/7 uptime at peak performance
- 5G compatible— Fusion5X 2.0 supports 4G & 5G devices

Industry-Leading Support Suite

Your peace of mind is important to us, which is why all SureCall products come with our industry-leading customer satisfaction suite. This includes lifetime US-based tech support and 3-year warranty. SureCall is proudly US-owned and operated, with headquarters located in Fremont California. SureCall also offers:

- Complimentary system designs from SureCall's iBwave-Certified team
- SureCall Sentry cloud remote management capabilities
- FCC & carrier approved systems, Designed in the USA

Fusion5X 2.0 Starter Kit

Includes everything needed to perform a site survey and on-site demonstration:

- Outdoor Directional Yagi Antenna
- Indoor Directional Panel Antenna
- SC-400 Coax Cable (30 ft & 75 ft)
- J-Pole Antenna Mount
- SureCall RF Signal Meter
- Sentry Remote Monitoring Hardware

LEADING THE WORLD in Cellular Connectivity Solutions

Since 2001, SureCall has been the first-to-market pioneer of innovative signal booster solutions, which is why clients like NASA, Chrysler and Kaiser Permanente trust SureCall for our quality and performance. SureCall's signal boosters have won multiple CES Innovation Awards and the company is enjoying its fifth year in a row on the Inc. 5000 list of fastest-growing companies.

Installer Playbook

INSTALLER PLAYBOOK

Why add SureCall boosters to your product portfolio?

- Natural add-on to existing business, additional revenue stream
- In-building wireless connectivity is a must not a luxury
- Profitable business segment

Verticals markets:

- Commercial buildings, Government, Education, Hospitality, Healthcare, Financial, Retail, Restaurants

Market size:

Decision makers:

- Operations / IT management, Facility & business owners, General contractors, Building connectivity managers

Skills needed:

- Able to perform a site survey
- Basic understanding of RF
  - How RF signals penetrate and propagate throughout a building
  - Signal loss through different types of coax cable
- Able to run and terminate coax cable and mount external/internal antennas
- Roof penetrations, with the majority of the skills required are covered in the SureCall Certified Installer trainings

Dealing with the Carriers:

- SureCall boosters are approved by all major carriers and FCC Certified so no carrier coordination is required. Simply register the booster with the carrier once deployed.
  - Register with carriers directly: Verizon, AT&T, T-Mobile/Sprint, US Cellular

Support resources:

- Certified installer training courses– Tier 1 and Tier 2 certifications
- Customer-facing marketing collateral, training videos, install guides, engineered design support including ibwave, in-house tech support, case studies
- Industry-best support suite– We're dedicated to creating happy, connected partners who have all the tools they need to succeed with lifetime US-based support & 3-year warranty.

SALES CONVERSATION

- **Present Flyer** to decision makers explaining you offer a solution to their weak signal.
- **Explain Benefits**
  - No more dropped calls, faster and more reliable 4G LTE / 5G data on all mobile devices for all carriers
- **5G Compatibility Explanation**
  - SureCall boosters are 5G compatible, which means they support all 4G and 5G devices– including 4G phones, 5G phones and MiFi hotspots
  - Dynamic Spectrum Sharing (DSS) is emerging as a key part of carrier's 5G strategy. It allows operators to send 5G signals over their existing towers/infrastructure.
- **Overview of the system architecture and deployment**
  - Antenna on roof, cable run into booster(s), cable runs to internal antennas
- **Needs Assessment**
  - Which carriers, how much and which parts of the building need coverage, cable type requirements, cable run limitations, antenna mounting limitations
- **Prelim Budgeting / Estimate**
  - Most deployments can be completed for an average of $0.75 / sq. ft. Dealer cost is typically $0.45 / sq. ft.
- **Establish Timeline**
  - When does the decision maker expect project to be completed?
  - Good practice to have quotes expire in 30 days for the rare chance costs change
  - Additional $$$ factors– is plenum or higher-grade cable required, equipment rental (lifts), out of town travel, only off-hour access to building
- **SureCall Expert Design Services**
  - Submit floorplans, site survey results & building info directly to our US-based design team at surecall.com/designs. Typical turn-around time is 7-10 business days.
- **On-Site Demonstration / Site Survey**
  - 'Seeing is believing' present Fusion5X 2.0 demo kit *part # **SC-Fusion5X2-Starter***
  - There needs to be "good" signal on the roof where the donor antenna will be placed
  - Rule of thumb– signal is strong enough to make and hold a call
- **Measuring Performance**
  - Calls no longer dropping. Faster data speeds (Ookla Speedtest app)
  - Increase in dB on mobile devices. Field test mode (below), pay no attention to bars!

Deal Registration - Graybar

SureCall

SureCall Deal Registration Program Valid: **January 1st, 2022 – December 31st, 2022**
Registration

Discount: 5% for any project over $5,000 Based on SureCall's invoice price to partner

How to register:
Email sales@surecall.com

Subject Line – Deal Registration with Project Name and Address

Salesperson contact information
Contractor/Dealer contact information
Summary of pre-sales efforts

Expected close date Deal Registration Rules: - Discount is offered to the first partner that submits registration information to Sales@surecall.com

Registration must be a minimum of 7 days prior to the order being placed - SureCall will provide registration number that is to be referenced on the PO - Total order to SureCall must be $5,000+

SureCall

What's in it for?

Turnkey Solution $40,000

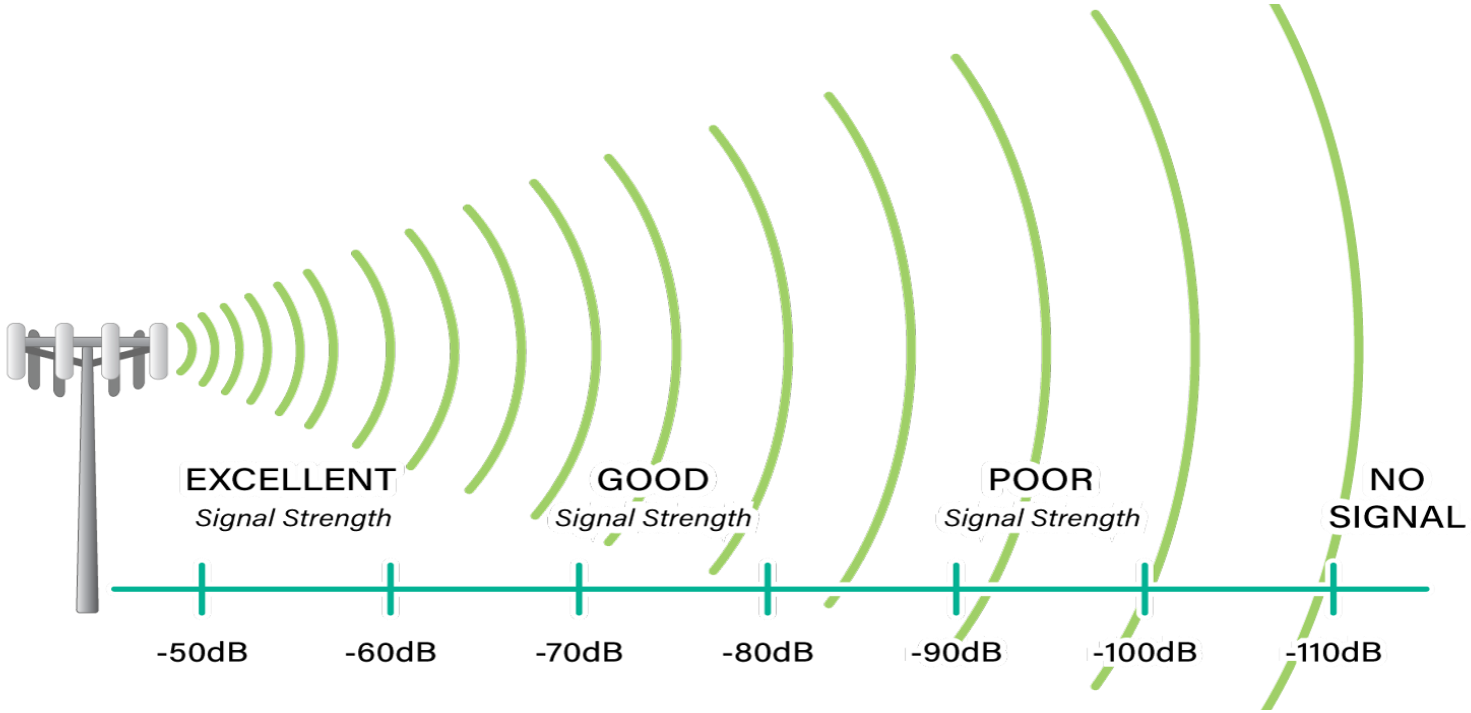
Dealer Cost $12,920

16 – 28 hours of labor

Dealer Profit $27,100 minus labor

How Does Passive DAS Work?

Signal from the cell tower is captured and rebroadcast inside the building



SureCall®
RAISE YOUR BARS

SureCall

What Causes Weak Cellular Signal?

Building Materials

Terrain

Distance from Cellular Tower


4700

SureCall

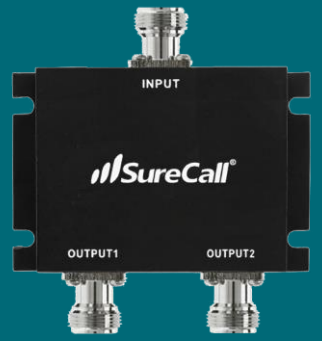
Outside Donor Antenna

SureCall

Amplifier Mounting

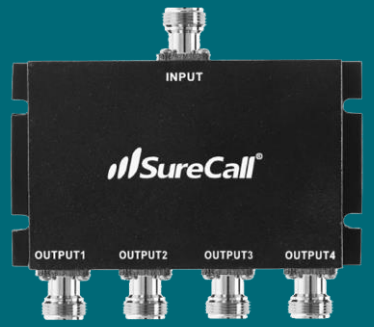
SureCall

Splitters & Couplers

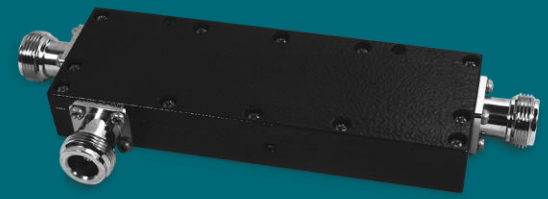


Part Number	SC-WS-2
Type	2-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.4 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	3.5" x 3.9"
Weight	8.4 oz

Part Number	SC-WS-3
Type	3-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.5 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	4.3" x 4.8"
Weight	12.5 oz



Part Number	SC-WS-4
Type	4-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.6 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	4.3" x 4.8"
Weight	13.0 oz



Part Number	SC-C-6
Type	-6 dB Coupler
Insertion Loss	1.7 dB
Coupling Port Loss	6 ± 0.6 dB
Directivity	≥20 dB
Frequency Range	698 - 2500 MHz
VSWR	≤1.25
Impedance	50 Ohm
Power Capacity	200W
Connector	N-Female
Operating Temperature	-22°F to 149°F
Dimensions (without connectors)	4.72" x 1.57" x 0.67"

SureCall

Inside Coverage Antenna

SureCall

Antenna Options

Product Overview

Solutions for Commercial and Residential

SureCall®

SureCall

In-Building Signal Booster Solutions

Fusion Professional

Fusion5x 2.0

Force5 2.0

Force 8

SureCall

Fusion Professional

Compatible with All-Carrier Voice and 4G LTE and 5G phones and devices

Targeted Verticals

- Residential
- Utility (Power / Oil & Gas / Rail)
- Two-Way Radio Dealers
- Small Business

Residential Systems 2021 Picks AWARDS WINNER

Cost Effective Solution for Reliable Indoor Cell Signal

- Covers up to 8,000 sq. ft.
- 5G compatible supporting 4G/ 5G devices, MiFi hotspots and datahubs
- Significantly improves voice, text and data speeds for all North American carriers

Connectivity in the Weakest Signal Environment's

- Exclusive 2XP technology delivers twice the signal power to the tower
- Patented technologies deliver best-in-class performance in weak signal areas

SureCall

Fusion5x 2.0

- SureCall Fusion5X 2.0 with Auto Adjusting Gain
- +16 dBm downlink power for 2X more coverage area than the competition
- Built in SureIQ™ technology eliminates shut-down caused by overpowering and replaces attenuators to deliver 24/7 uptime
- Compatible with SureCall Sentry™ for remote monitoring
- 3-year warranty

SureCall

Force 5 2.0

- SureCall Fusion5X 2.0 with Auto Adjusting Gain
- +17 dBm downlink power for 2X more coverage area than the competition
- Built n SureIQ™ technology eliminates shut-down caused by overpowering and replaces attenuators to deliver 24/7 uptime
- 1st Booster on the market to include remote management
- 3-year warranty

VoLTE CERTIFIED

SureCall

Force 8

- First 5G signal booster that improves 5G service inside buildings including 600 MHz
- Improves 3G and 4G LTE voice, text, and data signals for every US cell carrier, including 800 MHz and AWS-3 bands

VoLTE CERTIFIED

SureCall

Remote Management

SureCall

SureCall Cloud

SENTRY Remote Monitoring Technology

SureCall was the first company to offer remote monitoring embedded technology in the Force5 2.0

Easy App download for any mobile device or use the web interface

Sentry is a great installation tool that helps optimize performance during setup

SureCall

SureCall Sentry

Remote Monitoring – FUSION5 Family of Products

Monitor and adjust a wide range of SureCall products from any PC or portable device

- Easily observe the status of all of your boosters
- View all of your boosters at a glance
- Capture a custom baseline performance report that you control
- Easy to read and understand graphs detailing each of the booster's settings
- Provides real time readings of outside signals and the ability to quickly modify booster settings
- Set customized alarms with multiple email and SMS notifications, with a customized message for each alarm
- See a history of triggered alarms

Sentry E/C
MSRP $480

Available on the App Store

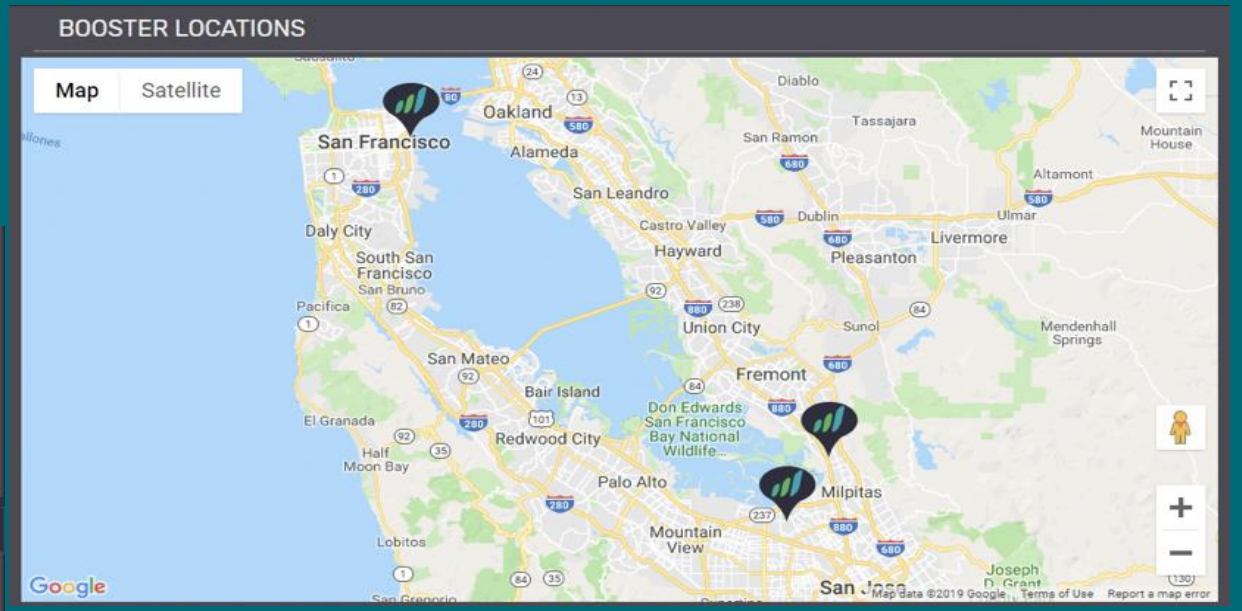
GET IT ON Google Play

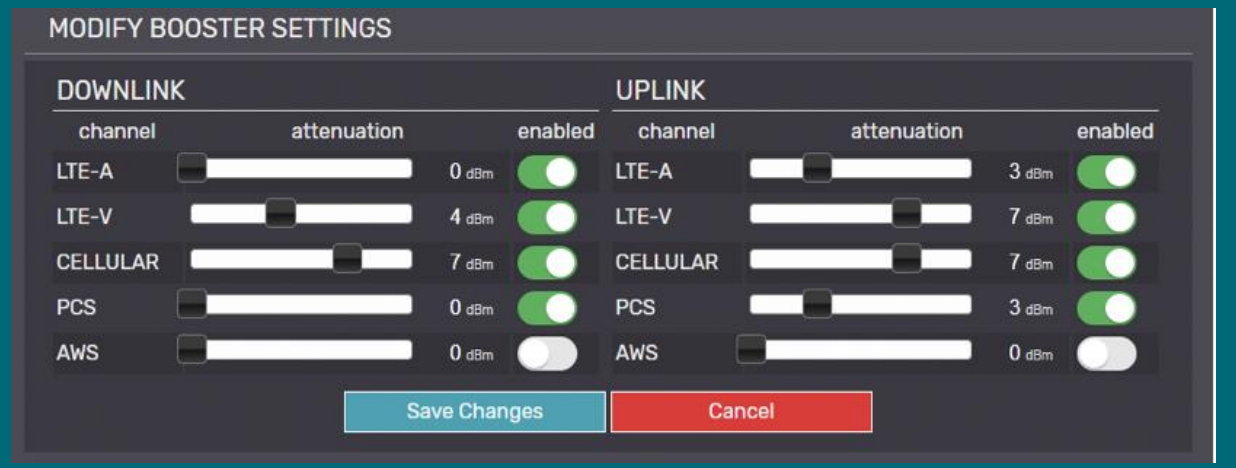
SureCall Cloud

SureCall

www.surecall.cloud.com

View all your boosters at a glance

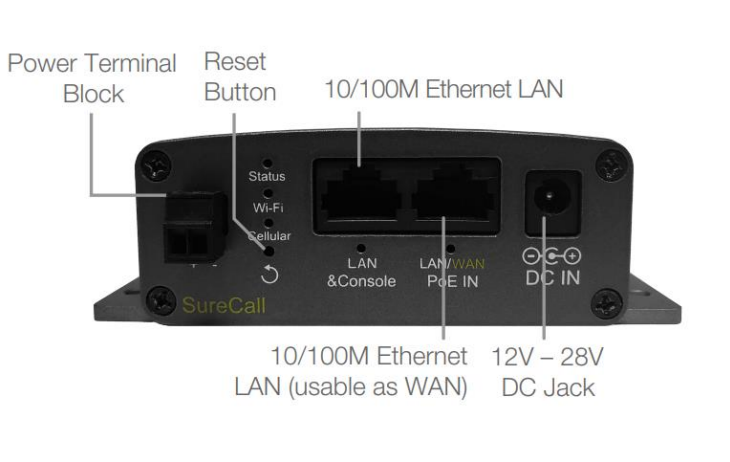


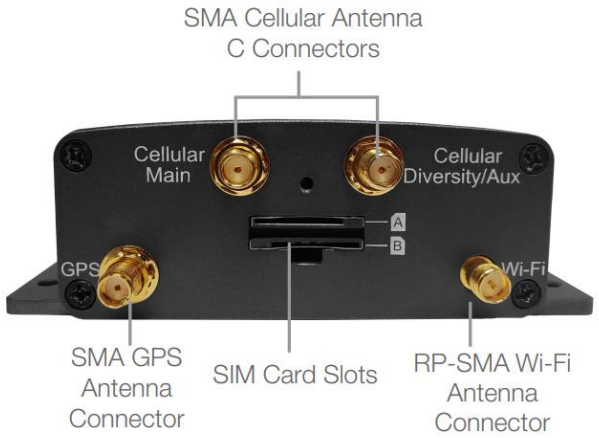


SureCall Cloud

SureCall Modem

SureCall's SC-Modem offers wireless access to remote management hardware— allowing for operation independent of the building's wired Ethernet or WiFi connection. Includes T-Mobile enabled SIM card and activation instructions.





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Evolution of 5G

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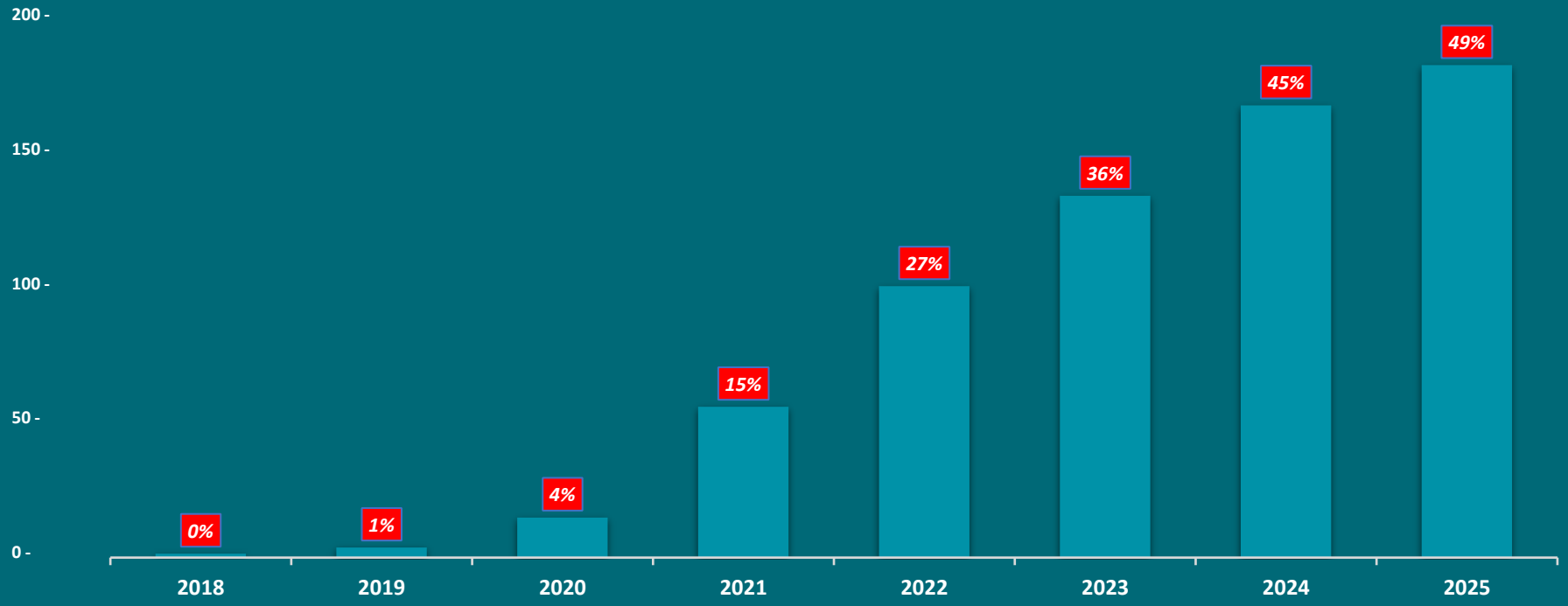
5G Is Happening, but Not So Fast

By year 2025, the US will have 190 million connections, making up nearly half of all mobile connections (excluding licensed cellular IoT) in the country. Globally, there will be 1.4 billion 5G connections, accounting for 15% of all mobile connections.



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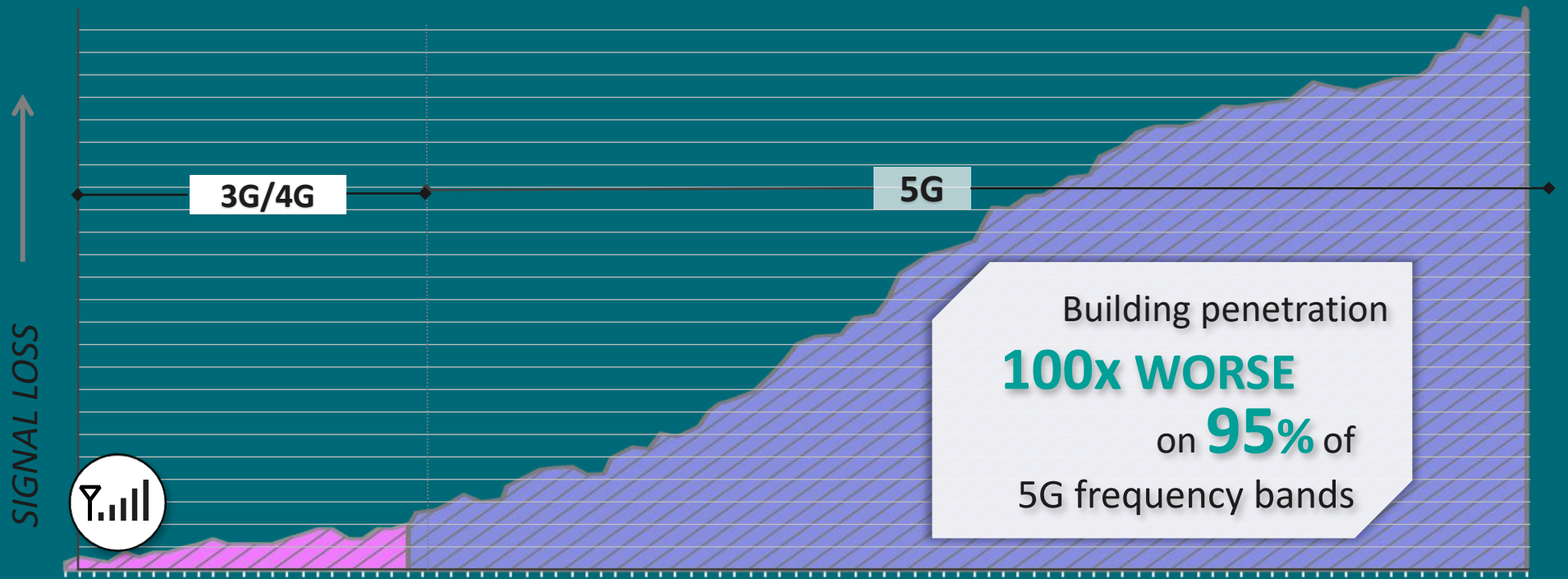
5G Is Happening, but Not So Fast

DISTANCE FROM TOWER

TERRAIN
Mountains / Valleys, Foliage

BUILDING MATERIALS
Low-E Glass, Metal, Concrete



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What Types of 5G area available?

Two different frequency ranges are available for the 5G technology, and the different ranges have been designated FR1 - frequency range 1 and FR2 - frequency range 2

Frequency Range 1 (FR1) / Low and Mid Band / CBRS

- Today's LTE and 5G(E) fall under FR1
  - Sub-6 GHz, frequencies 410 MHz to 7125 MHz
    - SureCall's 5-Band (LTE) boosters enhance 728 MHz – 2155 MHz
    - Envisioned to carry most of the traditional communications traffic (Voice / Data)
  - C-Band 3.5 GHz – 3.7 GHz
    - Dedicated for data transmissions

Dynamic Spectrum Sharing (DSS)

- 5G network using the existing LTE network

Frequency Range 2 (FR2) / Millimeter Wave

- Much greater bandwidth, up to +1 gig of download speeds
  - Frequencies 26 GHz to 38 GHz
- Limited range
- Dedicated for data transmissions

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Site Survey & Design Support

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The Site Survey

The Site Survey

(Required Information)

- What is the outside signal strength in dB?
  - Record readings for all carriers
- Are there any current DAS or Boosters deployed?
- Any high attenuation materials beyond standard materials
- Plenum requirements
- Which cellular providers is the customer interested in boosting?
- Actual dimensions of the building
- What areas of the building are a “must cover”?

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The Site Survey

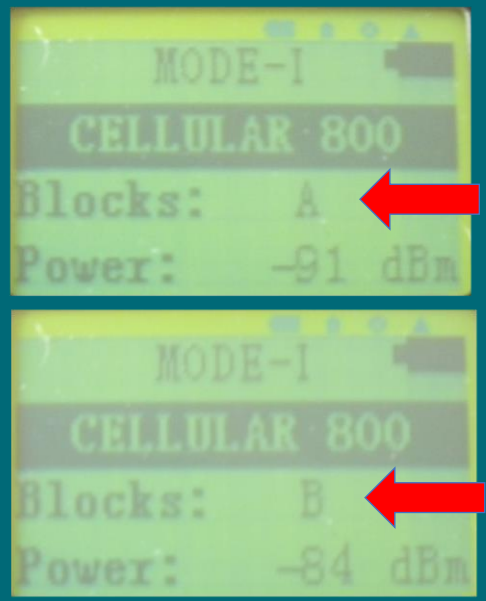
SureCall Signal Meter

LTE		
728-748	746-756	734-746
Band 12	Band 13	Band17

Cell	
870-880	880-890
Band A	Band B

PCS						
1930-1945	1948-1950	1950-1965	1965-1970	1970-1975	1975-1990	1990-1995
Band A	Band D	Band B	Band E	Band F	Band C	Band G

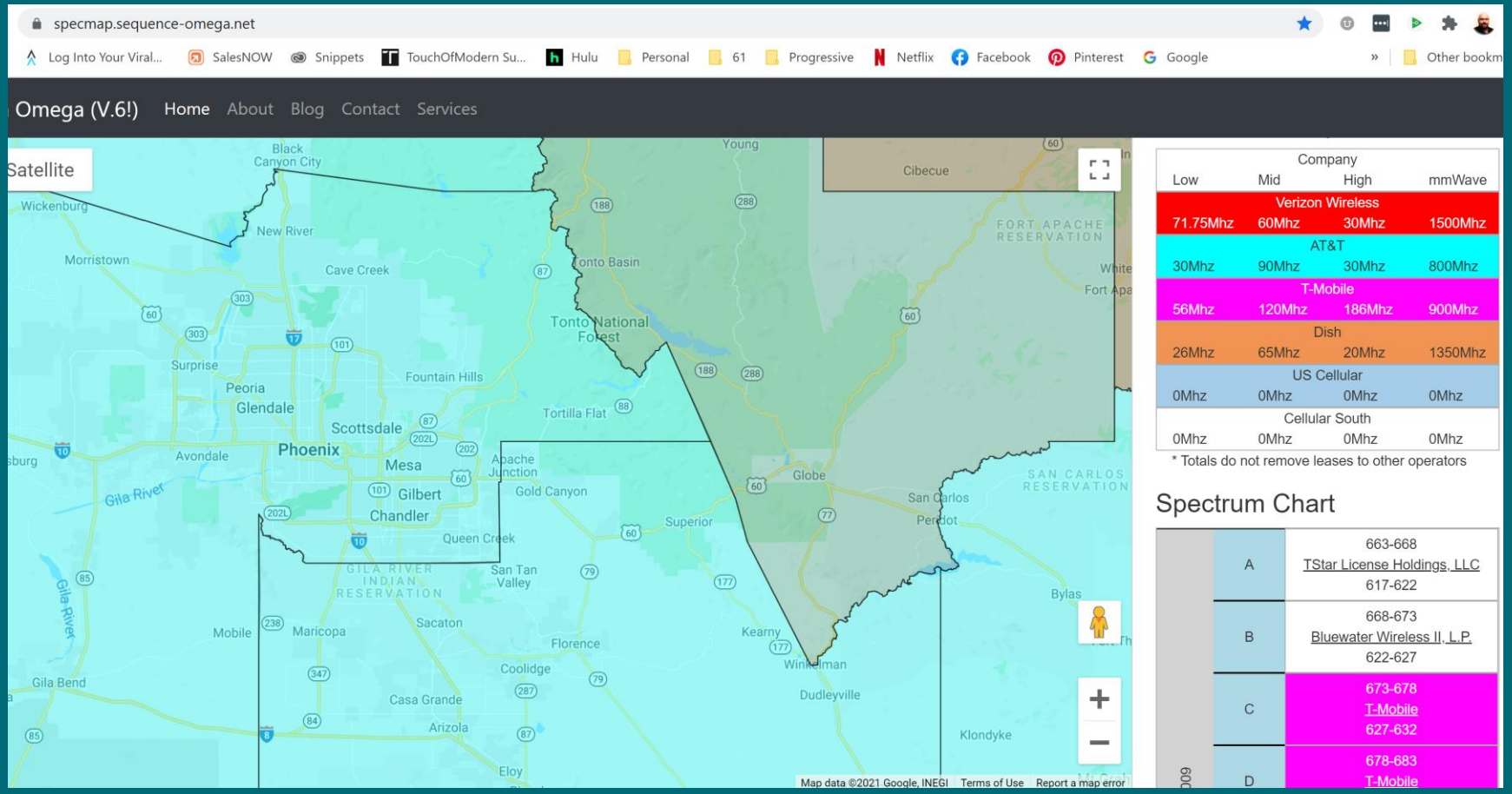
AWS					
2110-2120	2120-2130	2130-2135	2135-2140	2140-2145	2145-2155
Band A	Band B	Band C	Band D	Band E	Band F



SureCall

The Site Survey

Site Support

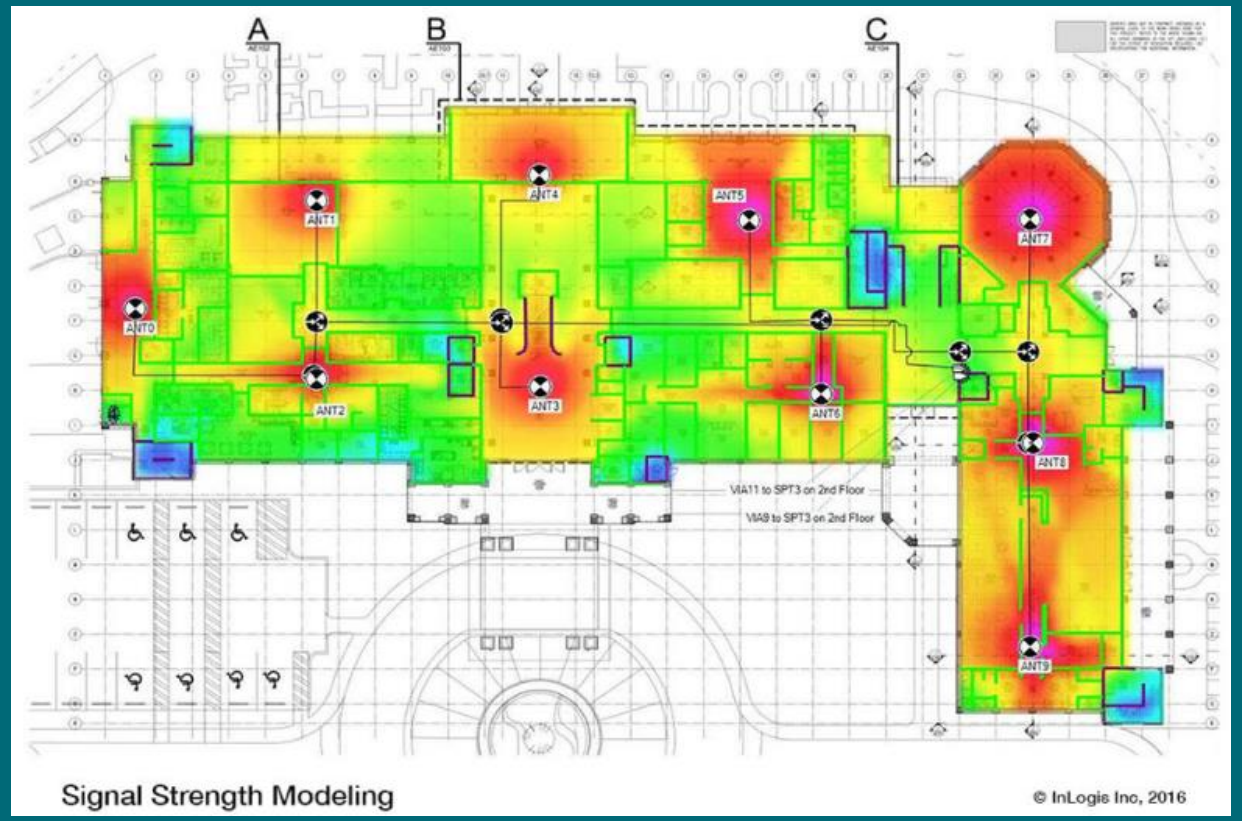


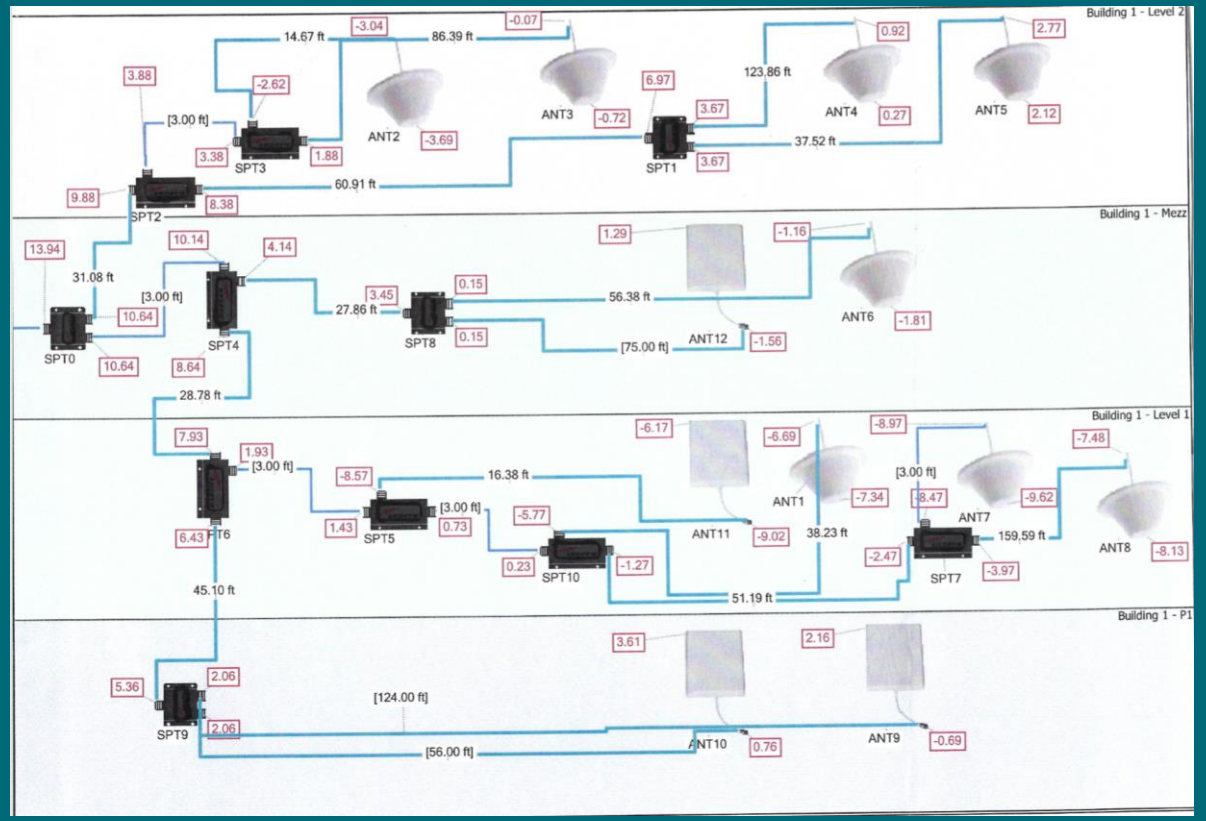
http://specmap.sequence-omega.net

SureCall

Complete Configurations

Free Design Services



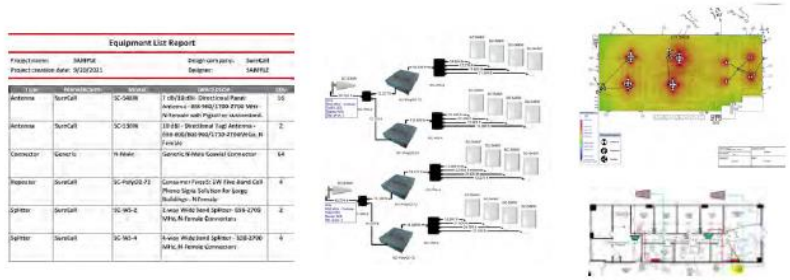


SureCall

Complete Configurations

Free Design Services

BOM AND DESIGN LAYOUT



EQUIPMENT

Force5 2.0

Voice, Text & 4G LTE Cell Phone Signal Booster with Built-In Sentry Remote Monitoring for Large Buildings

Uplink Frequency Range (MHz):	698-716 / 776-787 / 824-849 / 1850-1915 / 1710-1755 (G Block Included)
Downlink Frequency Range (MHz):	728-746 / 746-757 / 869-894 / 1930-1995 / 2110-2155 (G Block Included)
Supported Standards:	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards
Input/output Impedance:	50 Ohm
Maximum Gain:	72 dB
Noise Figure:	5 dB
VSWR:	≤2.0
AC Power Transmitter:	Input AC 110 V, 60 Hz / Output DC 15-20 V
Maximum Output Power:	1 Watt EIRP
Cable:	SC-400
RF Connectors:	N Female (both ends)
Operating Temperature:	-4°F to +158°F
Power Consumption:	<65W
Dimensions:	14.5" x 11" x 3.5"
Weight:	23.5 lbs.

www.surecall.com
/signal-booster/home-office/force5-2

Overview

SureCall's Force5 2.0 is the next evolution in cellular boosting technology. Known as a wideband DAS solution, it provides improved cellular coverage for large buildings with the use of a powered bi-directional amplifier and non-powered antennas and coax-cables. The self-contained cellphone signal booster provides signal strength for all major North American cell carriers resulting in decreased dropped and missed calls and improved 4G LTE data performance.

Additionally, the Force5 2.0 is the first ever cellphone signal booster equipped with built-in remote monitoring through SureCall's proprietary Sentry software and hardware. This allows integrators to optimize booster performance during installation and while location off-site using iPhone* or Android* app, or through the desktop interface.

Unique Features

- Boosts signal for voice, text and 4G LTE data for all major North American carriers
- Reduces dropped and missed calls and improves data performance for 100+ simultaneous users.
- Improves signal coverage for 25,000 sq. ft. in typical conditions; up to 100,000 sq. ft. in ideal conditions.*
- Built-in Sentry remote monitoring system that allows users to adjust the booster attenuation via iPhone or Android mobile app or desktop.
- High linearity across all frequency bands allowing for maximum data throughput.
- Max downlink power for superior performance even with excessive signal (no shutdown).
- Multiple kitting options provide the flexibility to accommodate any floor plan.

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Fusion5X 2.0

Voice, Text & 4G LTE Data Signal Booster with Auto Adjusting Gain for Max Connectivity

Uplink Frequency Range (MHz):	698-716 / 776-787 / 824-849 / 1850-1915 / 1710-1755 (G Block Included)
Downlink Frequency Range (MHz):	728-746 / 746-757 / 869-894 / 1930-1995 / 2110-2155 (G Block Included)
Supported Standards:	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards
Input/Output Impedance:	50 Ohm
Maximum Gain:	72 dB
Noise Figure:	8 dB
VSWR:	≤2.0
AC Input:	Input AC 110 V, 60 Hz / Output DC 12 V
Maximum Output Power:	1 Watt EIRP
Downlink Power:	+16 dBm
Cable:	SC-400
RF Connectors:	N-Female (both ends)
Power Consumption:	<25W
Operating Temperature:	-4°F to +158°F
Dimensions:	9.25" x 6.375" x 1.375"

www.surecall.com
/signal-booster/home-office/fusion5x-2

Overview

Fusion5X 2.0 is the industry's most powerful signal booster in its class. Covering up to 2X more area than the closest competitor, FUsion5X 2.0 is the chosen solution for mid to large size applications that need access to reliable voice, text, and data signals. The Fusion5X 2.0 works with all phones and mobile devices on all North American cellular networks.

Unique Features

- +16 dBm downlink power for 2X more coverage area than the competition.
- Improves voice, text and 4G LTE data signals in mid to large size buildings, offices and residences.
- Built in SureIQ technology eliminates shut-down caused by overpowering and replaces attenuators to deliver 24/7 uptime
- Auto-adjusting gain ensures continuously maximized performance.
- Supports all North American phones and cellular networks
- Industry best 3-year warranty and lifetime, US-based tech support
- Compatible with SureCall Sentry for remote monitoring

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Exterior Donor Antenna Specification:

Outdoor Yagi
Wide Band High-Gain
Directional Antenna

Wide band high-gain directional 50 Ohm antenna with N-Female connector designed for SureCall in-building cell phone signal boosters.

- N-Female connector
- 8 dBi Gain
- 50 Ohm
- Wide band: 2G, 3G & 4G LTE (698 - 2700 MHz)
- Includes mounting hardware
- Connects to booster with SC-400 cable (sold separately)

www.surecall.com
/signal-booster/accessories/sc-230w-outdoor-yagi-antenna

Product Specifications

Part Number	SC-230W
Frequency	698-806 / 806-960 / 1710-2700 MHz
Input Impedance	50 Ohm
Antenna Gain	8 dBi
VSWR	≤1.8
Polarization Type	Vertical
Signal Pattern	Directional
Maximum Power	50 Watt
Connector	N-Female
Diameter	Φ40～50
Beamwidth	E50 H75 / E50 H75 / E40 H60
IP Rating	IP56
Color	White
Mount	Mounts on pipe up to 2" in diameter
Dimensions	17.3" x 8" x 1.45"
Weight	2 lb 4 oz
Part Number	SC-230W
Frequency	698-806 / 806-960 / 1710-2700 MHz
Input Impedance	50 Ohm

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Exterior Donor Antenna Specification:

Outdoor Omni
Wide Band Omni-Directional Antenna

Wide band omni-directional 50 Ohm antenna with N-Female connector designed for use with SureCall in-building cell phone signal boosters.

- N-Female connector
- 2-3 dBi / 3-4 dBi gain
- 50 Ohm
- Wide band: 2G, 3G & 4G LTE (698 - 2700 MHz)
- Includes mounting hardware
- Connects to booster with SC-400 cable (sold separately)

www.surecall.com
/signal-booster/accessories/sc-288w-outdoor-omni-antenna

Product Specifications

Part Number	SC-288W
Frequency	698-960 / 1700-2700 MHz
Input Impedance	50 Ohm
Antenna Gain	2-3 dBi - 698-960 MHz / 3-4 dBi - 1700-2700 MHz
Beamwidth	E:72 H:92 / E:50 H:80
VSWR	≤1.8
IP Rating	IP65
Polarization Type	Vertical
Radiation Pattern	Omni-Directional
Power Rating	10 W
Maximum Power	100 W
Connector Type	N-Female
Height	9.5”
Width	3.9"
Weight	1 lb
Ground Plane	Built-in
Operating Temperature	-22° F to +176° F
Material	Fiberglass
Mount Type	Roof or Wall

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Inside Server Antenna Specification:

Ultra Thin Low-Profile
Indoor Dome Antenna

Designed to blend seamlessly into any environment, the SureCall Ultra Thin Antenna™ is a low-profile indoor dome antenna for SureCall in-building cell phone signal booster kits.

Ultra Thin is an omni-directional 50 Ohm ceiling-mount antenna that transmits and receives signal in a 360-degree pattern-covering 2G/3G/4G and WLAN systems for Cellular, PCS, AWS and LTE frequencies.

- N-Female connector (50 ohm)
- 3.5 dBi / 7.5 dBi Gain
- Wide band: 2G, 3G & 4G LTE (698 - 2700 MHz)
- Two mounting options for all ceiling types
- Connects to booster with SC-400 cable (sold separately)

Product Specifications

Part Number	SC-528W
Frequency	698-960 / 1710-2700 MHz
Input Impedence	50 Ohm
Max Gain	3.5 dBi / 7.5 dBi
Non-Circularity	±2.5 dB / ±4.0 dB
Beamwidth	360 degrees
VSWR	≤1.7
Polarization Type	Vertical
Radiation Pattern	Omni-directional
Connector Type	N-Female
Height	2.11"
Diameter	12.2"
Weight	1.21 lbs
Cover Material	PC+ABS
Mount Type	Ceiling

www.surecall.com
https://www.surecall.com/signal-booster/accessories/SC-528W/

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Inside Server Antenna Specification:

Indoor Dome Wide Band Omni-Directional Ceiling-Mount Antenna

Low-profile and unobtrusive, SureCall's indoor dome antenna is designed to be ceiling-mounted so it easily blends with your indoor environment. The antenna transmits and receives signal in a 360-degree pattern and is designed to cover 2G/3G/4G and WLAN systems for Cellular, PCS, AWS and LTE frequencies.

- N-Female connector
- 2 dBi / 5 dBi Gain
- 50 Ohm
- Wide band: 2G, 3G & 4G LTE (698 - 2700 MHz)
- Includes mounting hardware
- Connects to booster with SC-400 cable (sold separately)

www.surecall.com
/signal-booster/accessories/sc-222w-indoor-dome-antenna

Product Specifications

Part Number	SC-222W
Frequency	698-960 / 1700-2700 MHz
Input Impedence	50 Ohm
Antenna Gain	2 ± 0.5 dBi / 5 ± 0.5dBi
Beamwidth	360 degrees
VSWR	≤2.0
Polarization Type	Vertical
Radiation Pattern	Omni-directional
Maximum Power	50 W
Connector Type	N-Female
Height	3.5"
Diameter	7.25"
Weight	10.5 oz
Ground Plane	Built-in
Mount Type	Ceiling

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Inside Server Antenna Specification:

Indoor Panel Wide Band High-Gain Directional Antenna

Wide band high-gain directional 50 Ohm antenna designed for use with SureCall in-building cell phone signal boosters.

- N-Female connector
- 7 dBi / 10 dBi Gain
- 50 Ohm
- Wide band: 2G, 3G & 4G LTE (698 - 2700 MHz)
- Includes mounting hardware
- Connects to booster with SC-400 cable (sold separately)

www.surecall.com
/signal-booster/accessories/sc-248w-indoor-panel-antenna

Product Specifications

Part Number	SC-248W
Frequency	698-960 / 1700-2700 MHz
Input Impedence	50 Ohm
Antenna Gain	7 dBi / 10 dBi
Horizontal Beamwidth	120°
Vertical Beamwidth	100°
VSWR	≤2.0/≤1.5
Polarization Type	Vertical
Radiation Pattern	Directional
Maximum Power	50 W
Connector Type	N-Female
Height	8.3"
Width	7.1"
Weight	1 lb
Ground Plane	Built-in
Mount Type	Wall

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Passive Components Used In Design:

Part Number	SC-WS-4
Type	4-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.6 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	4.3" x 4.8"
Weight	13.0 oz

Part Number	SC-WS-2
Type	2-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.4 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	3.5" x 3.9"
Weight	8.4 oz

Part Number	SC-WS-3
Type	3-Way Splitter
Frequency Range	698-2700 MHz
Insertion Loss	≤0.5 dB
Isolation	≥22 dB
VSWR	≤1.5:1
Maximum Power	20 W
Connector	N-Female
Dimensions (with connector)	4.3" x 4.8"
Weight	12.5 oz

Part Number	SC-C-6
Type	-6 dB Coupler
Insertion Loss	1.7 dB
Coupling Port Loss	6 ± 0.6 dB
Directivity	≥20 dB
Frequency Range	698 - 2500 MHz
VSWR	≤1.25
Impedance	50 Ohm
Power Capacity	200W
Connector	N-Female
Operating Temperature	-22°F to 149°F
Dimensions (without connectors)	4.72" x 1.57" x 0.67"

www.surecall.com
/signal-booster/accessories/sc-248w-indoor-panel-antenna

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SureCall Cable: SC-400

Ultra Low-Loss 50 Ohm Coaxial Cable

Overview

The SC-400 is our most popular type of cable. This ultralow-loss coaxial cable comes in a variety of lengths. This cable is ideal for connecting amplifiers with antennas. It can be used indoors or outdoors to connect to the antennas and amplifiers.

Features

- For indoor/outdoor use
- Ultra Low Loss
- N-Male/N-Male connectors on both ends (not applicable for 500 ft and 1,000 ft spools)
- Spools Available in White or Black
- N-Male crimp connector (part # SC-CN-09) available for purchase
- Weatherproof, heat shrunk and tested

www.surecall.com
/signal-booster/accessories/sc-400-cable

Technical Specs

Conductor	Copper-clad aluminum
Conductor Diameter	0.108 inches
Insulation	Foamed PE
Insulation Diameter	0.285 inches
Jacket	PVC
Outer Diameter	0.405
Color	Black
Rated Temperature	-40 to 185°
Rated Voltage	2500
Impedance	50 ohms
Capacitance (pF/ft)	23.9

Models & Length

SC-001-02	2 ft Black Cable with N-Male connectors
SC-001-02	10 ft Black Cable with N-Male connectors
SC-001-20	20 ft Black Cable with N-Male connectors
SC-001-30	30 ft Black Cable with N-Male connectors
SC-001-50	50 ft Black Cable with N-Male connectors
SC-001-75	75 ft Black Cable with N-Male connectors
SC-001-100	100 ft Black Cable with N-Male connectors
SC-001-500	500 ft Black Cable, no connectors
SC-002-500	500 ft White Cable, no connectors
SC-001-1000	1000 ft Black Cable, no connectors
SC-002-1000	1000 ft White Cable, no connectors

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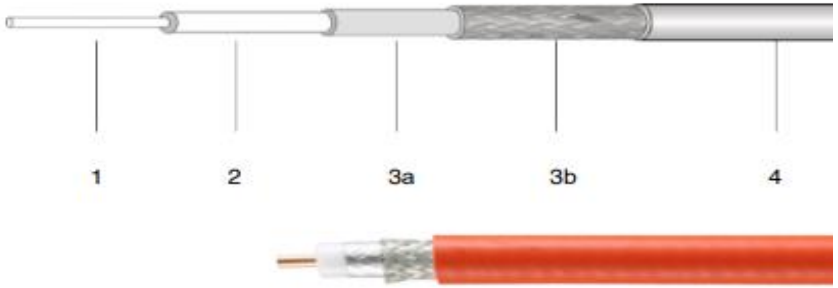
SureCall Cable: SC-PL Plenum

Ultra Low-Loss Coaxial
Cable for Plenum Ceilings

Construction Specification

Item	Material	Diameter (mm/inch)
1. Inner Conductor	Copper clad aluminum wire	2.74/0.108
2. Dielectric	Foam PE	7.24/0.258
3. Outer Conductor	(a) Aluminum foil + (b) (b) Tinned copper braid	8.13/0.320
4. Jacket	FRPE	8.93/0.352



Overview

SureCall's Plenum-rated SC-400 cable is insulated with low smoke and low flame characteristics. Almost all large buildings utilize the ceiling for returning air to the AC unit, thereby making it a plenum ceiling which means all cables running through the ceiling needs to be plenum rated cable.

Electrical Characteristics

Velocity (%)	85
Dielectric constant	1.73
Impedance(ohm)	50
Capacitance (pF/m)	78
Shielding Effectiveness(dB)	>90
Voltage Withstand (VDC)	2500
Jacket Spark (VAC)	8000

Attenuation (20℃) @sea level

Frequency (MHz)	Typical Attenuation (dB/100ft.)
700 MHz	3.5
800 MHz	3.8
900 MHz	4
1900 MHz	5.9
2100 MHz	6.2
2500 MHz	6.8

Mechanical & Environmental Characteristics

Bend Radius: Installation(mm)	45
Bend Radius: Repeated(mm)	65
Operating Temp (℃)	-40 ~+60
RoHS	Compliant
UL approved	CMP

www.surecall.com
/signal-booster/accessories/sc-pl-plenum-cable

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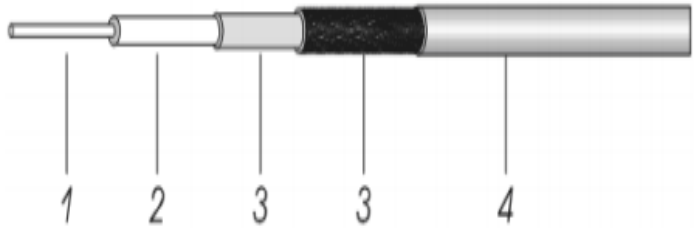
SureCall Cable: SC-600

Lowest-Loss 50 Ohm Coaxial Cable

Construction Specification

Item	Material	Diameter (mm)
1. Inner Conductor	Copper clad aluminum	4.47±0.03
2. Dielectric	Physical foam PE	11.56±0.30
3. Outer Conductor	Bonded Aluminum + Tinned Copper	Nom.12.50
4. Jacket	Black Polyethylene	14.99±0.20



Overview

Lowest-loss SC-600 coaxial cable available in a 1,000-foot spool can be used indoors or outdoors to connect SureCall cell phone signal boosters with antennas.

Electrical Characteristics

Capacitance (pF/ft)	23.4
Impedance (ohm)	50
Velocity (%)	87
Inner Conductor DC Resistance (Ω/1000ft)	＜0.65
Outer Conductor DC Resistance (Ω/1000ft)	＜1.5
Shielding Effectiveness (dB)	＞90
Jacket Spark (VAC)	5000
Cutoff Frequency (GHz)	10.3
Peak Power (kW)	40
Return Loss (0.03~3000MHz, dB)	≤-18

Attenuation (20°C) and Avg. Power (40°C)

Frequency (MHz)	Typical Attenuation (dB/100ft)	Max Attenuation (dB/100ft)	Avg. Power(KW)
150	1.0	1.1	2.16
220	1.2	1.3	1.77
450	1.7	1.9	1.23
700	2.18	2.45	0.95
750	2.26	2.55	0.92
800	2.35	2.63	0.88
900	2.5	2.7	0.84
1500	3.3	3.7	0.63
1800	3.7	4.1	0.57
2000	3.9	4.3	0.54
2500	4.4	4.9	0.48
5800	7.3	8.2	0.29
6000	7.45	8.91	0.28

Mechanical & Environmental Characteristics

Min. Bend Installation Radius (mm)	38.1
Min. Bend Repeated Radius (mm)	152.4
Storage Temp. (°C)	-40 to +85
Installation Temp. (°C)	-70 to +85
Operating Temp. (°C)	-40 to +85

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Resources

Case Studies

blog.surecall.com/category/case-studies/

Carrier Approval Letters

www.surecall.com/cell-phone-signal-booster/carrier-approval/

Force5 Certifications

blog.surecall.com/force5-becomes-first-volte-certified-consumer-cellular-signal-booster/

blog.surecall.com/lte-standards-change-the-cellular-signal-booster-market/

Fusion5X 2.0 with SureIQ

blog.surecall.com/announcing-fusion5x-2-mid-sized-office-signal-booster/

Booster Registration Links

AT&T

securec45.securewebsession.com/attsignalbooster.com/

Verizon

verizonwireless.com/wcms/consumer/register-signal-booster.html

Sprint

sprint.com/legal/fcc_boosters.html

T-Mobile

support.t-mobile.com/docs/DOC-9827

US Cellular

www.uscellular.com/uscellular/support/fcc-booster-registration.jsp/

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Attend SureCall's Level 2 Training and receive a Surecall Signal (SC-Meter01) for **$99.99**, MSRP $349.00

Next training

Helpful Links

SureCall

Completing Site Surveys
https://www.youtube.com/watch?v=FqQ669oS7P8
https://www.youtube.com/watch?v=tV_lERxbf7U&t=813s

Certified Installer Training
https://www.surecall.com/cell-phone-signal-booster/become-an-installer/

Lvl 1 Certified Installer Program
https://www.youtube.com/watch?v=4-r2a5g6VRY&t=81s

Manuals and Spec Sheets
https://www.surecall.com/cell-signal-booster/user-manuals/

Case Studies
https://blog.surecall.com/category/case-studies/

Cellular Design Portal
https://www.surecall.com/cell-phone-signal-booster/design-service/

Sentry Software Video
https://www.youtube.com/watch?v=HPWkUmKA088

Sentry Software
https://www.surecall.com/support/sentry/

Carrier Consent Letters
https://www.surecall.com/cell-phone-signal-booster/carrier-approval/

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THANK YOU

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