



SOLiD

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Simple | Easy | Flexible | SOLiD

# SOLiD GENESIS™

## Sub3 DAS

**The most advanced, flexible, easy to deploy DAS available.**

SOLiD GENESIS™ Sub3 DAS is a new wireless coverage platform, designed to meet the evolving requirements of all scales, from the small to large venues.

The GENESIS Sub3 DAS approach incorporates innovative software and hardware features that simplify installation and configuration, delivers 100% user control, and increases flexibility for all verticals and applications.



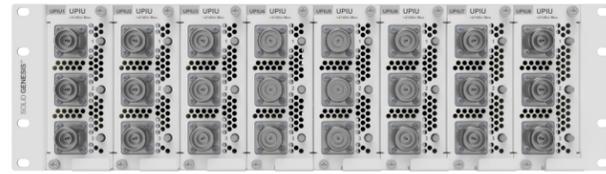
# SOLID GENESIS™ Sub3 DAS

Distributed Antenna Systems (DAS) is a proven technology, reliably delivering increased wireless coverage and capacity in stadiums, subways, airports, tunnels places where the macro network falls short. Everyday around the world, millions of cellular users connect to a SOLiD DAS. Unfortunately for most, their connected experience ends once they enter a building. For the billions of square feet of commercial real estate, the complexity and economics of traditional DAS is a deal breaker.

Commercial buildings are rapidly deploying new smart building technology. Property technology or Prop Tech is a trend that enables buildings to operate more efficiently, and create high value, customizable tenant and occupant experiences.

SOLID GENESIS™ DAS is a robust property technology plug-in that solves a property's cellular problems. Using the same prop tech infrastructure GENESIS Sub3 DAS delivers private LTE wireless network connectivity for IoT and prop tech communications and multi-operator cellular service for the property's staff, tenants and visitors.

## UPOI Universal Point of Interface



### Functions & Features

- Passive, low PIM attenuator
- Wideband module supports 600-3800 MHz
- Number of ports matches the number of ports in the DAU

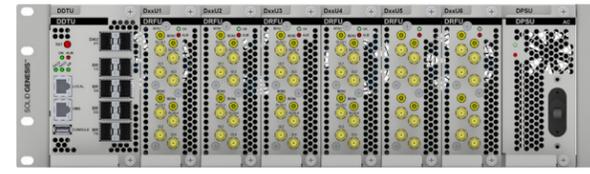
## DMS3000 DAS Management System 3000



### Functions & Features

- Provide all-in-one DAS management platform with intuitive user interface over HTTPS
- Support multiple GENESIS™-E DAS groups and various scales of network branches with a single instance
- A complete set of alarm management and performance monitoring function for efficient operation

## DAU Distribution & Aggregation Unit



### Functions & Features

- Interfaces with 1 to 24 signal source inputs
- Each DAU supports up to 512 LRNs or 128 H/MRNs.
- Support two expansion DAUs, local or remote, for more sectors
- Provide LMT for commissioning and management

## HCU Hub Copper Unit



### Functions & Features

- Support 8 LRNs per HCU via Cat6a with PoE
- Support cascaded HCU connection up to 8-level
- Power to each LRN is controlled and monitored

## LRNc/o Low-power Remote Node



### Functions & Features

- Two types of LRN availability by interface type: CAT6A or Optical Fiber
- SISO and MIMO options may be supported
- 4 Bands @ 20dBm per Band ,
- Easy above or below ceiling or surface mount installation
- Internal antenna or external antenna port(s)

## MRN Middle-power Remote Node



### Functions & Features

- For outdoor and indoor service with max 4 bands per single enclosure
- Integrated multiplexer to combine all bands into one antenna
- Each MRN supports one expansion MRN and daisy chain wired up to 8 MRNs
- MRN Output power is 33dBm/30dBm per band (Low frequency band is 30dBm and High frequency band is 33dBm)

## DRFU DAU RF Unit



### Functions & Features

- 4T4R interfaces, 4 simplex or 4 duplex ports
- Discrete RF inputs per carrier per band
- Maximum DL handling power 1W

## DCU DeCode Unit



### Functions & Features

- T-Sync generation for TDD synchronization with DAU
- Support up to 8 main DAUs with T-Sync split kit

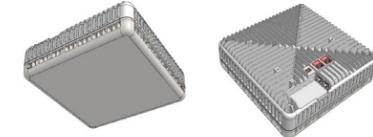
## HOU Hub Optic Unit



### Functions & Features

- Support 8 LRNs per HOU via optical cable with DC power
- Support cascaded HOU connection up to 8 HOU

## gLRN OCT Low-power Remote Node 8 bands



### Functions & Features

- 8 band with 2G/3G/4G and 5G in single enclosure
- Flexible MIMO combination up to 2x2 per 4G and 4x4 for 5G
- 400/800MHz Bandwidth over single or Dual CAT6A or Optic interface
- Output power is above 20/23dBm per band
  - Low frequency band is 20dBm (< 1GHz)
  - High frequency band is 23dBm (> 1GHz)
- Internal Antenna (External Antenna optional)

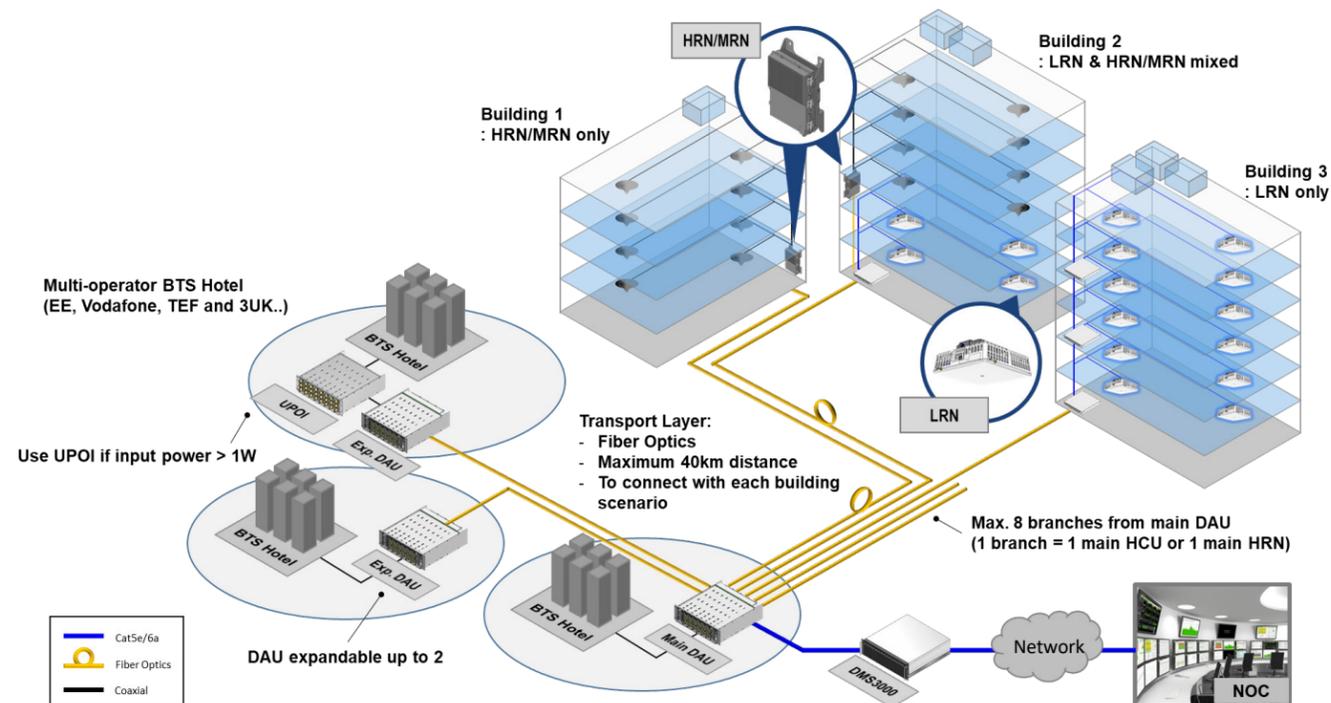
## HRN High-power Remote Node



### Functions & Features

- For outdoor and indoor service with max 4 bands per single enclosure
- Integrated multiplexer to combine all bands into one antenna
- Each HRN supports one expansion HRN and daisy chain wired up to 8 HRNs
- HRN Output power is 46dBm/43dBm per band (Low frequency band is 43dBm and High frequency band is 46dBm)

# Flexible Ethernet to the Edge Architecture



## Make DAS Easy, Keep It SOLiD.

SOLiD GENESIS™ approach is clear. Create a single platform that is easier to install, with simple to use tools to commission and manage the network yet powerful enough to meet the demands of the most challenging wireless coverage environments. In short, Make it SOLiD.

## Software Driven - Enhanced User Experience

The SOLiD GENESIS™ provides a new level of wireless expertise and remote operational control via a simple and intuitive GUI: Easy Commissioning, Performance Monitoring and Sector Management.

# GENESIS Sub3 System Specifications

## GENESIS Sub3 General Specification

Item	Specification								Remark
Frequency Band	700	800	900	1800	2100	2600	2300	2600	
Instantaneous Bandwidth	30MHz	30MHz	35MHz	75MHz	60MHz	70MHz	60MHz	50MHz	
Technology	LTE	LTE	GSM UMTS LTE	GSM UMTS LTE	UMTS LTE	LTE(FDD)	LTE(TDD)	LTE(TDD)	
Transmission Capacity	10Gbps								
Transmission Distance	Up to 30km E2E @Optic, <100m@twisted wire (CAT6A)								
VSWR	< 1.4 : 1								
Frequency Error	±0.01ppm								
System Delay	< 12usec, +1.0usec raise per node in daisy chain, EDAU)								

## GENESIS Sub3 Mechanical Specification

Item	Dimensions (W x H x D)	Weight	Power Consumption	Power Connector Type
UPOI	19" x 3U x 475mm	31kg	25W (with UPIUs fully loaded)	D-SUB 25P male
DAU	19" x 3U x 475mm	17.5kg	370W (with DRFUs fully loaded, incl. UPOI)	IEC320/C14
DCU	19" x 1U x 420mm	4.4kg	36W	IEC320/C14
HCU	19" x 1U x 450mm	6.5kg	820W (with LRNs ports fully connected)	IEC320/C14
HOU	19" x 1U x 450mm	6.5kg	820W (with LRNs ports fully connected)	IEC320/C20
LRNc/o	265 x 265 x 80mm	4.4kg	70W (with LRFUs fully loaded)	Terminal block(LRNo)
MRN	324 x 422 x 165mm	22.5kg	300W (with MRFUs fully loaded)	Circular push pull connectors
HRN	460 x 650 x 252mm	45kg	850W (with HRFUs fully loaded)	MIL-5015

## GENESIS Sub3 Connector Types, Cooling Fans and Noise Level Specification

Item	Input Connector Type	Output Connector Type	Input Voltage	Cooling Fans	Noise Level
UPOI	24 * 4.3-10_F ports for RAN	24 *QMA_F ports for DAU	Powered by DAU	Yes	Max. 65dBA
DAU	24 * DL/UL ports: QMA_F for RAN 24 * UL ports: QMA_F for RAN 24 * Monitoring ports: MCX_F for DCU	2 * Optic ports for E-DAU 8 * Optic ports for HCU/HRN	AC 110/220V, DC -48V	Yes	Max. 65dBA
DCU	24 * QMA_F to DAU	2 * QMA_F ports for T-Sync.	AC 110/220V, DC -48V	No	N/A
HCU	1 * Optic port for DAU	1 * Optic port for HCU 8 * PoE ports: RJ-45 for LRN	AC 110/220V, DC -48V	Yes	Max. 65dBA
LRN	1* PoE port: RJ45 for HCU	4 * SMA_F ports for Ext. ANT's	DC 57V@PoE from HCU or HOU(LRNo)	No	N/A
MRN	1 * Optic port for DAU	1 * Optic port for daisy-chained MRN 1 * Optic port for extended MRN 1 * 4.3-10_F for ANT's	AC 220V	No	N/A
HRN	1 * Optic port for DAU	1 * Optic port for daisy-chained HRN 1 * Optic port for extended HRN 2 * 4.3-10_F for ANT's	AC 220V	Yes	Max. 60dBA

### Connect with SOLiD

SOLiD helps people stay connected and safe in a rapidly changing world through a portfolio of the digital DAS for the various venues. SOLiD enables indoor and outdoor cellular and public-safety communications at some of the world's best-known and most challenging venues including leading hospitals; professional and college sports venues; government, university and Fortune corporate buildings and campuses; international airports and metropolitan subways.

For more information or complete technical specifications, please visit our website or contact us via email or phone.  
solid.com



Unit 2, Weighbridge Row,  
Cardiff Road  
Reading RG1 8LX, UK

solid.com  
emea@solideu.com

