Simple | Easy | Flexible | SOLiD

SOLiD GENESIS™ n78 DAS

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

SOLiD GENESIS™ n78 DAS is a new wireless coverage platform for 5G, designed to meet the evolving requirements of all scales, from the small to large venues.

The GENESIS n78 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.
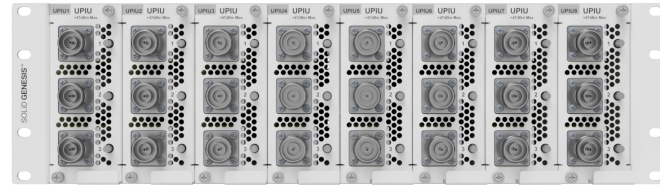
SOLiD GENESIS™ n78 DAS

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 n78 DAS delivers private 5G NR wireless network connectivity for IoT and prop tech communications and multi-operator service for the property's staff, tenants and visitors.

UPOI Universal Point of Interface

Functions & Features
- Passive, low PIM attenuator
- Wideband module Support 600-3800 MHz
- Support 24 ports

DMS3000 DAS Management System 3000

Functions & Features
- Provide all-in-one DAS management platform with intuitive user interface over HTTPS
- Support multiple GENESIS™-E & gGENESIS 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

EPSU Expansion Power Supply Unit

Functions & Features
- Support power to 24 gLRNos via power cable
- Support up to 400m power distance via AWG14
- Function for current monitoring, current limit, port on/off

gRFU RF Unit

Functions & Features
- Support multiple bands & multiple operators
- 400MHz/800MHz bandwidth over single/dual fibers
- Wideband RF input(3.4 ~ 3.8GHz, OBW 100MHz)
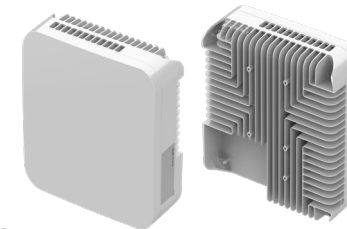- Provide 8 RF ports interface

gHCU Hub Copper Unit

Functions & Features
- Support daisy chain wired up to 8 gHCUs
- Support 4 optical ports interface for gMU/Daisy chain gHCU
- Provide 8 Ethernet ports interface for gLRNc

gLRNc/o Low -power Remote Node

Functions & Features
- Two types of gLRN availability by interface type: CAT6A or Optical
- 400/800MHz Bandwidth over single or Dual CAT6A or Optic interface
- Support 4T4R , 200MHz BW per PA with 23dBm output
- Easy above or below ceiling or surface mount installation
- Two different antenna type form factor – Internal or External type

gMRN Middle-power Remote Node

Functions & Features
- For outdoor and indoor service with max 4 bands per single enclosure
- Maximum 20km end-to-end optical distance
- Each gMRN supports daisy chain wired up to 8 gMRNs
- Support 4T4R, 200MHz BW per PA with 33dBm output power

gMU Main Unit

Functions & Features
- Signal aggregation and rerouting
- Support max 4 gRFUs with 12 optical branches
- Automatic detection of 5G NR TDD switching signal configuration
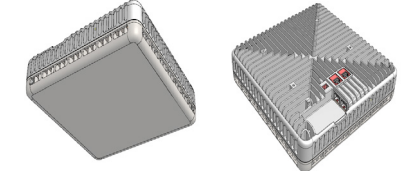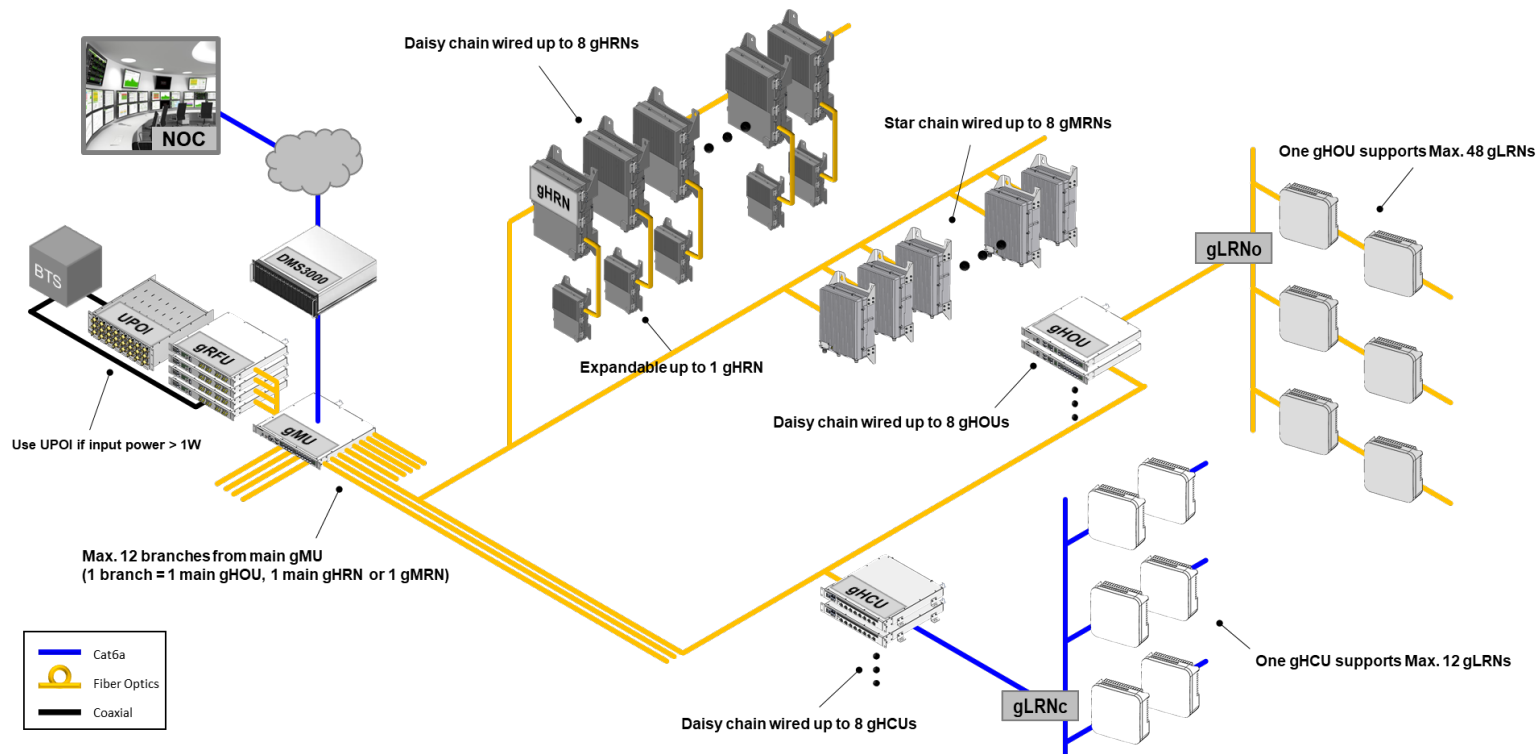- 400/800MHz bandwidth over single/dual fibers

gHOU Hub Optic Unit

Functions & Features
- Support daisy chain wired up to 8 gHOUs
- Support 16 optical ports interfaces(4 for gMU & gHOU / 12 for remotes)
- 400/800MHz Bandwidth over single/dual fibers

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)
- Two different antenna type form factor – Internal or External type

gHRN High-power Remote Node

Functions & Features
- For outdoor and indoor service with max 2 bands per single enclosure
- Maximum 20km end-to-end optical distance
- Each gHRN supports one expansion gHRN and daisy chain wired up to 8 gHRNs
- Support 2T2R, 200MHz BW per PA with 46dBm output power (4T4R available by expansion)

Flexible 5G Connectivity to the Edge Architecture

Daisy chain wired up to 8 gHRNs

Star chain wired up to 8 gMRNs

One gHOU supports Max. 48 gLRNs

NOC

gHRN

gLRNo

Expandable up to 1 gHRN

Daisy chain wired up to 8 gHOUs

BTS

UPOI

gRFU

gMU

DMS3000

gHOU

Use UPOI if input power > 1W

Max. 12 branches from main gMU
(1 branch = 1 main gHOU, 1 main gHRN or 1 gMRN)

gHCU

One gHCU supports Max. 12 gLRNs

gLRNc

Daisy chain wired up to 8 gHCUs

- Cat6a
- Fiber Optics
- Coaxial

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 n78 System Specifications

GENESIS n78 General Specification

Item	Specification	Remark
Frequency Band	3300 ~3800MHz	
Instantaneous RF Bandwidth	200MHz	per amp
Technology	5G NR	
Transmission Capacity	10Gbps	per fiber
Transmission Distance	<20km@Optic, <100m@twisted wire (CAT6A)	
VSWR	< 1.4 : 1	
Frequency Error	±0.01ppm	
System Delay	< 8usec, +1.0usec raise per node in daisy chain	

GENESIS n78 Mechanical Specification

Item	Dimensions (W x H x D)	Weight	Power Consumption	Power Connector Type
UPOI	19" x 1U x 475mm	31kg	25W (with UPIUs fully loaded)	D-SUB 25P male
gRFU	19" x 1U x 420mm	6.5kg	145W (with fully loaded, incl. UPOI)	AC: IEC 320/C14 / DC: C10-730511-Z2P
gMU	19" x 1U x 420mm	5.2kg	90W (with fully loaded)	AC: IEC 320/C14 / DC: C10-730511-Z2P
gHCU	19" x 1U x 450mm	6.5kg	820W (with 8 copper gLRNc)	AC: IEC 320/C14 / DC: C10-730511-Z2P
gHOU	19" x 1U x 420mm	4.9kg	80W (with fully loaded)	AC: IEC 320/C14 / DC: C10-730511-Z2P
*gLRNc	231 x 231 x 80mm	4.1kg	75W (with LRFUs fully loaded)	N/A
*gLRNo	231 x 231 x 80mm	4.1kg	70W (with LRFUs fully loaded)	Terminal block
gLRN_OCT	250 x 250 x 85mm	5.2kg	80W (with LRFUs fully loaded)	N/A
EPSU	19" x 1U x 374mm	6.8kg	910W per 1 HOPSU (Max. 2730W)	AC: IEC 320/C20
gMRN	310 x 390 x 170mm	19.3kg	170W (with MRFUs fully loaded)	Circular push pull connectors
gHRN	310 x 390 x 170mm	16kg	370W (with HRFUs fully loaded)	Circular push pull connectors

*Integrated antenna type

GENESIS n78 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
gRFU	8 * DL/UL ports: QMA_F for RAN 8 * Monitoring ports: MCX_F for DCU	2 * Optic ports for gMU	AC 110/220V, DC -48V	Yes	Max. 65dBA
gMU	8 * Optic ports for gRFU	12 * Optic ports for remotes or hubs	AC 110/220V, DC -48V	Yes	Max. 65dBA
gHCU	4 * Optic port for gMU	1 * Optic port for gHCU 8 * PoE ports: RJ-45 for gLRNc	AC 110/220V, DC -48V	Yes	Max. 65dBA
gHOU	2 * Optic port for gMU 2 * Optic port for daisy chain wired gHOU	12 * Optic ports for gLRNo	AC 110/220V, DC -48V	Yes	Max. 65dBA
gLRNc	1* PoE port: RJ45 for HCU	4 * SMA_F ports for Ext. ANTs	DC 57V@PoE from gHCU	No	N/A
gLRNo	1* Optic port for gMU or gHOU	1 * Optic port for gLRNo	DC 57V@Power from EPSU	No	N/A
gLRN_OCT	1* Optic port for gMU or gHOU 1* PoE port: RJ45 for HCU	1 * Optic port for gLRNo 1* PoE port: gLRN_OCT	DC 57V@Power from EPSU	No	N/A
EPSU	N/A	N/A	AC 110/220V (100~240V)	Yes	Max. 65dBA
gMRN	1 * Optic port for gMU or gHOU	1 * Optic port for daisy-chained gMRN 1 * Optic port for expansion gMRN	AC 110/220V, DC -48V	No	N/A
gHRN	1 * Optic port for gMU or gHOU	1 * Optic port for daisy-chained gHRN 1 * Optic port for expansion gHRN	AC 220V	No	N/A