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 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.

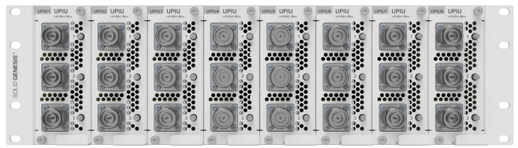
SOLiD GENESIS™ n78 DAS

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 buildings and other facilities, the complexity and economics of traditional DAS was a major issue.

SOLiD GENESIS™ DAS is a robust, flexible, expandable, and customizable cellular coverage solution for multiple operators and technologies as universal platform. SOLiD's unique linearization method maximizes system power efficiency and saves the total cost of ownership (TCO).

Flexible and scalable structure of the headend and remote units (gRFU, gMU, gLRN, gMRN, and gHRN) provides flexibility of upgrading, adding and changing configurations which can save cost.

UPOI Universal Point of Interface

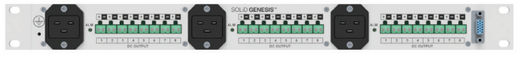


Functions & Features
- Passive, low PIM attenuator
- Wideband module supports 600–3800 MHz
- Supports 24 ports

DMS3000 DAS Management System 3000

Functions & Features
- Provides all-in-one DAS management platform with intuitive user interface over HTTPS
- Supports multiple SOLiD GENESIS™ DAS groups and various scales of network branches at a glance
- A complete set of alarm management and performance monitoring for efficient operation

EPSU External Power Supply Unit



Functions & Features
- Supplies power to 24 gLRNo via power cable
- Supports up to 400 m power distance via 2.5 mm² (or 14 AWG)
- Function for current monitoring, current limit, and port on/off

gRFU RF Unit

Functions & Features
- Supports multiple bands & multiple operators
- 400 MHz/800 MHz bandwidth over single/dual fiber
- Wideband RF input (3.4–3.8 GHz, OBW 100 MHz)
- Provides 8 RF ports interface

gMU Main Unit

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

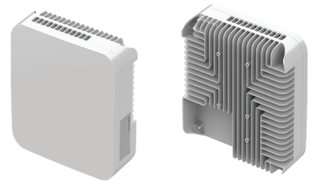
gHCU Hub Copper Unit

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

gHOU Hub Optic Unit

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

gLRNc/o Low-power Remote Node



Functions & Features
- Two types of gLRN availability by interface type: Cat 6A or optical
- 400/800 MHz bandwidth over single or dual Cat 6A or optic interface
- Supports 4T4R, 200 MHz bandwidth per PA with 23 dBm output
- Easy above/below ceiling or surface mount installation
- Two different antenna type form factor – internal or external type

gLRN OCT Low-power Remote Node 8 Bands

Functions & Features
- 8 bands with 2G/3G/4G and 5G in a single enclosure
- Flexible MIMO configuration up to 2T2R per 4G and 4T4R for 5G
- 400/800 MHz bandwidth over single or dual Cat 6A or optic interface
- gLRN OCT Output power
  - Low frequency band: 20 dBm (< 1 GHz)
  - High frequency band: 23 dBm (> 1 GHz)
- Two different antenna type form factor – internal or external type

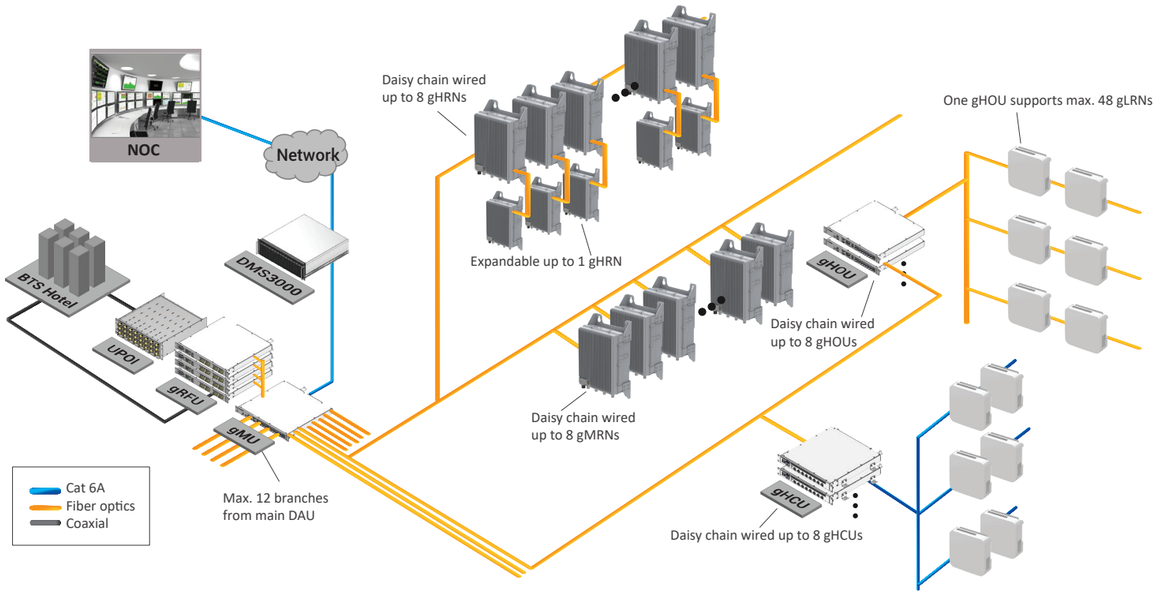
gMRN Medium-power Remote Node

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

gHRN High-power Remote Node

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

Flexible 5G Connectivity 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

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 Specifications

Item	Specification	Remark
Frequency Band	3300–3800 MHz	
Instantaneous RF Bandwidth	Input: max. 100 MHz per gRFU port/Output: max. 220 MHz per PA	
Technology	5G NR	
Transmission Capacity	10 Gbps	per fiber
Transmission Distance	< 20 km @ optic, < 100 m @ twisted wire (Cat 6A)	
VSWR	< 1.4:1	
Frequency Error	±0.01 ppm	
System Delay	< 8 µsec, +0.5 µsec raise per node in daisy chain	

GENESIS n78 Mechanical Specifications

Item	Dimensions (W x H x D)	Weight	Power Consumption	Power Connector Type
UPOI	19” x 1U x 475 mm	31 kg	25 W (with UPIUs fully loaded)	D-SUB 25P male
gRFU	19” x 1U x 420 mm	6.5 kg	145 W (with fully loaded, incl. UPOI)	AC: IEC 320/C14, DC: C10-730511-Z2P
gMU	19” x 1U x 420 mm	5.2 kg	90 W (with fully loaded)	AC: IEC 320/C14, DC: C10-730511-Z2P
gHCU	19” x 1U x 450 mm	6.9 kg	820 W (with 8 copper gLRNc)	AC: IEC 320/C14, DC: C10-730511-Z2P
gHOU	19” x 1U x 420 mm	4.9 kg	80 W (with fully loaded)	AC: IEC 320/C14, DC: C10-730511-Z2P
gLRNc*	231 x 231 x 80 mm	3.8 kg	75 W (with LRFUs fully loaded)	RJ45
gLRNo*	231 x 231 x 80 mm	3.8 kg	70 W (with LRFUs fully loaded)	Terminal block
gLRN OCT*	260 x 260 x 72.5 mm	3.4 kg	70 W (with LRFUs fully loaded)	RJ45/Terminal block
EPSU	19” x 1U x 374 mm	10.1 kg	910 W per 1 HOPSU (Max. 2730 W)	AC: IEC 320/C20, DC: -48 V, 17.7 A
gMRN	310 x 390 x 170 mm	19.3 kg	170 W (with MRFUs fully loaded)	Circular push pull connectors
gHRN	310 x 390 x 170 mm	18 kg	370 W (with HRFUs fully loaded)	Circular push pull connectors

*Based on the integrated antenna type. LRNc/gLRNo/gLRN OCT come in both internal and external antenna types.

GENESIS n78 Connector Types, Cooling Fans and Noise Level Specifications

Item	Input Connector Type	Output Connector Type	Input Voltage	Cooling Fans	Noise Level
UPOI	24 x 4.3-10_F port for RAN	24 x QMA_F ports for gRFU	Powered by gRFU	Yes	Max. 65dBA
gRFU	8 x DL/UL ports: QMA_F for RAN 8 x Monitoring port: MCX_F for DCU	2 x Optic ports for gMU	AC 110/220 V, DC -48 V	Yes	Max. 65dBA
gMU	8 x Optic port for gRFU	12 x Optic ports for remotes or hubs	AC 110/220 V, DC -48 V	Yes	Max. 65dBA
gHCU	4 x Optic port for gMU	1 x Optic port for gHCU 8 x PoE ports: RJ-45 for gLRNc	AC 110/220 V, DC -48 V	Yes	Max. 65dBA
gHOU	2 x Optic port for gMU	2 x Optic port for daisy chain wired gHOU 12 x Optic ports for gLRNo	AC 110/220 V, DC -48 V	Yes	Max. 65dBA
gLRNc	2 x PoE port: RJ45 for HCU	4 x NEX10_F ports for Ext. ANTs	DC 57 V @ PoE from gHCU	No	N/A
gLRNo	1 x Optic port for gMU or gHOU	1 x Optic port for gLRNo 4 x NEX10_F ports for Ext. ANTs	DC 57 V @ Power from EPSU	No	N/A
gLRN_OCT	1 x Optic port for gMU or gHOU 1 x PoE port: RJ45 for HCU	1 x Optic port for gLRNo 1 x PoE port: gLRN_OCT	DC 57 V @ Power from EPSU	No	N/A
EPSU	D-SUB 15P	24 x DC power feeding for gLRNo	AC 110/220 V, DC -48 V	Yes	Max. 65dBA
gMRN	1 x Optic port for gMU or gHOU	1 x Optic port for daisy-chained gMRN 1 x Optic port for expansion gMRN	AC 110/220 V, DC -48 V	No	N/A
gHRN	1 x Optic port for gMU or gHOU	1 x Optic port for daisy-chained gHRN 1 x Optic port for expansion gHRN	AC 220 V, DC -48V	No	N/A

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.
solideu.com

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