



SOLID


Simple | Easy | Flexible | SOLiD

SOLiD GENESIS™ DAS

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

SOLiD GENESIS DAS is a new wireless coverage platform, designed to meet the evolving requirements of all venues as well as the emerging MIDDLEPRISE market.

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



Over the past few decades the wireless industry has turned to distributed antenna systems to meet the growing demand. DAS is a proven solution, reliably delivering both coverage and capacity in stadiums, subways, airports, Tier one venues where the macro network falls short. Unfortunately, for the millions of SQFT of commercial buildings that make up the MIDDLEPRISE, the complexity and economics of traditional DAS technology, is not an option.

CRE buildings are adopting technology to keep pace with increasing tenant expectations and to drive building efficiencies. Inbuilding wireless is a natural plug in to this technology revolution. However, the property tech revolution has evolved traditional inbuilding coverage requirements.

SOLiD's GENESIS is a perfect fit. With enhanced software functionality designed to lower labor cost and leverage remote configuration and commissioning combined with a standards based, structured cabling infrastructure, SOLiD's approach fits seamlessly with today's CRE enterprise requirements and is also an attractive alternative for traditional tier one locations.

Make DAS Easy, Keep It SOLiD.

The 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

GENESIS provides a new level of embedded wireless expertise and remote operational control via a simple and intuitive drag and drop GUI that includes: Signal Decoding, Spectrum Analyzer, Sector Management.

MIDDLEPRISE - Fiber to the Edge

GENESIS LRN (Low-power remote node), supported by standard IT structured cabling and WiFi-like installation efforts, removes the complexity of a traditional DAS infrastructure.

One Platform Does It All

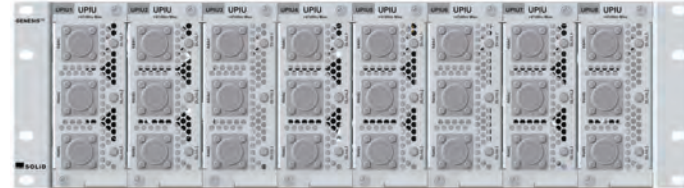
GENESIS is an application ready wireless coverage platform. Stadium to Subways to MIDDLEPRISE. One solution delivers lower cost deployments through the use of the new Low-Power Remote Node, Next-Generation 5/20/40W amplifiers and space saving multi-band, multi-carrier headend equipment. Nothing beats our robust, versatile, flexible DAS platform.

Backward Platform Compatibility

Simple field upgradable hardware make upgrading your SOLiD ALLIANCE deployment to GENESIS a snap. A GENESIS upgrade delivers huge capex savings by leveraging your existing ALLIANCE 5/20/40W remote optical units and infrastructure.

SOLiD GENESIS DAS: Game Changing DAS

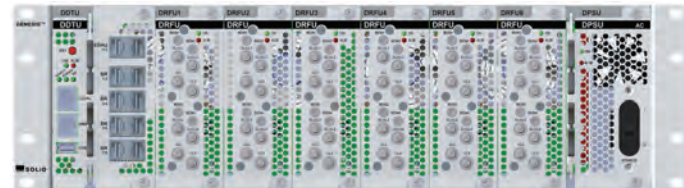
GENESIS UPOI Universal Point of Interface



Functions & Features

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

GENESIS DAU Distribution & Aggregation Unit



Functions & Features

- Interfaces with 1 to 24 signal source inputs using wideband modules
- Distributes signals to any combination of eight HOU's and/or remotes
- Supports two expansion DAUs, local or remote, for more sectors
- Commissioning and management through embedded, intuitive user interface

GENESIS DRFU Distribution RF Unit

Functions & Features

- Interfaces with four signal sources, simplex or duplex inputs
- Each input port independent from other ports
- Input ports support any combination of bands within the range of the DRFU
- Three wideband modules to support 600 – 2700 MHz



GENESIS HOU Hub Optical Unit



Functions & Features

- Provides data to eight remote units, any combination of remote power classes
- Daisy chain up to two HOU's per branch
- Modular power supply provides power to eight LRN remotes
- Power to each remote is controlled and monitored
- Meets NEC Class 2

GENESIS DCU Decode Unit



Functions & Features

- Decodes channel and system information
- Wireless operator, Sector ID, and reference power (CIPCH, RSRP, etc)
- Decode LTE (FDD or TDD), UMTS, CDMA
- System may be commissioned remotely using decoded information

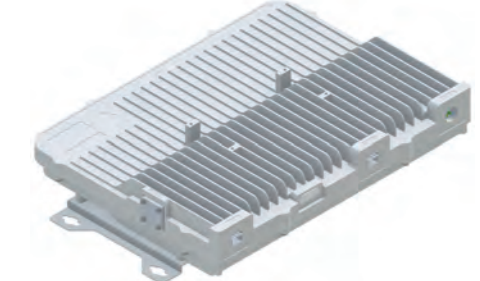
GENESIS EPSU Expansion Power Supply Unit



Functions & Features

- Provides power to as many as 24 LRN remotes
- Each modular power supply supports eight LRN remotes
- Power to each remote is controlled and monitored
- Meets NEC Class 2

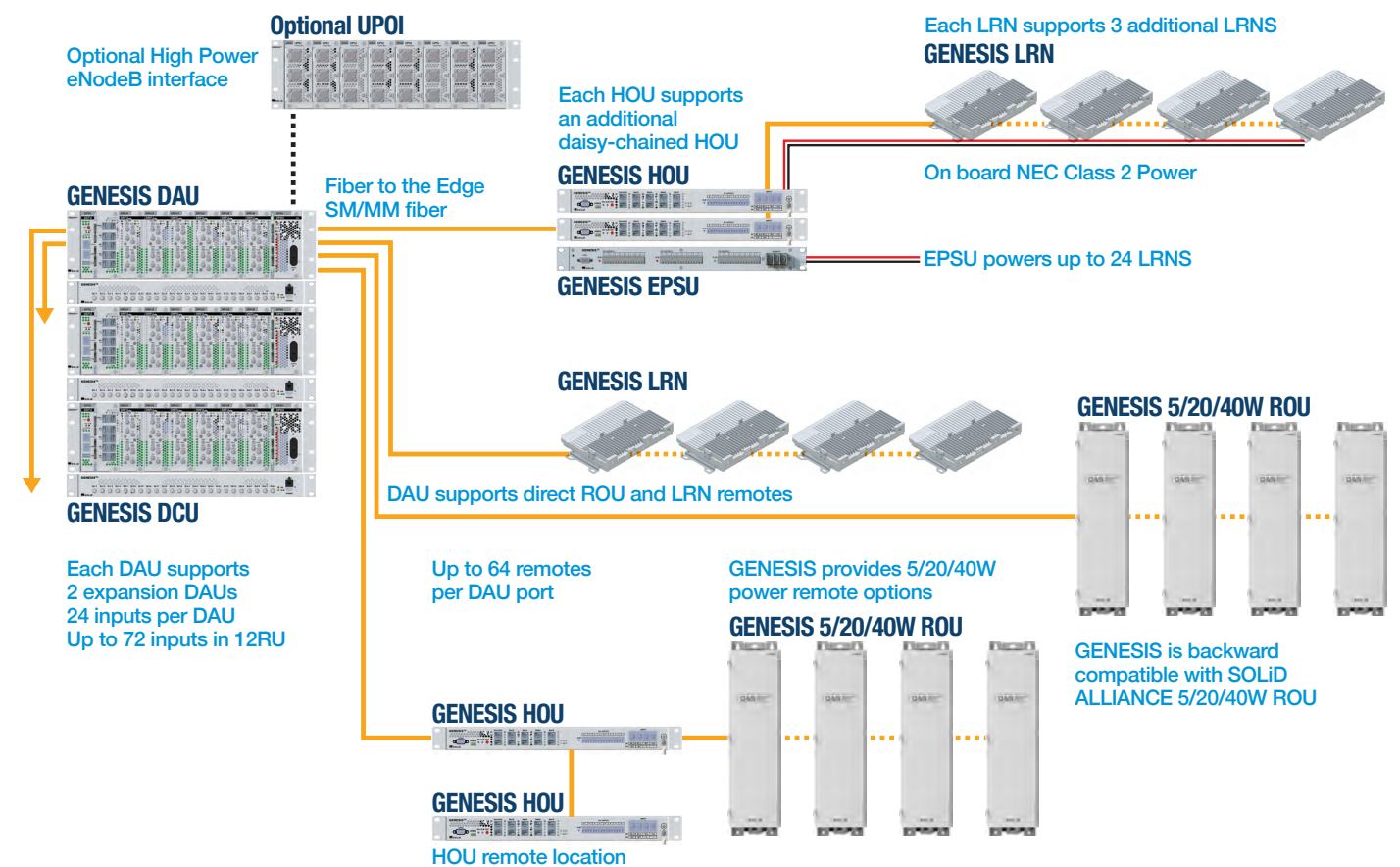
GENESIS LRN Low Power Remote Node



Functions & Features

- Supports six frequency bands 600 – 3800 MHz
- Flexible architecture supports future frequencies beyond current range.
- Compatible with multimode or single mode optical fiber
- External antenna port(s) allows optimum antenna to be used
- SISO and MIMO options may be supported
- Daisy chain up to four remotes per branch
- May be installed indoor or outdoor
- Easy above ceiling or surface mount installation

Flexible Fiber to the Edge Architecture



Specifications: GENESIS Rack Mount Wireless Networking Equipment

MECHANICAL SPECIFICATIONS

Item	# of Cards	# of Ports	Dimensions (W x H x D)	Weight
DCU_AC	card	24 QMA	19" x 1U x 420 mm	3.0 kg
DAU_SUBRACK_AC	6	8 SFP+	19" x 3U x 475 mm	9.0 kg
DRFU_BLK	card	n/a	48.5 X 131.5 X 413.7 mm	0.5 kg
DRFU_LOW	card	8 QMA, simplex/duplex	48.5 X 131.5 X 413.7 mm	1.4 kg
DRFU_MID	card	8 QMA, simplex/duplex	48.5 X 131.5 X 413.7 mm	1.4 kg
DRFU_HIGH	card	8 QMA, simplex/duplex	48.5 X 131.5 X 413.7 mm	1.4 kg
DRFU_3500	card	8 QMA, simplex/duplex	48.5 X 131.5 X 413.7 mm	1.4 kg
UPOI_SR	8	n/a	19" x 3U x 475mm	6.2 kg
UPIU	card	4 QMA / 4.3-10, simplex	53 X 131.5 X 376 mm	3.1 kg
UPIU_BLK	card	n/a	53 X 131.5 X 18.4 mm	0.5 kg
HOU_SR_AC	card	8 SFP+, 8 power	19" x 1U x 429 mm	5.0 kg
EPSU_SR_AC	3	8 power	19" x 1U x 440 mm	4.2 kg
HOPSU_AC	card	n/a	127X 41.6 X 380 mm	1.9 kg
HOPSU_BLK	card	n/a	127 X 41.6 X 2.2 mm	0.5 kg

ELECTRICAL SPECIFICATIONS

Item	Voltage	Power Consumption	Power Connectors	EMC
DCU_AC	90 – 264VAC	15W	IEC C14	Class A
DAU_SUBRACK_AC	90 – 264VAC	100W	IEC C14	Class A
DRFU_LOW	powered by DAU	45W	n/a	n/a
DRFU_MID	powered by DAU	45W	n/a	n/a
DRFU_HIGH	powered by DAU	45W	n/a	n/a
DRFU_3500	powered by DAU	45W	n/a	n/a
UPOI_SR	powered by DAU	25W (Fan RPM 50%)	IEC C14	Class A
UPIU	n/a	n/a	n/a	n/a
HOU_SR_AC	90 – 264VAC	50W + 115W /LRN, max.	Terminal Strip	Class B
EPSU_SR_AC	90 – 264VAC	115W /LRN, max.	Terminal Strip	Class B

WIRELESS SPECIFICATIONS

Item	Frequency	RF Input	Other
DCU_AC	600 – 3800 MHz	-4 to -45 dBm	
DRFU_LOW	600 – 960 MHz	0 to +26 dBm	UL Out: -15 dBm, max.
DRFU_MID	1700 – 2200 MHz	0 to +26 dBm	UL Out: -15 dBm, max.
DRFU_HIGH	2300 – 2690 MHz	0 to +26 dBm	UL Out: -15 dBm, max.
DRFU_3500	3550 – 3700 MHz	0 to +26 dBm	UL Out: -15 dBm, max.
UPIU	600 – 3800 MHz	+47 dBm, max.	Atten.: 20 ± 2 dB, PIM<-153 dBc @2x20W

GENERAL SPECIFICATIONS

Safety: NRTL certified; **Operating Temperature:** 5 to +45 °C; **Cooling:** Forced air flow, front to rear

Specifications: GENESIS LRN Low Power Remote Nodes

GENERAL SPECIFICATIONS

Size	390 x 300 x 78 mm	Power Connector	Terminal block
Weight	7.6 kg	RF Connector	NEX10
Voltage	29 – 58 VDC	Data Connector	SFP+ frame
Mounting	Wall or ceiling	Ingress Protection	IP20, IP66 with optional kit
Power	79W	EMC	FCC Part15 Class B, CISPR Class B
Cooling	Convection	Safety	NRTL certified, UL2043
Operating Temperature	-25 to +45 °C	Radiated	FCC, IC

WIRELESS SPECIFICATIONS

Number of Bands	6	Noise Figure	16 dB, max
Bandwidth	≤75 MHz within 600 – 3700 MHz	IIP3	-7.5 dBm for -55 dBc @ -15 dBm out
Output Power	+15 dBm, <1000 MHz	VSWR	1.5:1
(at single antenna port)	+20 dBm, >1700 MHz, except 2300 MHz	EVM	3.5%, max meets 3GPP requirements for 256 QAM
	+17 dBm 2300 MHz		

Connect with SOLiD

SOLiD helps people stay connected and safe in a rapidly-changing world through a portfolio of RF Amplifier, RF Radio and Optical Transport solutions. 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.
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