LAON CANS

GENIE CONFIGURATION MANAGER

Convenient tool that lets you Quickly and easily Create or edit Configurations

5GHz Wireless + PoE Wired

Hybrid Wired and Wireless on One Base Station

GENIE|SOLO 70 FULL-DUPLEX

GENIE|TRIO 210 FULL-DUPLEX

Highly Scalable Full-duplex System

In Case of BS1000

GENIE|Devices Base Station **BS1000/BS850** Remote Antenna/Daisy-chain **RA100DW** Remote Antenna **RA100** Repeater **RBS85** Speaker Station **ISS800** Ethernet Beltpack **IBP10** Wireless Beltpack **BP850**

LaON's new generation system, GENIE is the industry-first converged digital intercom system turning into a whole new creativity from a traditional concept of the intercom system. With GENIE SOLO, 6 Remote Antennas, 60 Speaker Stations, 60 Ethernet Beltpacks or 60 Repeaters can all be connected through PoE with a Base Station while having 128 Wireless Beltpacks connections at the same time. By this boundaryless hybrid solution of wired or wireless, GENIE offers a highly scalable and flexible system configurations and capabilities.

GENIE provides easy-to-extend system structure from an initial small system to a large scale system tier by tier upon the requirement.

Also, GENIE Configuration Manager (GCM) supports for an efficient and integrated management of the system by its easy setup and various monitoring functions with full visibility.

5GHz Wireless + PoE Wired

CONVERGED DIGITAL INTERCOM SYSTEM

GENIE

Fully Scalable and Flexible Hybrid solution!

License-free 5GHz UNII BAND

5GHz UNII Band, the worldwide license-free frequency band provides approximately up to 29 RF channels depending on the regions as opposed to few RF channels on 2.4GHz ISM band. Therefore, users can enjoy pleasant wireless communications with even less traffics or interferences. With the advantages of high frequency band, the system is also hardly affected by high-power digital equipment such as amplifiers and speakers.

Daisy-chain PoE configurations

GENIE is a daisy-chain connection enabled system that transmits both data and power through PoE. In view of system redundancy, loopback can also be set by building a ring connection. You can easily wire and install complex systems using lightweight Cat-5/6 STP cables with even less workload for the setup.

BS1000 With a Base Station(GENIE SOLO), Ethernet Beltpacks(IBP10) or Speaker Stations(ISS800) or Repeaters(RBS85) are connected within 60 devices, and 128 Wireless Beltpacks(BP850) are also connected at the same time. Up to six Remote Antennas (RA100DW or RA100) can be connected to each Base Station and up to 128 Wireless Beltpacks and up to 10 Ethernet Beltpacks or Speaker Stations or Repeaters can be connected to one Remote Antenna. One Remote Antenna supports 10 full-duplex channels. Even while multiple Talk channels of a device such as Speaker Station are in active, it only occupies one full-duplex channel. Thus, one Base Station offers up to 70 full-duplex wireless and Ethernet wired devices with six Remote Antennas. However, for an instant, while the Speaker Station is talking with two Base Stations simultaneously, it occupies two full-duplex channels. System configured by **Base Station BS1000 + Remote Antenna RA100DW or RA100 + Ethernet Beltpack IBP10 + Speaker Station ISS800 + Wireless Beltpack BP850 + Repeater RBS85** Ethernet synchronization is applied between devices connected to the Ethernet, avoiding radio interference, packet loss, delay, and jitter among all devices being connected to the Ethernet. Three Base Stations(GENIE TRIO) offer up to 210ch full-duplex wireless and Ethernet wired devices. TRIO system, with 384 Wireless Beltpacks, and 180 Ethernet Beltpacks or 180 Speaker Stations. GENIE Configuration Manager(GCM) is to enable setup and pairing, frequency data spectrum on each device, monitoring of each link and battery status and etc.

BS850 With a Base Station(GENIE SOLO), Ethernet Beltpacks(IBP10) or Speaker Stations(ISS800) or Repeaters(RBS85) are connected within 30 devices, and 128 Wireless Beltpacks(BP850) are also connected at the same time. Up to three Remote Antennas (RA100DW or RA100) can be connected to each Base Station. System configured by **Base Station BS850 + Remote Antenna RA100DW or RA100 + Ethernet Beltpack IBP10 + Speaker Station ISS800 + Wireless Beltpack BP850 + Repeater RBS85** Ethernet synchronization is applied between devices connected to the Ethernet, avoiding radio interference, packet loss, delay, and jitter among all devices being connected to the Ethernet. Three Base Stations(GENIE TRIO) offer up to120ch full-duplex wireless and Ethernet wired devices. TRIO system, with 384 Wireless Beltpacks and 90 Ethernet Beltpacks or 90 Speaker Stations. GENIE Configuration Manager(GCM) is to enable setup and pairing, frequency data spectrum on each device, monitoring of each link and battery status and etc.

GENIE Devices

Description	Model	Talk key	4-Wire or 2-Wire	4-Wire	Daisy-Chain PoE	PoE IN	Relay	OPTO Input	Multi-Sync	Power
Base Station	BS1000	8	2	2	2	1	7	2	1	2+(3xPoE)
	BS850	1		2					1	1
Remote Antena/Daisy-chain	RA100DW				2	1			1	1+(3xPoE)
Remote Antena	RA100					1				PoE
Repeater	RBS85					1				PoE
Wireless Beltpack	BP850	2								Battery
Speaker Station	ISS800	8	2	2	2	1	7	2		2+(3xPoE)
Ethernet Beltpack	IBP10	4			2					(2xPoE)

GENIE System Capacity

Description	Base Station BS1000	Base Station BS850	Remote Antena RA100	Repeater RBS85
Connections of Remote Antenna RA100	6	3		
Connections of Repeater RBS85	60	30	10	
Connections of Wireless Beltpack BP850	128	128	128	128
Connections of Ethernet Beltpack IBP10	60	30	10	
Connections of Speaker Station ISS800	60	30	10	
Full-duplex channels	70	40	10	10 with RA100

Description	Number of connection
Recommended multiple Base Station	3
Base Stations BP850 can pair with	3
Base Stations IBP10 and ISS800 can pair with	2

CONVERGED DIGITAL INTERCOM SYSTEM

G E N I E

SYSTEM OVERVIEW

Base Station BS1000/BS850

LaON In-house technologies and solutions

LaON has developed from the wireless SoC built in the systems to the whole new creativity intercom systems in-company by applying its own proprietary patent-based technologies. Base on the know-how and comprehensive experiences in communication, LaON always finds and offers creative solutions and provides timely service with full flexibilities for customer satisfactions on top priority.

CONVERGED DIGITAL INTERCOM SYSTEM

GENIE

MAIN FEATURES

● **Super-scalable PoE based Remote Antenna (RA100DW or RA100) and Repeater (RBS85) solutions** Remote Antennas and Repeaters support to dramatically expand the coverage zones. Multiple studio spaces or multi-floors can be easily consolidated by adding Remote Antenna or Repeater at each RF space using the standard LAN network configuration. Base Station(BS1000) and Remote Antenna(RA100/RA100DW) provide PoE for a convenience power supply. Automatic roaming is available between a Base Station and Remote Antennas and Repeaters. Up to 128 Wireless Beltpacks, and up to 10 Ethernet Beltpacks or Speaker Stations or Repeaters can be connected to a Remote Antenna. And the Remote Antenna supports additional 10 full duplex channels each.

● **Ethernet synchronizations** Ethernet synchronization is applied between devices connected to the Ethernet, avoiding radio interference, packet loss, delay, and jitter among all devices being connected to the Ethernet.

● **Five communication group channels** Single or multiple communication group channels can be assigned to the Base Station, Beltpack, 4-Wire and Auxiliary devices each. GENIE TRIO system supports 15 communication group channels. Base Station BS1000, Speaker Station and Ethernet Beltpack provide 8 Talk channels each. A Base Station covers IFB communication as well as IC and ISO communications without an additional IFB system which is 'more with less' cost efficient solution.

● **Ten full-duplex audio channels per Remote Antenna** Ten full duplex audio channels are assigned for each Base Station or Remote Antenna. Therefore, the Base Station BS1000 provides up to 70 full-duplex Wireless and Ethernet devices along with six Remote Antennas.

● **Up to 128 Wireless Beltpack connections** You can freely connect 128 Beltpacks to a Base Stations, Remote Antennas or Repeaters.

● **Beltpack in Master mode** The Wireless Beltpack BP850 provides a master function of the Base Station without a Base Station. The Beltpack in Master mode operates as a Master in an independent space from the Base Station.

● **4-Wire, 2-Wire and Auxiliary I/O interfaces** Up to four Line Input/Output ports are provided for seamless connectivity with wired intercom systems, external audio devices and etc.

● **Top security with AES 256 bits level 3 encryption** Secures confidential communications with AES 256-bit level 3, the highest encryption technology.

● **GENIE Configuration Manager(GCM) for setup and monitoring** The GENIE Configuration Manager is to enable setup and pairing for each device over the Ethernet connection. It also provides monitoring capabilities that include the setup value and the connectivity status of each device displaying the radio receive signal strength(RSSI) in the current location of each device. It also shows the battery status and set value of the Wireless Beltpack.

● **Compact design** A compact wearable Beltpack with internal antennas and comfortable headsets support high level of mobility during the operations even in harsh environments.

● **Various options on battery** Either LaON provided rechargeable battery pack or AA type Alkaline battery with LaON designated battery Sled can be used for supplying power to the Wireless Beltpack. Also, an appropriate commercial rechargeable battery can be used with the battery Sled.

● **Efficient 7 or 8 ports chargers** The 7 ports charger provides five bays that can charge the Beltpack with the battery pack inserted. Additionally, there are 2 bays for charging the battery pack. Two bays of these are used to charge the battery of Mobile Station MS150 as well. The 8 ports charger provides 8 bays for charging the battery packs and 8 bays for storing the battery packs.

● **Converged intercom system - Hybrid Wired and Wireless on one Base Station** GENIE is a reinvented intercom system that enables you enjoy Ethernet wired system and wireless system with one Base Station and offers multiple connection of Ethernet Beltpack or Speaker Station with 128 Wireless Beltpack connections

● **License-free 5GHz UNII BAND** 5GHz UNII Band, the worldwide license-free frequency band provides approximately up to 29 RF channels depending on the regions as opposed to few channels on 2.4GHz ISM band. Therefore, users can enjoy pleasant wireless communications with even less traffics or interferences. With the advantages of high frequency band, the system is also hardly affected by high-power digital equipment such as amplifiers and speakers.

● **Industry-top level audio quality** 23ms low latency and 7.2KHz audio bandwidth demonstrate high quality audio performance. GENIE is a perfectly tuned professional intercom system for uses in large, congested and diverse site environments.

CONVERGED DIGITAL INTERCOM SYSTEM

G E N I E

SYSTEM USAGE

GENIE system using Remote Antennas and Repeaters

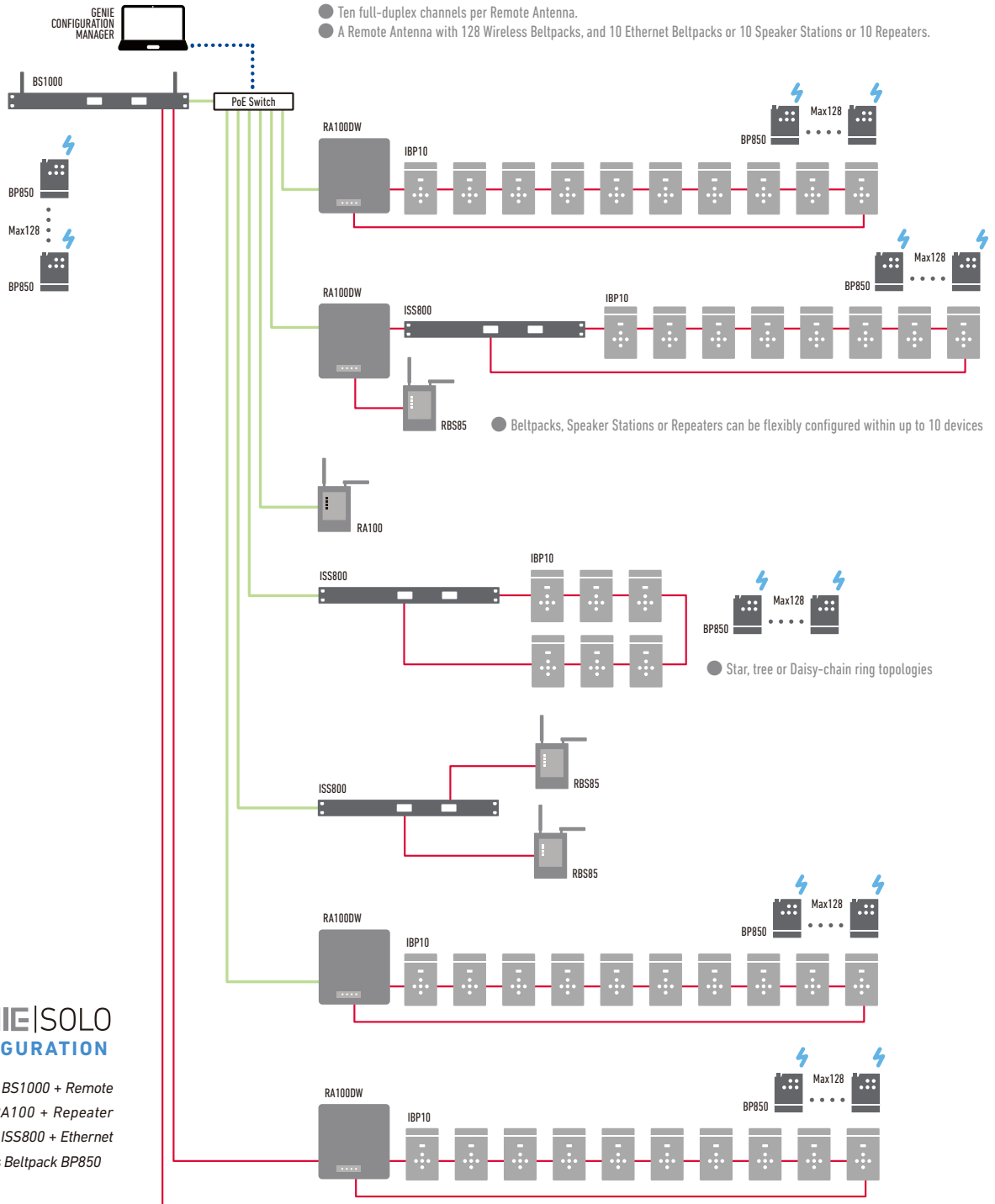
- *Three or six Remote Antennas can be connected to each Base Station. And up to ten Repeaters or Ethernet Beltpacks or Speaker Stations can be connected to a Remote Antenna. With the industry standard LAN network configuration, multiple studio spaces or multi-floor sites can be easily consolidated.*

- *Remote Antenna RA100DW is a PoE and Daisy-chain connection enabled antenna solution that provides extra efficiencies in wiring system.*

- *A seamless wireless roaming is available while moving across each area of Base Station, Remote Antenna and Repeater.*

- *The system allows various types of network connection such as optical fiber cable, PoE and Daisy-chain ring connections. And Star or Tree linking topologies are also available.*

- *A redundancy system can easily be configured upon project requirements.*

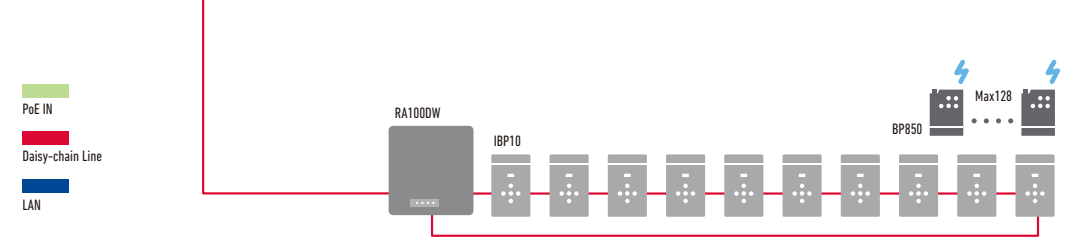


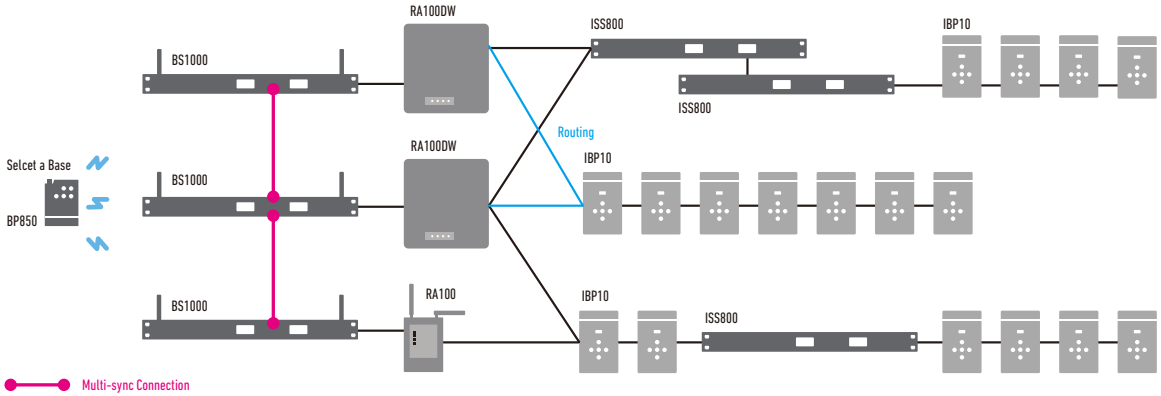
- Ten full-duplex channels per Remote Antenna.
- A Remote Antenna with 128 Wireless Beltpacks, and 10 Ethernet Beltpacks or 10 Speaker Stations or 10 Repeaters.
- Beltpacks, Speaker Stations or Repeaters can be flexibly configured within up to 10 devices
- Star, tree or Daisy-chain ring topologies

GENIE|SOLO

CONFIGURATION

BS1000 *Base Station BS1000 + Remote Antenna RA100DW or RA100 + Repeater RBS85 + Speaker Station ISS800 + Ethernet Beltpack IBP10 + Wireless Beltpack BP850*



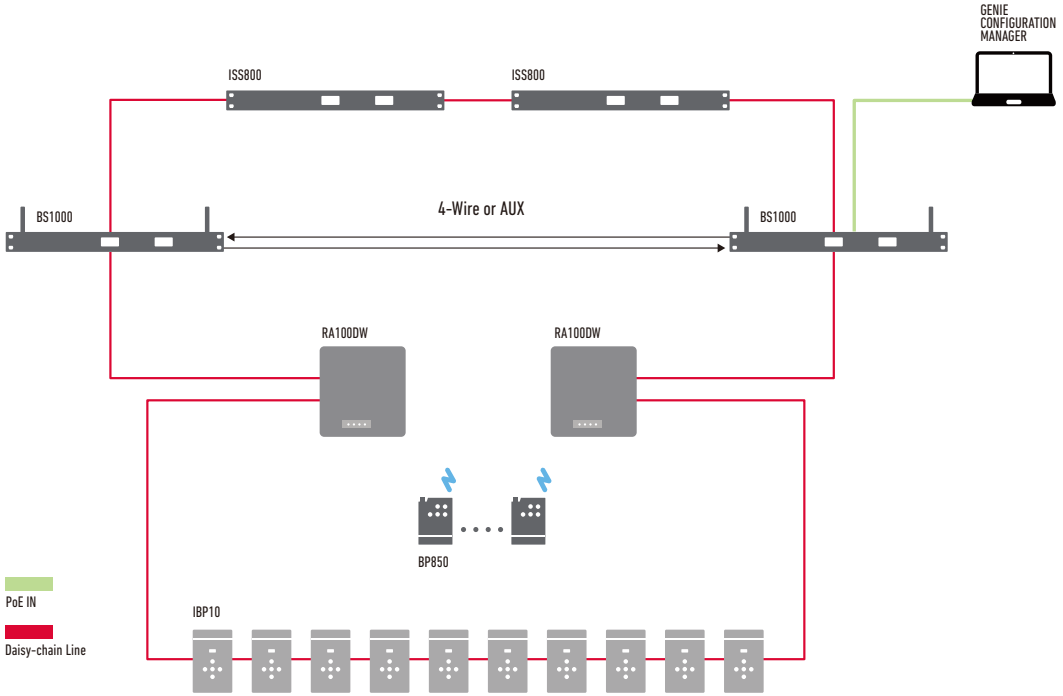


GENIE | TRIO CONFIGURATION

BS1000 *Three Base Stations offers up to 210 full-duplex wireless and wired devices With 384 Wireless Beltpacks and 180 Ethernet Beltpacks or 180 Speaker Stations Beltpacks (BP850, IBP10) and Speaker Stations (ISS800) are flexibly connected to any of three Base Stations.*

GENIE | DUO Power and Data redundancy System

BS1000 *If any failure occurs on either Base Station or Remote Antenna during the operation, ISS800, IBP10 and BP850 will be automatically connected to another Base Station or Remote Antenna by configuring redundancy system with the GENIE Configuration Manager.*



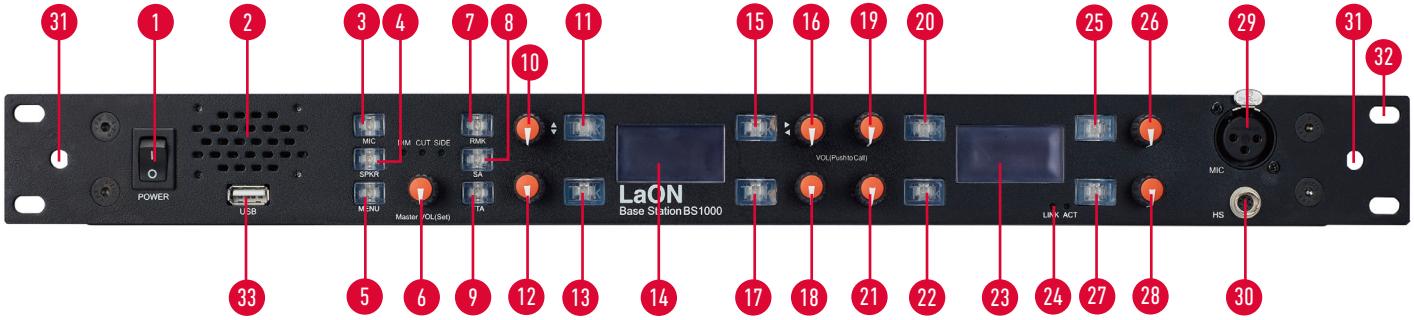
CONVERGED DIGITAL INTERCOM SYSTEM

G E N I E

CONVERGED INTERCOM BASE STATION

BS1000

FRONT



01 Power switch **02** Loudspeaker **03** MIC on/off button (LED) **04** Loudspeaker on/off button (LED) **05** MENU button **06** Master Volume and select DIM, CUT, Sidetone **07** RMK button (LED) **08** SA button (LED) **09** TTA button (LED) **10** CH1 Volume, push to call **11** CH1 Talk button (LED) **12** CH2 Volume, push to call **13** CH2 Talk button (LED) **14** Display screen 1 **15** CH3 Talk button (LED) **16** CH3 Volume, push to call **17** CH4 Talk button (LED) **18** CH4 Volume, push to call **19** CH5 Volume, push to call **20** CH5 Talk button (LED) **21** CH6 Volume, push to call **22** CH6 Talk button (LED) **23** Display screen 2 **24** LEDs for LAN status **25** CH7 Talk button (LED) **26** CH7 Volume, push to call **27** CH8 Talk button (LED) **28** CH8 Volume, push to call **29** Gooseneck microphone connector **30** Headset connector **31** Antenna mounting hole **32** Ear for rack mounting **33** Lamp supply/USB

REAR

01 Antenna connector **02** 2-Wire intercom NULL control **03** 2-Wire intercom channel A connector **04** 2-Wire intercom channel A connector **05** 2-Wire intercom channel B connector **06** 2-Wire intercom NULL control **07** 4-Wire intercom channel A connector **08** 4-Wire intercom channel B connector **09** 4-Wire intercom channel C input connector **10** 4-Wire intercom channel C output connector **11** Auxiliary input connector **12** Auxiliary output connector **13** SA connector **14** Multi-Sync connector **15** Antenna connector **16** PC PROG connector **17** 7 GPO Relays and 2 OPTO inputs connector **18** POE input connector **19** Daisy-chain POE LINE1 connector **20** Daisy-chain POE LINE2 connector **21** Power input connector **22** Power input connector for duplex

CONVERGED DIGITAL INTERCOM SYSTEM

GENIE

GENIE CONFIGURATION MANAGER

GENIE Configuration Manager(GCM) is a convenient tool that lets you quickly and easily create or edit configurations. You can fully utilize GCM software whenever you extract, edit and restore any configurations for each device of Base Station, Speaker Station, Remote Antenna and etc. GCM also helps to restore the system setup value in the event of a system failure.

To install a system, the Base Station, Remote Antenna, Repeater and Beltpack must initially be set up and paired by using the GCM tool. The GCM configures and pairs each device over an Ethernet connection. It also provides monitoring capabilities such as pairing data and connectivity status of each device. It shows the battery status of Wireless Beltpack and the radio reception signal strength(RSSI) in the current location.

Windows Compatible

CONVERGED DIGITAL INTERCOM SYSTEM

GENIE

DEVICES

Base Station
BS1000

Remote Antenna/Daisy-chain
RA100DW

Repeater
RBS85

Ethernet Beltpack
IBP10

Base Station
BS850

Remote Antenna
RA100

Speaker Station
ISS800

Wireless Beltpack
BP850

LAON CANS

LaON LAON TECHNOLOGY Co. Ltd | #1212 Biz center, SK-n Technopark, 124 Sagimakgol-ro, Jungwon-gu, Seongnam-city, Kyeonggi-do 13207, Korea | **TEL** +82-31-776-0095 / +82-70-8789-0826 | **FAX** +82-31-776-0098 | **E-MAIL** General information : info@laon-tech.com Sales : park@laon-tech.com Technical or service inquiry : support@laon-tech.com