

SMARTHOME **BUS**

THE BEST CHOICE FOR HOME AUTOMATION

CONTENTS

2

- Introduction to SmartGroup
- What is S-bus?
- Smarthome solutions
- Lighting control
- HVAC control
- Control Panels
- IR remote control
- Sensors
- Smart Apps for Home & Hotels
- Integration to 3rd party systems

INTRODUCTION TO SMARTGROUP

3

- ❑ Established in USA since 1986
- ❑ SmartGroup is a group of following entities:
 - ▣ Smart Labs: Involved in research and development of hardware and firmware
 - ▣ Smart Soft: Providing Software support
 - ▣ Smart Industry: Involved in Manufacturing of Smart-Labs products
 - ▣ Smart Solutions: Involved in creating Smart Industry products and partnering with manufactures to provide complete solution packages

INTRODUCTION TO SMARTGROUP

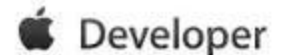
4

- Where is SmartGroup found?
 - ▣ USA for concept
 - ▣ Denmark for Design
 - ▣ Germany for Engineered parts
 - ▣ Dubai for Lifestyle Functionality
 - ▣ China for Parts assembly and Mechanical Tooling Technology

INTRODUCTION TO SMARTGROUP

5

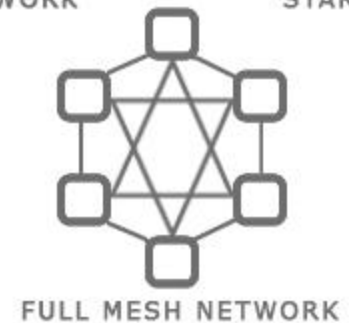
- SmartGroup is a member of the following organisations:



WHAT IS S-BUS?

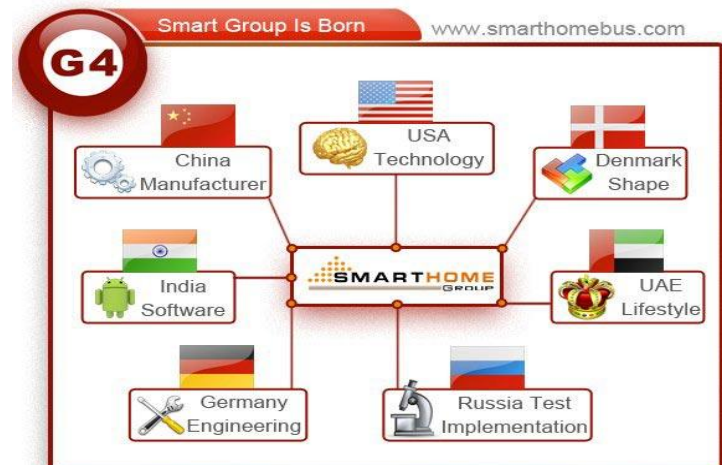
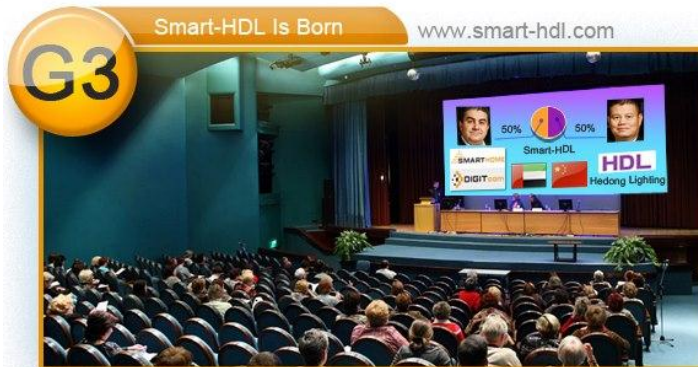
6

- ❑ Smart-Bus or simply S-Bus uses 4-Pair twisted pair data cable to control, monitor and command devices simultaneously.
- ❑ Up to 250 devices can be connected on one cable with a maximum length of 1200m
- ❑ Devices can be connected in the following topologies:
- ❑ Voltage Range: 8-32V
- ❑ Device consumption: 20-32mA



S-BUS EVOLUTION

7



SMART-BUS Generation 4 (G4)

8

G4 as Compared to the old Smart-BUS:

- ❑ Easier and More Flexible Installation
- ❑ Elegant Finishes and Materials
- ❑ Easy Backup and Restore for All Devices
- ❑ 25 Language Configuration Support
- ❑ Each Device has Multi Features and multi-Usage
- ❑ (Less Equipment)
- ❑ More Compact Devices and Wider range of ideas
- ❑ Faster response, Bigger Device Memory

SMART-BUS Generation 4 (G4)

9

G4 Compared to any other Systems:

- ❑ One Complete Solution from one Manufacturer and a single control Protocol
- ❑ Most Flexible Wiring system and Materials available today
- ❑ Unmatchable Number of Devices that can be installed in a single Network
- ❑ Simplest Manual Programming Ever made available to a Luxury System (7 Seconds without PC)
- ❑ Real Open Protocol, and Easy Seamless Integration

SMART-BUS Generation 4 (G4)

10

Reasons to choose G4:

- ❑ Available, Stable & Widely tested
- ❑ Affordable
- ❑ Elegant to extreme Luxury
- ❑ User friendly
- ❑ Expandable
- ❑ Easy Wiring
- ❑ Fast Programming and configuration
- ❑ Continuous Research & Development
- ❑ Excellent Support
- ❑ Expanding Global Network

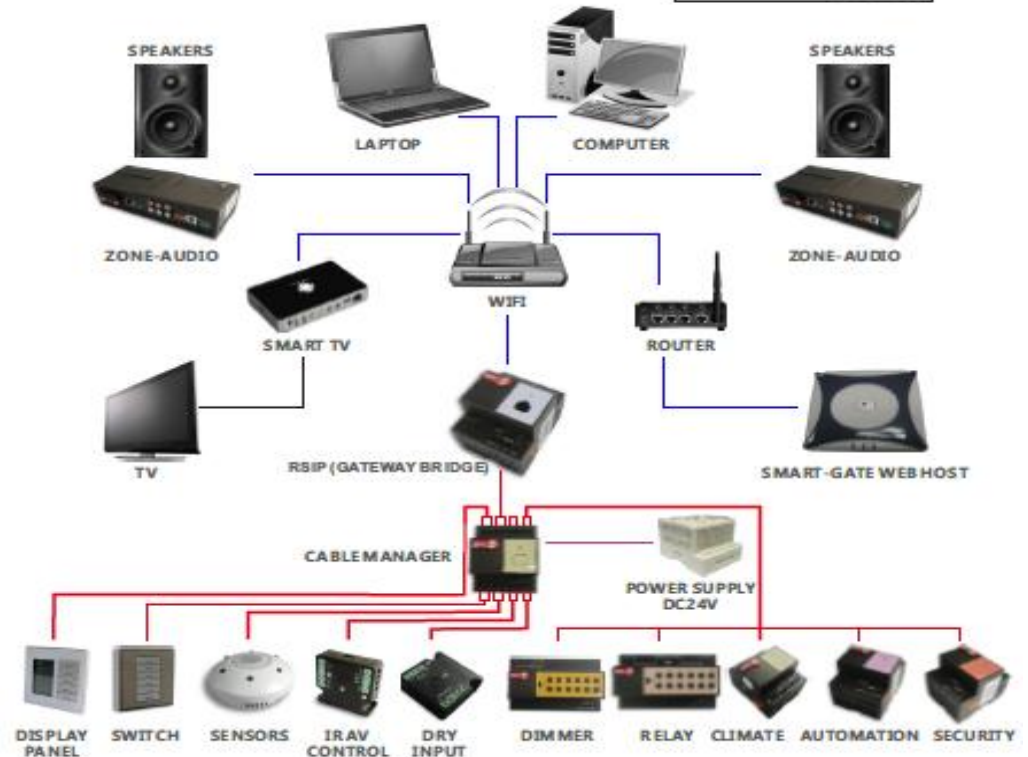
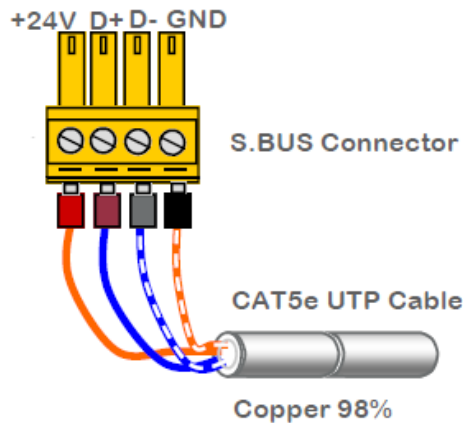
SMARTHOME SOLUTIONS

11

General System Diagram

CABLES	
	LAN
	S-BUS
	A/V
	DC24V

S-BUS connection



SMARTBUS SOLUTIONS

12



Smart Hotel GRMS



Architectural Intelligent Lighting



Smart Yacht Solution



Smart Home



Smart Prayer Hall



Smart School



Smart Hospital / Smart Clinic



Intelligent Building



Smart Club



Smart Restaurant



Smart Mall



Musical Fountains and Show Control



Smart Spa / Smart Resort / Smart Beauty Salon

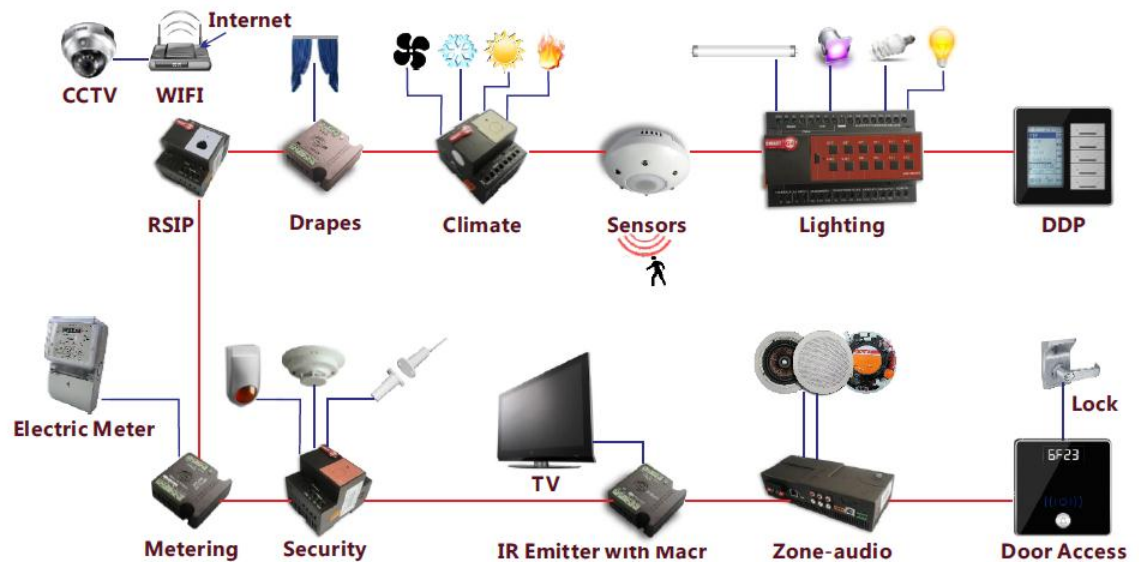
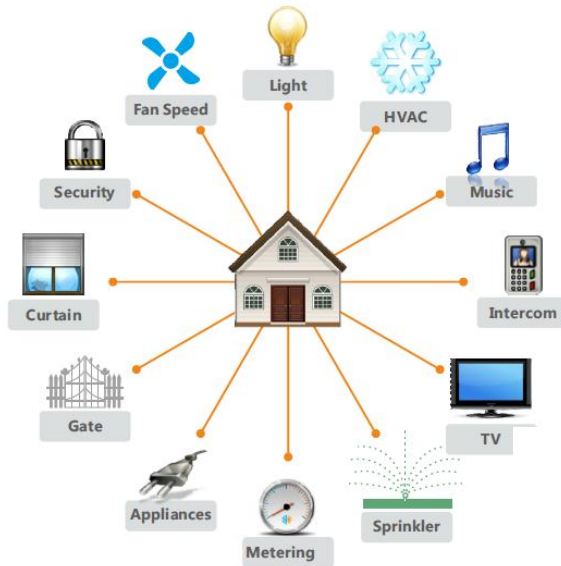


Smart Congress Halls, Towers, and Banks



HOME AUTOMATION USING SMARTBUS

13



SMARTBUS LIGHTING CONTROL

14

□ Type of Dimmable loads:

- ▣ Incandescent
- ▣ CFL
- ▣ Halogen
- ▣ Dimmable LED

(Note: Light must be dimmable by Manual Dimmer)

- ▣ Fluorescent
- ▣ Neon tube
- ▣ Metal Halide

(Note: Ballast must be dimmable, controllable and addressable type)

- Dimmer modules exists in 1, 2, 4, 6 and 8 channels
- Each channel can be rated 1A, 2A, 4A, 6A up to 10A, depending on models



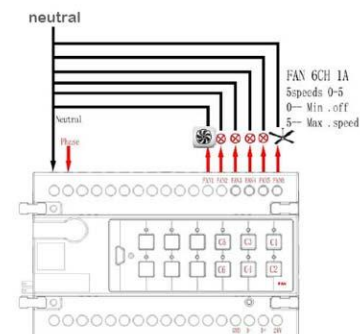
SMARTBUS HVAC CONTROL

15

- ❑ Fan Speed Controller – can handle up to 5 speeds
- ❑ HVAC Climate Control module used with Fan Coil Unit, Air Handling Unit and VAV systems



electrical diagram 04



*Loads must be from same section & phase



HVAC Trail Click



Fan Speed Module



4T Input-Module



Temperature Sensor Probe



IR Emitter with Macro



1Dimmer 1Relay 1Fan TC



IR Emitter w/ Current Sensor



Micro Climate Sensor

SMARTBUS CONTROL PANELS

16

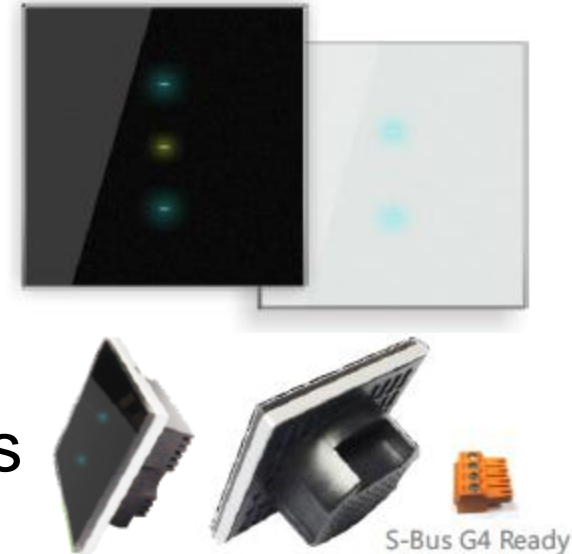
- Dynamic Display Panel (DDP) is an intelligent switch that can be used to control:
 - ▣ Lighting and Mood setting
 - ▣ HVAC
 - ▣ Blind control
 - ▣ Security & Alarm system
 - ▣ Music



SMARTBUS CONTROL PANELS

17

- Touch-Switch
 - ▣ Using Touch-type button to
 - ▣ Control lights
 - ▣ Elegant design with glass face
 - ▣ Retrofit solution for homes and hotels



Other switches with different fascia available:



IR REMOTE CONTROL

18

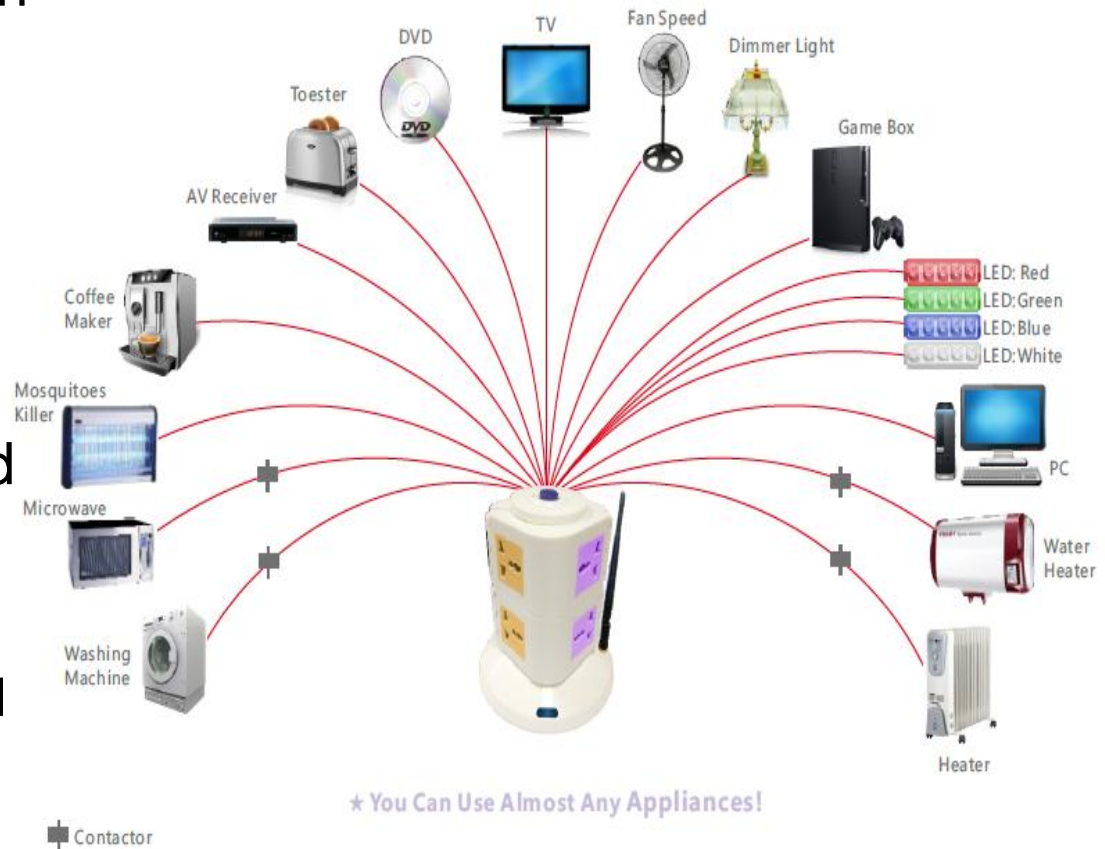
- ❑ One remote control for several purposes:
 - ▣ Lighting
 - ▣ Curtain control
 - ▣ HVAC
 - ▣ Music
 - ▣ Security



SMART POWER STRIP

19

- ❑ Universal sockets that can be used to control many appliances
- ❑ 6 Sockets rated 5A each
- ❑ 2 Lighting (Dimmable) sockets rated 1A each
- ❑ Sockets can be controlled using
 - ▣ S-Bus network
 - ▣ WIFI-enabled tablets and smartphones
 - ▣ Handheld IR Remote control



SENSORS

20

- ❑ In addition to standard PIR sensor, SmartHome provides All-in-One sensors, E.g. 9 in 1 Multifunction sensor that has following:
 - ❑ Motion sensor
 - ❑ Light intensity sensor
 - ❑ Infrared receiver for IR remote control,
 - ❑ 360 degrees IR transmitter to control equipment like TV, DVD, etc...,
 - ❑ 2 Dry input contacts for Safety & Security systems
 - ❑ Built-in Temperature sensor
 - ❑ 32 logic lines for programming purposes



EXAMPLE FOR SENSOR APPLICATIONS

21

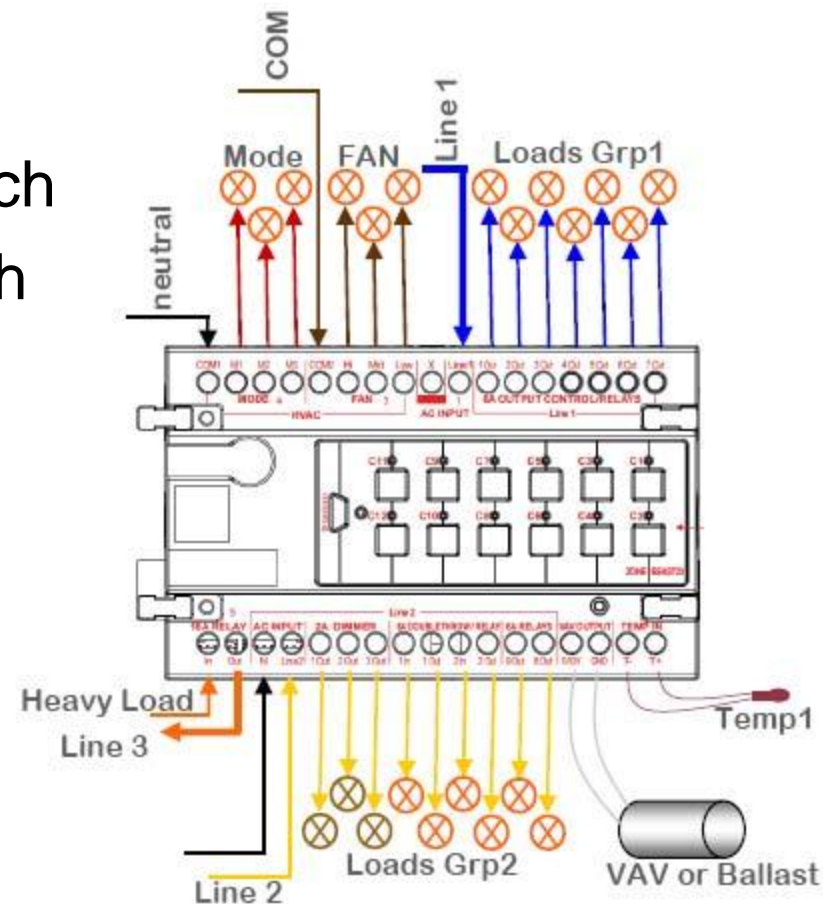


SMARTHOTEL SOLUTIONS

22

- ❑ Single Control module designed to handle the needs in a hotel room:
 - ▣ 3 Dimmer channel rated 1A each
 - ▣ 9 Relay channels rated 6A each
 - ▣ 4 Relays for motorised curtain control
 - ▣ 1 Relay rated 16A for boiler
 - ▣ HVAC module for FCU/AHU

electrical diagram 



SMARTHOTEL SOLUTIONS

23

- ❑ Touchpanel for Smart Hotel guest system that can be for the following applications:
 - ▣ Lighting control
 - ▣ Scene control
 - ▣ Curtain control
 - ▣ Temperature control
- ❑ Door Bell Panel & Hotel Card Holder



SMART APPS

24

- ❑ System can be also controlled by smartphone (Apple/Android)
- ❑ Screenshot of Smart Home App



SMART APPS

25

□ Screen shot of Smart Hotel App

Main Menu



AC



Cameras



House Keeping



Smart TV



Room Service



3RD PARTY INTEGRATION

26

- ❑ SmartBus allows for other industry protocol used by other manufacturers to be integrated to S-Bus system, namely:
 - ❑ RS-232
 - ❑ RS-485
 - ❑ KNX
 - ❑ DALI
 - ❑ DMX
 - ❑ ZIGBEE

