

Why Smart-Bus vs. KNX and Other

- 1- SmartBus® is an open protocol, with two way communication, based on the Advanced RS485 , which yields a fast response, and long distance cables.
- 2- SmartBus® have an open SDK protocols, and open for developers, open free applications , downloadable through internet. (Free Open SDK, DLL, Simulators, Source Codes, Protocols, Examples, and More)
- 3- SmartBus® is an easy wiring technique and flexible Topology, as it works in closed and open loop, star wiring, mesh, daisy mesh and grid. (device to many topology), while KNX works only (Device to Device topology= Daisy Chain)
- 4- SmartBus® doesn't have any hidden devices such as line couplers.
- 5- SmartBus® can handle up to 3,600,000 Ports and nodes in 254 networks connected together, unlike KNX can Handle 65,000 Ports and nodes that works (64 devices per line, twelve lines in zone, 15 zones in one area). Accordingly KNX can Handle
- 6- SmartBus® is 3-10 times faster than KNX-EIB-BUS in Communication, depends on the system topology.
- 7- SmartBus® have widest range of solution S-BUS Ready products such as actuators, dimmers, and ballast controllers, Media Players, Weather stations, Distributed Audio, Advanced Multi Sensors, Smart User Panels, communicable Power Sockets and many More.
- 8- SmartBus® can mix more than one operation in one device, such as blinds and relays, HVAC and dimmers.
- 9- SmartBus® devices can handle up to 20 Amps per channel (real)
- 10- SmartBus® works both wired and wireless Smart-BUS-Wave (SBW), and can be mixed in both ways, KNX works only in wired.
- 11- SmartBus® can accept extra future devices, and additions with new wiring cable, KNX needs couples for new devices and user interfaces.
- 12- Almost All Main Devices in Smart-BUS can Be programed by initially any Electrician Direct on Site by simply holding the Device Button for 5-7 Seconds like Car Radio. This can be used for at least all the following Functions: (Lighting, Dimming, Moods/Scenes, Music, HVAC, PIR energy saving and comfort, IR Bridging, Relays triggers, Blinds ++). Project can be commissioned without any need for Engineer.
- 13- Smart-BUS Devices has Installer and Field Error Protection like: Overload Protection, Over Heat Protection, Reverse Polarity Protection, Short Circuit Protection.
- 14- Smart-BUS has Unique Wide range of (Voltage Drop and Increase Tolerance from 8VDC-45VDC)

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- 15- Smart-BUS can use almost any Conductor Cable Like: (CAT3, CAT5, CAT5e, CAT6, Speaker Cable, Elect. Conductor Wire, and other) comparatively, and there is no need for Special expensive EIB special Cables
- 16- SmartBus® has multifunction interfaces, that can handle most of the needed scenarios in one User interface device (SEE - FEEL – HEAR – Control – Entertain - Think)
- 17- Semilar to KNX, SmartBus® is Growing Fast in Manufacturing and research Partners network as Many Manufacturing Partners has a wide base of R&D , and international product ranges that produces compatible products such as C-Touch for IP intercom systems, NAI Automation, LDS, TIS, HDL, Catry, Betchamp, Swastik, DimiDom, LDS, PCS, C4, ... etc. which gives the customer a wide range of interface units to choose within.
- 18- SmartBus® is an Open technology for everyone (REAL), KNX is (Claimed), KNX is only partially open for licensed KNX integrators.
- 19- SmartBus® Smartphone applications, works remotely for both static and dynamic DNS with no gateways or the need of running computers. And protected by Smart Home Group servers. While KNX can be only controlled by 8 bit micro controller to a PC (Old technology) and can be hacked.
- 20- Like KNX, Smart-BUS is Growing in Connectivity to Famous Partners worldwide and has Ready Bridges and Easy Integration Methods as Plug and Play with the following in great compatibility: Control4, Crestron, UPB, Euro Klimate, GREE, Panasonic, Daiken, Foscam, HAI Liviton, Nuvo, Paradox, ELAN, Erdinio, RaseberryPI, Coolmaster, Hikvision, and Many Others.
- 21- SmartBus® can handle 254 devices per line , while KNX only 64 per line.
- 22- Smart-BUS Accept Flexible Powersupply addition and Replacement at any Node, Location, at any Time and there is no Maximum Amp Limitation per Line Network.
- 23- Smart-BUS Has Many Manufacturing Facilities, R&D Partners, Support and Training Centers in Americas, Europe, Russia, Far East, Africa, Arabia, and Latin America++.
- 24- Many Software Houses Link and Prefer Smart-BUS Like: Iriduim Mobile, Comfort Click, Open Remote, Witty, Cyber Genie, SAM-DESD, Bornita, NAF, and Many Other.
- 25- All Smart-BUS related Software are Provided Free always to all Partners
- 26- Smart-BUS Guarantees always Best Price affordability, Value for Money with best service attitude, good quality, and fixed delivery time that help all partners to win and all clients to have parts and installers widely without closed monopoly nor exclusivity . (Smart is for everyone)

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27- Some SmartBus® Facts :

Measure Criteria	Capacity
Cable Length in Single S-BUS Network	1.5kM
Maximum Number of Devices in One S-Bus	254
Maximum S-Bus bridges	254
Maximum Mixed devices	65,516
Maximum Lighting Channels	1,500,000
Maximum HVAC Modules	60,000
Maximum Addressable Sensors	250,000
Maximum RS-232/485/IP bridges	60,000
Maximum Hotel GRMS	6,000
Maximum Soft Button per CTP Wall Panel	120
Maximum HVAC control per DDP	9 HVAC units (1 Master – 8 Slave)
Maximum Pages per one DDP	15 Pages
Maximum Z-Audio2 Zones	60,000
IR transmitter Range	10 Meters
IR codes per one device	254
Response time for 720,000 lights	25 seconds
System Operating Voltage (Perfect)	24 Volts DC
SmartBus® voltage data range	8-45 Volts (Ideal 12-36 VDC)
Operating AC voltage (Actuators)	80-230 Volts
SmartBus®Protection	Short circuit, reverse polarity
Electrical Protection	Over Load, Over Heat

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