IMT

Intelligent Media Technologies

Smart Multimedia Networks

SmartBuss® Multimedia Networks

Today's network solutions utilize complex processes for analog-digital-analog conversion and digital signal multiplexing at high-speeds over conditioned copper cables and fiber optics.

IMT has been at the forefront of multimedia network design since 1988 and SmartBuss™ is our fifth generation product. Our experience has enabled us to intelligently design SmartBuss™ to deliver exceptional value for a variety of applications including digital signage systems in airports and transportation terminals, public address systems in convention centers, stadiums and arenas, A/V entertainment and presentation systems in schools, theme venues and hotels, and CCTV and physical security systems on campus, in city centers or wherever there's a need.

SmartBuss™ is configured as a complete standalone private network. Everything you need for out-of-the-box operation is included. There's no need for additional IP network hubs, routers, managed switches or software. IT professionals will appreciate that SmartBuss does not piggyback on the enterprise IP network consuming bandwidth and requiring expertise to configure VLAN's, firewalls, permissions and adding security risks with additional points of presence.

IMT networks are factory tested and configured for your specific application. Best of all they deliver Quality of Service for your most demanding streaming applications. SmartBuss' constant bandwidth and constant bit rates ensures you won't experience frame drops or frame slips so your content will appear and sound exactly the same at all network locations — all the time.

Features

- All SmartBuss integrator solutions are fully compatible with one another
- Low network latency – 1.55µs network node data-in to data-out, including physical layer interfaces
- All services are routable in single channel increments: any-to-any matrix routing
- 100m Cat5 hops between units with built-in copper "dual data path" for redundancy
- Optional GigaBit Fiber Optic interface increases capacity and coverage area
- Completely self-contained private network – no need for any extra IP hubs or switches
- PathMaster software included, full network management, diagnostic and reporting suite
- Network channel capacity for audio, video or data is shown. Use our SmartBuss calculator to determine capacity for mixed service configurations:

Category 5 Cable
70 audio @ 48kHz, 24 bit
26 Composite video @ 3Mb/s
13 Composite video @ 6Mb/s
210 slow scan data @ 38.4kb/s
1 Ethernet 10BaseT subnet

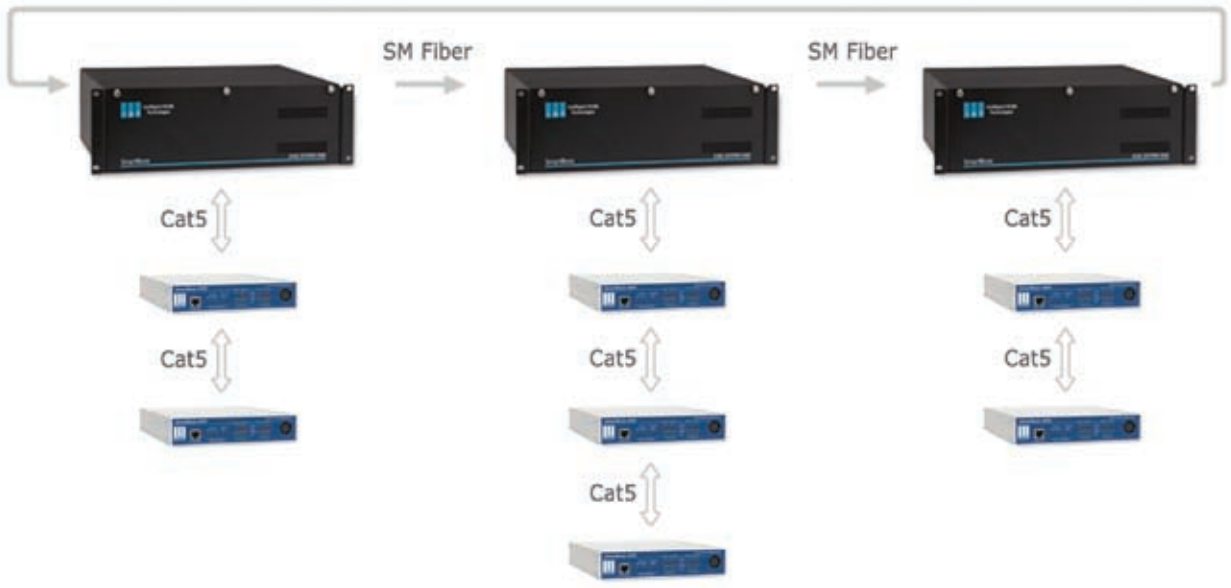
SM Fiber Optic Trunks
838 audio @ 48kHz, 24 bit
314 Composite video @ 3Mb/s
157 Composite video @ 6 Mb/s
2514 slow scan data @ 38.4kb/s
1 Ethernet 10BaseT subnet

SmartBuss products can be used in a variety of configurations, including a stand-alone server; in an intermediate localized Cat5 network architecture; or in widely distributed and very large array.

Stand-Alone
Inputs, DSP, Matrixing and Outputs

Intermediate Cat5
5 Node Network, 100m Hops

Widely Distributed and Very Large Array
Single Mode Fiber Optic Backbone
Local Cat5, 100m Hops



Any Individual Audio/Video and Data Input Channel, from any location on the network, can be routed to any and all outputs.

Redundancy

Cat 5 network redundancy is achieved by looping out of the last unit in the segment and connecting it back to the first unit, forming a "Dual, Contra-Rotating Ring". Fiber network redundancy is achieved by adding a second "Fiber Active" unit in each Cat 5 segment and routing the fiber path in the opposite direction to the primary, creating a Contra-Rotating Ring.

SmartBuss Products

AVIO Edge Server

Half rack space audio Edge Server complete with Cat5 network interface module. Available in 4x4, 8 in or 8 out analog audio configurations. Front panel 3-segment signal LEDs, network activity LEDs, Control Port for PathMaster programming.

AVIO 14 Hub

3 rack space high capacity Hub, accommodates PC cards including network & media services. An optional PSA02 redundant internal power supply is available.

AVIO 4 Hub

1 rack space Hub, accommodates 4 cards including network & media services. An optional PSA04 redundant external power supply is available.

Network Interface

SB101C: UTP Category 5 network card with link LED. Dual RJ45 network connector for configuring redundant counter rotating ring topologies.

SB101F: SM fiber optic card with LC connectors and link LED. Redundant counter rotating ring topologies require dual cards.

Media Services

Analog Audio I/O

ADA424 (input) & DAA424 (output): 4 channel line level audio, 48kHz, 24 bit.

Audio with DSP

DAA424-DSP: 4 channel line level audio output with 24 bi-quad filter array for parametric EQ, high pass, band pass, low pass, notch, treble shelf, bass shelf, delay, compressor/limiter, digital gain.

AES/EBU Audio

DIA224 (input) & DOA224 (output): 4 channel AES/EBU digital audio.

Video

ADV264 (input) & DAV264 (output): 2 channel composite video using MPEG2 compression.

Video + Audio

ADV264AV (input) & DAV254AV (output): 2 channel composite video using MPEG2 compression with 2 channels of 48kHz, 24 bit analog audio.

Slow Scan Data

SSD002: 2 data channels for RS232, RS422 and RS485—2 or 4 wire. User selectable data rates.

SSDSC4: 8 switch closure channels, 4 sense and 4 drive.

Audio Intercom

ADAVIO: 4 channel line level, bi-directional I/O.

Ethernet Data

SSD-Enet: 10BaseT bridge for promiscuous Ethernet data.

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