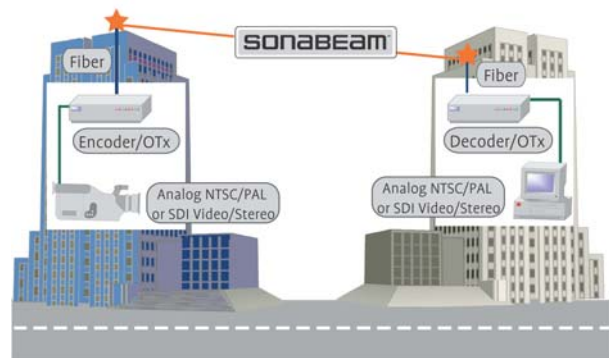## Application Brief – Digital Media Transport

Are you looking for a rapidly re-deployable product that will extend your digital media network and achieve the same performance as optical fiber? Wireless technologies offer an attractive alternative, but what product can achieve the required bandwidth with secure, near zero-latency, jitter-free performance?

Your answer is SONAbeam™ free space optical products from fSONA Communications Corp.

fSONA Communications Corp. offers a complete line of tested and proven free space optical products ranging in speed from NxT1/E1 to 1.50Gbps – including the specialized Digital Video speeds in-between. SONAbeam™ products are licence free, compatible with your existing network infrastructure, and can be deployed or re-deployed in a matter of hours at prepared sites.

Market Overview

Consumer demand for higher quality audio and video with more choices and interactive programming has propelled the media industry into the digital world. Today, media companies are migrating towards a completely digital workflow from capture, through storage and editing, to reproduction and broadcasting. Many examples of these expanding industries exist:

- **Cable TV and Satellite companies** – Require high bandwidth for broadcasting digital television, including HDTV formats.

- **Film and Post-Production industries** - Need the ability to transmit high-quality uncompressed video securely between locations in real time. Portability and mobility are essential. Transporting tapes - around the world - is simply not an option with today's tight production schedules and focus on the bottom-line.

- **Production Studios** - Need access to secure high bandwidth communications for digital editing, processing, loss-less duplication, and archiving.

- **Broadcasters** - Need rapid and secure access to contribution sources such as special events, sports, advertising, and late breaking news stories in a digital format, in real time.

- **Internet Providers** – Require increased bandwidth for value-added content delivery of services such as video on-demand, point cast, and multicast video streaming.

Media Networks

Until recently, high bandwidth media networks were only possible if they were built entirely on fiber optic technology. The problem is that fiber is extremely costly to deploy, takes a long time to provision, and is not at all portable.   While most production studios and broadcast locations are located within a mile or two of an existing fiber trunk, the cost of deploying an entirely fiber based network has prohibited many last mile media companies from getting connected. fSONA Communications manufactures enabling technology for the build-out of high bandwidth media networks.

The SONAbeam™ Solution

SONAbeam™ products extend a fiber network by transmitting eye-safe, invisible beams of light through the air between buildings and towers. SONAbeam™ terminals can be installed and operational within hours, and ensure the highest level of security over a wireless link. Best of all, SONAbeam™ products do not require licenses, have negligible latency and jitter, and cost just a fraction of laying permanent fiber.

SONAbeam™ offers transparent network backhaul transport of various video standards including NTSC, PAL, HDTV, SDI and DVB-ASI. SONAbeam™ interfaces optically to various combinations of multiplexers, encoders/decoders, switches and routers for rapid integration with existing networks. The table below summarizes some of the more popular industry data rates supported by SONAbeam™.

Application	Data Rate (Mbps)	Standard
» SONAbeam™ 52 Series		
• Carrier interface	34.368 / 44.736	E3 / DS-3
• Digital STL	19.39	ATSC- MPEG2 MPTS
• CATV transport	30.342	64QAM -MPEG2 MPTS
• CATV transport	42.880	256QAM -MPEG2 MPTS
» SONAbeam™ 622 Series		
• SDI composite (NTSC / PAL)	143 / 177	SMPTE-259M (A / B)
• SDI component (13.5 / 18.0 Mhz)	270 / 360	SMPTE-259M (C / D)
• DVB-ASI	270	EN50083-9
» SONAbeam™ 1250 Series		
• HDTV component	1485	SMPTE 292M

Contact your local fSONA representative for more details on how you can take advantage of the SONAbeam™ media network transport solution.