



Overview

Dimension Inc., is a deep-technology company that develops patented systems for fundamentally improving how video is compressed, stored, transmitted, enhanced, and analyzed. As video becomes the dominant form of global data across cloud computing, security, AI, media, and communications, Dimension addresses the core infrastructure challenges limiting scale, cost efficiency, and performance.

Dimension's technologies are not consumer applications. They are foundational building blocks designed to be licensed, embedded, or integrated by large technology companies and infrastructure providers.

The Problem

Across industries, organizations face the same video-driven constraints:

- Exploding storage requirements in data centers
- Rising bandwidth and energy costs
- Degraded video quality from legacy compression
- Inefficient use of video for analytics and AI
- Massive volumes of unstructured, unsearchable video data

Traditional video standards and analytics pipelines were not designed for today's scale, resolution, or real-time demands.

Dimension's Solution

Dimension has developed a portfolio of issued and pending U.S. patents that collectively redefine video infrastructure.

At a high level, Dimension enables organizations to:

- Compress video far more efficiently than existing codecs
- Store video using dramatically less space
- Reconstruct and upscale video on demand
- Improve the accuracy of video analytics and AI systems
- Extract structured, searchable information from video
- Do all of this in real time or near real time



Core Technologies

1. **Super-Resolution–Enabled (SRE) Video Compression (Issued Patents):** Dimension's patented SRE codec achieves compression ratios of up to 120:1, compared to ~30:1 for commonly used codecs, while preserving near-original visual quality in real time.

Key benefits:

- Major reductions in bandwidth and storage
 - Lower energy consumption
 - Higher quality video delivery over constrained networks
2. **Video Rescaling with Super-Resolution (Patent Pending):** Video can be stored at reduced resolution, using as little as one-quarter of the original storage footprint, and reconstructed to high quality instantly when needed.
 3. **Adaptive Spatiotemporal Denoising (Patent Pending):** Advanced noise reduction across both frames and time improves clarity, visual quality, and downstream AI performance.
 4. **Big-Data Video Structuring and Search (Patent Pending):** Transforms massive, unstructured video collections into searchable, analyzable data assets, enabling real-time exploration and global transmission of results.
 5. **Multi-Frame Video Analytics (MFVA) — Video to Structured Data (Patent Pending):** Converts video into structured representations that can be queried, analyzed, and reasoned over, going beyond conventional AI prediction models.

Business Model

Dimension's strategy is to:

- License its technology to large enterprises
- Embed capabilities at the chip, system, or platform level
- Partner with infrastructure and hardware leaders
- Enable new classes of products without becoming a consumer software company

Strategic Value

Dimension offers:

- Patented, defensible IP
- Infrastructure-level relevance
- Cross-industry applicability
- Alignment with AI, cloud, energy efficiency, and data-sovereignty trends



Data Centers & Cloud Infrastructure

The Data-Center Challenge

Data centers face unprecedented pressure from video workloads:

- Video represents the majority of stored and transmitted data
- Storage density and power consumption are limiting factors
- Network congestion increases operating costs
- AI workloads require higher-quality video inputs

Expanding physical capacity is increasingly expensive and unsustainable.

How Dimension Helps Data Centers

Dimension's technology directly reduces the volume, movement, and cost of video data.

Key Capabilities:

- Up to 120:1 video compression with minimal quality loss
- Up to 75% reduction in bandwidth and energy usage
- Up to 75%–90% reduction in effective storage footprint
- Real-time processing suitable for live and archived video

Operational Benefits:

- Extend the lifespan of existing storage and networking infrastructure
- Reduce power and cooling requirements
- Improve return on capital expenditures
- Support higher-resolution video without proportional cost increases

Advanced Analytics Enablement

Dimension's video preconditioning and structuring technologies improve:

- Computer vision accuracy
- AI model performance
- Video search and retrieval
- Compliance and audit workflows

This turns video from a cost center into a high-value data asset.



Integration Model

Dimension's technology can be:

- Deployed as a software layer within cloud services
- Embedded in storage systems
- Integrated into video pipelines and analytics platforms
- Licensed for hyperscale or private data-center environments

Why It Matters Now

With rising energy costs, AI expansion, and video growth accelerating, data centers need efficiency gains that do not require new buildings. Dimension delivers efficiency through intelligence, not expansion, using its patented video intelligence for the infrastructure era.



Semiconductor & Chip Manufacturers

The Chipmaker Opportunity

Modern chips increasingly serve as platforms for:

- Video processing
- AI inference
- Edge computing
- Autonomous and real-time systems

Yet software complexity and bandwidth constraints limit performance.

Dimension's Value to Chipmakers

Dimension offers patented video intelligence that can be embedded directly into silicon.

What This Enables:

- Hardware-level video compression and reconstruction
- Dramatically reduced data movement
- Lower power consumption per video stream
- High-quality video processing without complex software stacks

Key Embedded Capabilities

- Super-resolution-enabled compression
- Real-time video reconstruction and upscaling
- Noise reduction and signal refinement
- Video preconditioning optimized for AI inference

These functions can operate as native chip features, not application-level add-ons.

Strategic Benefits for Chipmakers

- Differentiation at the silicon level
- Enable OEMs to deliver advanced video features with minimal development
- Reduce system-level power and bandwidth requirements
- Increase addressable markets across AI, automotive, defense, cloud, and consumer electronics



Licensing & Partnership Model

Dimension can:

- License IP blocks for integration into SoCs
- Co-develop reference designs
- Support edge, cloud, and embedded markets
- Allow selective use of individual patents or full suites

Why It Matters

As video and AI workloads dominate future compute demand, chips that move and process less data more intelligently will win. Dimension provides that capability at the hardware foundation, using its patented video intelligence for the infrastructure era.