



# BitFire BLUEPRINTS

## BITFIRE ENGINE

A broadcast standard video transport appliance built to scale with minimal on-site footprint, delivering broadcast-caliber video, audio and data signals to single or multiple destinations via the BitFire Transport Network.

Built with a straightforward setup, requiring power, video and internet access, the BitFire Engine is configured to integrate directly into your production workflow.

### KEY FEATURES



- All HD-SDI ports are bidirectional and independently assignable to transmit or receive on a booking-by-booking basis
- Able to support point-to-multipoint video delivery to other BitFire Engines, web browsers and cloud endpoints
- Deterministic transport latency, configurable based on network conditions
- Frame-accurate synchronization across multiple BitFire Engines
- No public IP or inbound firewall rules required



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## VIDEO .....

- HD-SDI or IP TS Handoff
- HD-SDI ports accept all broadcast formats up to 1080p59.94 (NTSC & PAL)
  - Compatible with external encoders & decoders



## AUDIO .....

- Up to 16 embedded channels per SDI path
- Ability to integrate into existing AES67/Dante workflows
  - Use with broadcast intercom system for PL/IFB applications
  - Embed AES67 into HD-SDI signal



## DATA .....

- Transmit data feeds in-sync with video
  - Scoreboard data
  - Camera controls
  - Tally
  - Custom feeds or IP protocols (TCP, UDP)
    - UDP traffic backed by our transport technology, if required
- Support for transport of 608 and 708 Captions



## NETWORK .....

- Bandwidth requirements for each path can be configured based on need and availability
  - Optimal setup: 10-15mbps upload bandwidth per TX path regardless of number of destinations
  - Optimal setup: 10-15mbps download bandwidth per RX path
- Network configuration: DHCP (preferred) or static IP
  - If setup requires a pre-assigned IP address, this can be configured prior to shipping

## ..... BITFIRE ENGINE FORM FACTORS .....

### 4 Port



HD-SDI Ports: (4) BNC

Reference Port: (1) BNC

Acceptable reference formats: Tri-Sync or Black Burst

Encoder capacity: Up to (3) three concurrent paths

Decoder capacity: Up to (4) four concurrent paths

Form Factor: 1 RU short-depth chassis

Dimensions: 17.3"x15.5"x1.75"

Power requirements: 300W max

*Support productions of any size or complexity with the ability to TX/RX multiple SDI paths from a single engine. Straight forward to scale with additional engines to meet production requirements.*

### BitFireRX



1x micro HDMI output

Power requirements: 5v micro-USB (power adapter included)

Decoder capacity: (1) One path

Dimensions: 2.65"x3.6"x1.125"

Power Requirements: 5V Max

*HDMI output designed to provide a straightforward connection for external monitoring.*