MEDIA BUYER'S WHITE PAPER

DOOH Creative & Technical Specifications

The Complete Media Buyer's Reference

Goldfish Ads · DOOH Media · AMAPDATA — Prepared June 2026

This paper is the single reference a buyer needs to take any DOOH campaign from "approved budget" to "live on screen" without a creative rejection, a missed flight date, or a blurry, letterboxed ad. Every spec below is paired with the value you should use and the operational reason it exists — because understanding the "why" is what lets you adapt when a publisher's sheet looks different from the norm.

1. Why specs are non-negotiable in DOOH

In display or social, a wrong-sized asset gets auto-cropped and still runs. In DOOH it does not. A DOOH creative is pushed to physical media players — sometimes thousands of them — each driving a fixed-resolution panel that plays a fixed-length loop. If your file is the wrong shape, the wrong codec, or too large to download before its slot, one of three bad things happens: the ad is rejected in moderation, it runs letterboxed with black bars (wasting the screen and your CPM), or it fails to play at all and you pay for impressions that never delivered.

Two delivery worlds, slightly different specs:

- **Direct / publisher-managed buys:** you send finished files to the media owner, who loads them into their CMS. Specs are exact and screen-specific.
- **Programmatic DOOH (pDOOH):** you traffic creative through a DSP to an SSP. One master asset is matched, resized, and letterboxed across many screen types — specs are more standardized but moderation and resolution rules still bite.

2. Core creative file specifications

2.1 File format

MP4 (video) and JPG/PNG (static) cover roughly 95% of inventory. MP4 / H.264 is the universal video container/codec — always default to it for motion. MOV is accepted by some networks but convert to MP4 unless told otherwise. JPG is preferred for static (smaller files, faster distribution); PNG when you need crisp text/logos or flat color without JPG artifacting. HTML5 zipped packages power dynamic, data-driven creative (countdowns, live pricing, weather triggers) on premium CMS networks — check per-publisher. GIF is often accepted but discouraged: large files, limited color, no real motion benefit.

Why: media players use hardware H.264 decoders. Exotic codecs force software decoding, which stutters or won't play.

2.2 Resolution & the canonical sizes

DOOH has no single size, but it does have a small set of workhorse resolutions. Deliver to the native pixel map of the screen whenever you can: **1920×1080** (Full HD landscape — the default workhorse for roadside, place-based, retail), **3840×2160** (4K UHD landscape — premium large-format and spectaculars), **1080×1920** (Full HD portrait — street furniture, mall verticals, elevators, kiosks), **1920×1200** (16:10 — many indoor panels), and native custom resolutions for spectaculars.

Why: a screen displays its own native pixel grid. Send 1920×1080 to a portrait panel and it letterboxes or gets rejected. Always ask for exact pixel dimensions, not just "HD."

2.3 Aspect ratio

Build to 16:9, 9:16, and 16:10 to cover the bulk of inventory; produce custom ratios for spectaculars. SSPs will letterbox a near-match creative to extend reach across more screens — useful, but it wastes screen real estate. Supplying both a landscape and portrait master dramatically widens where you can serve.

2.4 Maximum file size

Safe defaults: static images under 5–10 MB; video under 15–30 MB. Always defer to the publisher/SSP cap. The asset must download to a distributed player over connections ranging from fiber to a weak cellular modem on a bus shelter and be ready before its slot in the loop comes around. Oversized files miss their window and silently fail to play.

2.5 Spot duration

15 seconds is the dominant DOOH standard. Also common: 10s, 8s, and 6s; some networks run 30s. Your creative must match the booked slot length exactly — a 12-second video in a 15-second slot can throw off the loop or be rejected. In pDOOH, one play typically equals one impression event, so duration is also a billing unit.

2.6 Frame rate

30 fps (or 29.97) in North America; 25 fps in Europe/PAL markets. 24 fps is acceptable on many networks. Player hardware decodes at fixed refresh rates — a mismatched frame rate causes visible judder or dropped frames.

2.7 Codec, profile & bitrate

H.264 (AVC), Main or High profile. Some premium networks accept H.265/HEVC, but H.264 is the safe universal. Bitrate roughly 8–15 Mbps for 1080p, higher for 4K — use constant or capped variable bitrate. Profile and bitrate are the trade-off between picture quality and the file-size/download reliability constraint.

2.8 Color space

RGB / sRGB. Never CMYK. Screens emit light in RGB; CMYK is a print model — send it and your colors shift, usually toward dull and dark. Brand reds and blues are the first casualties.

2.9 Audio

Strip the audio track entirely from video files by default. The overwhelming majority of DOOH screens are silent — public, unattended, or muted environments with no speakers. An audio track adds file weight and is a common rejection reason. Exceptions exist (some gym, elevator, and bar placements carry sound), but only include audio when a specific placement confirms it.

2.10 Looping, motion & animation rules

Video should be self-contained and read clearly on a single pass; design it to loop seamlessly. Roadside digital billboards are heavily regulated for driver safety — under most US jurisdictions and OAAA guidance they must display static images that change no more than once every ~8 seconds with an instant transition (no full-motion video, no flashing, no fast animation). Indoor / place-based screens (malls, gyms, offices, transit interiors) generally allow full-motion video.

3. Designing for the physical screen

3.1 Pixel pitch vs. viewing distance

Pixel pitch is the distance between LED pixels (e.g., "P10" = 10 mm apart). Coarser pitch = lower effective resolution = meant to be viewed from farther away. A beautifully detailed 4K file on a coarse-pitch highway board shows none of that detail at viewing distance — fine text and thin lines dissolve. Design boldness to the viewing distance, not the file resolution.

3.2 Dwell time drives message length

A highway board gets a 1–2 second glance; a transit-platform or elevator screen gets much longer dwell. Rule of thumb: roadside creative should land in roughly six words or fewer — one idea, one logo, one clear call to action. Longer-dwell placements can carry more.

3.3 Legibility essentials

- Large, bold type; avoid thin or condensed fonts that vanish at distance
- High contrast between text and background
- One dominant message — do not reproduce a print layout
- Logo and CTA placed where dwell allows them to register

3.4 Safe zones, bleed & borders

Keep critical elements (logo, CTA, key text) away from the extreme edges; some screens crop or letterbox. When your background is solid black or white, add a thin contrasting border — without it the ad blends into the screen bezel or surrounding black, looking like dead air. Several SSPs require this.

4. Programmatic DOOH specifications

4.1 OpenRTB + the OpenOOH venue taxonomy

pDOOH transacts over OpenRTB (2.5/2.6) bid requests that carry DOOH-specific fields. The shared language for what kind of place a screen sits in is the OpenOOH venue taxonomy. First launched in 2020, it was updated by the OAAA in February 2026, and the working group that built it now sits inside the OAAA Taxonomy Committee. The 2026 update adds clearer distinctions between formats that used to be bundled together and more granular classifications for retail media and entertainment venues. One change buyers should note: the free-text **venuetypestring** field is deprecated because it was applied inconsistently across platforms. Target on the structured venue type IDs instead — more granular categories let you zero in on exactly the inventory you want.

4.2 Creative delivery: hosted asset vs. VAST

Hosted static/video asset is the most common pDOOH path — an image or short video plus a declared duration. VAST tags are used for video on major SSPs; keep wrapper chains short (ideally one wrapper to the inline tag), use secure (https) tags, and avoid invalid characters in the URL. VPAID/MRAID interactivity generally is not supported in DOOH.

4.3 The master ("mezzanine") approach

Provide one high-quality master at the highest required resolution; the SSP/network transcodes down to each screen's needs. For non-standard sizes, SSPs can resize and letterbox assets to extend reach across more screen formats, and they request layered PSD files and your brand fonts to do it cleanly. Supplying editable source files is the single biggest lever for maximizing how many screens your one creative can run on.

4.4 Creative moderation / approval queues

Every creative passes a media-owner approval step before it can serve. If a DSP hasn't integrated the SSP's creative API, creatives are submitted through the bidstream and pulled into each media owner's approval queue. This takes time and is per-owner — submit creative early.

5. Delivery, operations & compliance

5.1 Lead times

Book and submit creative 3–5 business days before flight at minimum; large or premium networks may need a full week to clear moderation, transcode, and load. Building this buffer in is what prevents a "creative not approved by launch" fire drill.

5.2 File naming convention

Name files so anyone can identify them at a glance: **Advertiser_WxH_Duration_Version** — e.g. **GoldfishClient_1080x1920_15s_v2.mp4**. Networks handle thousands of assets; ambiguous names cause the wrong cut to run.

5.3 What to hand over

- Final files in every required size and duration
- An editable, layered master (PSD/AE) for resizing
- Brand fonts
- A spec sheet noting any motion/static and audio exceptions

5.4 Proof of play & verification

DOOH delivers against actual screen plays. Expect proof-of-play logs (and sometimes screenshots) from the network or SSP, and use third-party verification/measurement where the campaign warrants it. This is how you reconcile delivered impressions against the buy.

5.5 Content moderation & restricted categories

Regulated categories carry extra rules that vary by venue and geography: alcohol (venue and proximity restrictions, age-gated environments), cannabis (state-by-state), political (disclosure requirements), gambling, pharma, and competitive exclusions near certain venues. Clear creative through each network/SSP's content policy before flight — a category rejection mid-flight strands budget.

6. Quick-reference cheat sheets

6.1 Canonical creative sizes

Format	Resolution	Ratio	Primary use
Landscape FHD	1920×1080	16:9	Roadside, place-based, retail (default)
Landscape UHD	3840×2160	16:9	Premium / large-format
Portrait FHD	1080×1920	9:16	Street furniture, malls, elevators
Landscape 16:10	1920×1200	16:10	Indoor panels / monitors
Spectacular	Native	Custom	Iconic / irregular LED

6.2 Video encode defaults

Spec	Value
Container / codec	MP4 / H.264 (Main or High)
Duration	15s (or as booked: 6/8/10/30s)
Frame rate	30 fps (NA) / 25 fps (EU)
Color	RGB / sRGB
Audio	None (strip track)
Bitrate	~8–15 Mbps (1080p)
File size	Under publisher cap (~15–30 MB typical)

6.3 Static encode defaults

Spec	Value
Format	JPG (preferred) or PNG
Color	RGB / sRGB
Resolution	Native pixel map of screen
File size	Under publisher cap (~5–10 MB typical)
Border	Add contrasting border on solid black/white backgrounds

7. Pre-flight QA checklist

- Exact pixel dimensions confirmed per screen (not just "HD")
- Correct aspect ratio(s); landscape AND portrait masters supplied where possible
- Duration matches the booked slot exactly
- Codec H.264, RGB color, audio stripped

- File under the publisher/SSP size cap
- Roadside = static (no motion); indoor = motion OK — verified
- Message readable at viewing distance (~6 words for roadside, bold type, high contrast)
- Critical elements inside the safe zone; border added if needed
- Restricted-category rules cleared for the venues/geos
- Files named to convention; layered master + fonts included
- Submitted 3–5+ business days before flight for moderation

Prepared by Goldfish Ads — DOOH Media · AMAPDATA. For campaign-specific specs, always treat the publisher's or SSP's deal-level spec sheet as the source of truth; this paper is the framework that lets you read any of them confidently.