Timecode Compare — Drift Report

2026-10-14 08:20 → 2026-10-15 08:20 (23:59:51)

Session summary — file: TimecodeCompare_2026-10-14_082048.csv

Exported 2026-10-15 10:26 on Mini · Recorded with 1.1.1161 · Exported with 1.1.1164

Ch	Name	fps	First TC	Last TC	Offset start (ms)[1]	Offset end (ms)[1]	Drift total (ms)[2]	Rate (ms/24h)[3]	Jitter (ms)[4]	Resets[5]
0	Time Server (Clock) → master (reference)	30	08:20:49:09	08:20:39:18	0.00	0.00	–	–	–	–
1	Mobile LTC Gen 1 → drift ≈ 0.7 frame (30 fps) / 24 h[6]	30	08:20:49:09	08:20:39:19	−0.15	+22.14	+22.28	+22.2	0.006	–
2	Mobile LTC Gen 2 → very slow drift — ≈ 0.04 frame (30 fps) / 24 h[6]	30	08:20:49:09	08:20:39:18	−0.15	+1.17	+1.31	+1.3	0.006	–
3	Mobile LTC Gen 3 → drift ≈ 0.6 frame (30 fps) / 24 h[6]	30	08:20:49:09	08:20:39:19	−0.13	+19.33	+19.44	+19.5	0.006	–

Small numbers refer to the Legend on the last page.

Reference quality

NTP 192.168.178.160, stratum 1 (PPS), via en9 (wired)

	Mean	Min	Max
Max error (ms)[7]	±0.132	±0.081	±0.209
Tracking error (ms)[8]	±0.010	±0.003	±0.050
Jitter σ (ms)[9]	0.013	0.004	0.045
Round trip (ms)[10]	0.181	0.093	0.285

Polls	21602 (21602 accepted, 0 outliers, 0 no reply)
Holdover[11]	none
Absolute accuracy[12]	±0.209 ms to UTC
NTP input offset[13]	not set
LTC output offset[14]	+1.10 ms

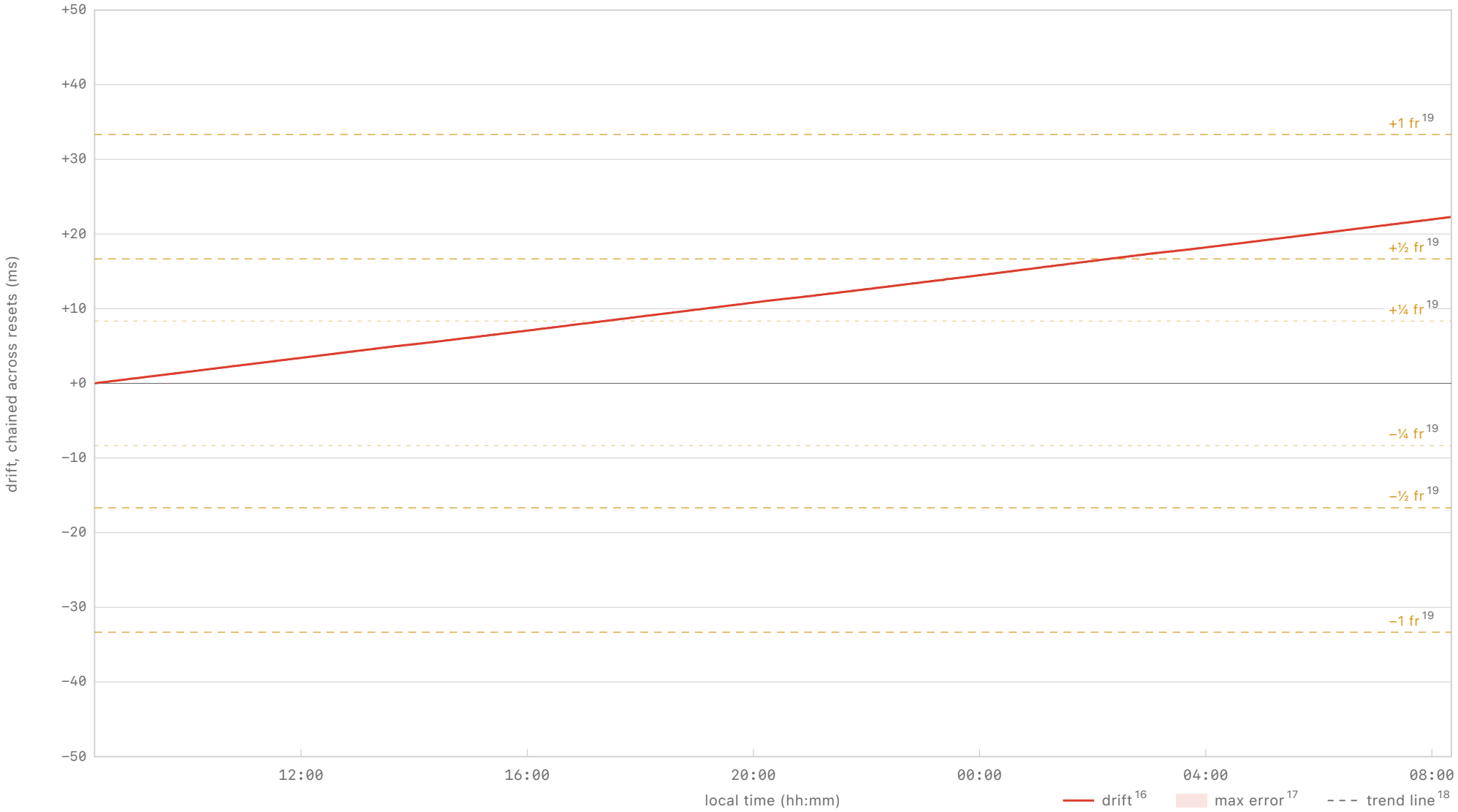
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Drift over time

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Channel 1 — Mobile LTC Gen 1 · 30 fps

drift +22.28 ms · rate +22.2 ms/24h ≈ 1 fr/36.0 h · jitter 0.006 ms · scale ±50 ms[15]



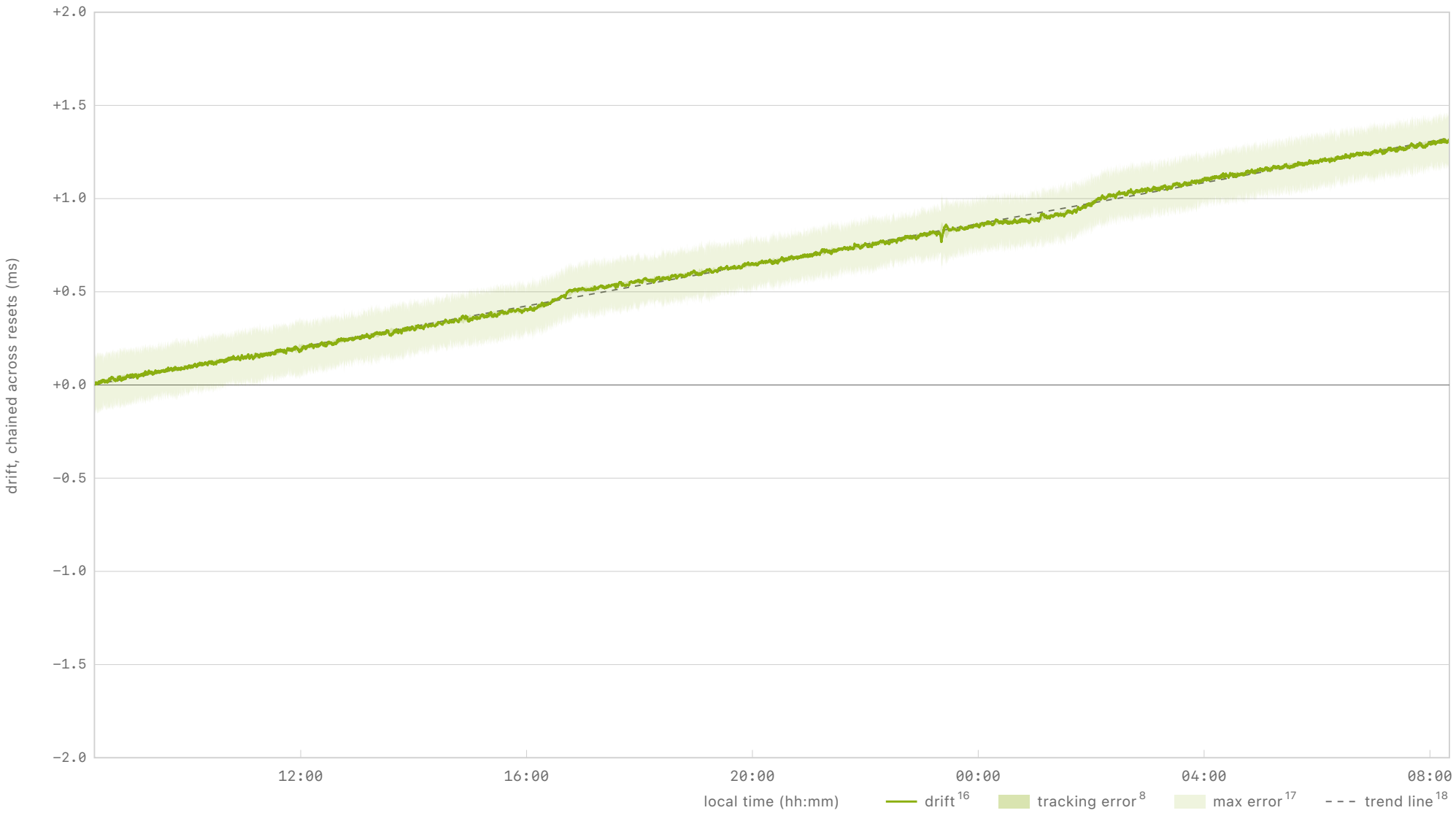
Timecode Compare — Drift Report

Drift over time

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Channel 2 — Mobile LTC Gen 2 · 30 fps

drift +1.31 ms · rate +1.3 ms/24h ≈ 1 fr/25 d · jitter 0.006 ms · scale ±2 ms[15]



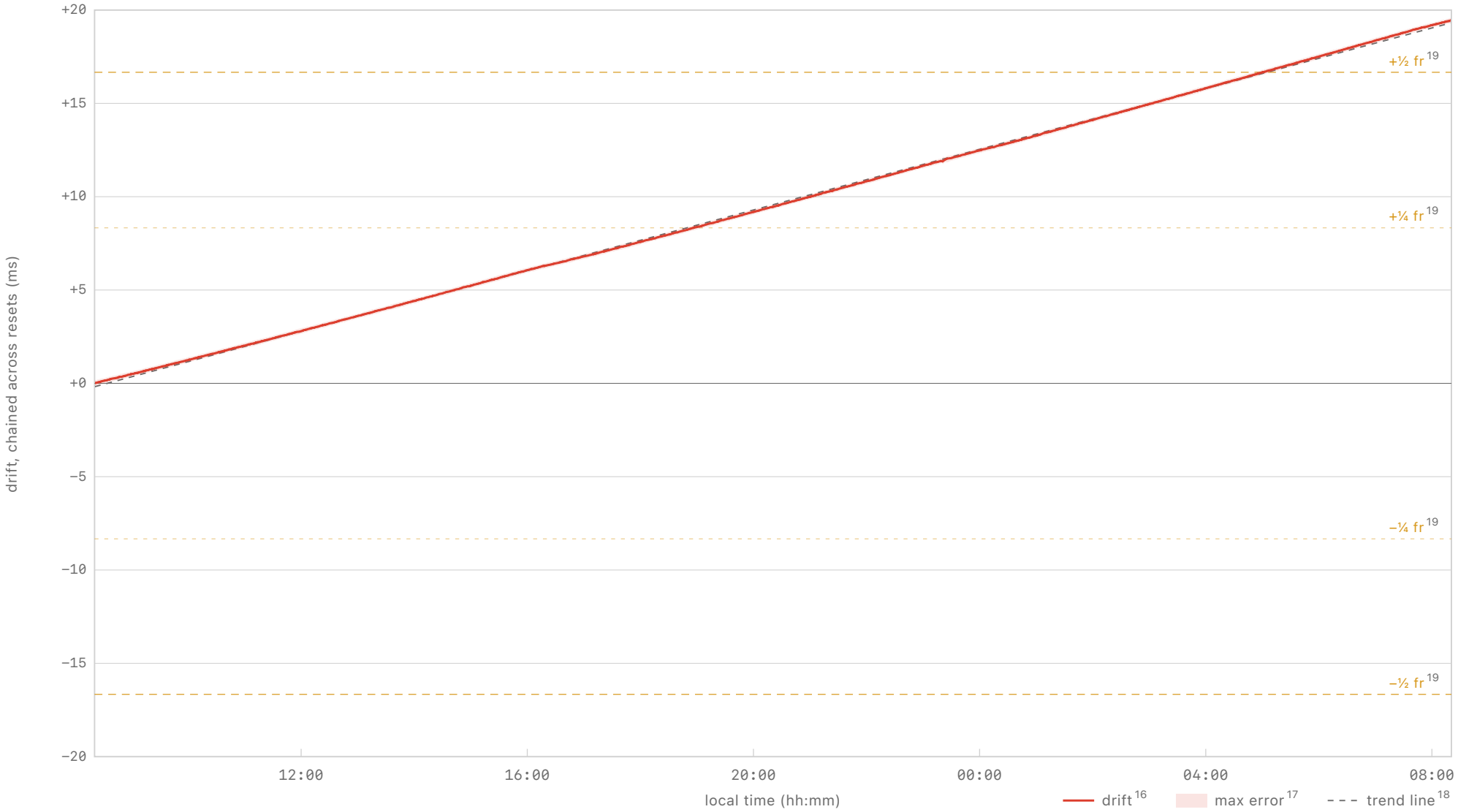
Timecode Compare — Drift Report

Drift over time

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Channel 3 — Mobile LTC Gen 3 · 30 fps

drift +19.44 ms · rate +19.5 ms/24h ≈ 1 fr/2 d · jitter 0.006 ms · scale ±20 ms[15]



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Legend

Summary table

Locked samples only, one per 10 s. Drift is chained across resets and signal gaps.

Offset start, end[1]	Offset to the master at the first and the last locked sample.
Drift total[2]	Last minus first drift value.
Rate[3]	Least-squares slope of the drift, scaled to 24 hours. A high rate means continuous drift.
Jitter[4]	Jitter of the compared channel: spread of its samples around its smoothed drift (30-minute window). High jitter with a rate near zero: unstable, but not drifting. Not the jitter of the reference clock, which is listed under Reference quality.
Resets[5]	Number of resets and re-jams of the channel. Time and reason are listed under Events.
Verdict[6]	By rate: stable below 1 ms per 24 h, very slow drift below 5, slow drift below 10, drift from 10 ms per 24 h. Below: the same drift in frames at the frame rate of the channel, per 24 h or as the time to one frame. high jitter: more than 1 ms around the trend. short sample: stable stretch under 10 min.

Reference quality

Values taken after settling, one per 10 s sample.

Max error[7]	Largest possible error of each measurement against the time source of the server, including the part of the reference its own loop has not yet corrected (tracking error).
Tracking error[8]	Part of the max error from the reference itself: what its control loop had not yet corrected at each sample, plus the uncertainty of that estimate.
Jitter σ[9]	Jitter of the reference clock: spread of the last 16 polls around the predicted time. Not the jitter of the compared channels.
Round trip[10]	Network delay to the server and back.
Holdover[11]	Time without an accepted reply from the server.
Absolute accuracy[12]	With NTP as master every offset lies within the largest max error of UTC as served by this server. The reference itself can account for at most twice that value of the drift shown.
NTP input offset[13]	Compensate the Input Latency of the Audio Interface.
LTC output offset[14]	Correction applied to the LTC output of the reference time, as set for the output device.

Charts

Scale[15]	Fixed and centred on 0: ±0.1 ms base, then 1-2-5 steps. All channels share the time axis.
Drift curve[16]	Coloured by the largest drift: green up to 1 ms, yellow-green up to ⅛ frame, yellow up to ¼ frame, orange up to ½ frame, red beyond. ≤ 1 ms ≤ 4.2 ≤ 8.3 ≤ 16.7 > 16.7 ms
Max error band[17]	Max error of the reference around the smoothed drift (30-minute window) at each sample; the darker inner part is its tracking error. Against world time the true value lies within the outer band.
Trend[18]	Dashed grey: least-squares line over the longest stable stretch.
Frame guides[19]	Orange dashed at ±½ and ±1 frame. Beyond them the displayed difference changes by one frame. Lighter at ±¼ frame of the master base rate, where the drift curve turns orange.
Reset, removed[20]	Red dashed vertical line: reset or re-jam. Grey solid: channel removed.