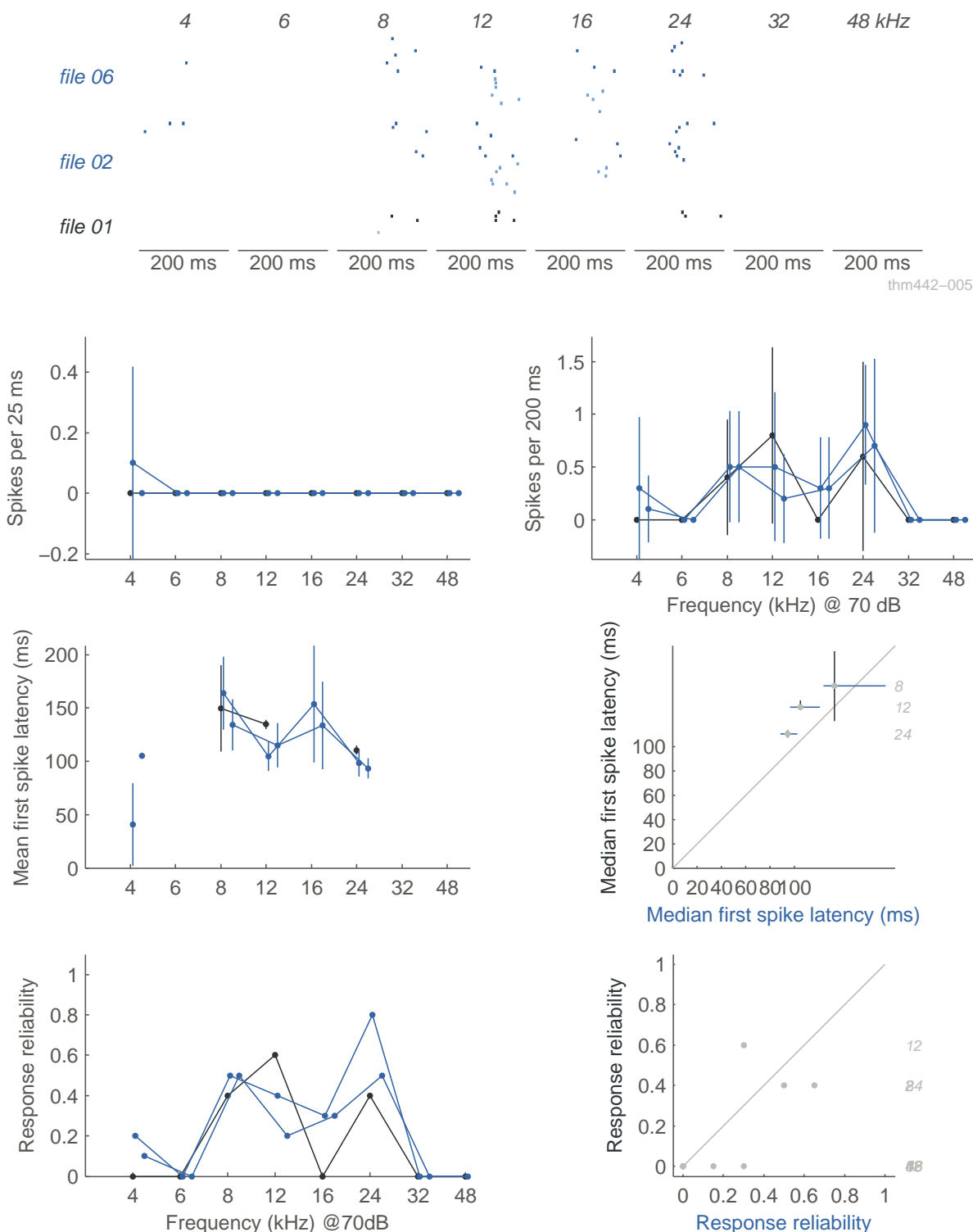


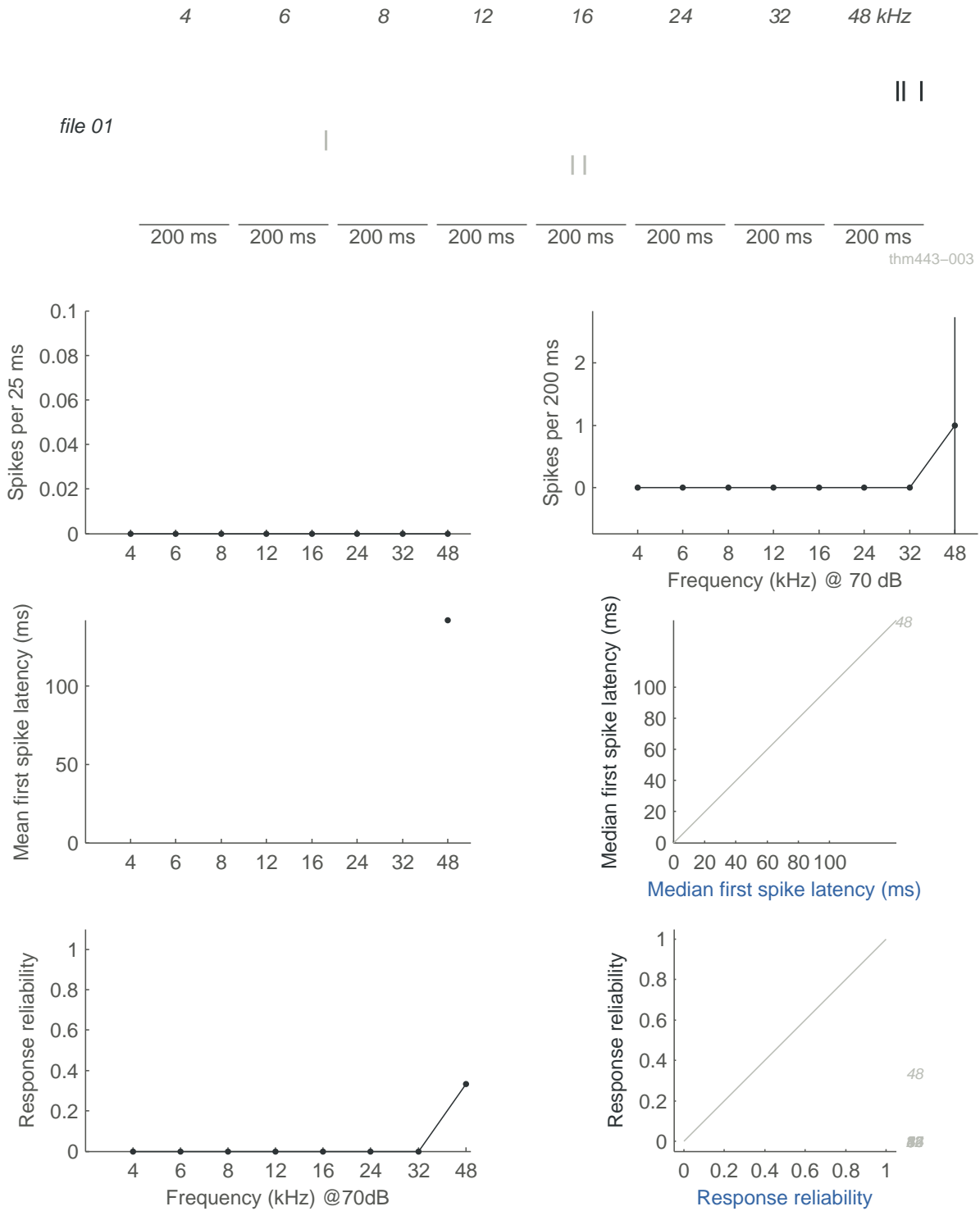
Notes: Chat-Cre, H-2-2 (HR), injected with AAV-YFP-Chr2 (Sachin, when?) QX314, tungsten lfp electrode (0.5 MOhm, 300 um deep) this is the fifth cell I patched in this penetration and I finally see some spikes! seems to respond to 12, 16 kHz, almost no responses to click trains, unreliable binary (?) responses to white noise bursts responses have improved during protocol presentation, seal has changed to 50 mOhm, seems stable Given the nice binary responses I have decided to play led/tone/click protocol in file 002 Matlab refused to record data in file 002 after 10 min ???, so I lost quite a lot of it (I played 17 repeats of the whole protocol up to this point), in file 003 I repeated the led/click/tone protocol again. Seal has changed to 100 mOhm seems stable, but the recording looks more and more like a pseudo-intracellular recording Finally, I had to break

in, as the seal 'improved.' The resulting whole-cell recording is not the best one (resting V_m = -55 to -50 mV), but I'll take as it's my only option right now:-) R_t = 200, R_s = 50 file 005: I switched to I-Clamp Normal and 'dialed' the cell to -60 mV resting potential (approx. -60 pA)

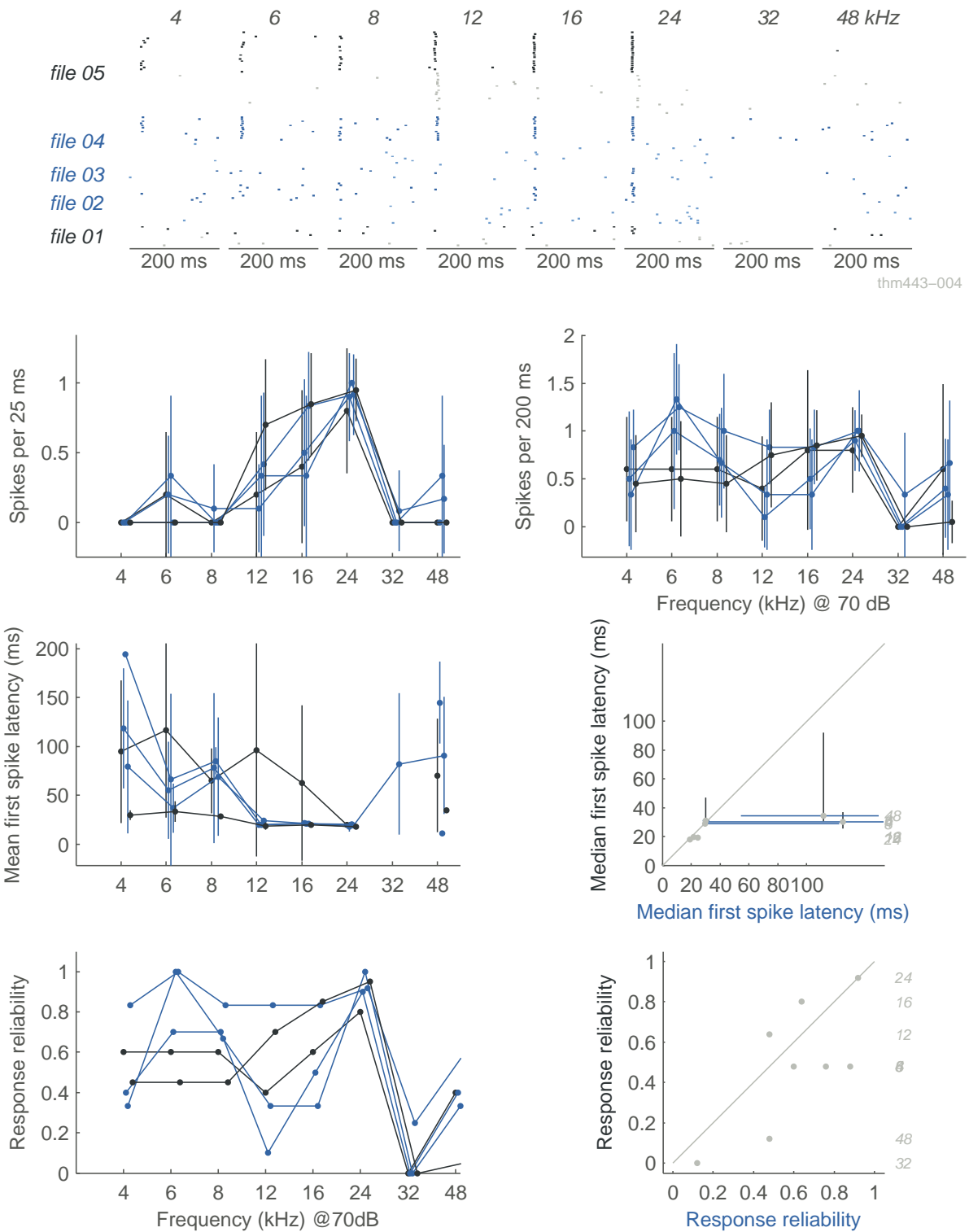
thm442-003_tuning.pdf



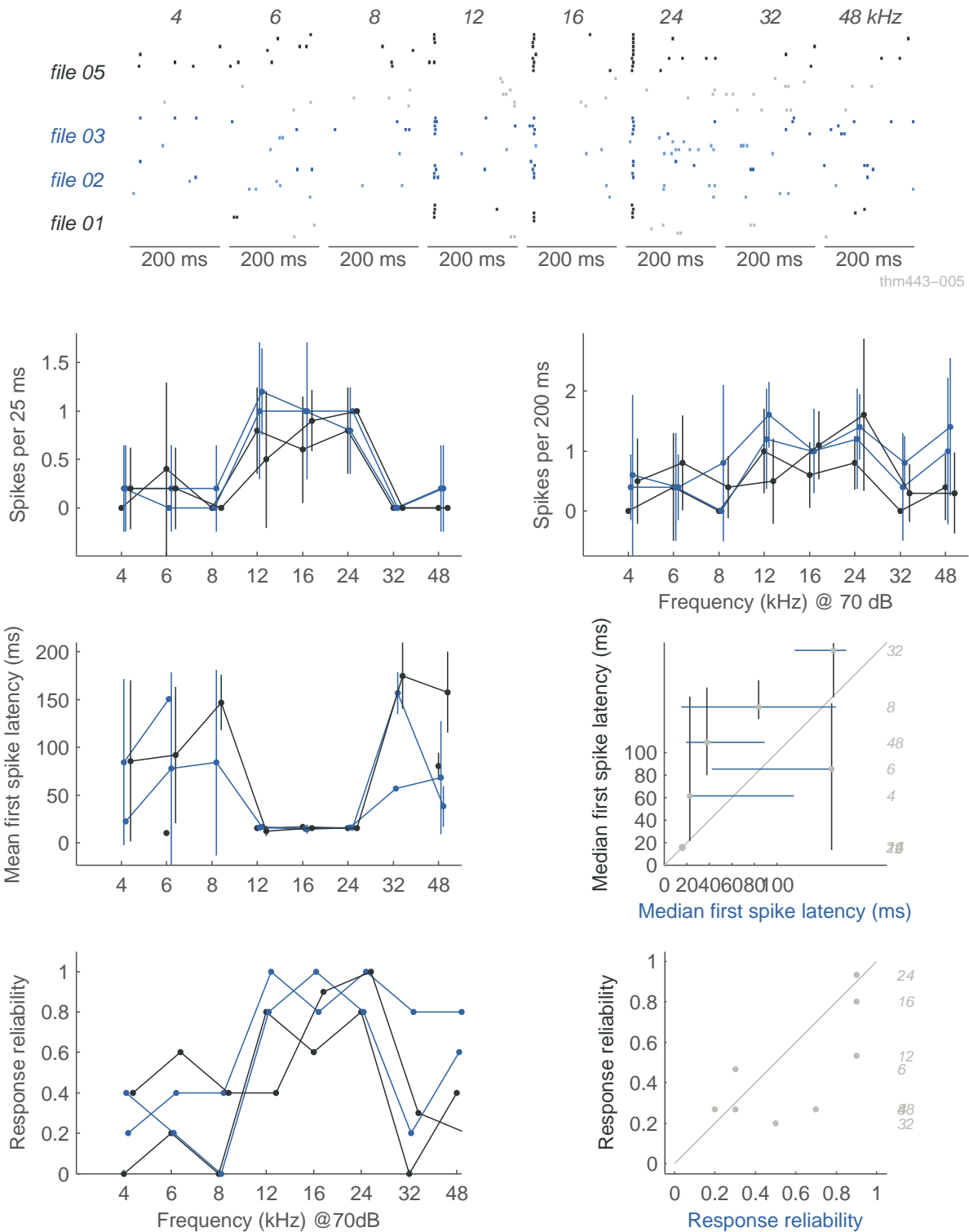
Notes: Chat-Cre, H-2-2 (HR), injected with AAV-YFP-Chr2 (Sachin, when?) QX314, tungsten lfp electrode (0.5 MOhm, 300 um deep) responses not great, possible some offset responses to some tones. I took this cell because I'm having hard time finding nicely responsive cells, I patched quite a few, but none really nice file 001: click/tone file 002: led/click/tone file 003: 500ms LED pulses; weird matlab error again??? data wasn't saved after approx. 5 min of file 003, nevertheless, the led pulses were still on file 004: 500ms pulses again, and the same error again. It seems that switching between computers with KVM switch is the culprit! SO, DON'T SWITCH COMPUTERS WHEN YOU'RE RECORDING!!!! file 005: 500ms pulses, not much seems to be happening 1100 500ms pulses were delivered in total



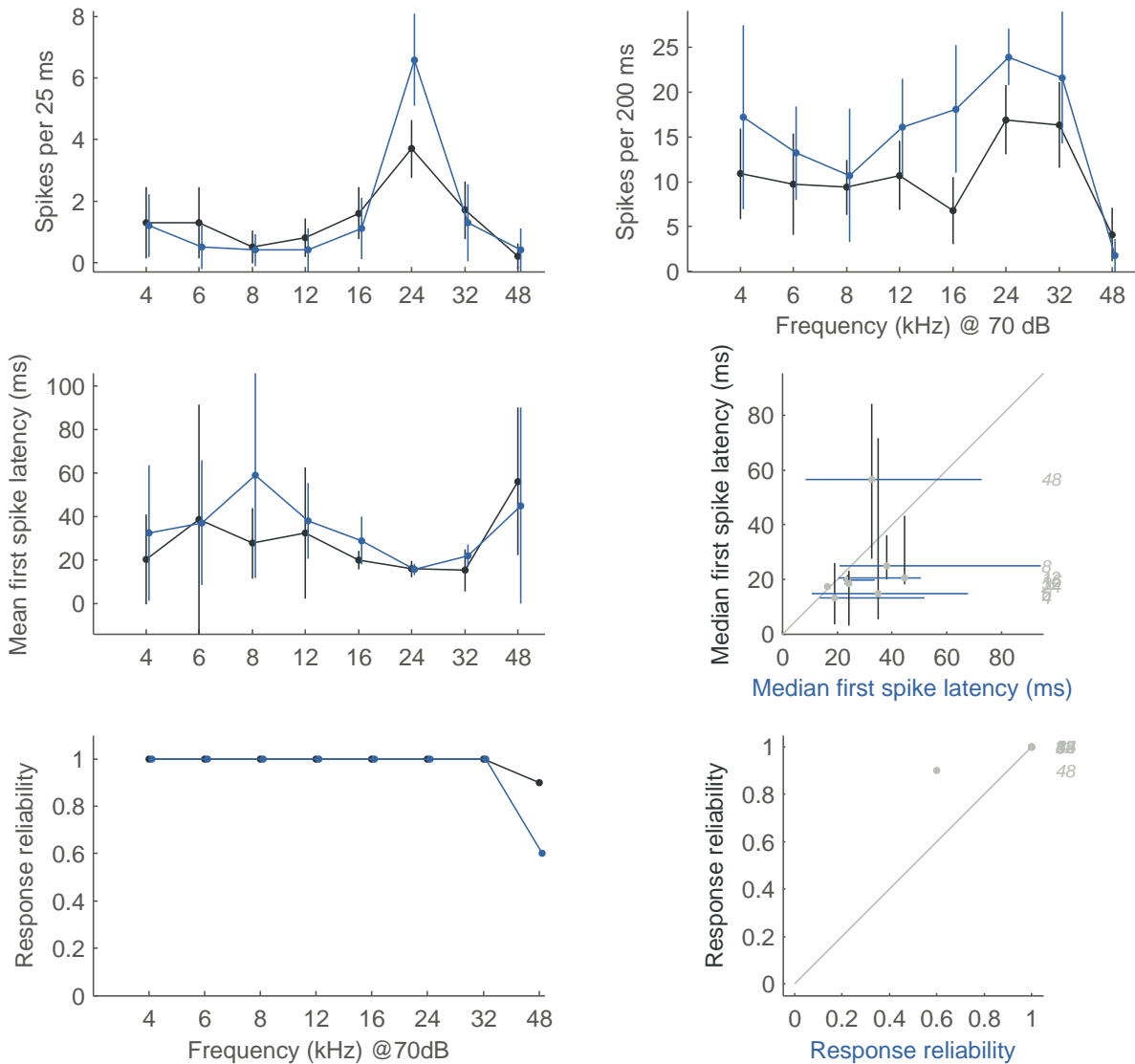
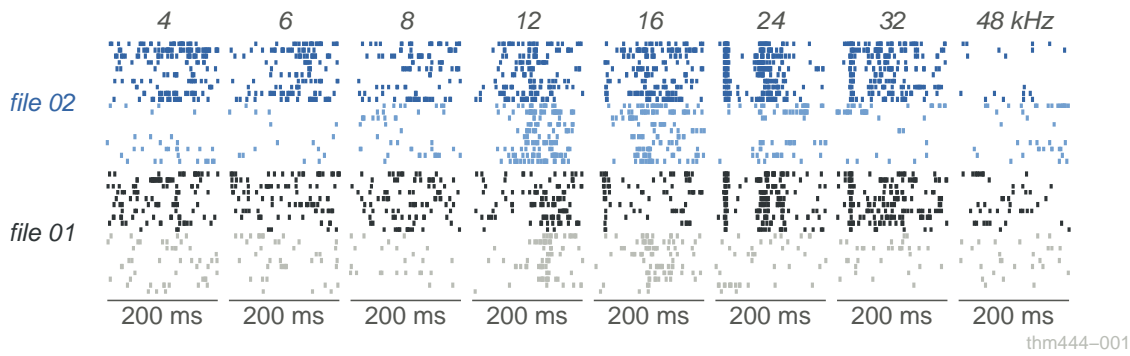
Notes: Chat-Cre (H4-3, BL, HL) injected on 03/03/2010 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep)
not very responsive cel, responds to every 4-5th white noise burst, some click trains



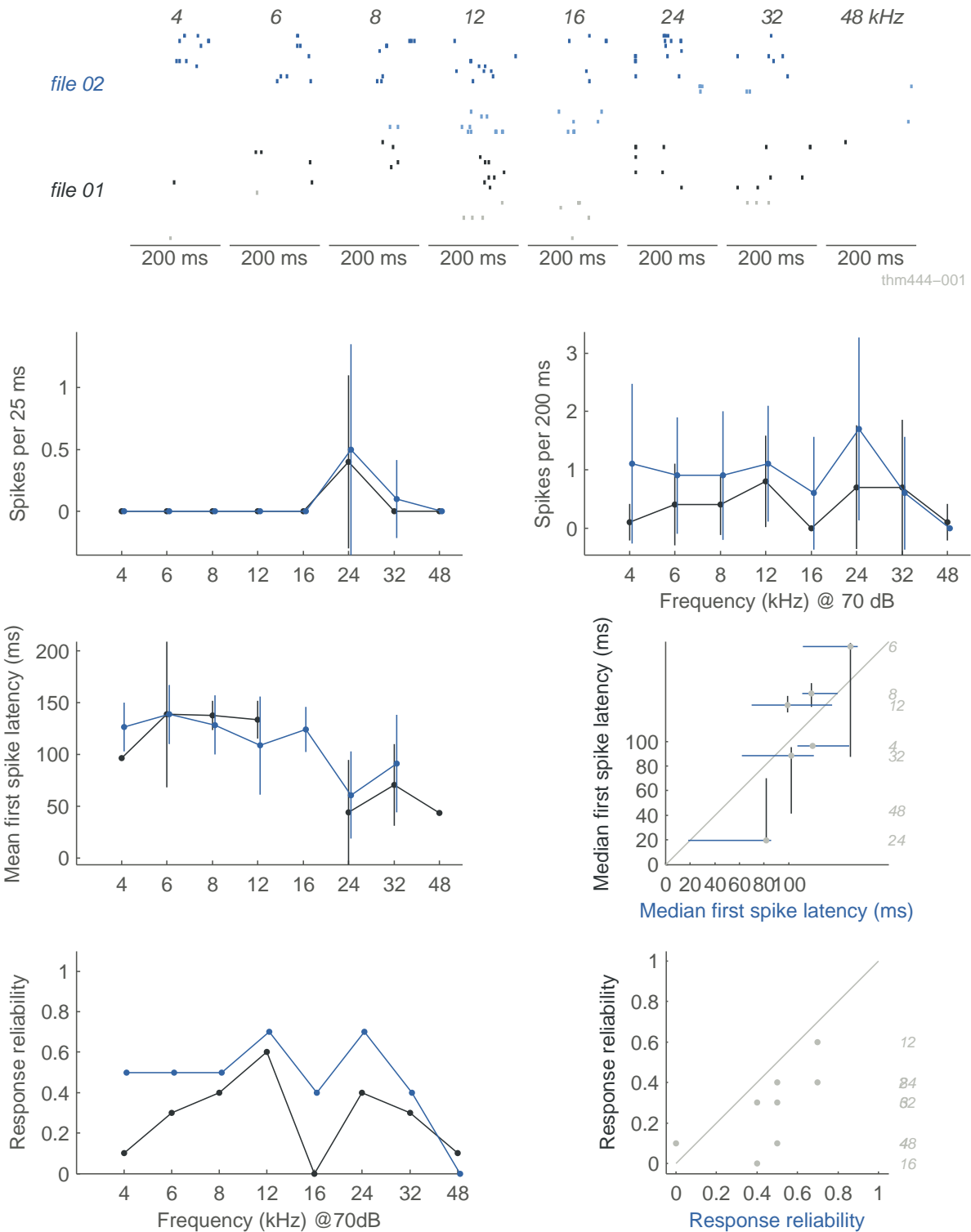
Notes: Chat-Cre (H4-3, BL, HL) injected on 03/03/2010 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep)
nicely responsive, especially to click-trains file 001: click/tone protocol file 002, 003, 004: led/click/tone protocol file 005:
click/tone protocol nice responses, didn't seem to change with led stimulation



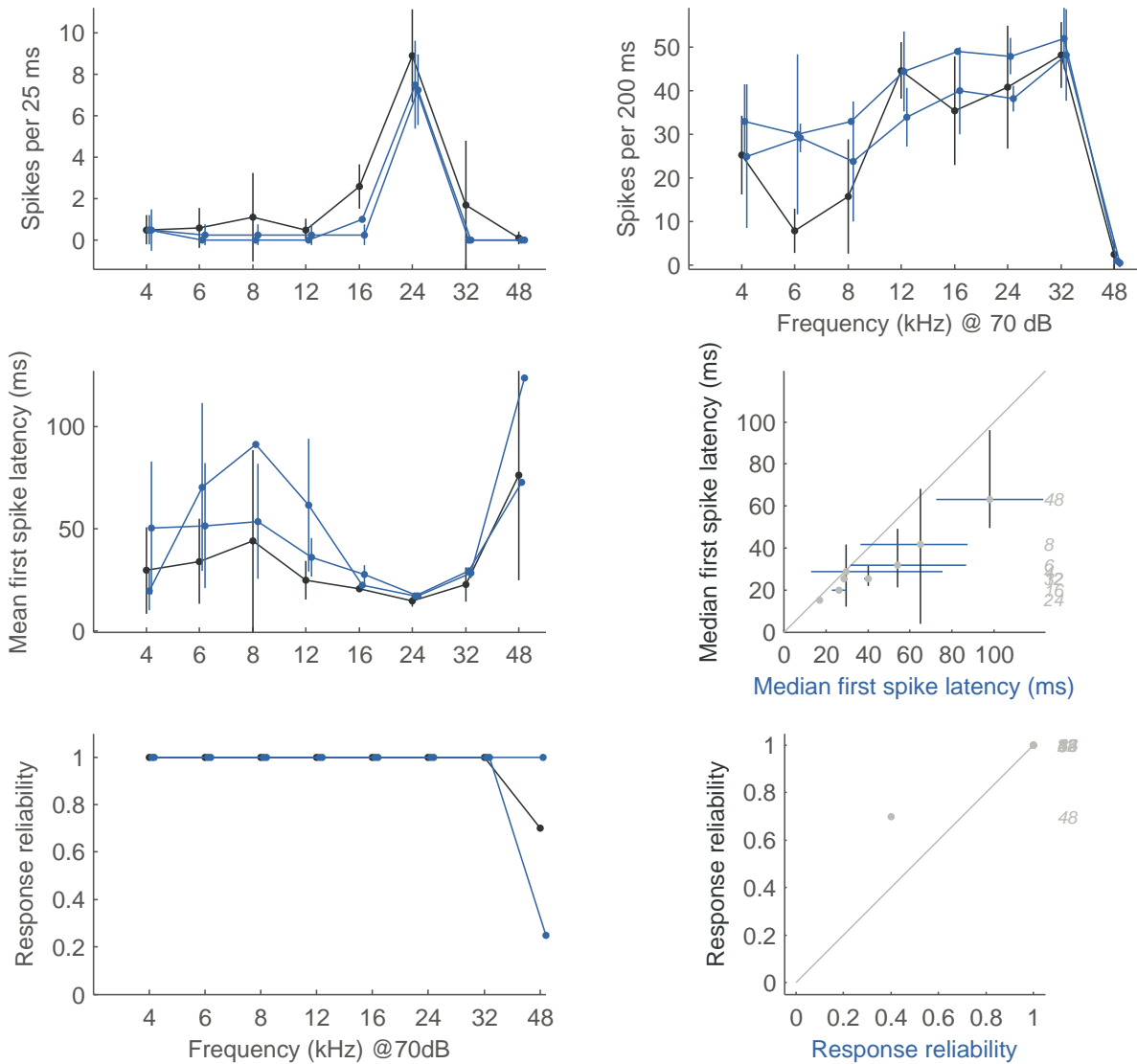
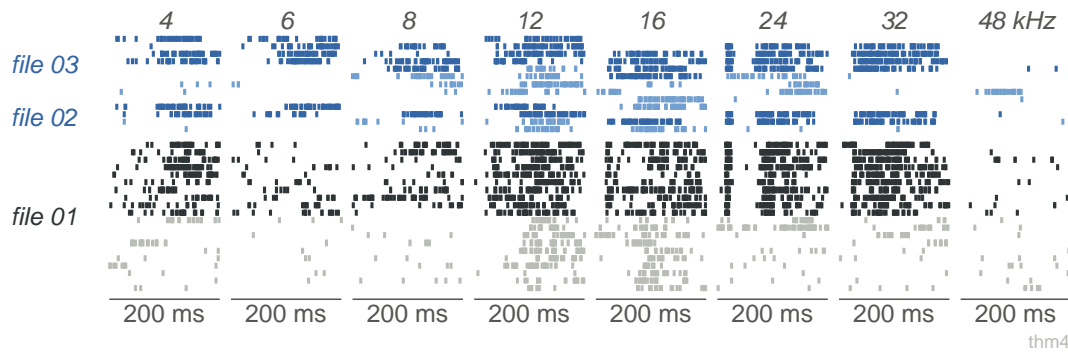
Notes: Chat-Cre (H4-3, BL, HL) injected on 03/03/2010 (Sachin) QX314 tungsten lfp electrode (0.5 MOhm, 300 um deep) nicely responsive file 001: click/tone protocol file 002, 003: led/click/tone protocol file 004: 500ms led pulses (600x, approx 10 min) file 005: click/tone protocol, responses seem to be the same as before... I couldn't get any good seals today:- (So, no whole-cell. At least I tried to find some nice examples of responsive cell-attached recordings



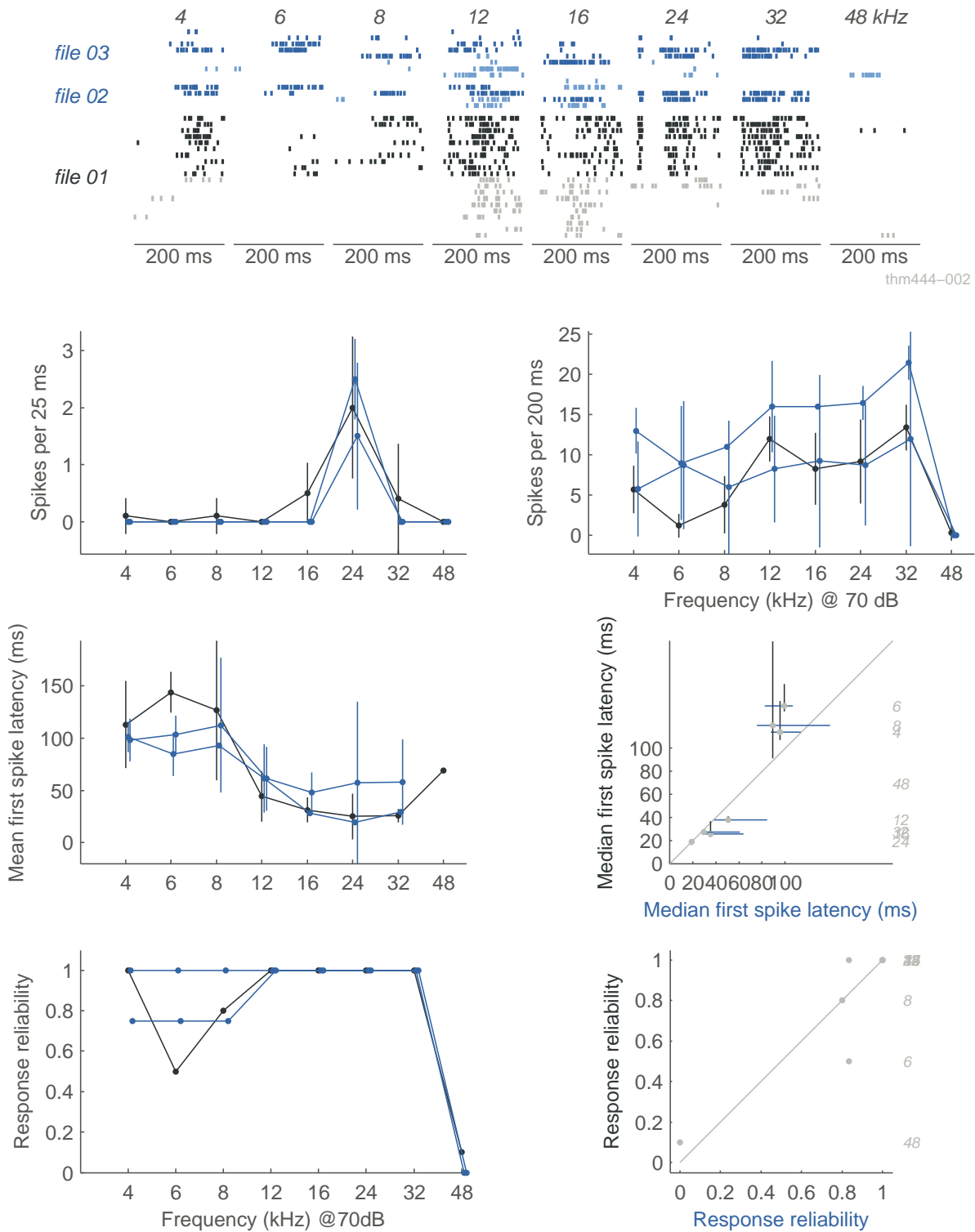
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) site seems barely responsive, really nice spikes on channel 3; offset responses? file 001: click/tone file 002: /led/click/tone those nice , big spikes on channel 3 seem to overload the amplifier????!!



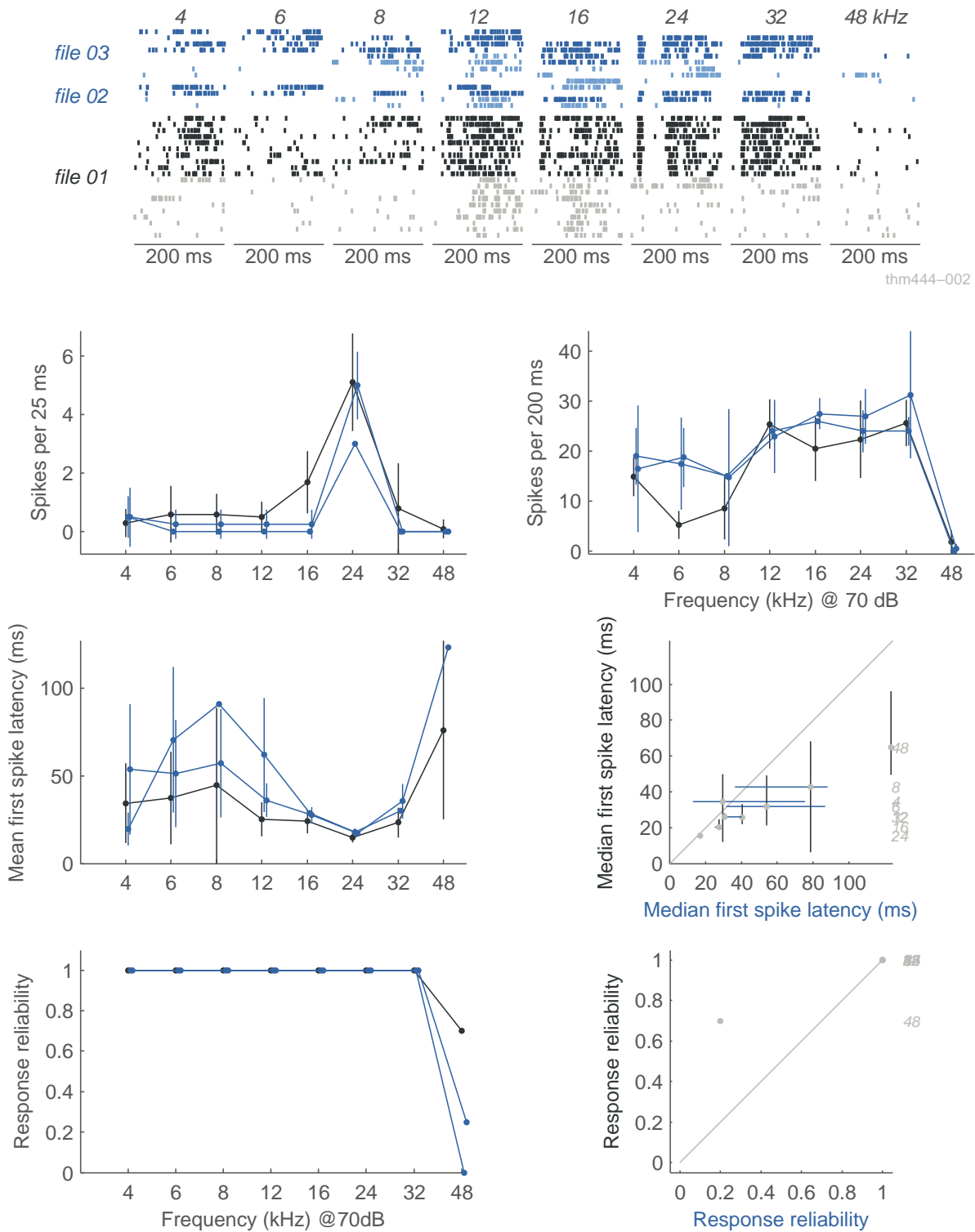
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) site seems barely responsive, really nice spikes on channel 3; offset responses? file 001: click/tone file 002: /led/click/tone those nice , big spikes on channel 3 seem to overload the amplifier????!!



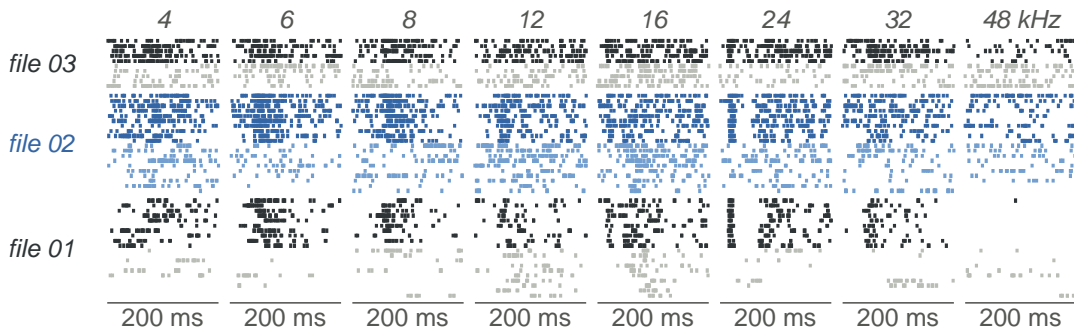
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: about 2 repeats of the whole protocol, then silent error file 003: led/click/tone spikes have deteriorated, smaller, mostly multiunit activity



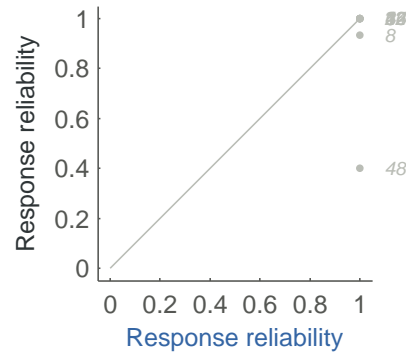
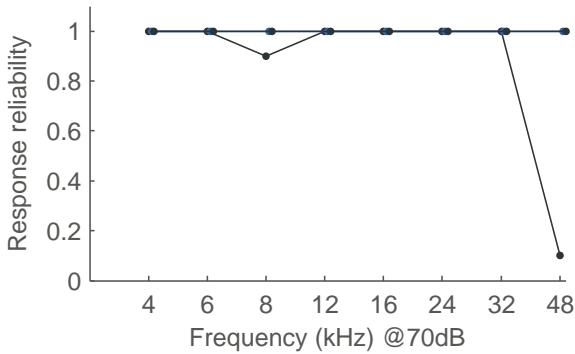
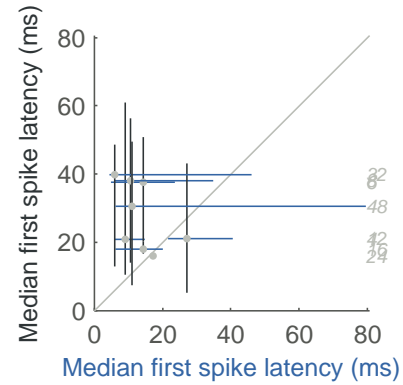
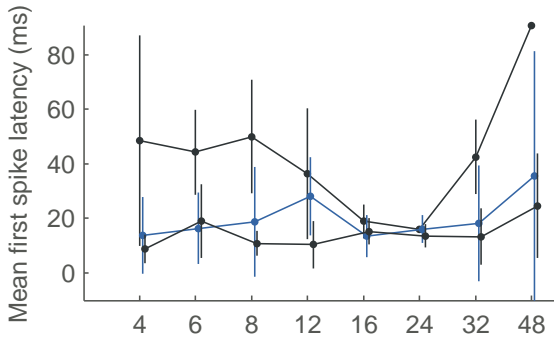
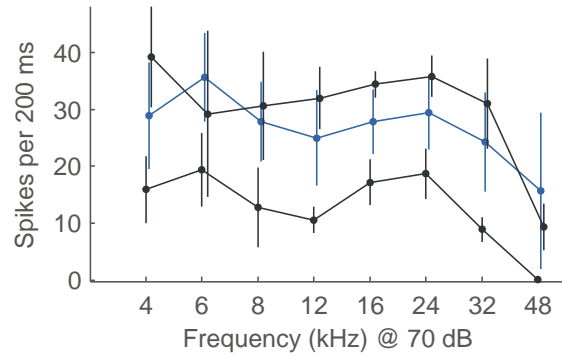
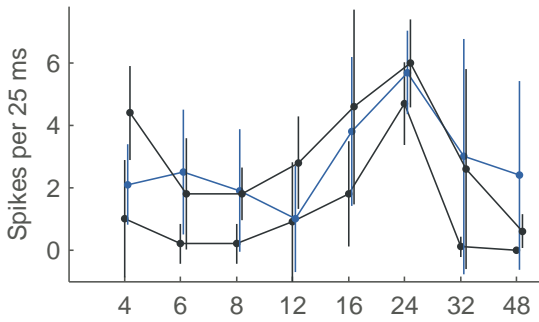
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: about 2 repeats of the whole protocol, then silent error file 003: led/click/tone spikes have deteriorated, smaller, mostly multiunit activity



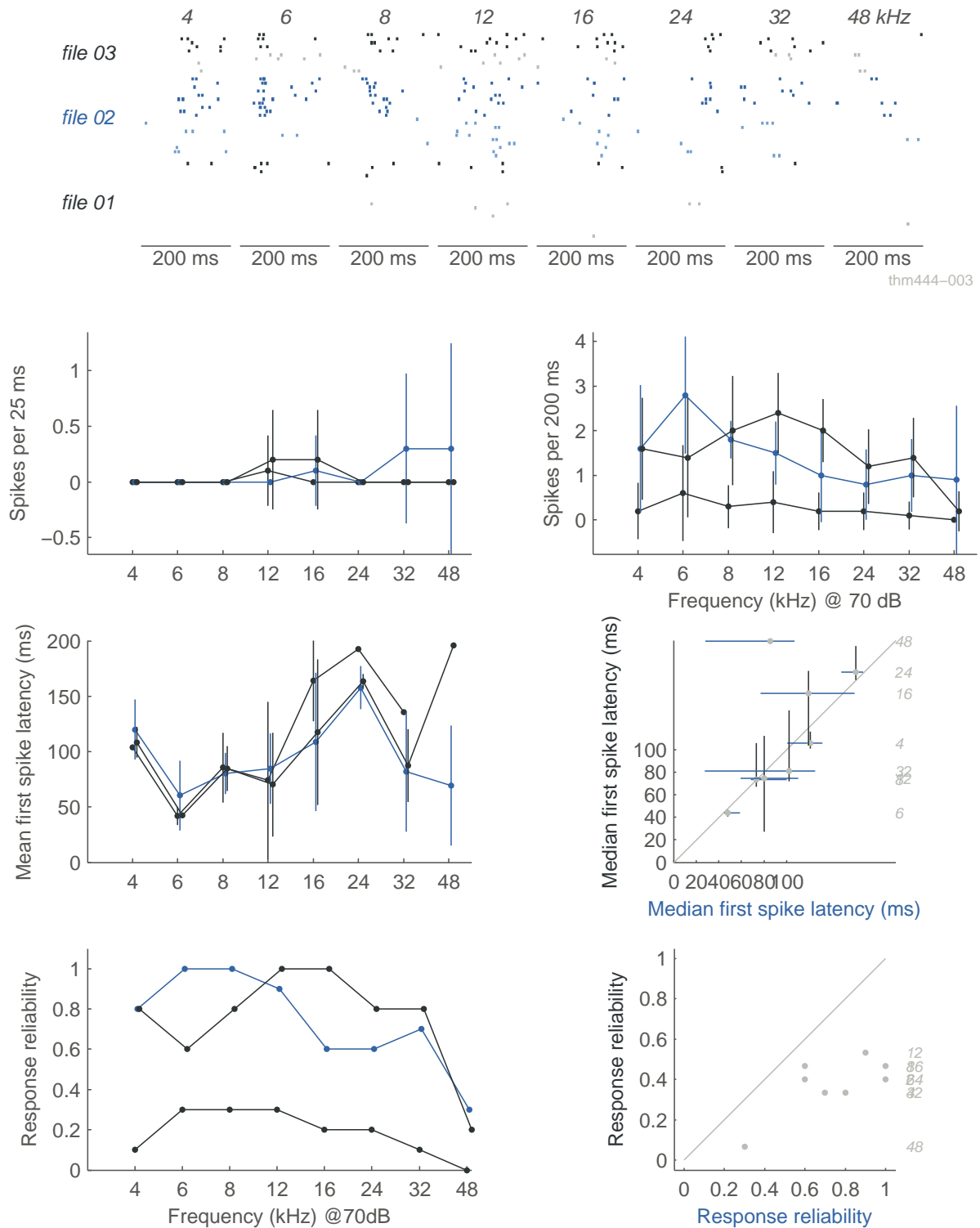
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: about 2 repeats of the whole protocol, then silent error file 003: led/click/tone spikes have deteriorated, smaller, mostly multiunit activity



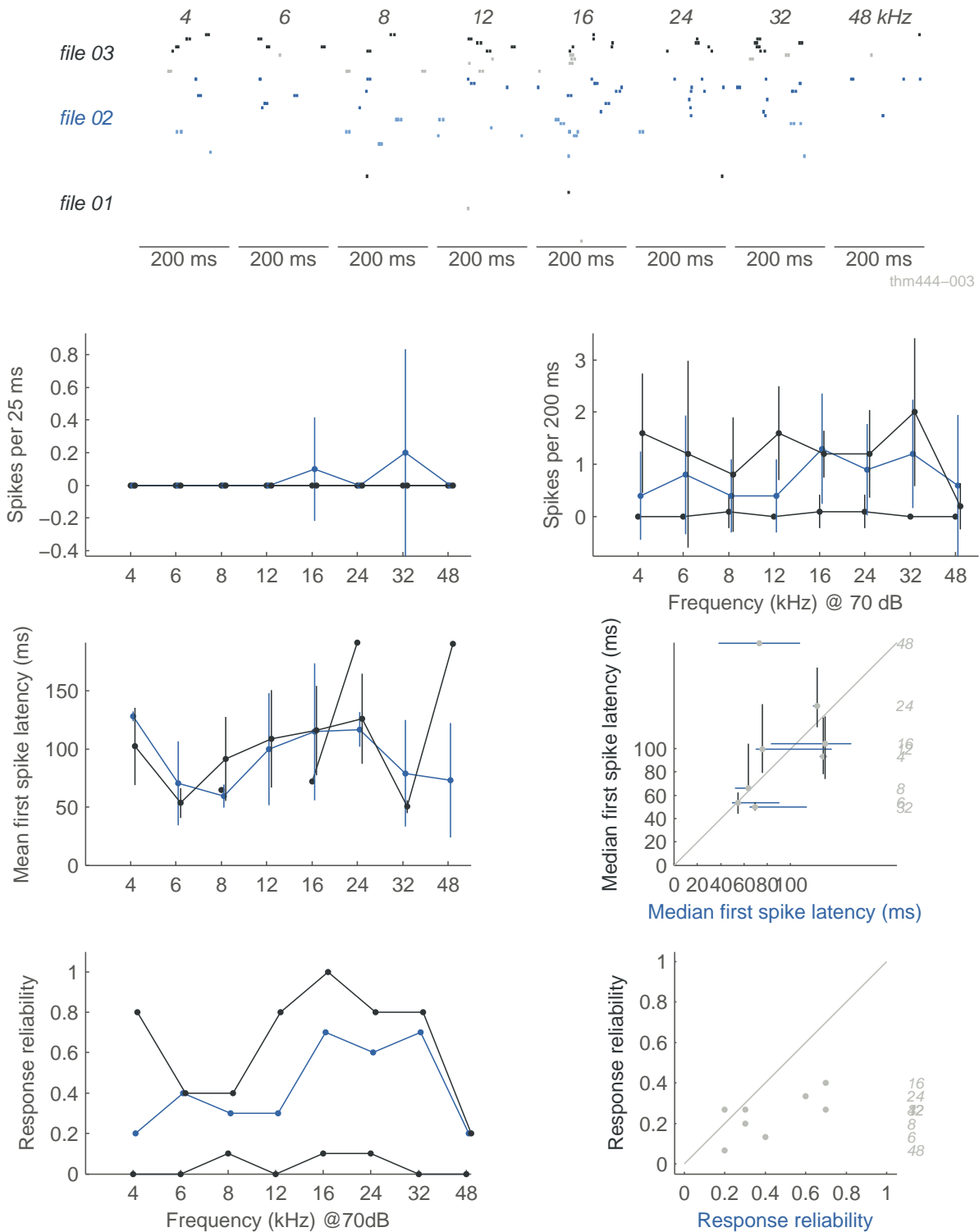
thm444-003



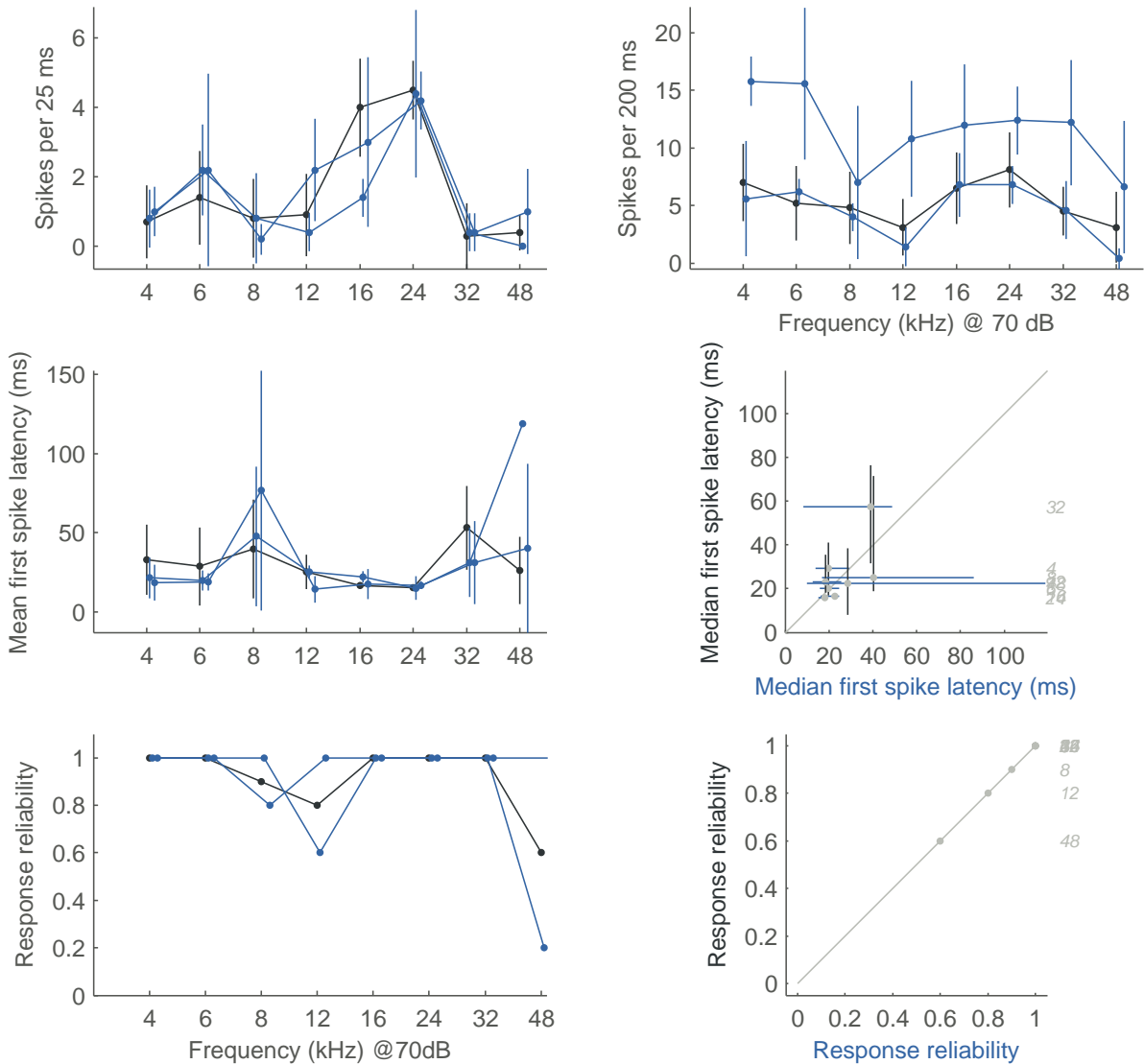
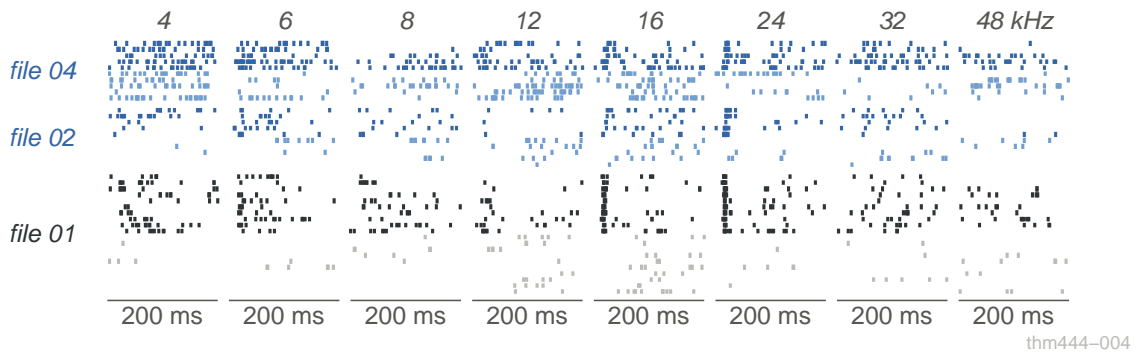
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: file 003: click/tone spikes became smaller in the end



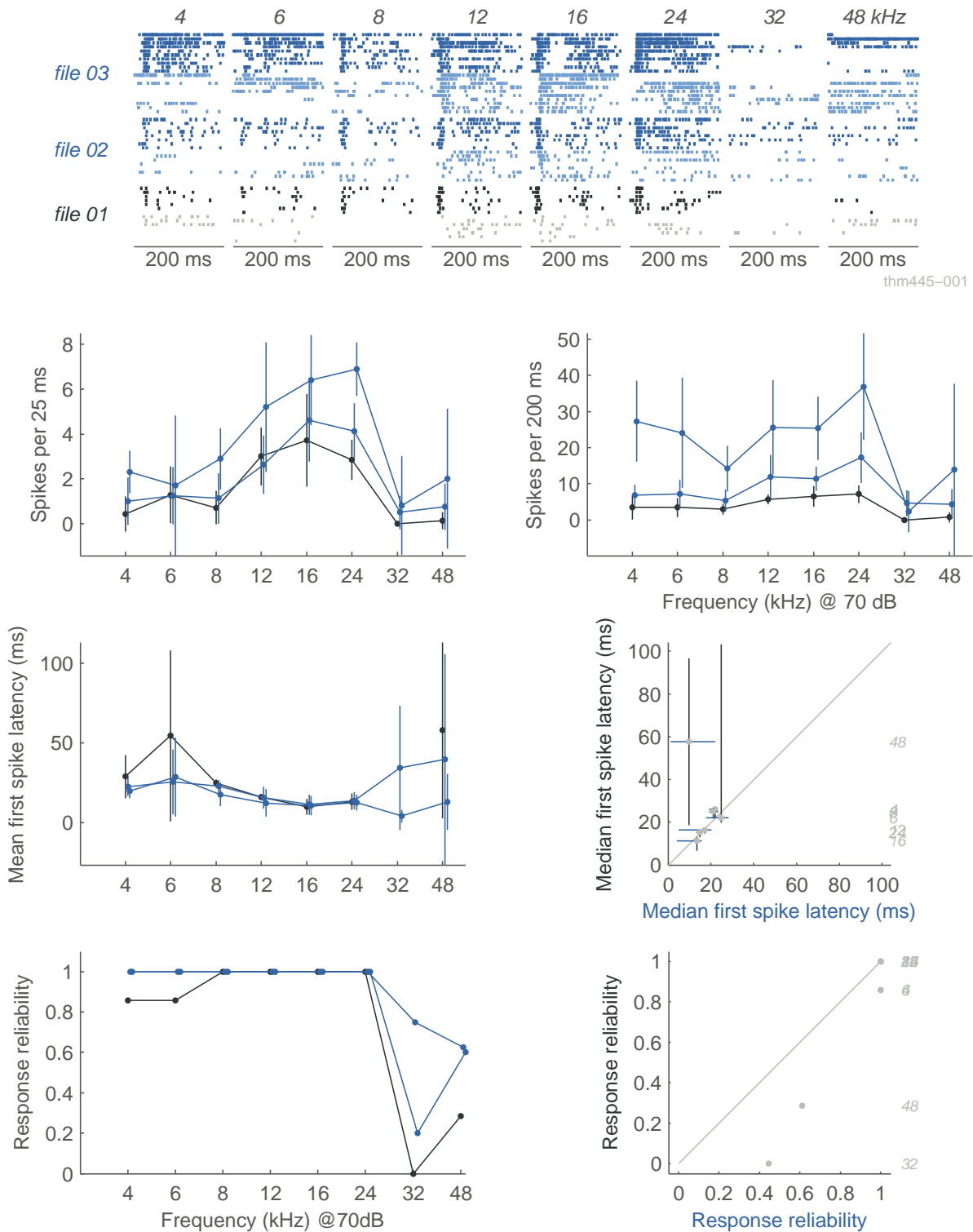
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: file 003: click/tone spikes became smaller in the end



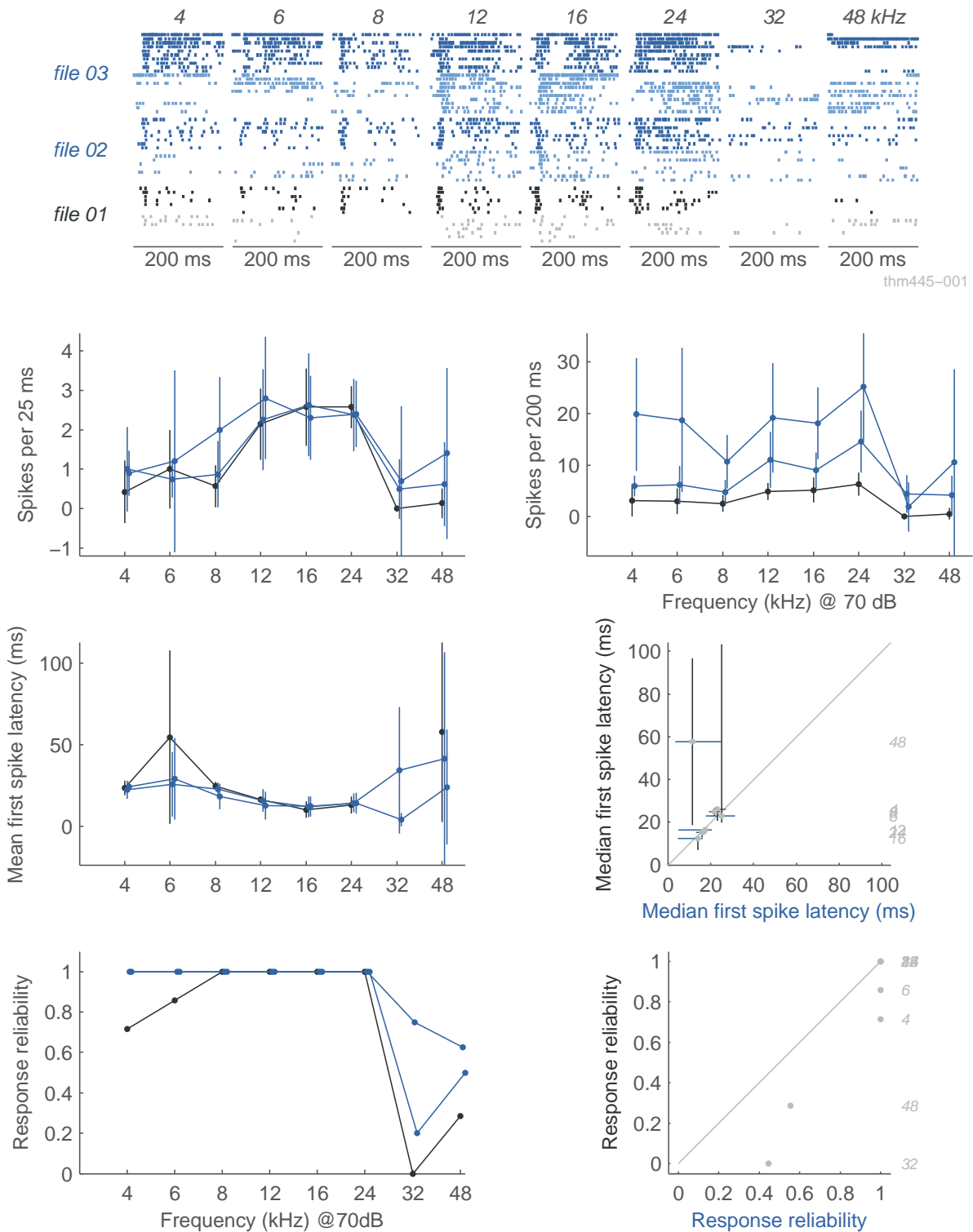
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) many more spikes, site nicely responsive? file 001: click/tone file 002: led/click/tone: file 003: click/tone spikes became smaller in the end



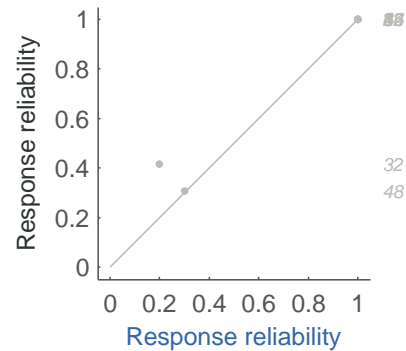
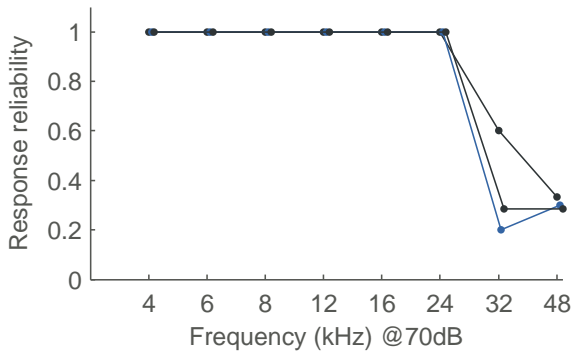
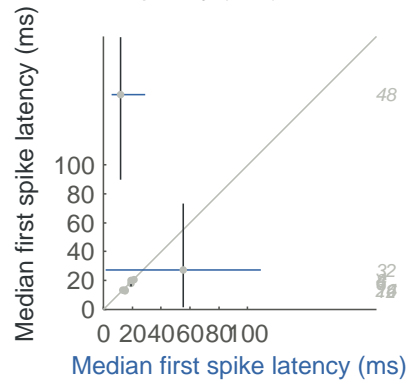
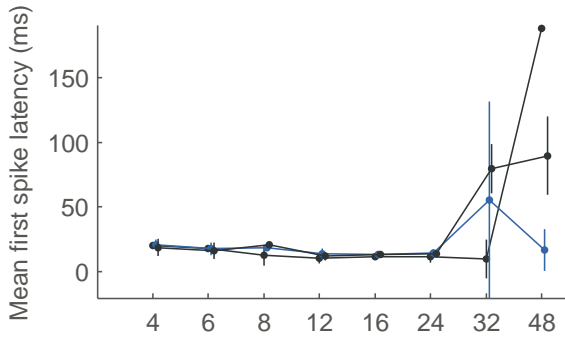
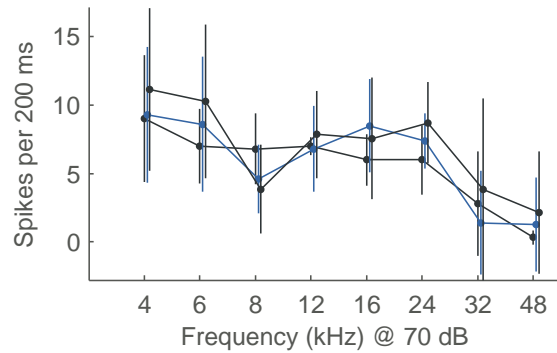
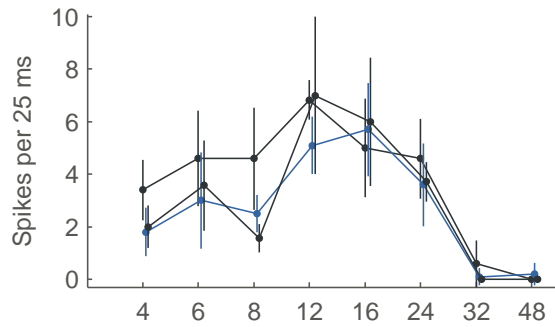
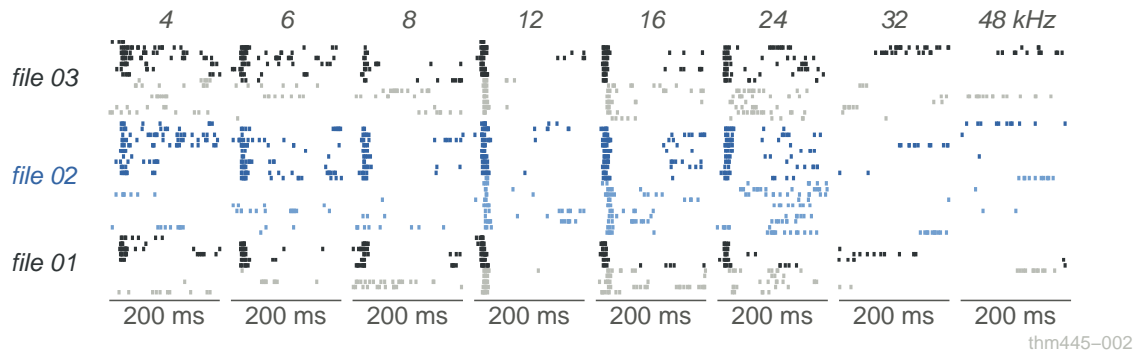
Notes: Chat-Cre, H4-1, BL, NH, injected 03/05/2010 (Sachin) thomas tetrode, four spike channels, one lfp channel (split from one of the spike channels) nice spikes, nice responses on channel 4 file 001: click/tone file002: led/click/tone, nice spikes on channel 1, channels 4 disappeared...? file 003: 500ms led pulses; 400 pulses file 004: led/click/tone; spikes disappearing, nonstationary signal



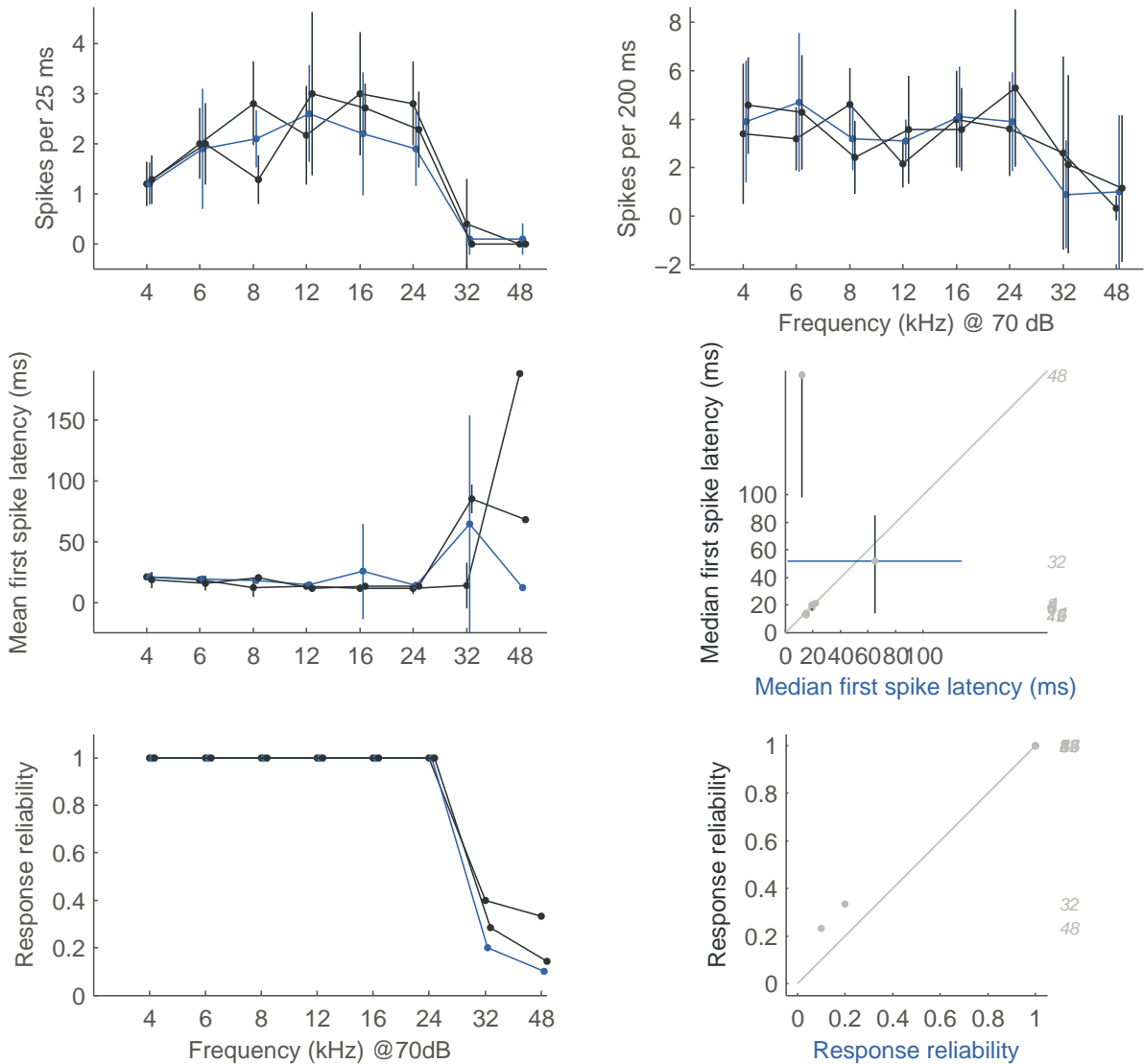
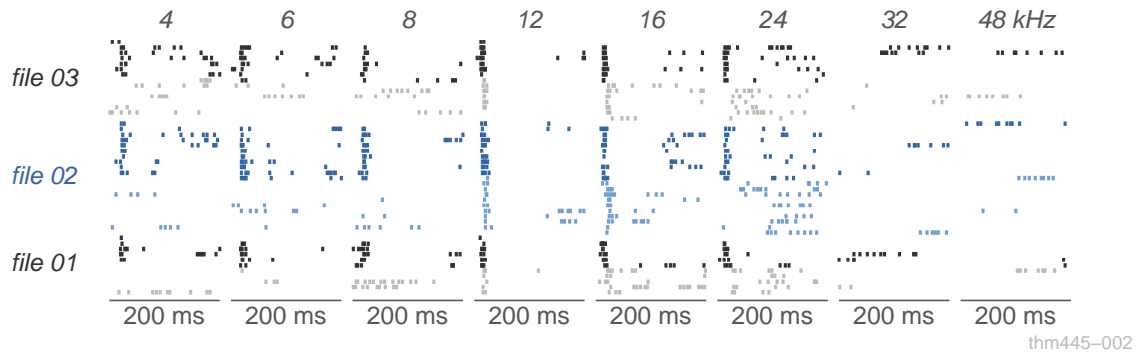
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode site seems responsive, I spent a lot of time looking for a nicely responsive site nice spikes on channel 3 file 001: click/tone file002: led/click/tone spikes became smaller, almost as if the big amplitude spikes from channel 3 distributed themselves between channels 1 and 3 file 003: few more repeats of led/click/tone LOTS of spikes in the end. DeZadorized cortex???



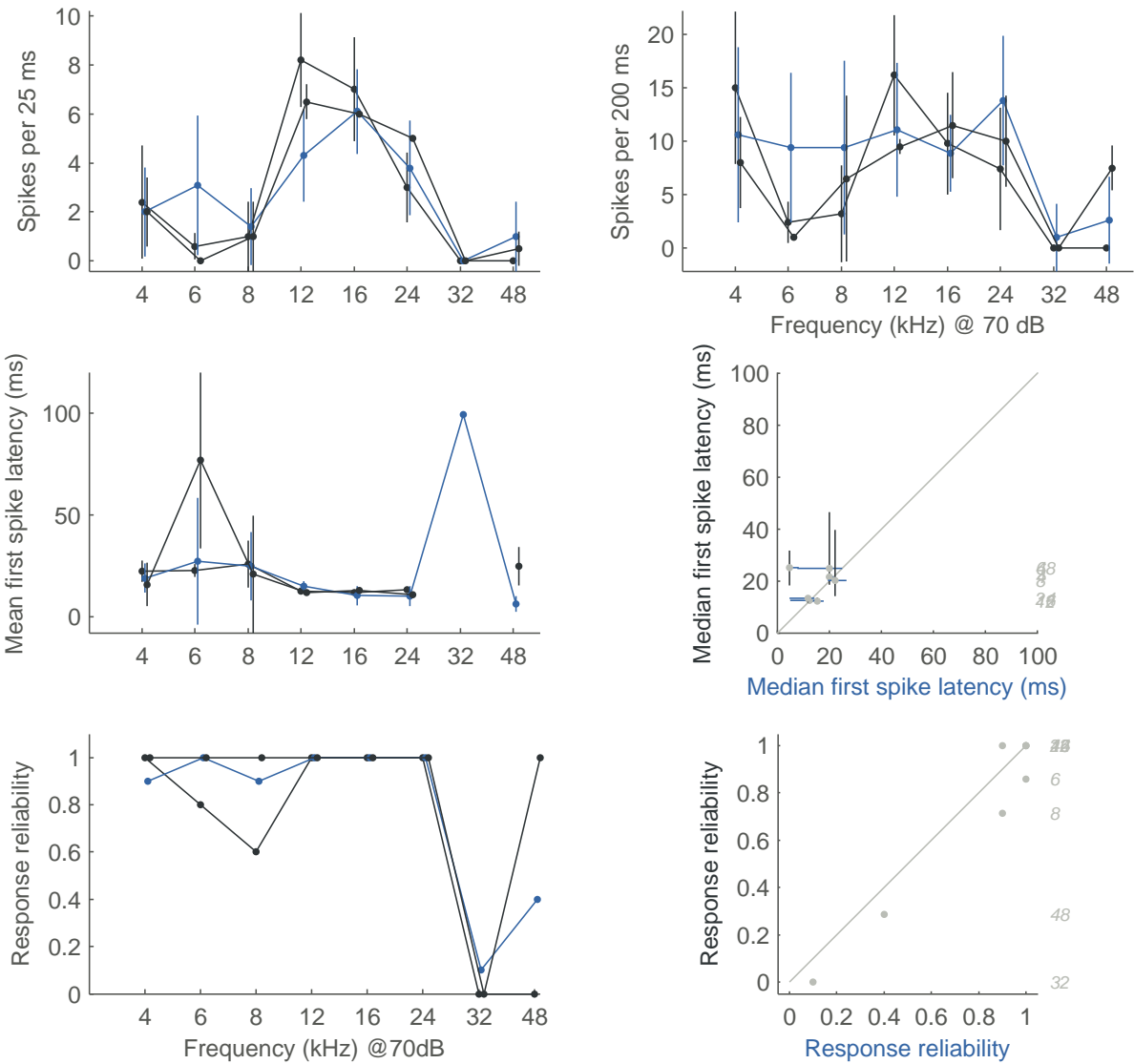
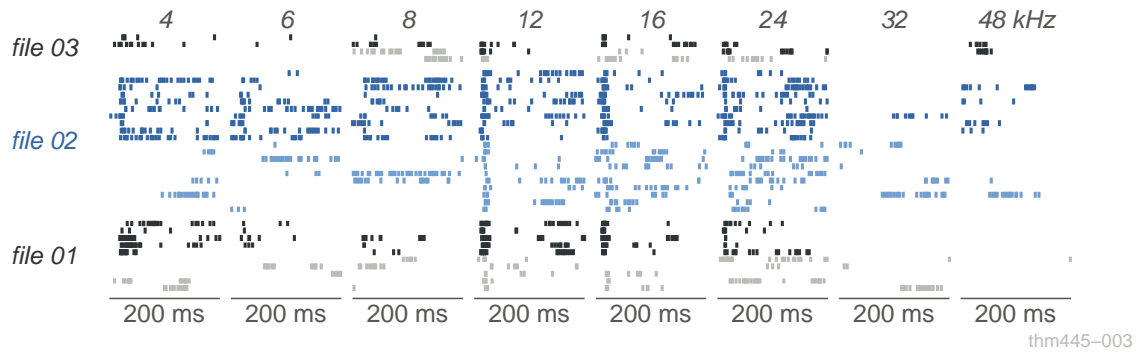
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode site seems responsive. I spent a lot of time looking for a nicely responsive site nice spikes on channel 3 file 001: click/tone file002: led/click/tone spikes became smaller, almost as if the big amplitude spikes from channel 3 distributed themselves between channels 1 and 3 file 003: few more repeats of led/click/tone LOTS of spikes in the end. DeZadorized cortex???



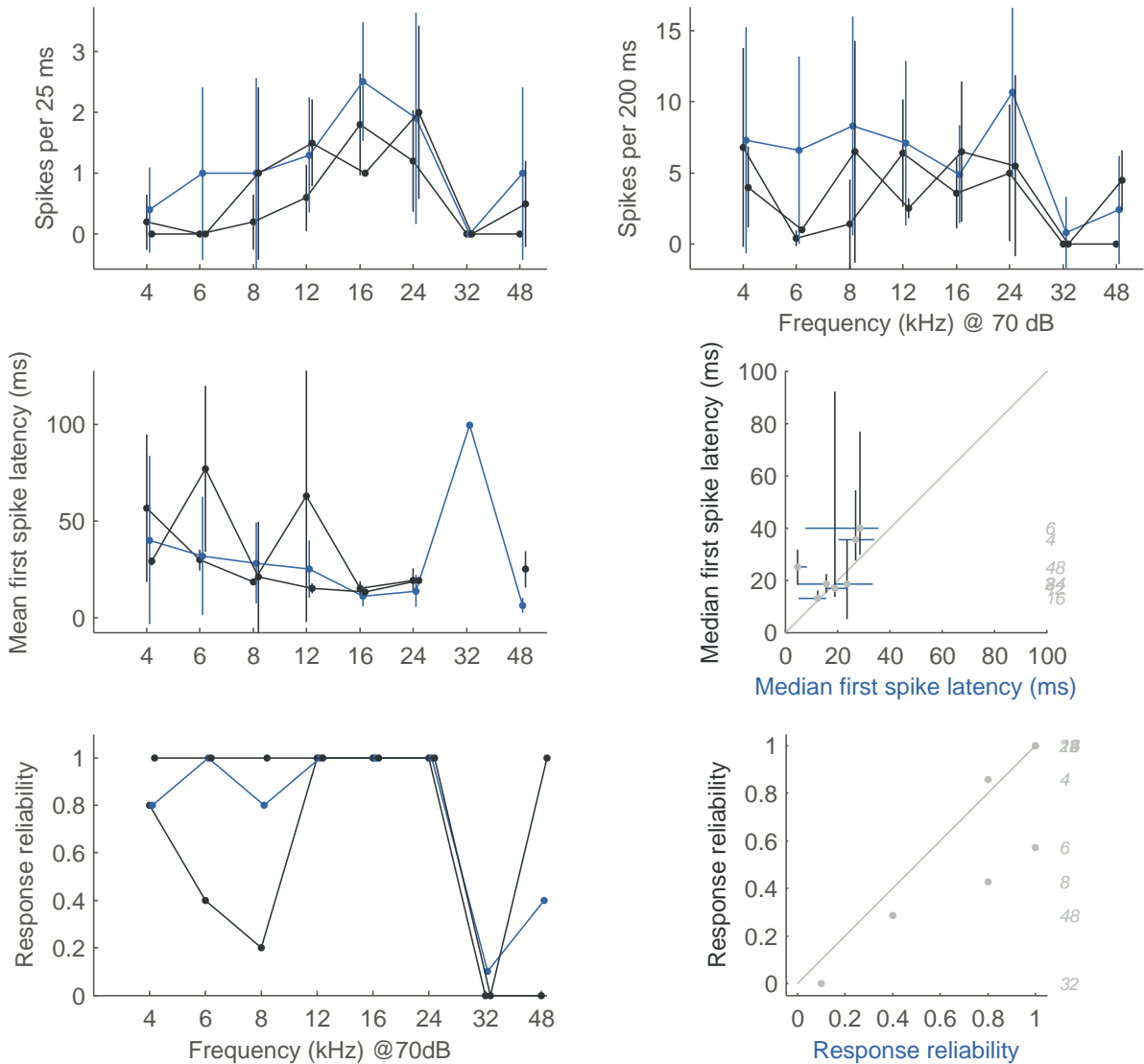
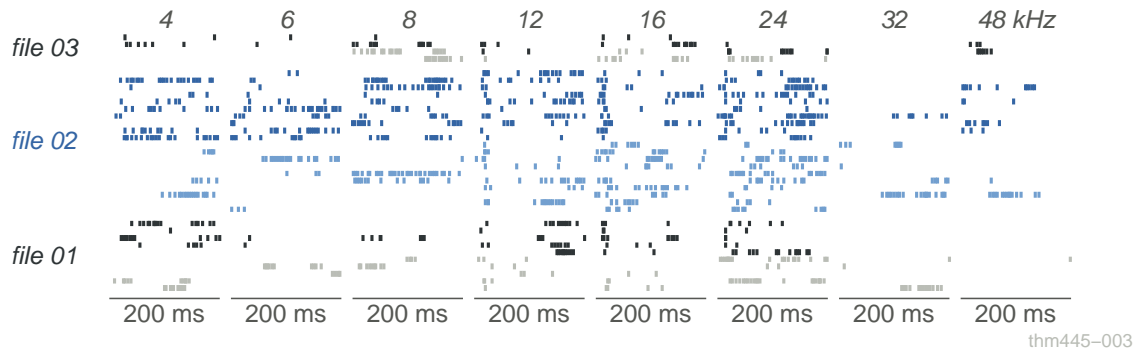
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode nice responses, nice spikes on channel 2 file 001: click/tone file 002: led/click/tone, spike amplitude seems nonstationary, getting smaller again file 003: click/tone
thm445-002_tuning.pdf



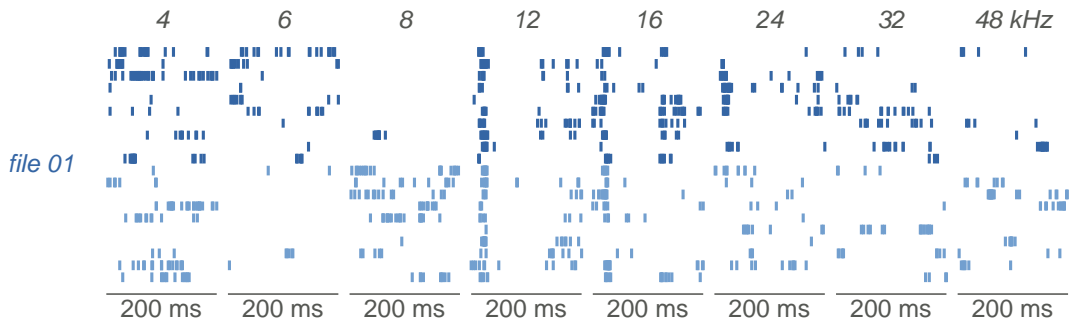
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode nice responses, nice spikes on channel 2 file 001: click/tone file 002: led/click/tone, spike amplitude seems nonstationary, getting smaller again file 003: click/tone
thm445-002_tuning_cluster_1.pdf



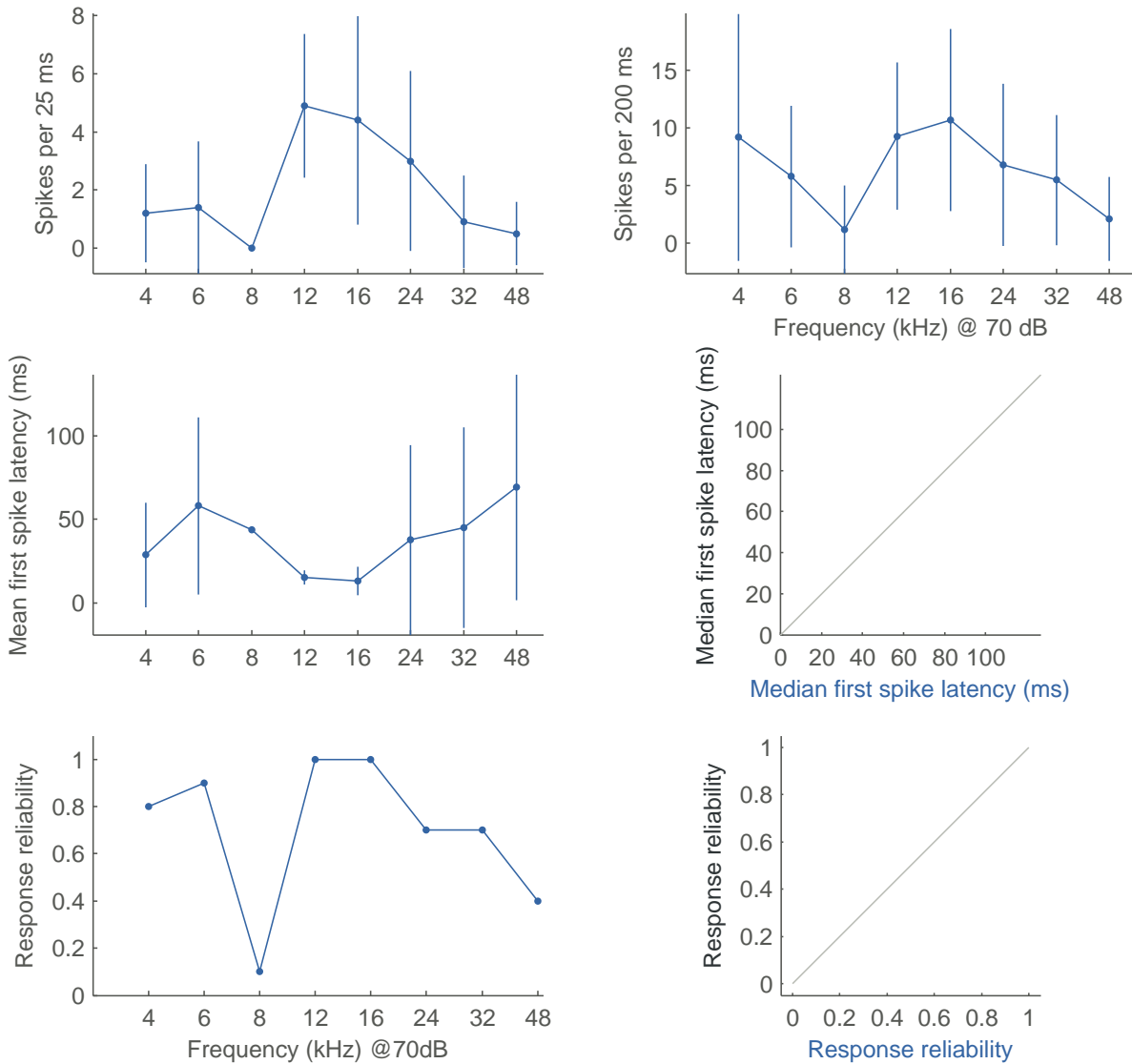
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode nice responses, nice spikes on channel 1
 file 001: click/tone file 002: led/click/tone spikes getting smaller file 003: click/tone
 thm445-003_tuning.pdf



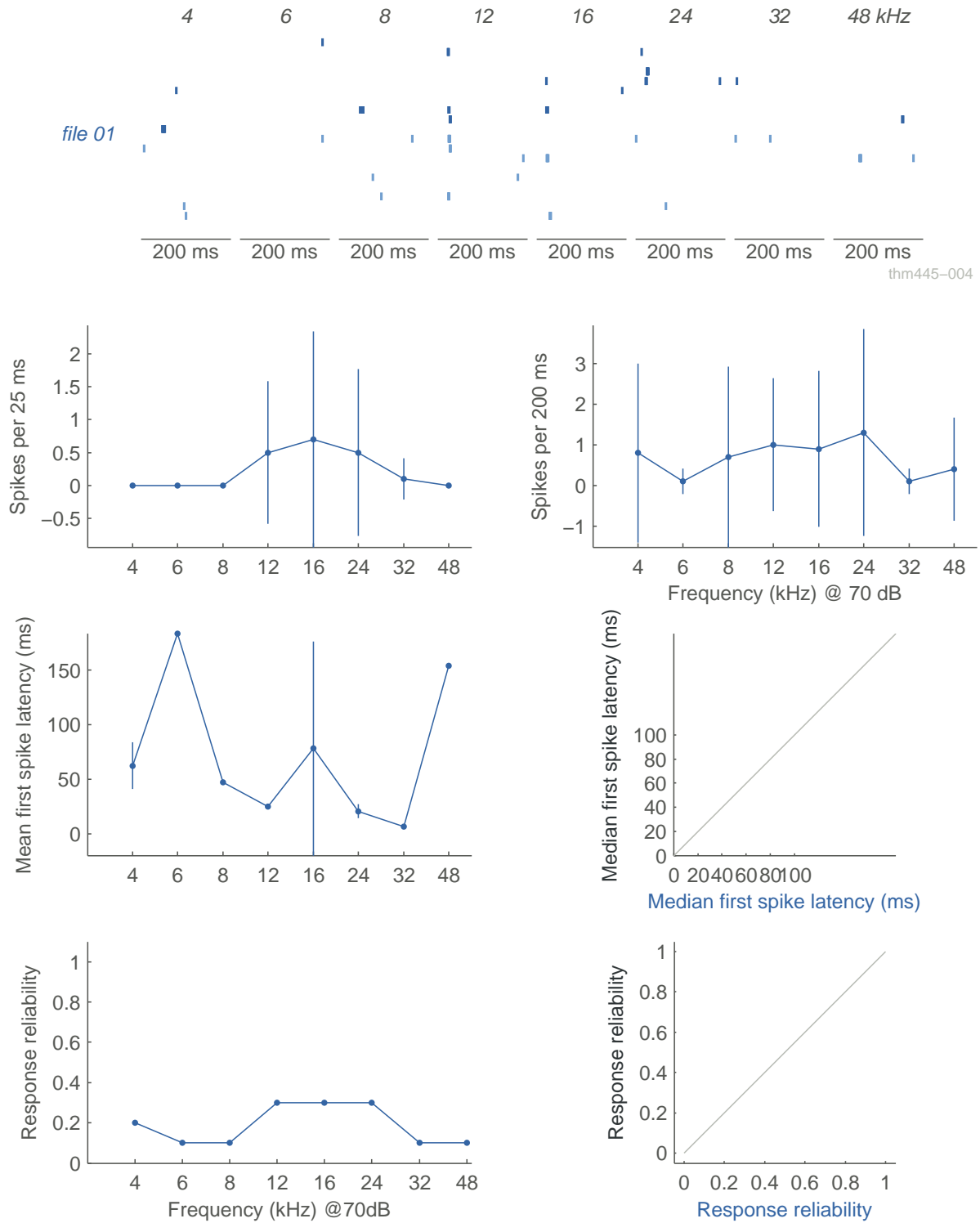
Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode nice responses, nice spikes on channel 1
 file 001: click/tone file 002: led/click/tone spikes getting smaller file 003: click/tone
 thm445-003_tuning_cluster_1.pdf



thm445-004

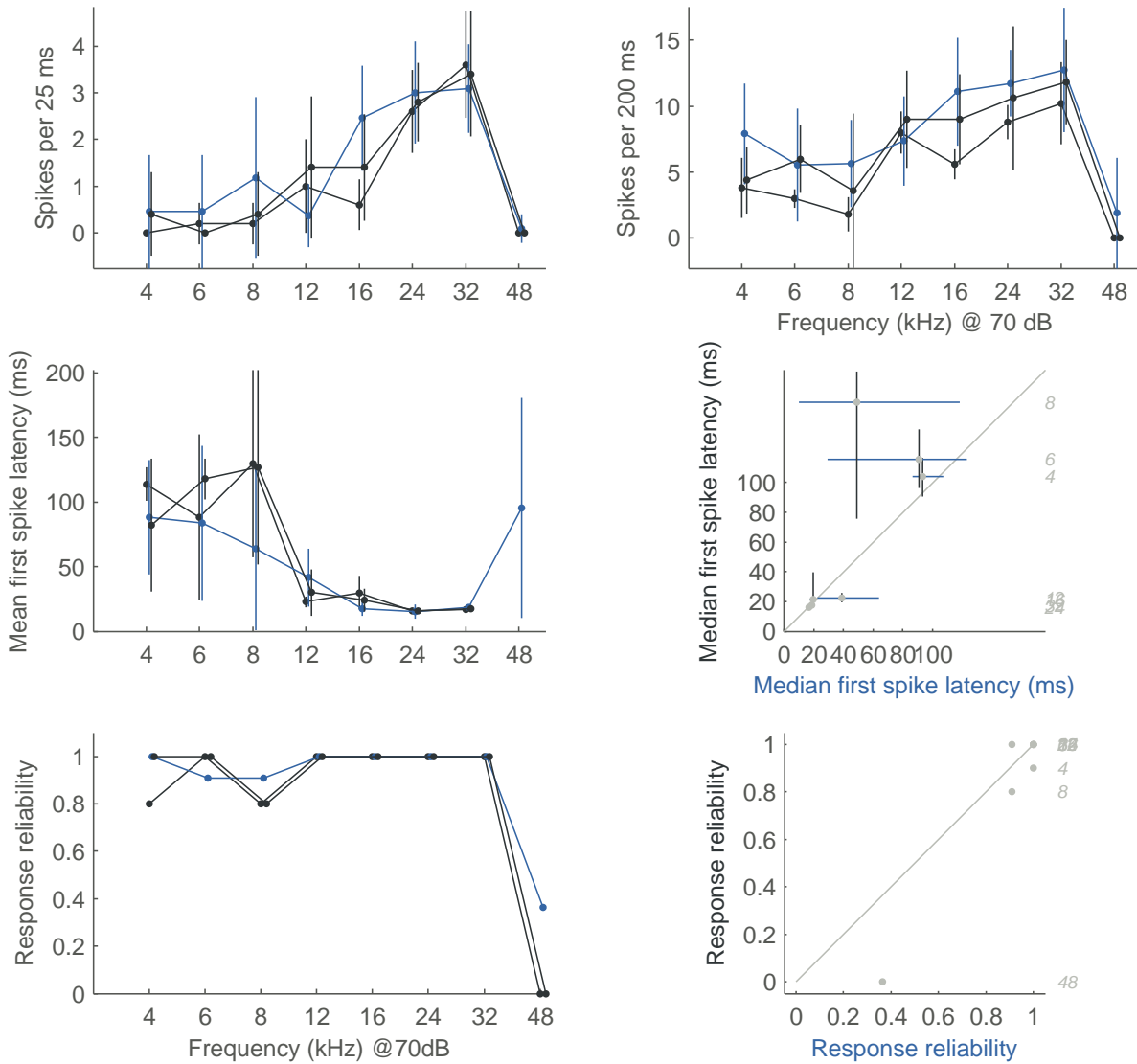
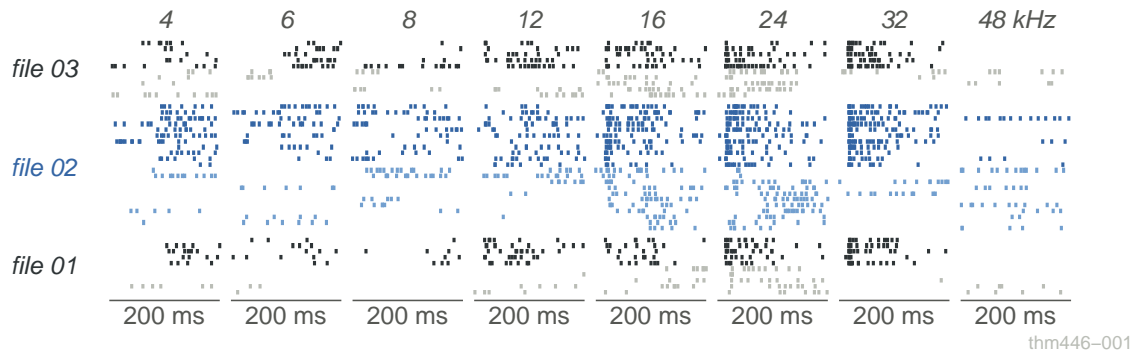


Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode site seems responsive, ok spikes on channel 3 file 001: led/click/tone file 002: 500ms led pulses, 200x

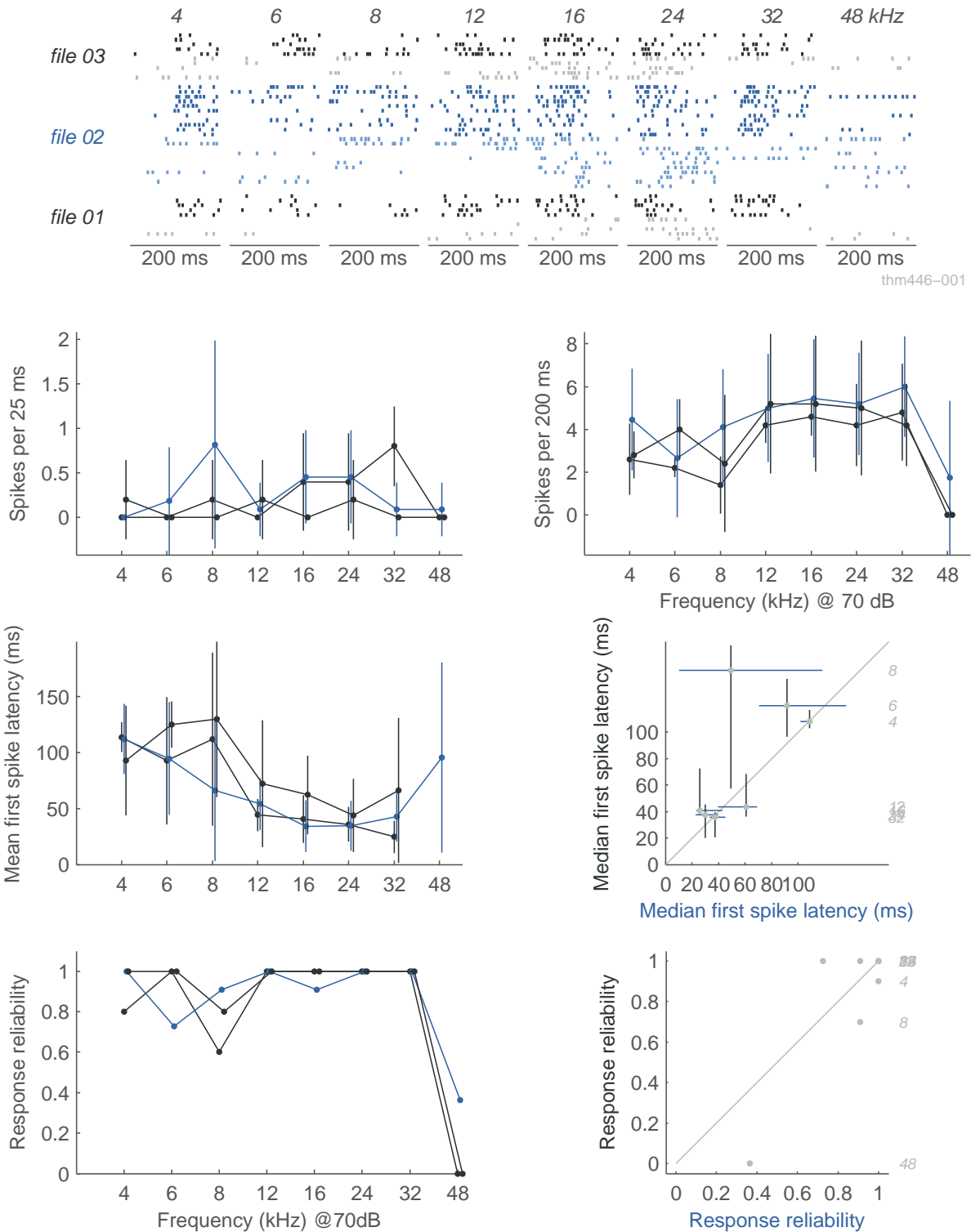


Notes: Chat-Cre, H4-5, BL, 2HL2HR, injected 03/05/2010 (Sachin) Thomas tetrode site seems responsive, ok spikes on channel 3 file 001: led/click/tone file 002: 500ms led pulses, 200x

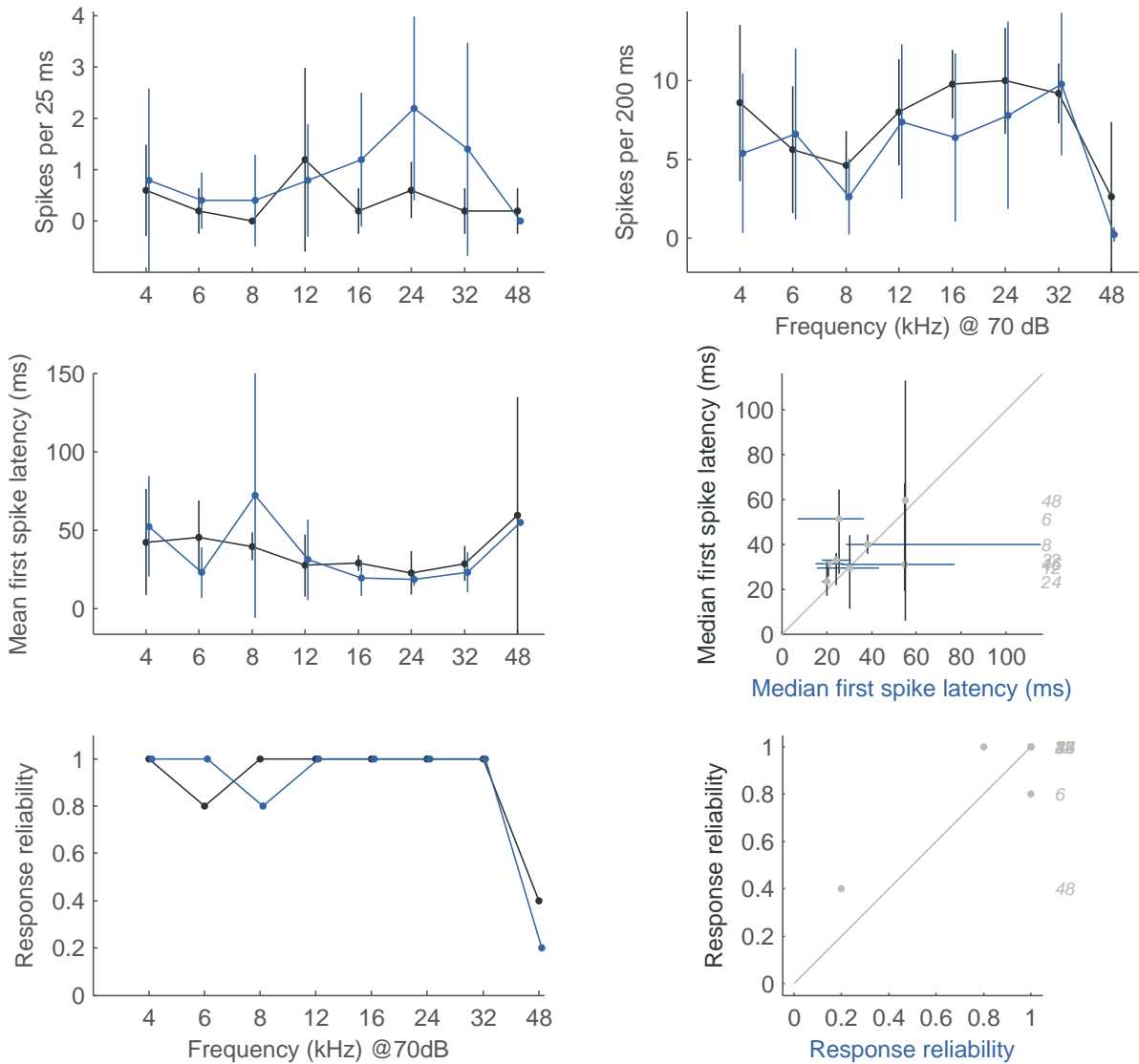
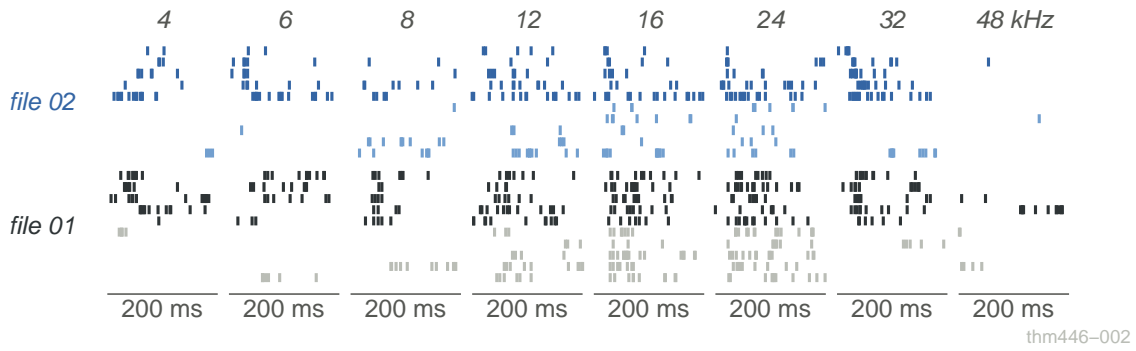
thm445-004_tuning_cluster_1.pdf



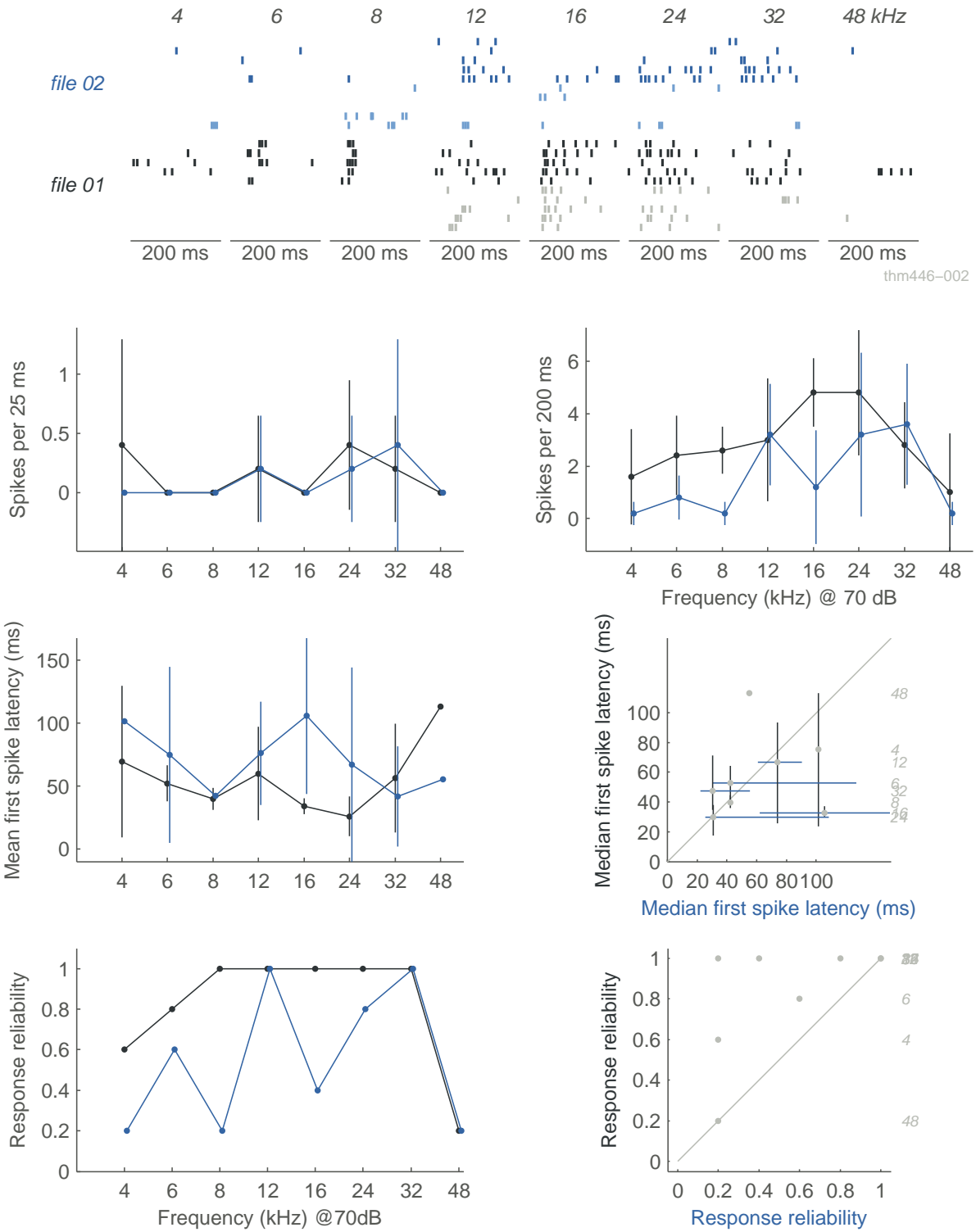
Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetrode finally I found some decent spikes (channel 3) in this penetration site seems responsive file 001: click/tone file 002: led/click/tone file 003: click/tone; spikes getting smaller?
thm446-001_tuning.pdf



Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetrode finally I found some decent spikes (channel 3) in this penetration site seems responsive file 001: click/tone file 002: led/click/tone file 003: click/tone; spikes getting smaller?
thm446-001_tuning_cluster_1.pdf

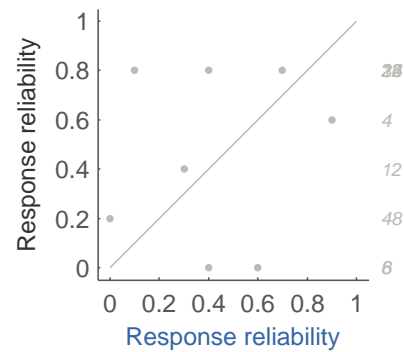
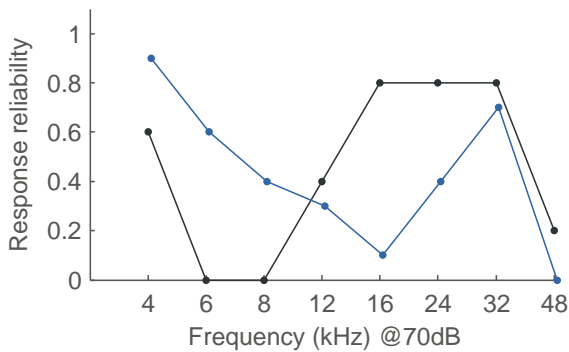
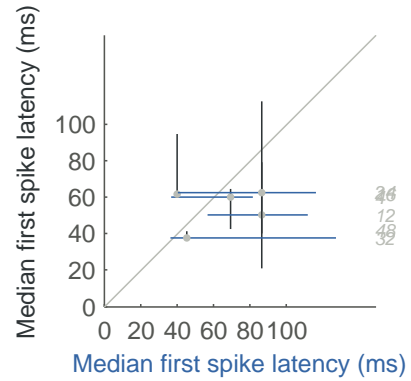
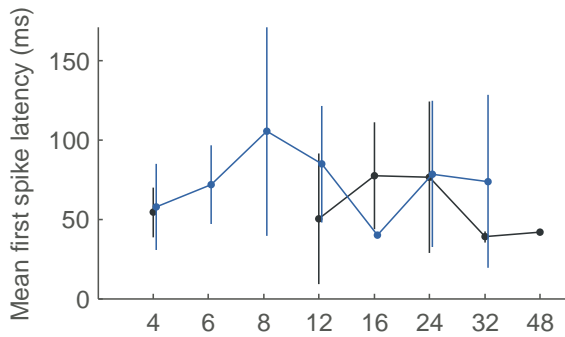
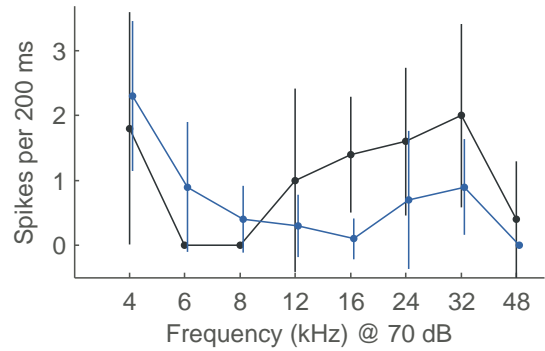
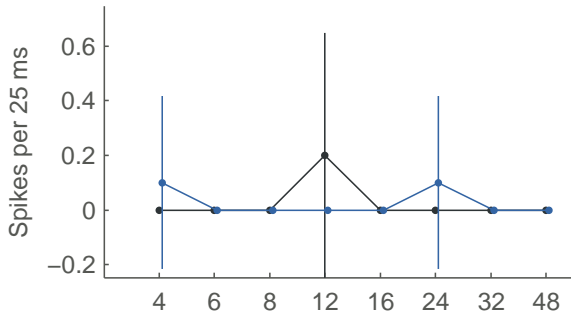
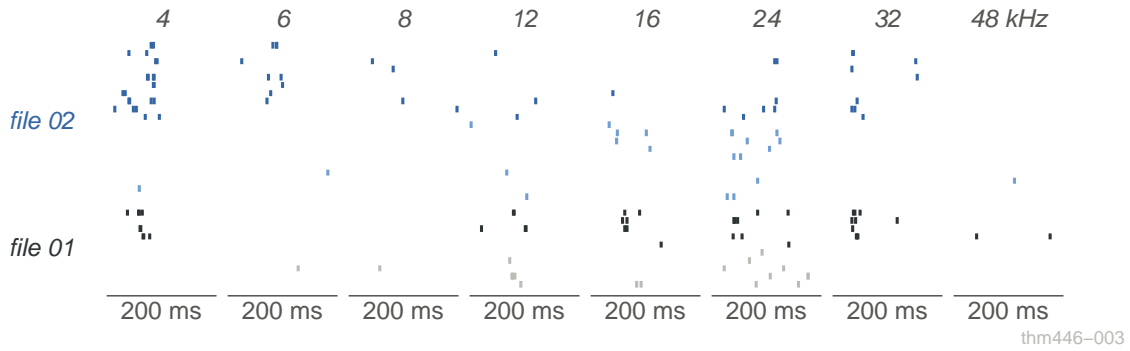


Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetrode site seems responsive, perhaps multiple cells file 001: click/tone file 002: led/click/tone spikes getting smaller

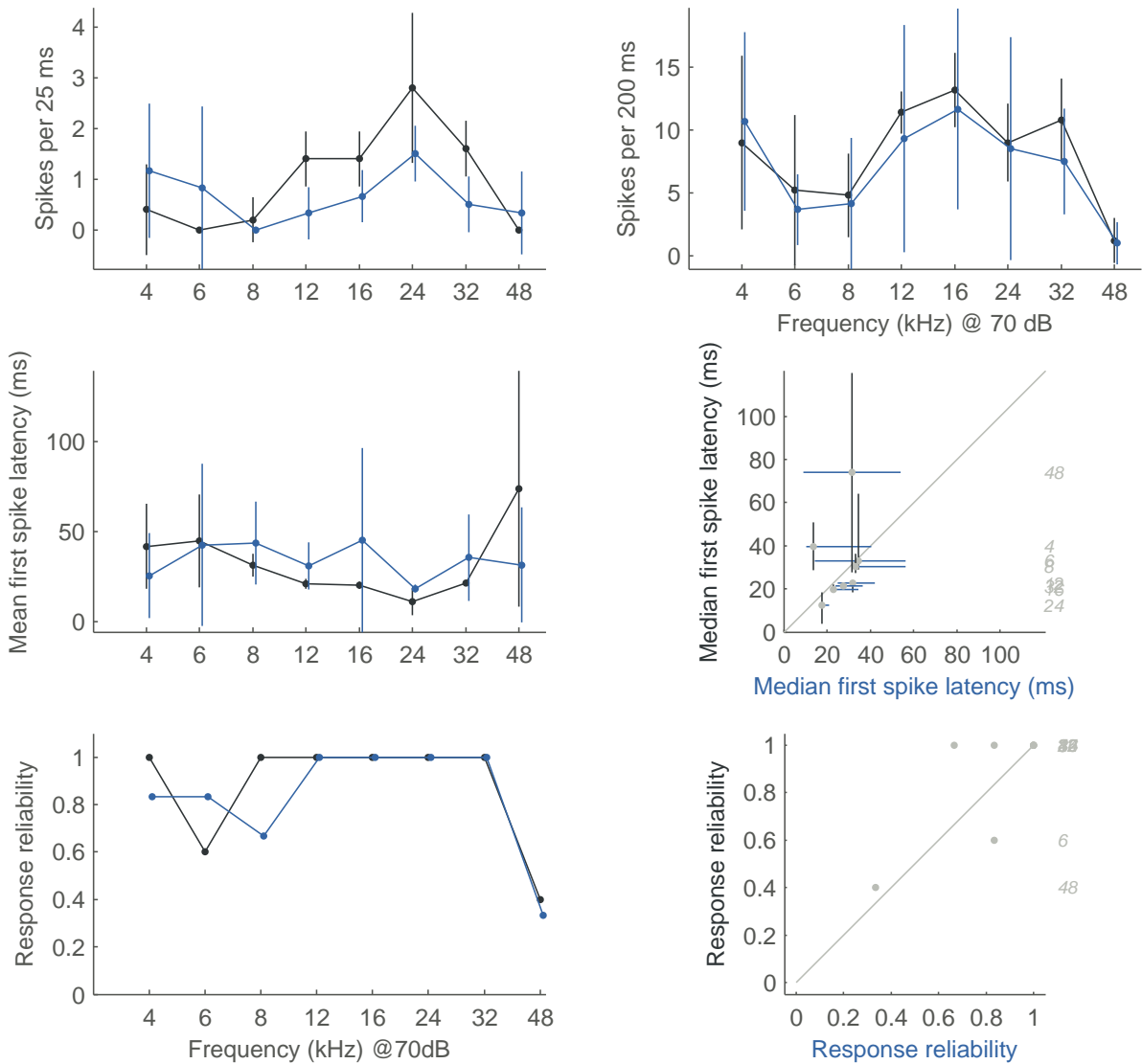
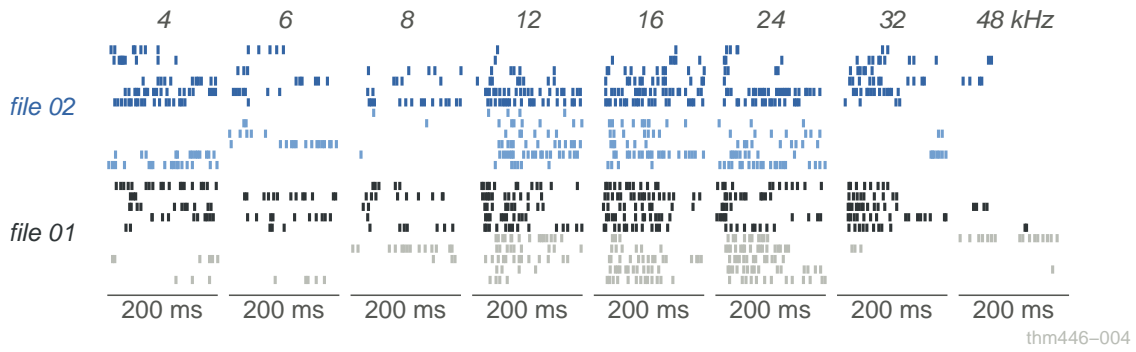


Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetrode site seems responsive, perhaps multiple cells file 001: click/tone file 002: led/click/tone spikes getting smaller

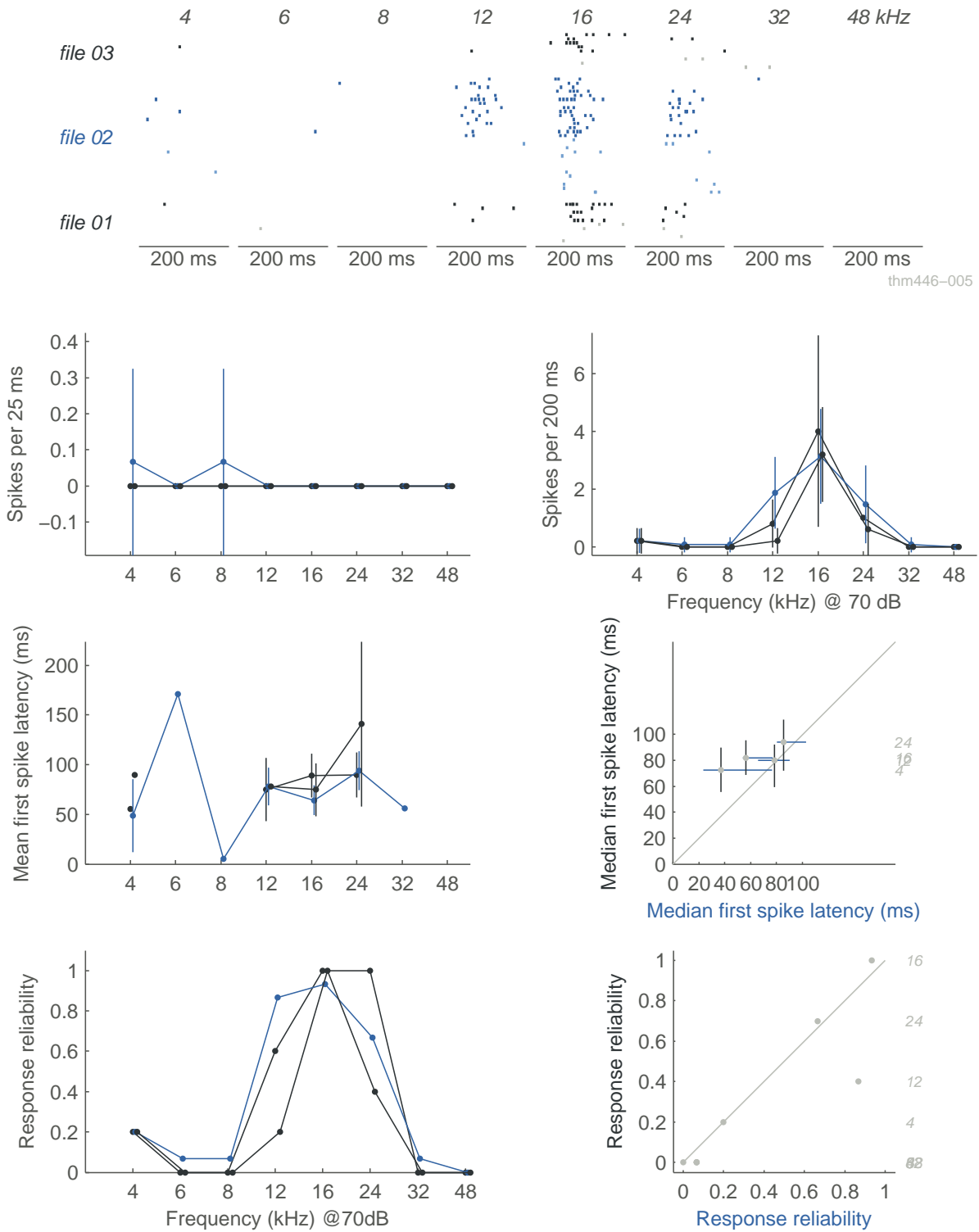
thm446-002_tuning_cluster_1.pdf



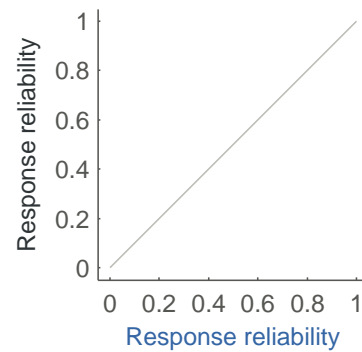
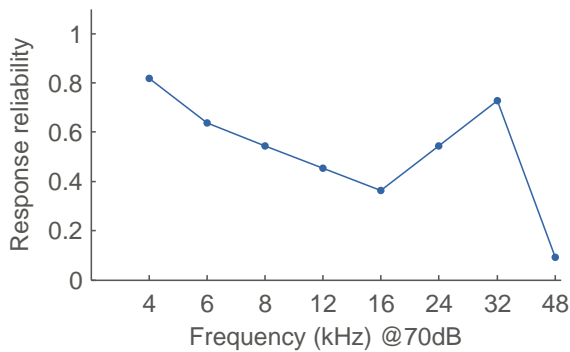
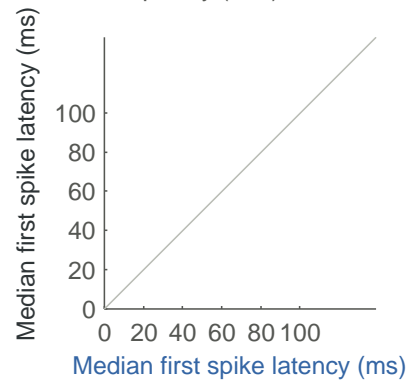
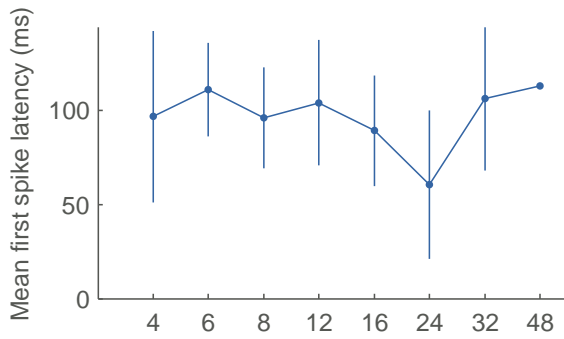
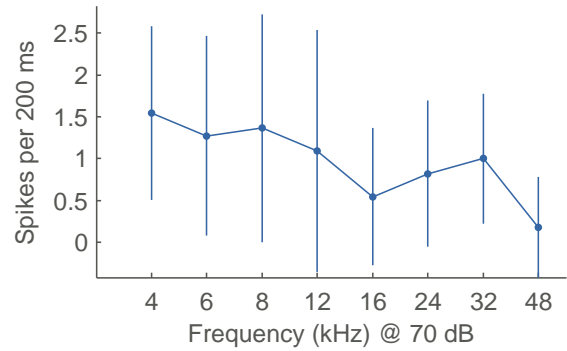
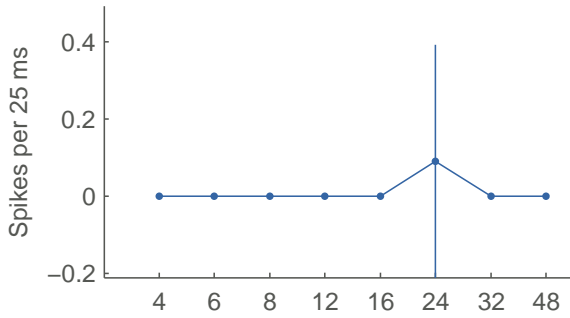
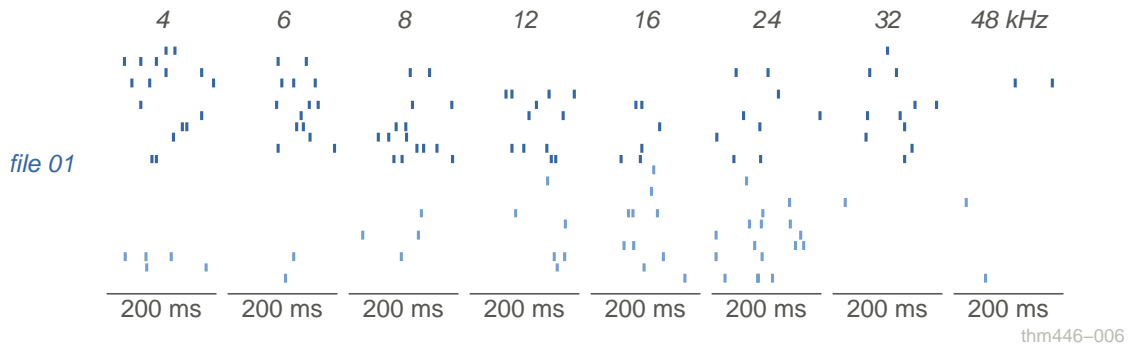
Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetode spikes mainly in channel 4 file 001: click/tone file 002: led/click/tone spikes getting smaller



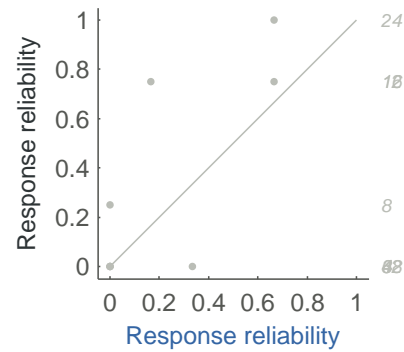
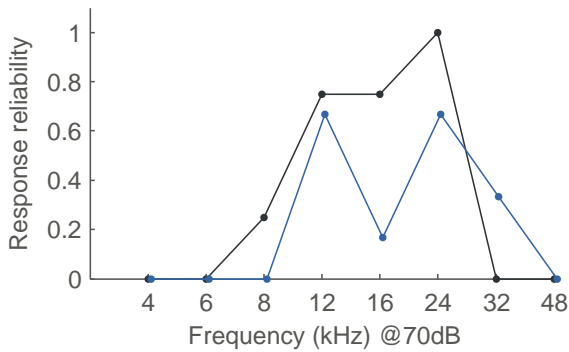
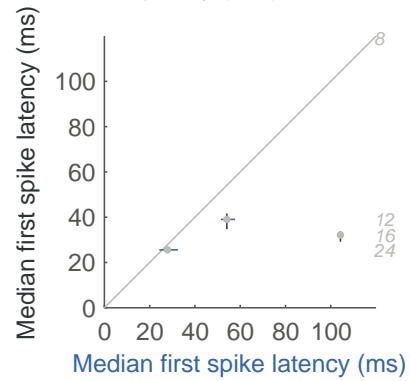
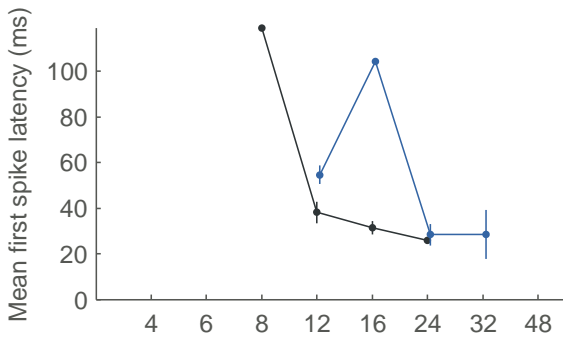
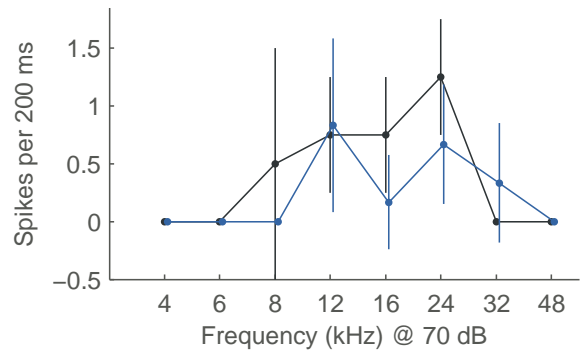
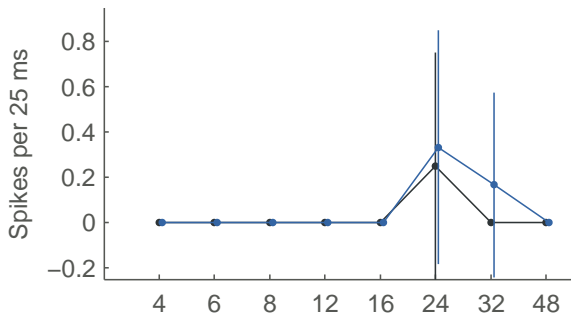
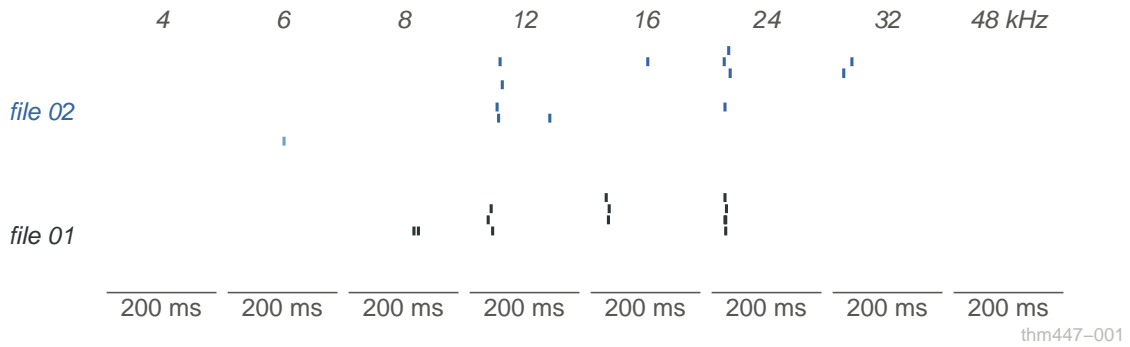
Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetrode spikes mainly in channel 4; sustained responses from the beginning file 001: click/tone file 002: led/click/tone spikes getting smaller



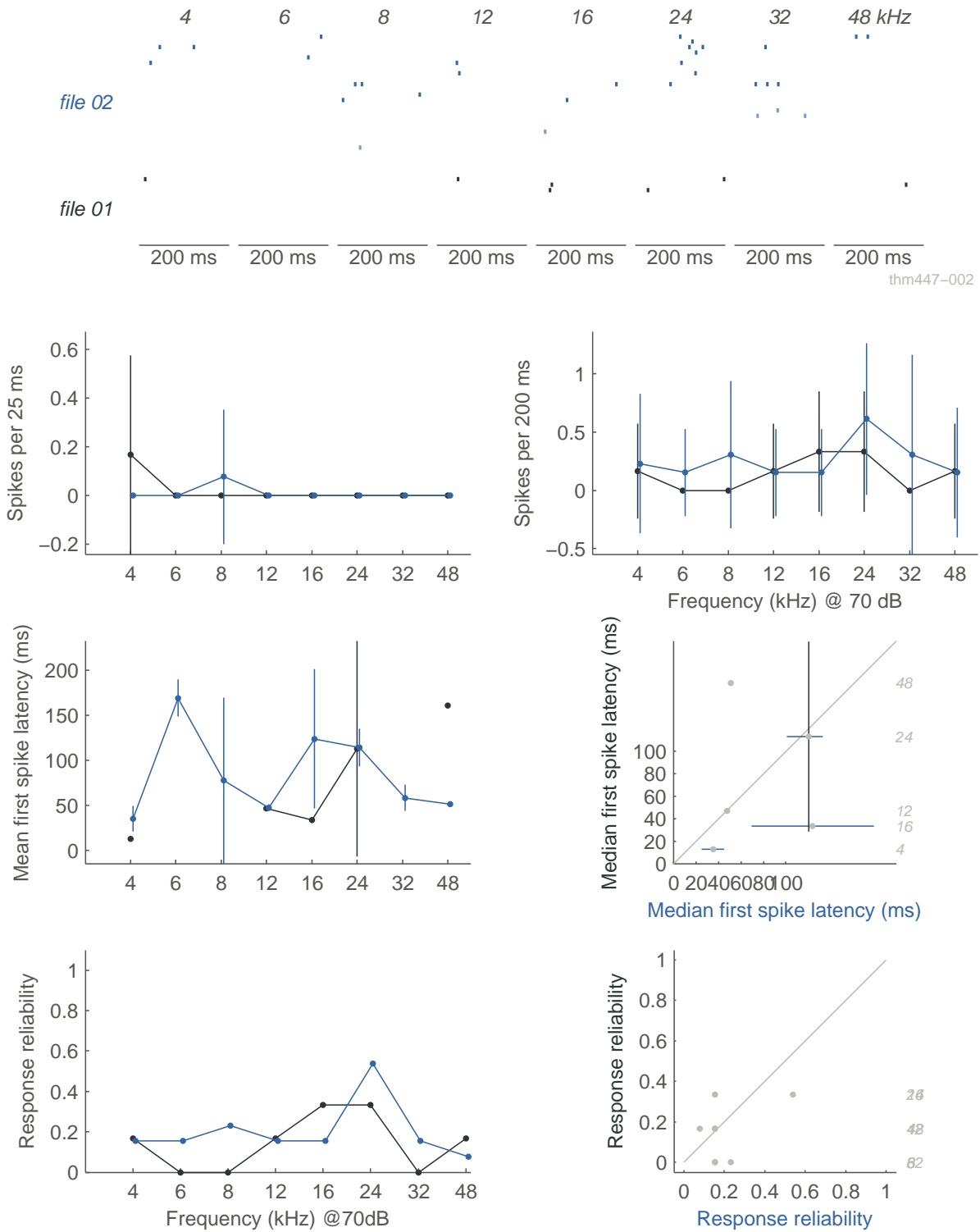
Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetode spikes mainly in channel 3 file 001: click/tone file 002: led/click/tone file 003: click/tone spikes getting smaller file 004: 500ms led pulses, 170x spikes disappeared
thm446-005_tuning.pdf



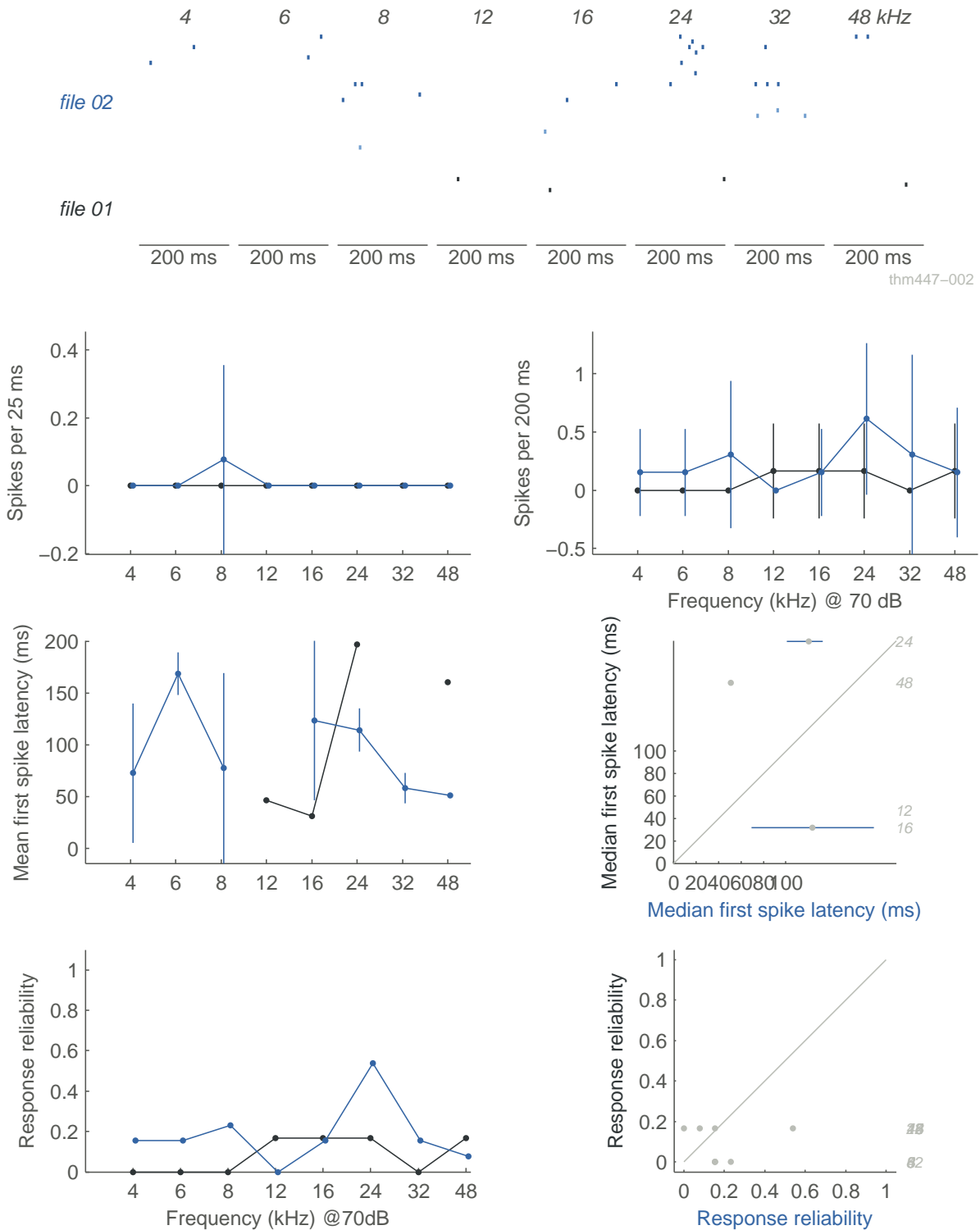
Notes: Chat-Cre, H4-4, BL, HRHL, injected 03/04/2010 Thomas tetode spikes mainly in channel 3 file 001: led/click/tone
file 002: 500ms led pulses, 300x spikes became smaller, otherwise not much happened



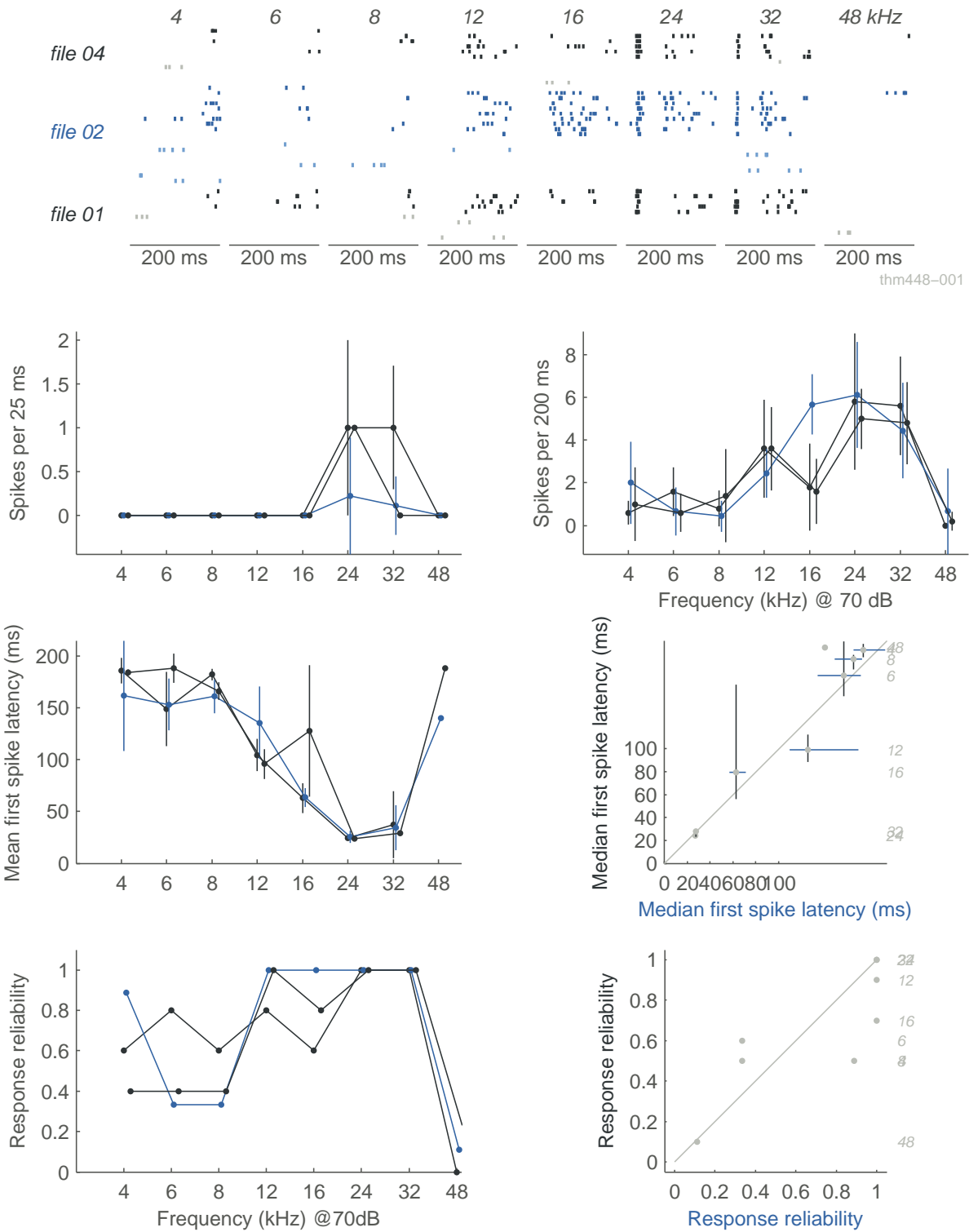
Notes: Chat-Cre, H4-2 ,BL, HR, inj. 03/04/2010 (Sachin) Thomas tetrode finally some somewhat responsive site with somewhat ok spikes (ch. 3) file 001: click/tone file 002: led/click/tone firing quite sparse, spikes getting smaller?



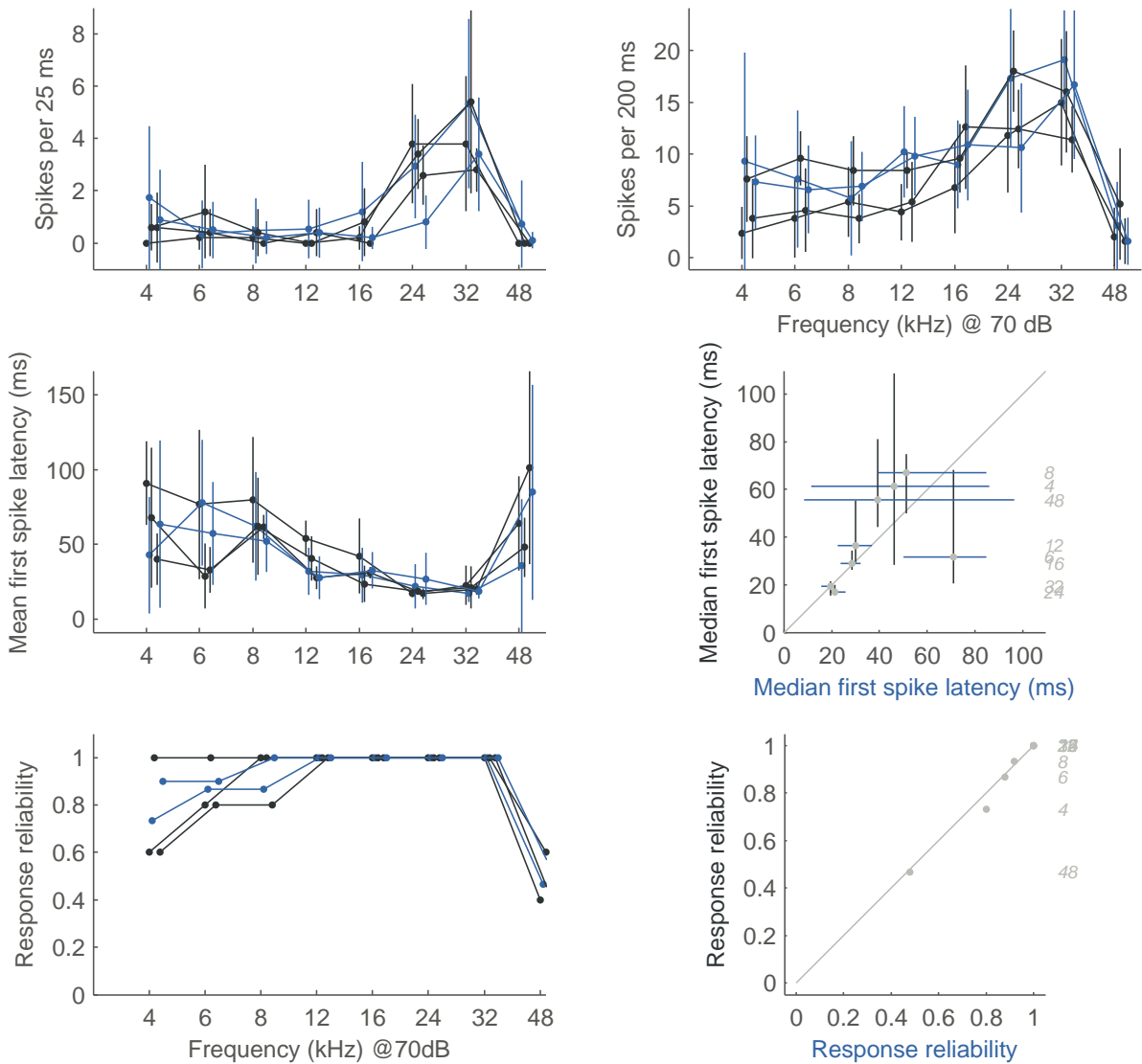
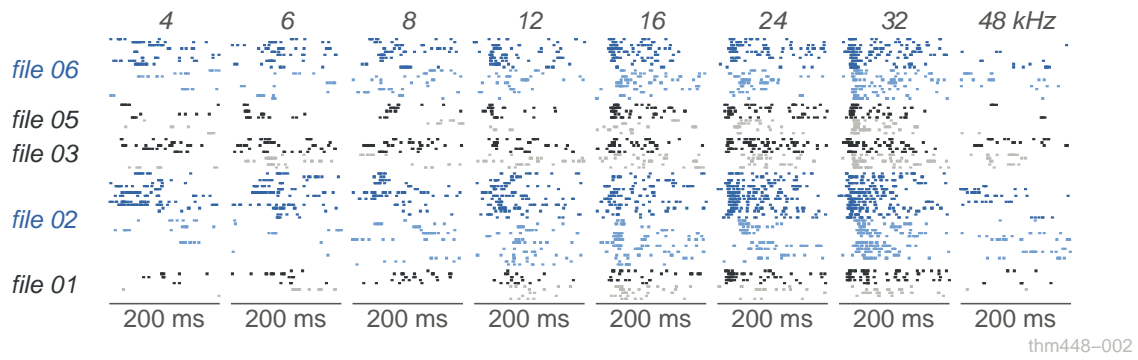
Notes: Chat-Cre, H4-2 ,BL, HR, inj. 03/04/2010 (Sachin) Thomas tetrode spikes not great, but there seems to be at least one unit on channel 3 file 001: click/tone file 002: led/click/tone spikes improved, but firing still seems to be quite sparse



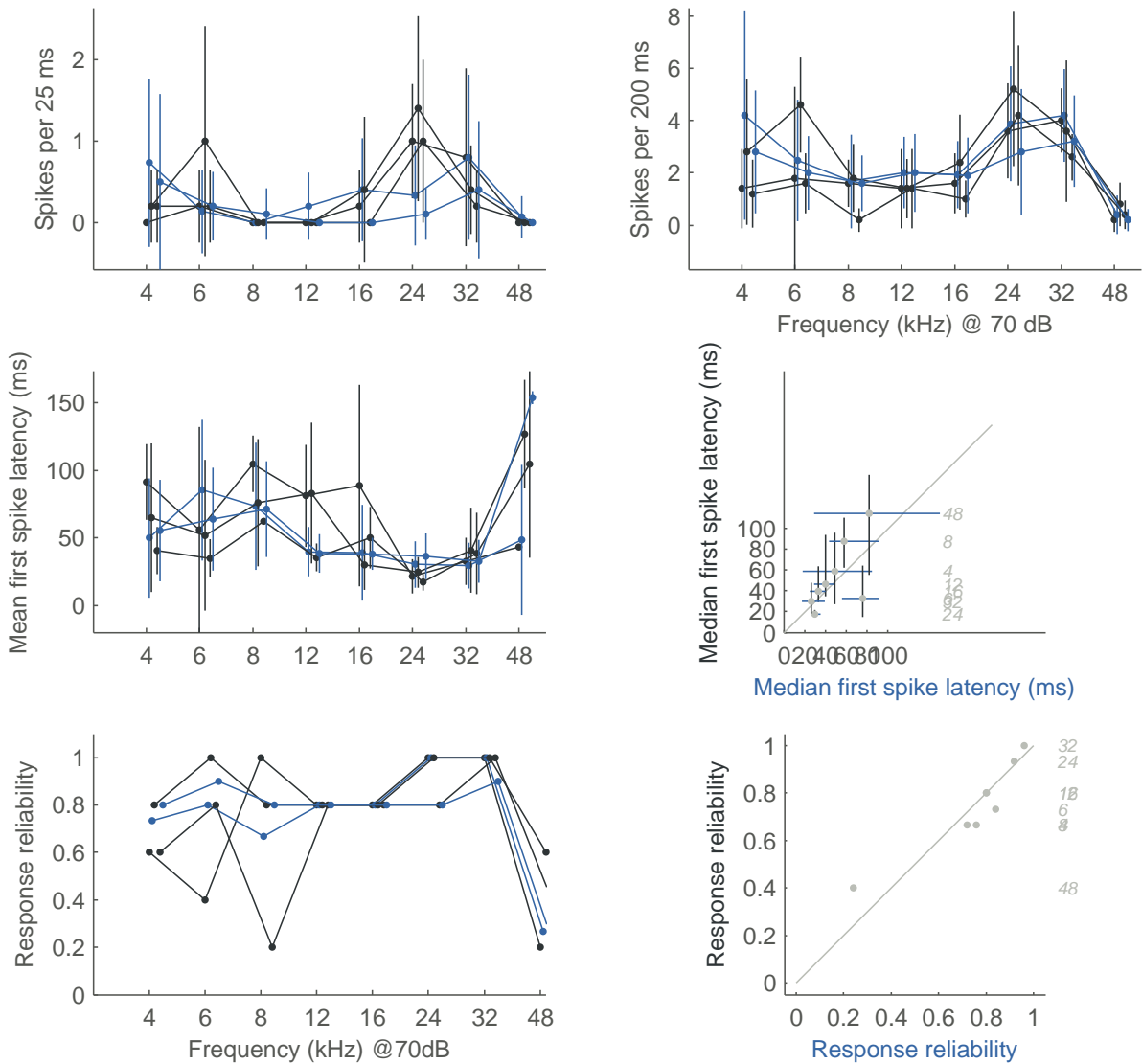
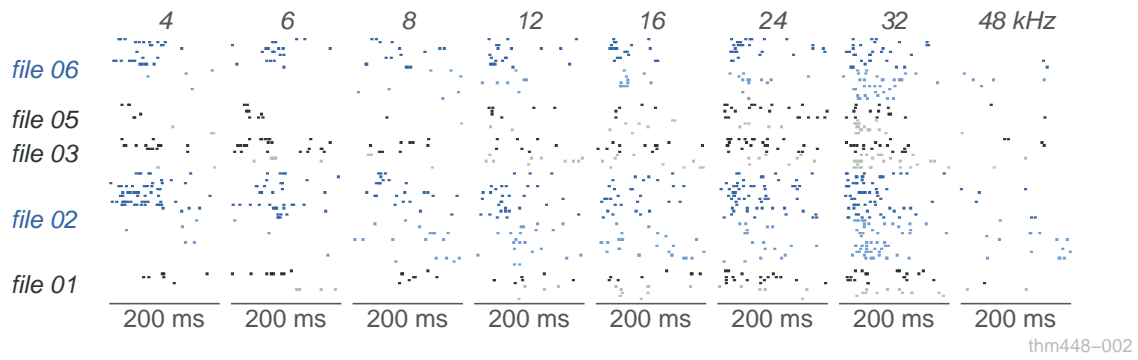
Notes: Chat-Cre, H4-2 ,BL, HR, inj. 03/04/2010 (Sachin) Thomas tetrode spikes not great, but there seems to be at least one unit on channel 3 file 001: click/tone file 002: led/click/tone spikes improved, but firing still seems to be quite sparse
thm447-002_tuning_cluster_1.pdf



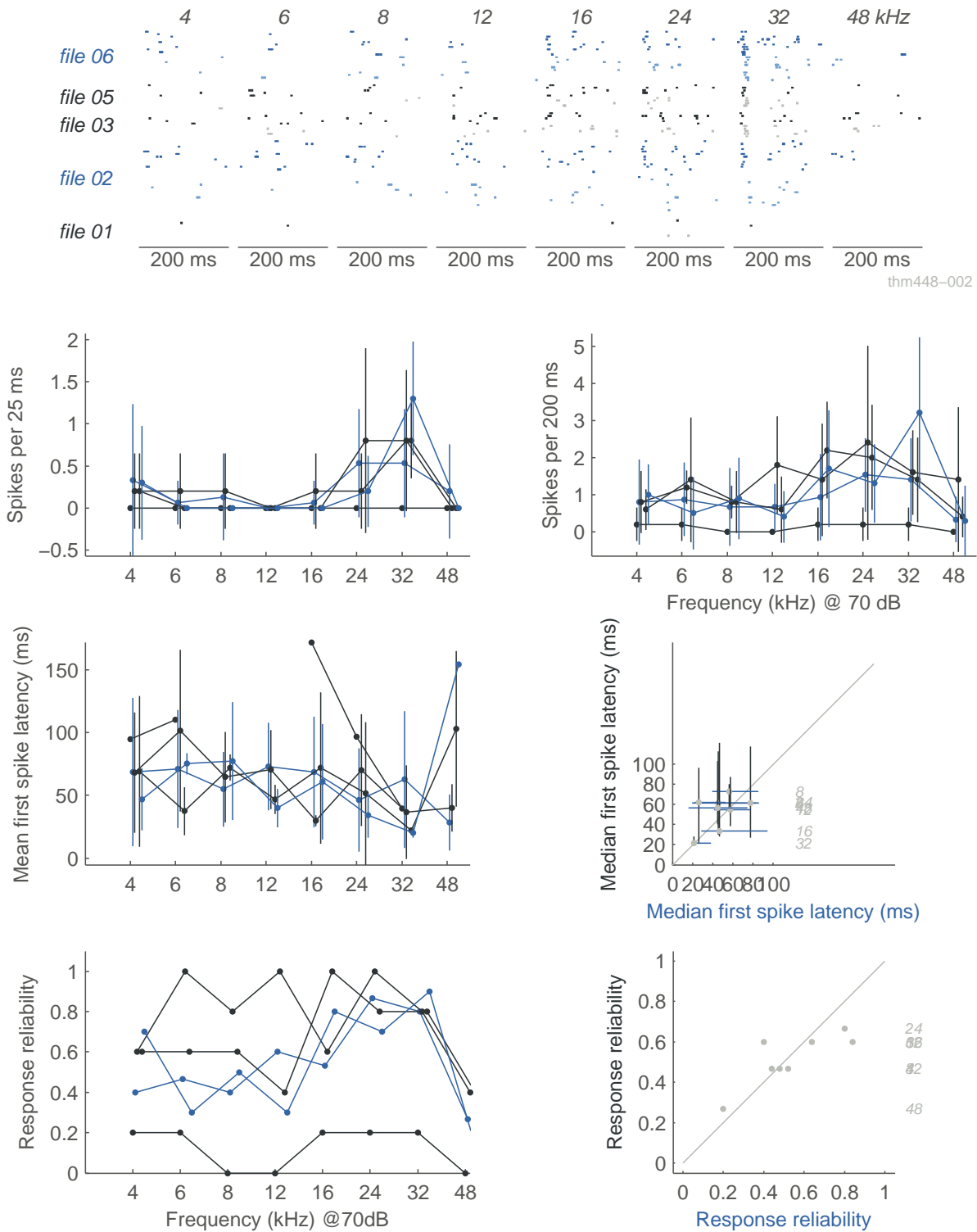
Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode finally I found a site with decent spikes and hopefully responsive units file 001: click/tone file 002: led/click/tone file 003: 500ms led pulses, 220x file 004: click/tone
thm448-001_tuning.pdf



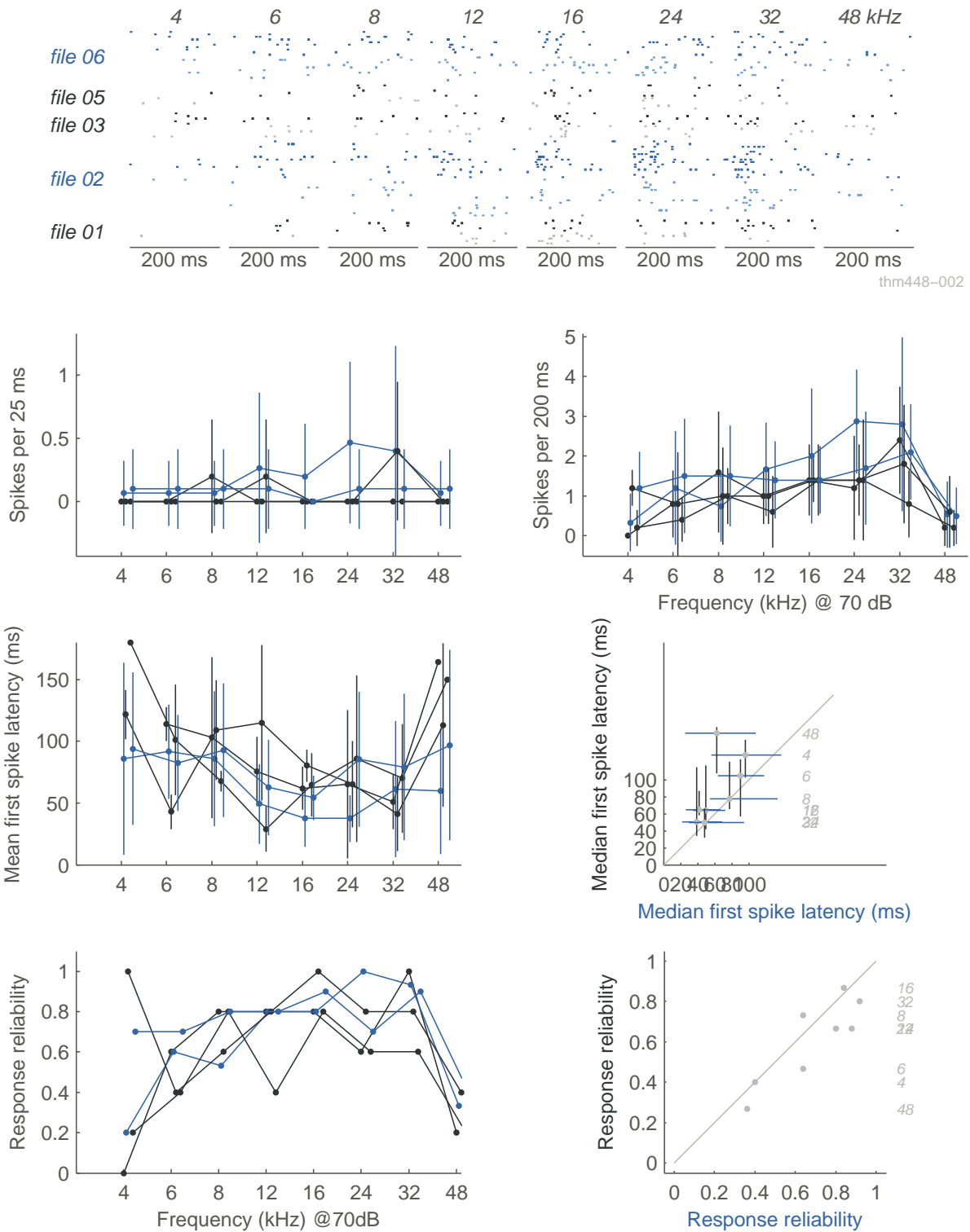
Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end



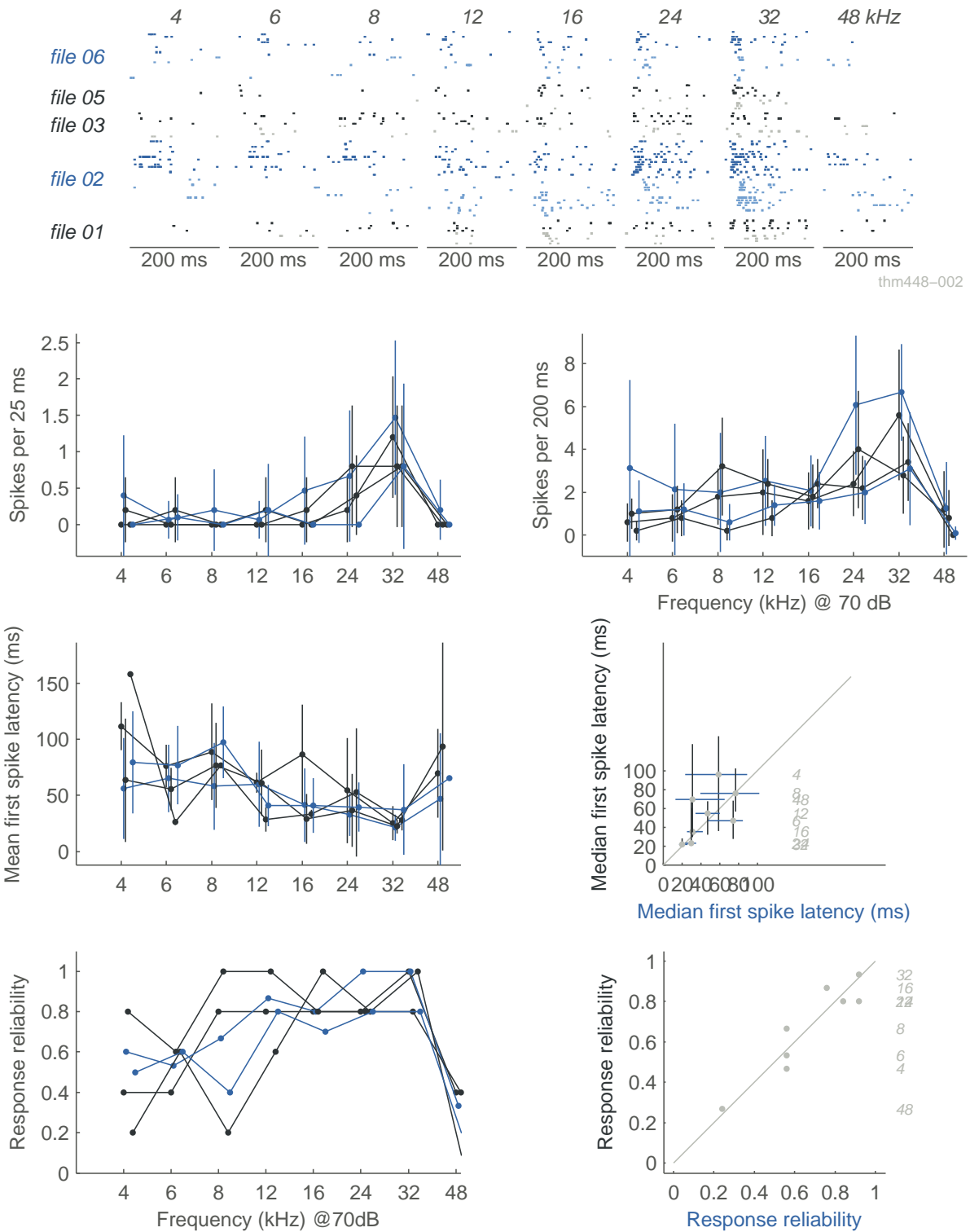
Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end



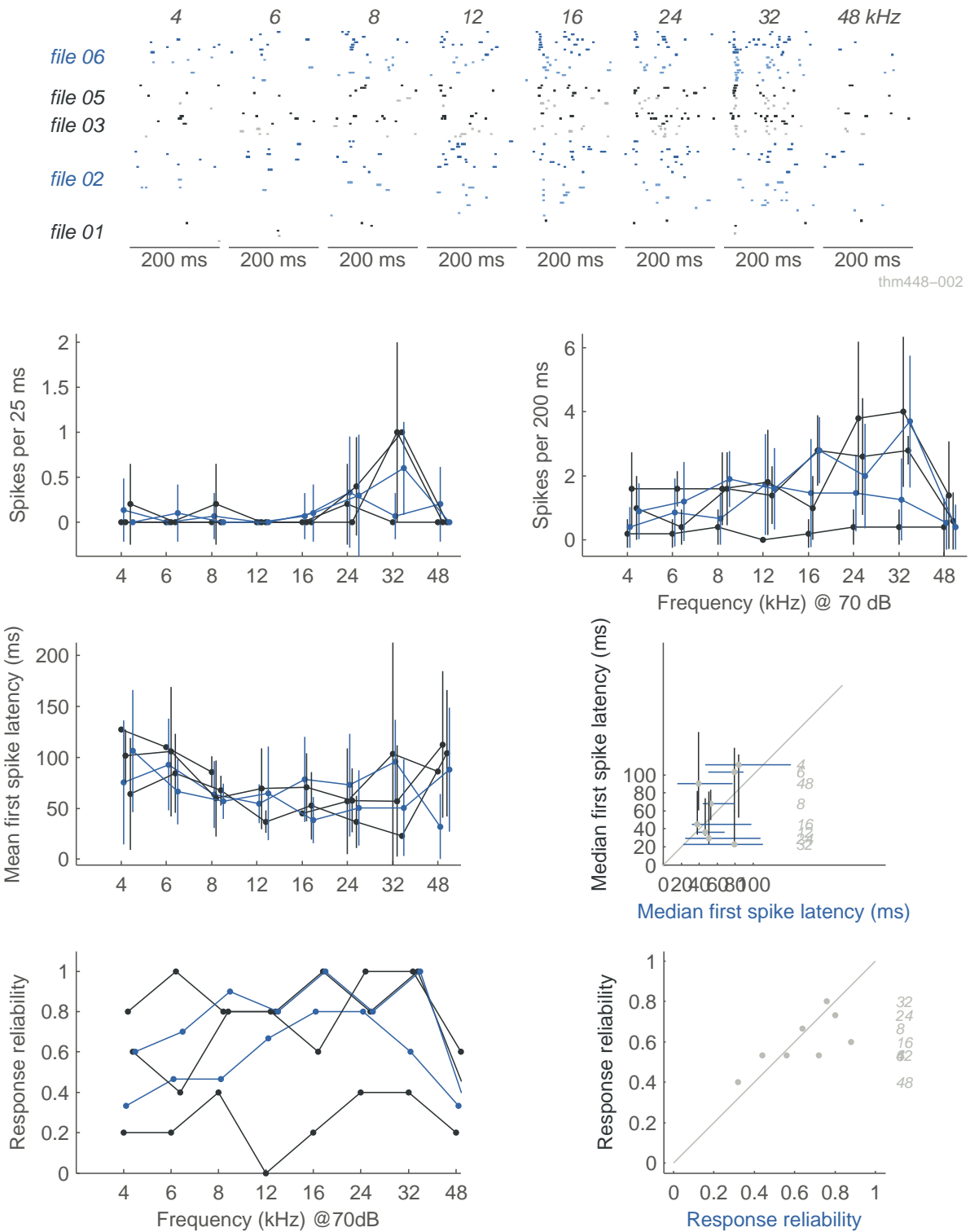
Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end



Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end



Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end



Notes: Chat-Cre, H4-3, BL, HL, injected 03/04/2010 (Sachin) Thomas tetrode nice spikes on channel 1, it was channel 3 in the previous recording file 001: click/tone file 002: led/click/tone file 003: wn bursts, 30x; 500ms led pulses, 500x file 004: click/tone file 006: led/click/tone spikes smaller in the end