

KIC 008546464

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008546464-01	OBS	No	391.938631	373.516197	1489.1	28.698	7.5	8.6	0.54	3959	4.02	0.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008546464-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

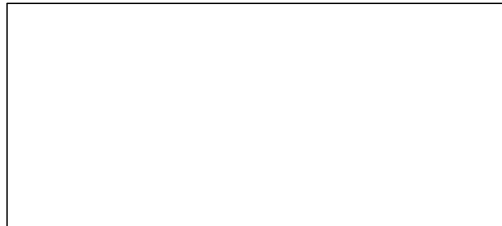
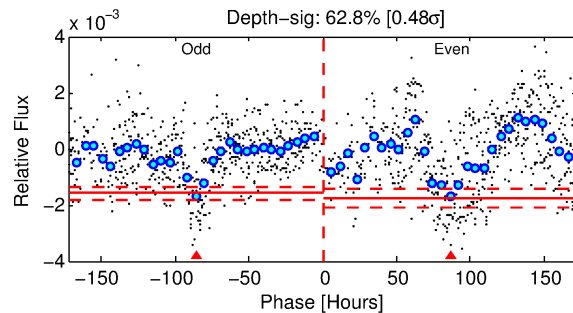
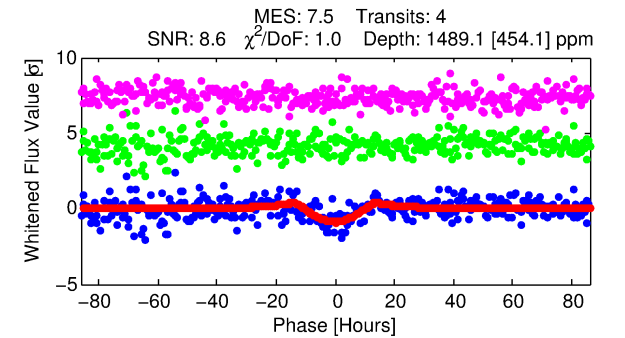
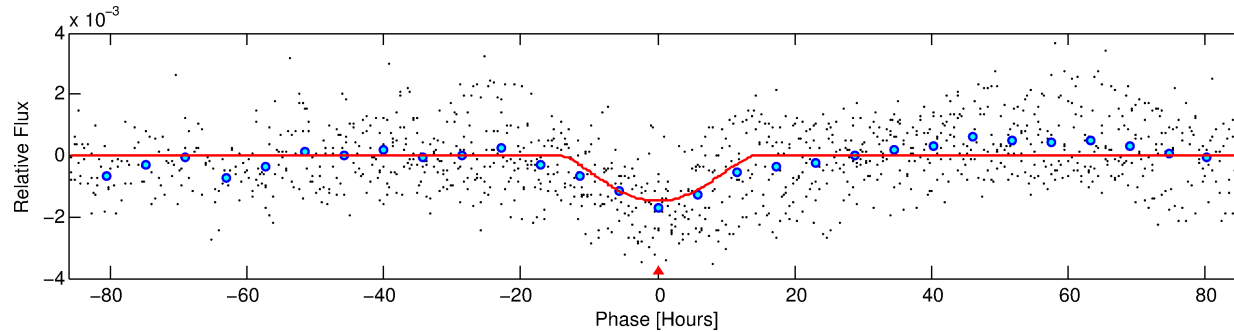
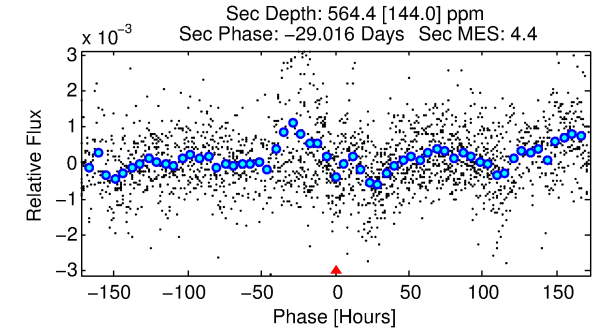
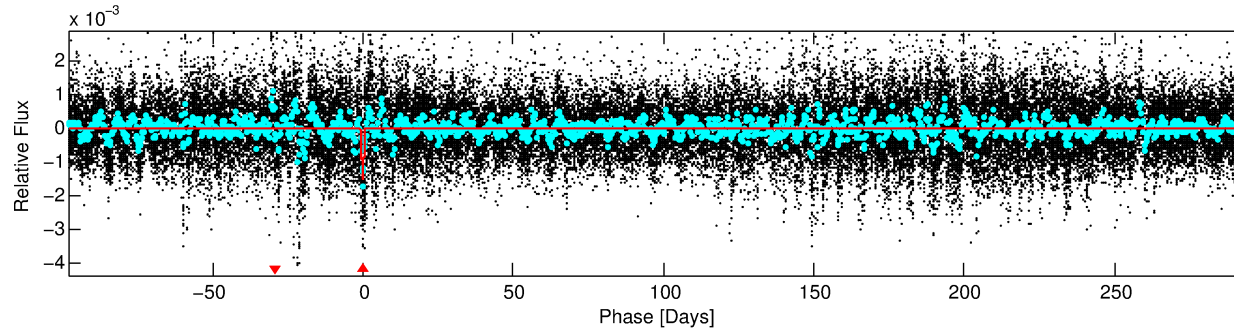
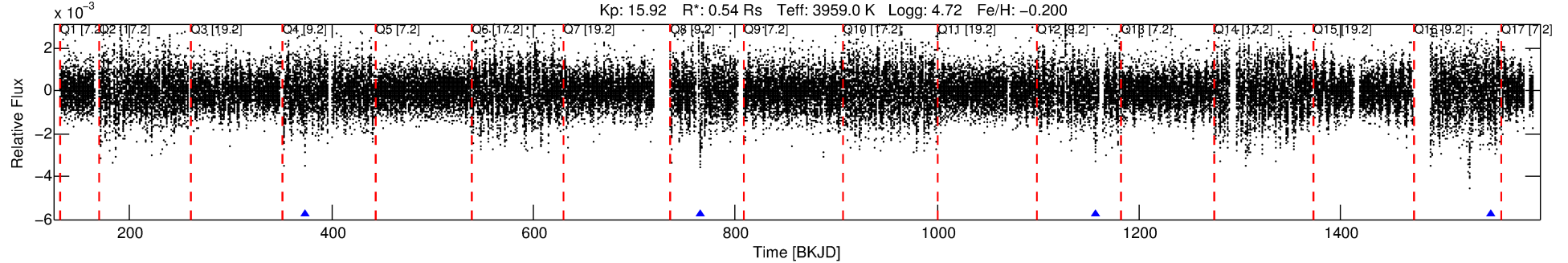
Ephemeris Match Information For 008546464-01

No Significant Match Found

DV One-Page Summary

KIC: 8546464 Candidate: 1 of 1 Period: 391.939 d
KOI: K05535 Corr: No Ephemeris Match

Kp: 15.92 R*: 0.54 Rs Teff: 3959.0 K Logg: 4.72 Fe/H: -0.200



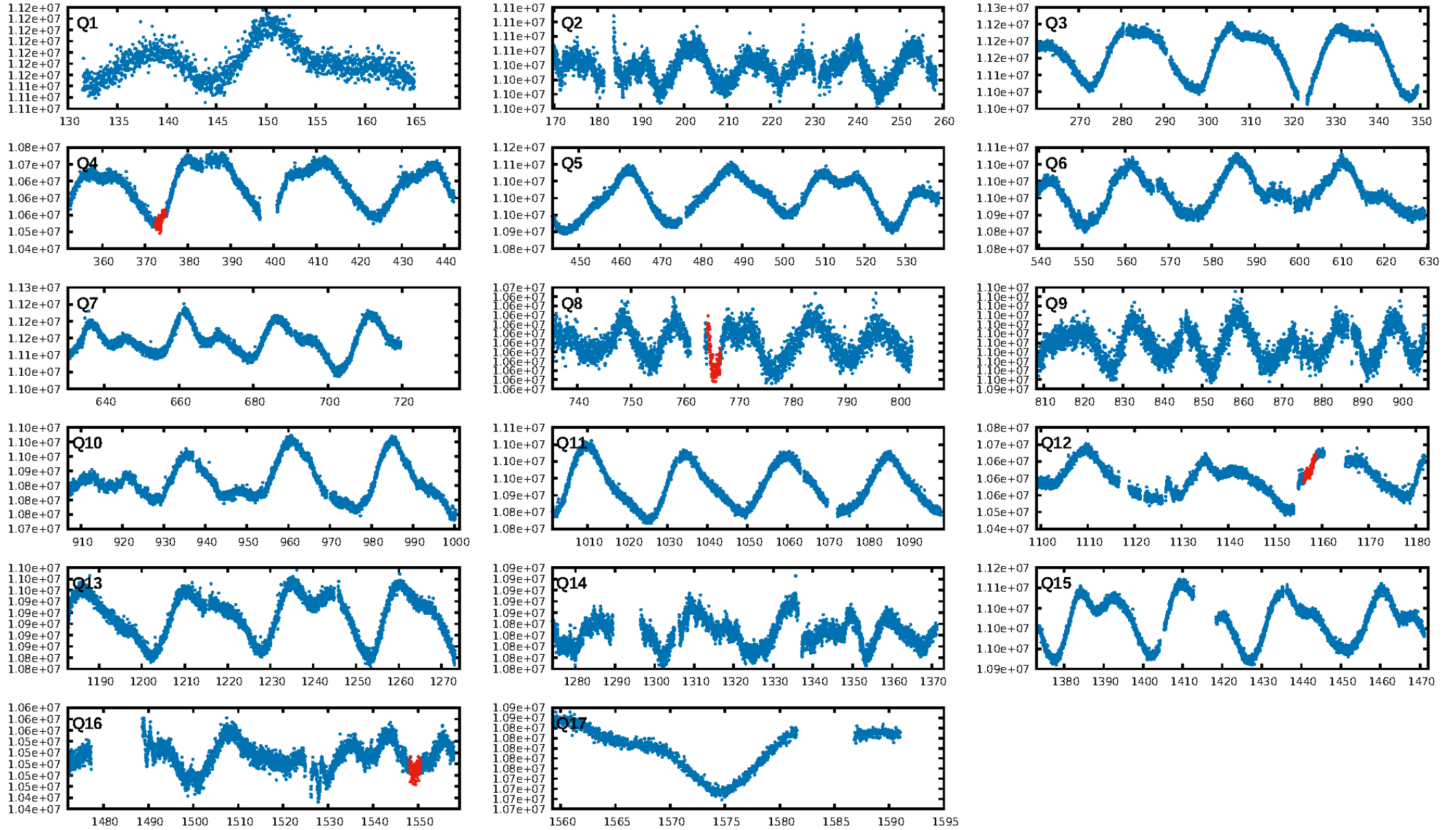
DV Fit Results:

Period = 391.93863 [0.03254] d
Epoch = 373.5162 [0.0544] BKJD
Rp/R* = 0.0687 [0.2087]
a/R* = 39.46 [26.22]
b = 1.00 [0.31]
Seff = 0.09 [0.01]
Teq = 138 [2] K
Rp = 4.02 [12.21] Re
a = 0.8596 [0.0267] AU
Ag = 14198.22 [86321.11] [0.16σ]
Teffp = 2328 [3538] K [0.62σ]

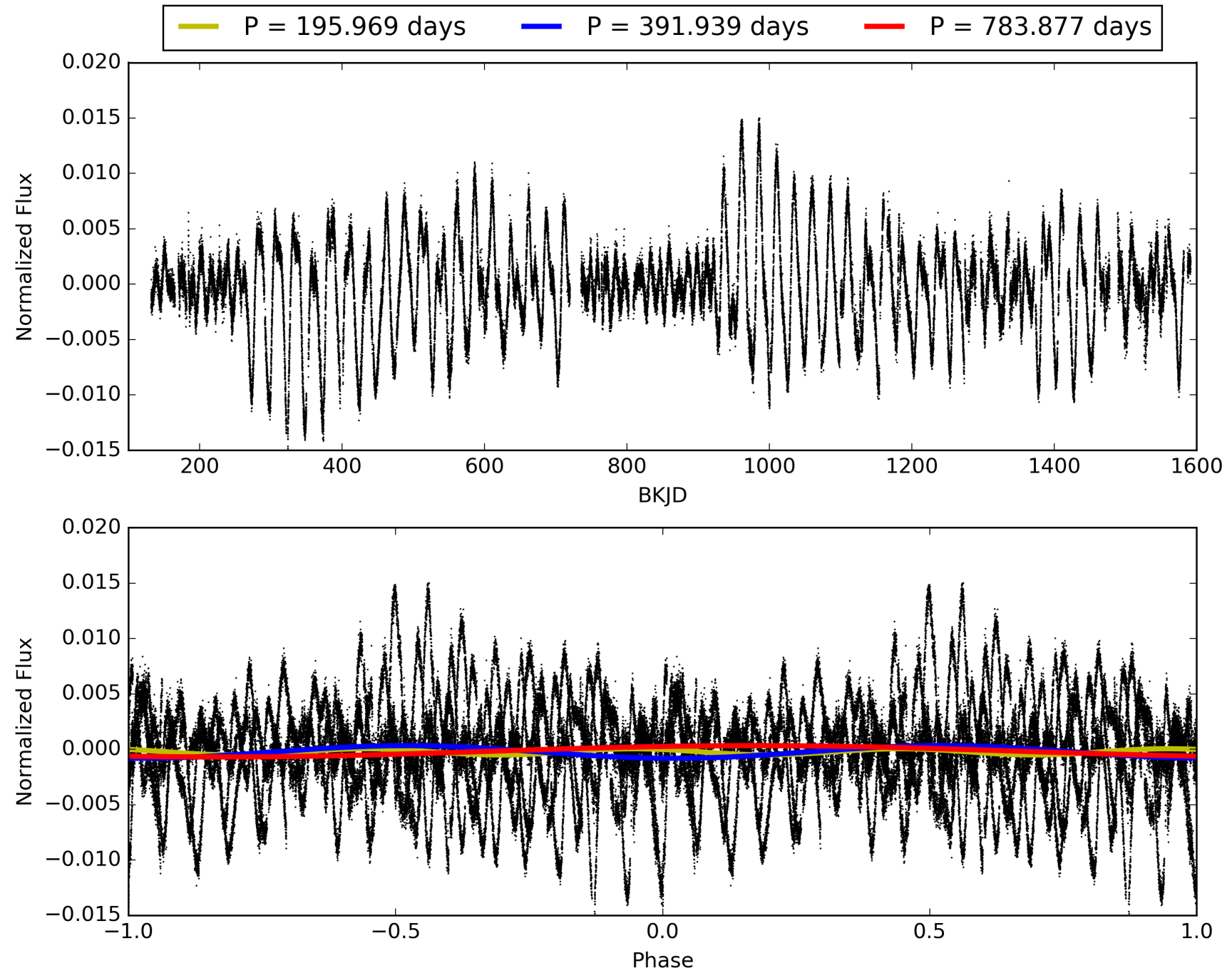
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.10e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.5628
Centroid-sig: 39.8%
Centroid-so: 2.083 arcsec [1.26σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

TCE 008546464-01, PDC Light Curves

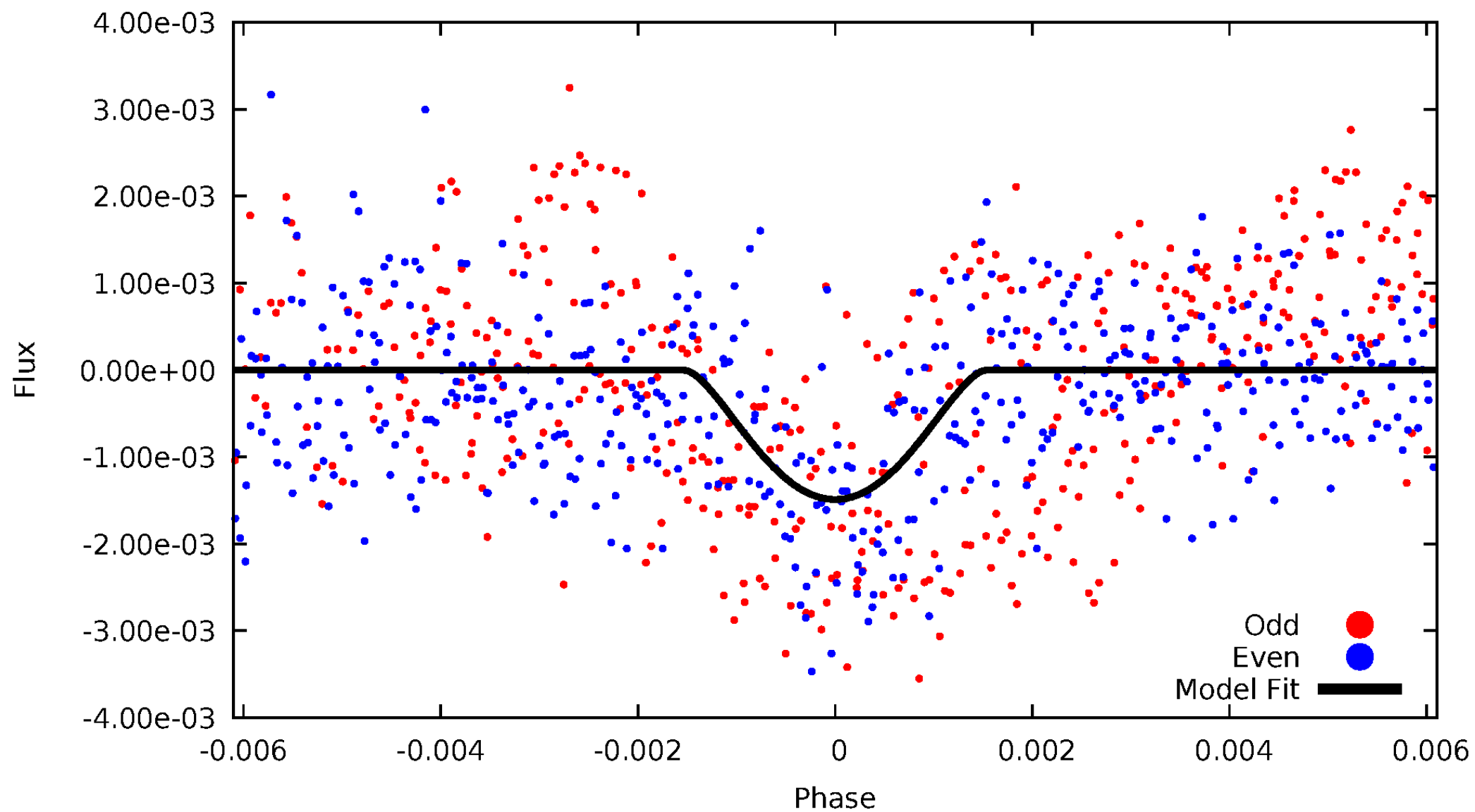


TCE 008546464-01



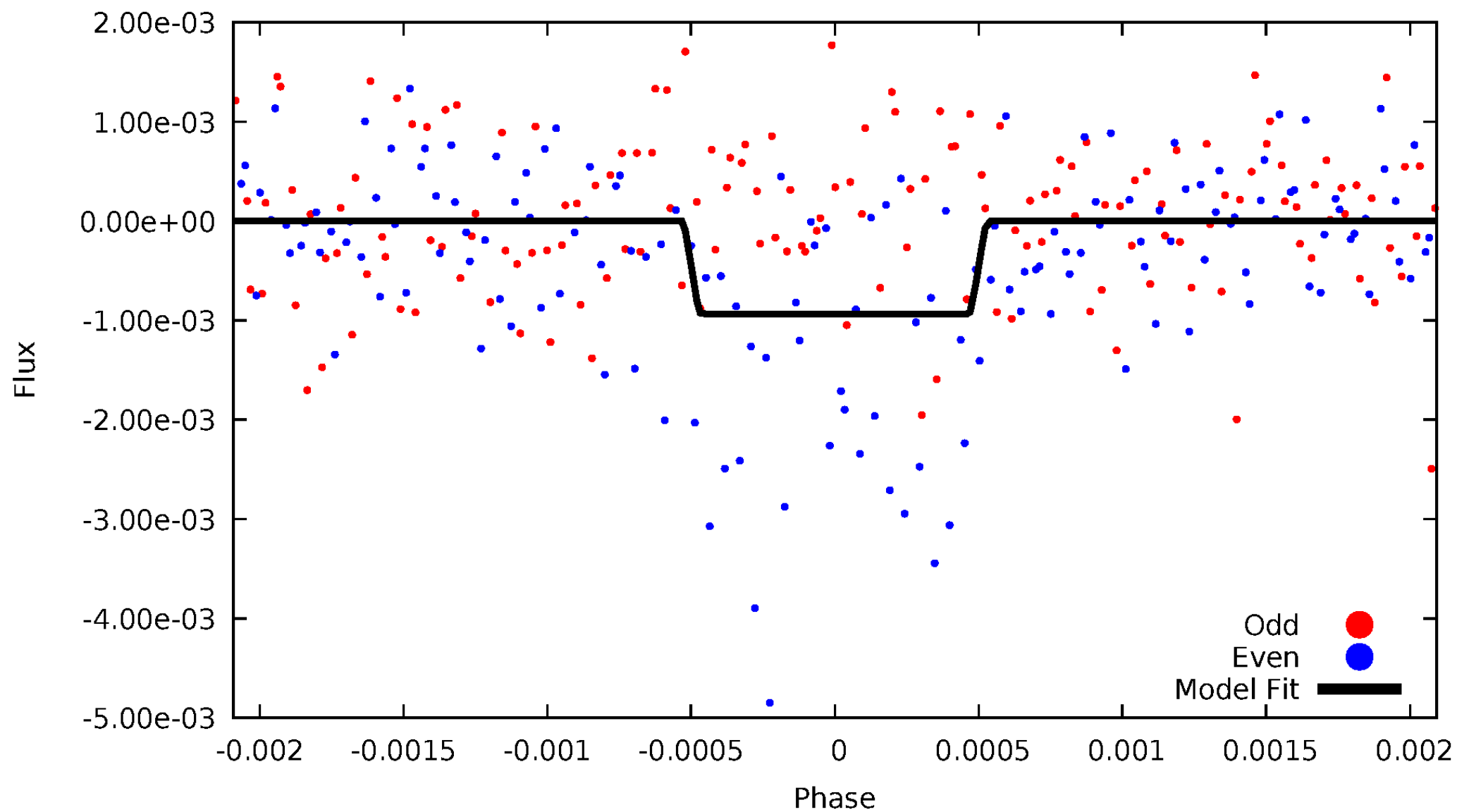
DV Odd/Even

TCE 008546464-01



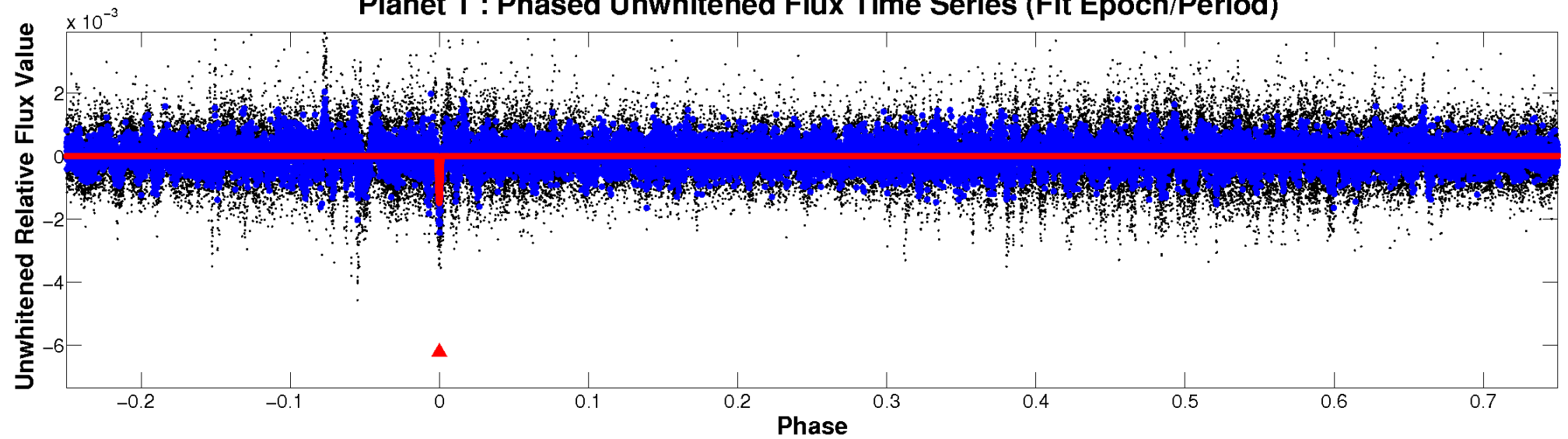
ALT Odd/Even

TCE 008546464-01

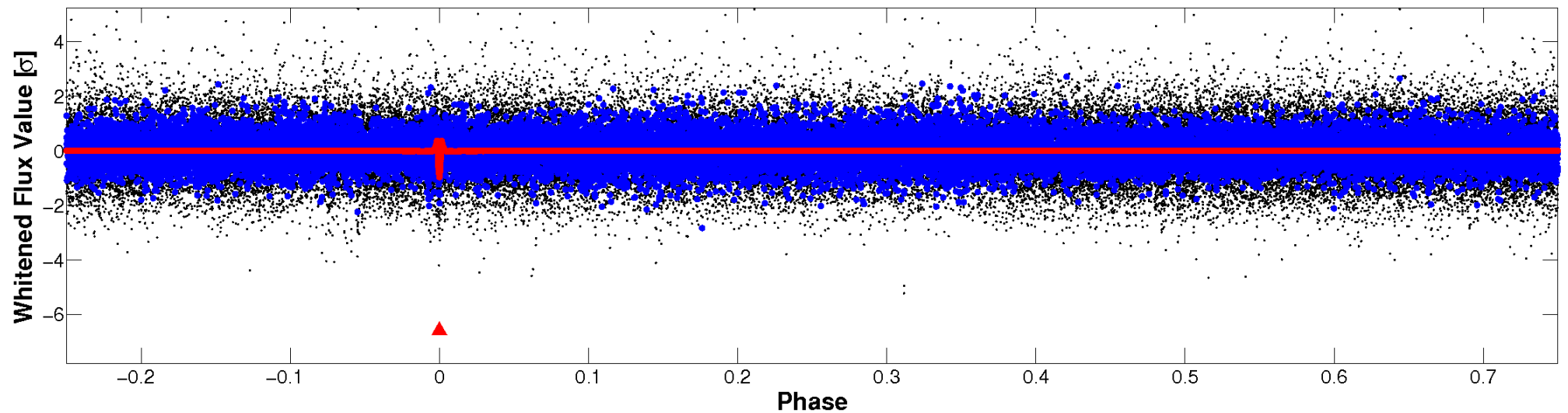


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)



Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



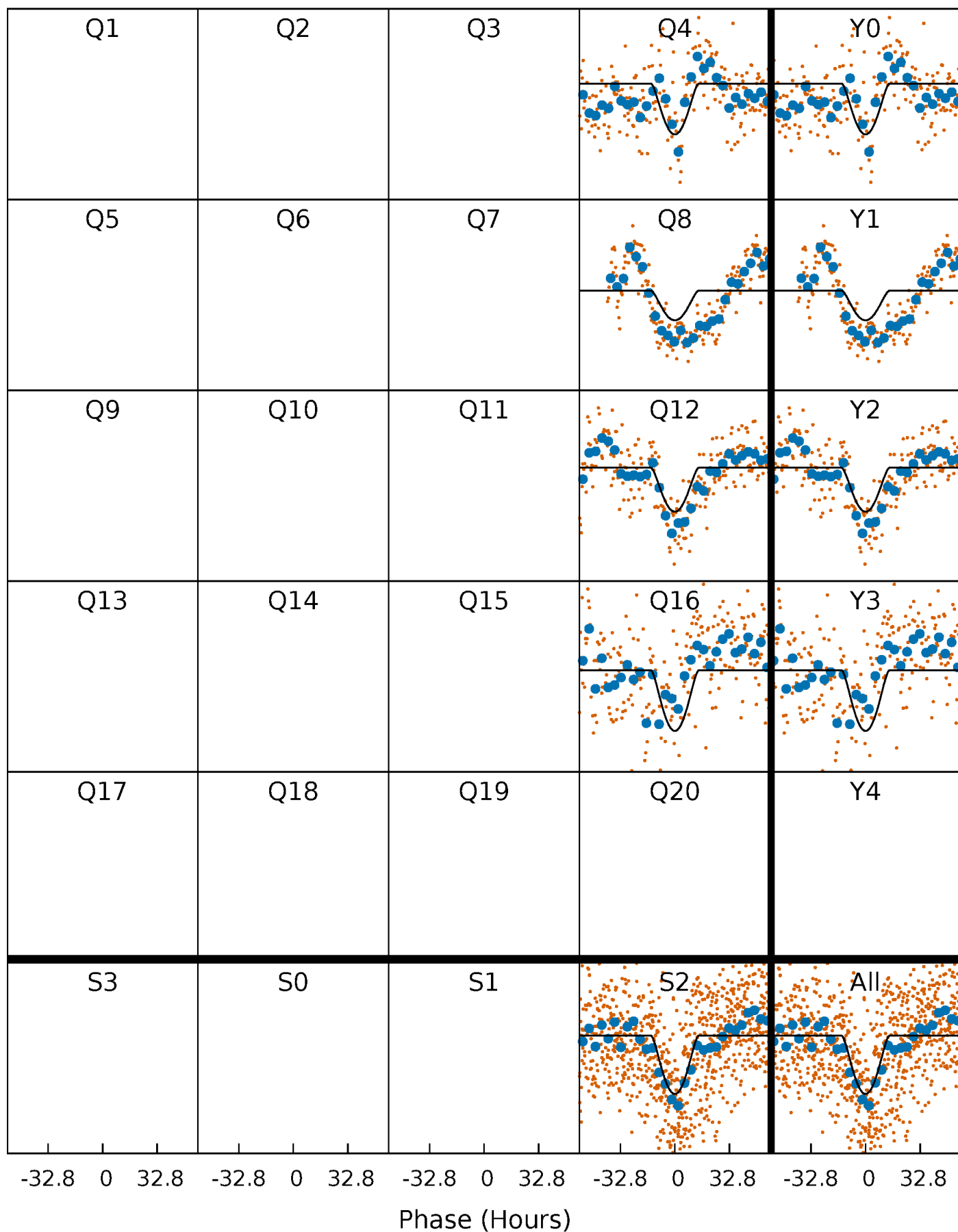
PDC Quarter-Phased Transit Curves

TCE 008546464-01 P=391.938631 Days $T_0=373.516197$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008546464-01 P=391.938631 Days $T_0=373.516197$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

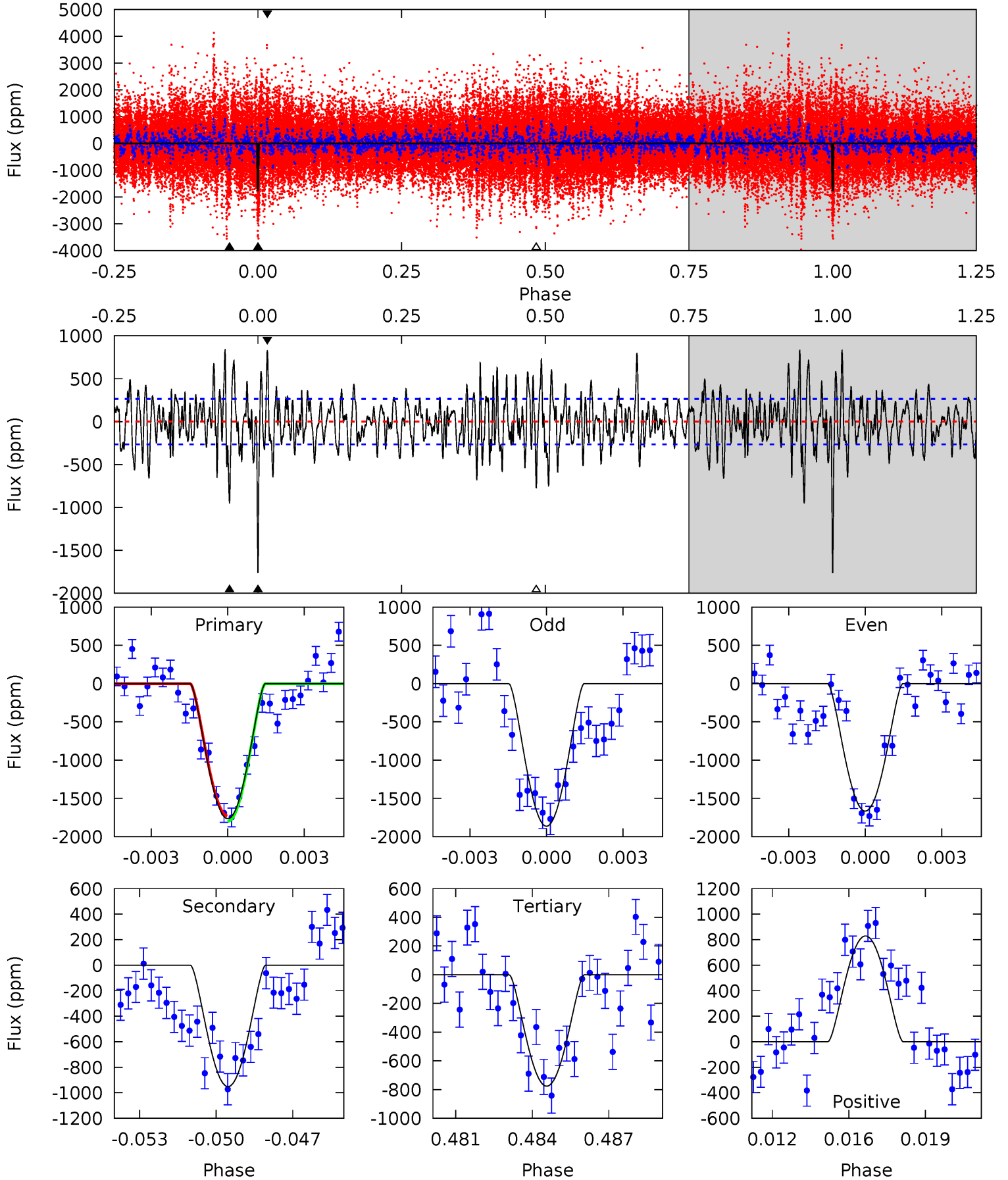
TCE 008546464-01 P=391.929303 Days $T_0=373.511734$ (BKJD)



DV Model-Shift Uniqueness Test

008546464-01, P = 391.938631 Days, E = 373.516197 Days

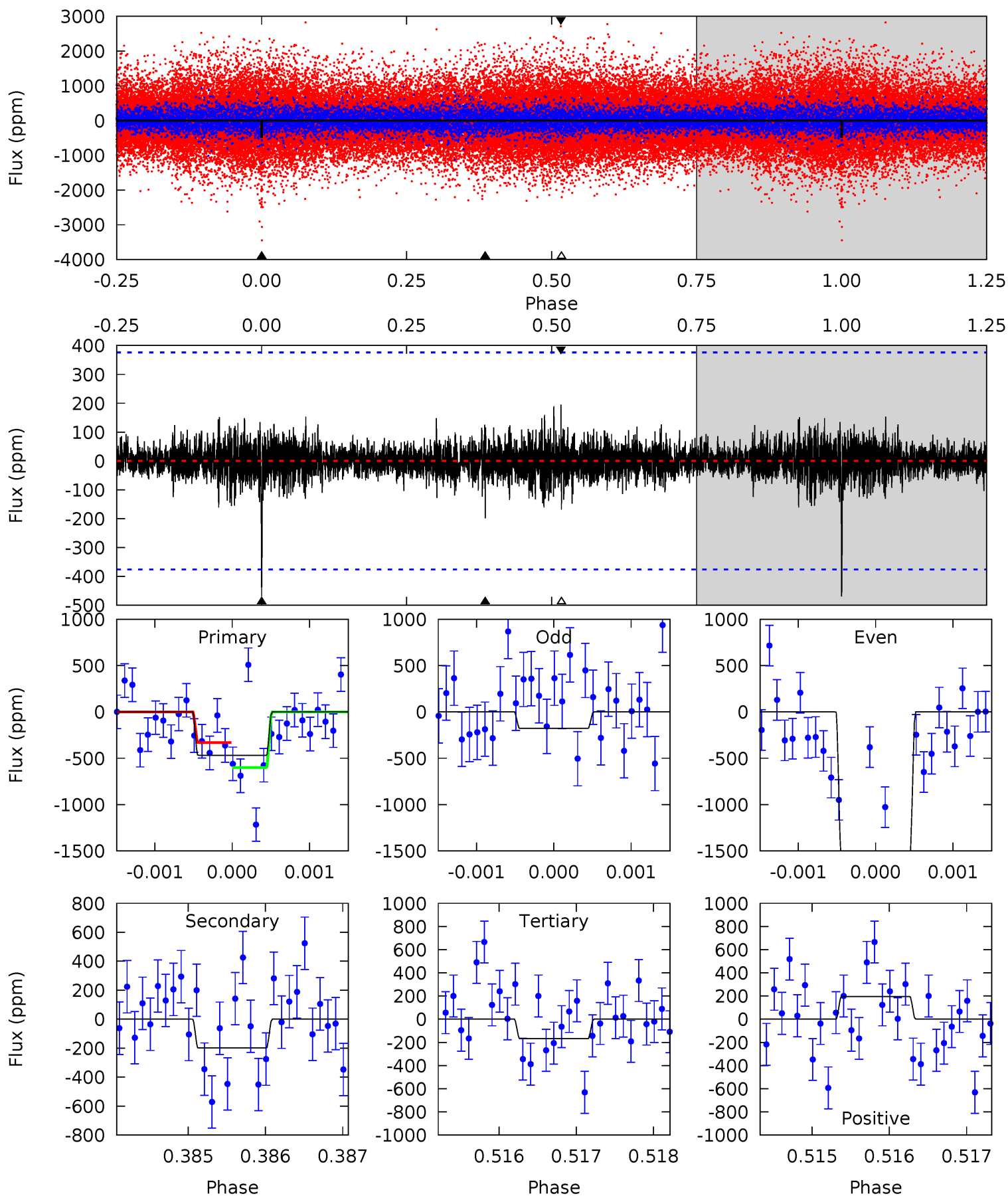
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.9	18.8	15.4	16.4	5.25	2.96	4.86	19.6	18.5	3.47	2.43	1.95	1.06	0.32	0.72



Alt Model-Shift Uniqueness Test

008546464-01, P = 391.929303 Days, E = 373.511734 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.79	2.88	2.43	2.83	5.44	3.28	0.56	4.36	3.97	0.45	0.05	10.5	2.71	0.29	1.95



Stellar Parameters For KIC 008546464

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3959^{+47}_{-51}	$4.721^{+0.020}_{-0.022}$	$-0.200^{+0.100}_{-0.100}$	$0.536^{+0.021}_{-0.021}$	$0.553^{+0.019}_{-0.025}$	$5.042^{+0.437}_{-0.445}$
	+1%/-1%	+0%/-0%	+50%/-50%	+4%/-4%	+3%/-5%	+9%/-9%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008546464-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-952 ± 51	$9.75^{+10.29}_{-6.64}$	193^{+3}_{-3}	2435^{+898}_{-350}	4056^{+36425}_{-3088}
Alt.	-199 ± 69	$8.56^{+9.06}_{-5.92}$	193^{+3}_{-3}	2087^{+670}_{-281}	1033^{+9820}_{-793}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

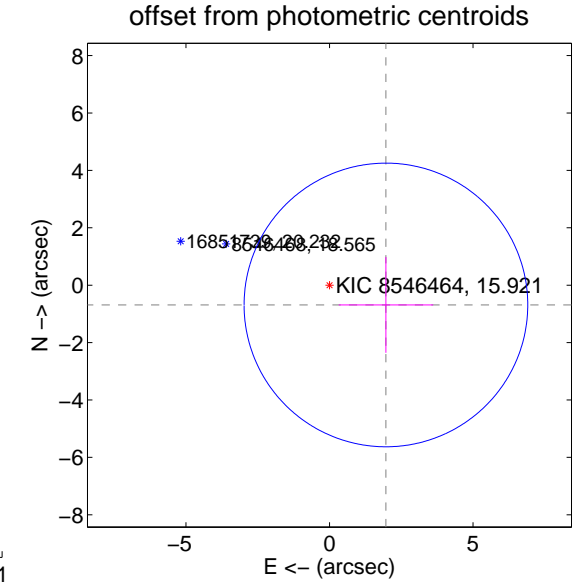
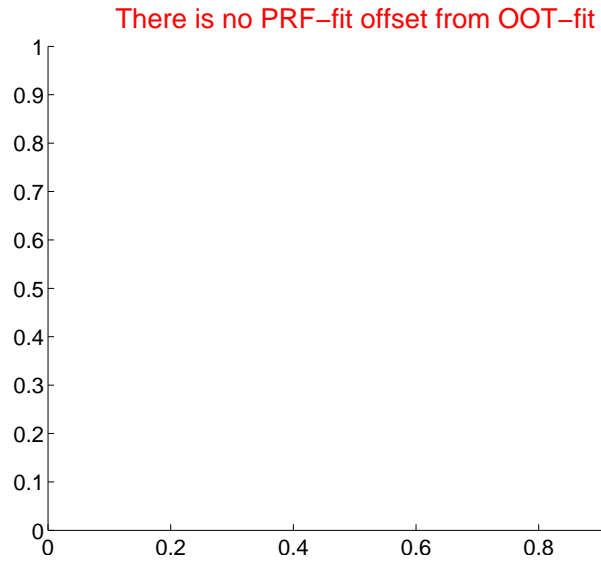
DV Centroid Data

Supplemental centroid analysis for 008546464-01. Kepler magnitude: 15.92. Transit SNR 8.64

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	2.08 ± 1.65	1.26	-1.97 ± 1.64	-0.69 ± 1.67



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



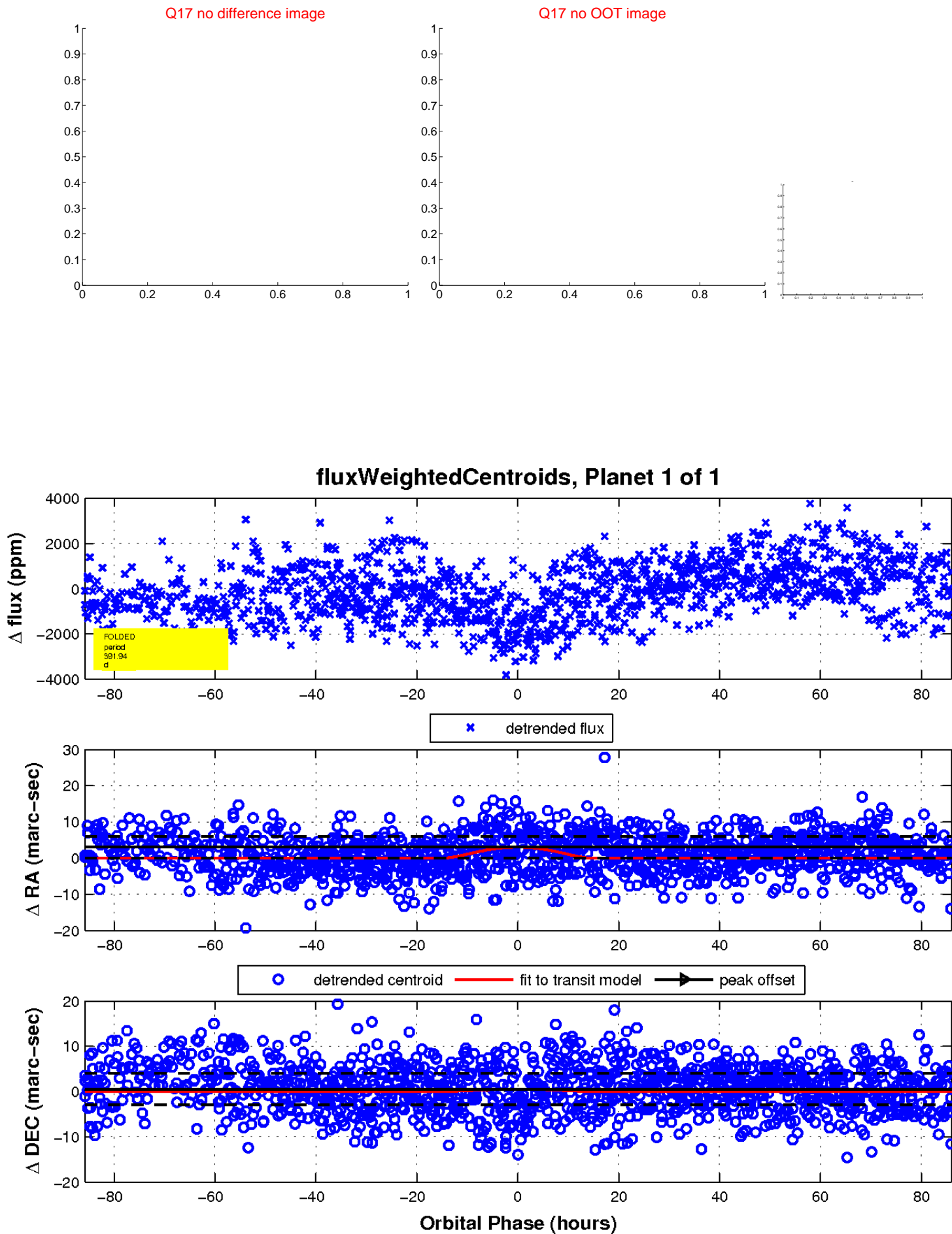
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UKIRT Image

Declination

