

Proposal Identification		75_0015	
Project Title		Horsehead and the IC434 PDR interface	
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Observations			
Mission Identification		2015-12-11-GR_F266	
Flight date		2015 December 11	
GREAT configuration ^(1,2)		front-ends: LFA	back-ends: 4GFFT spectrometers
Astronomical Sources		Horsehead, IC434	Scans: 12715-12790 lines: CII
Calibrated data products based on: kosma_calibrator ver. December 2015, GILDAS software ver. Nov15a			
product level	file name	description	
3a	Cycle3_GR_DDT_75_0015_EYoung_Ta.great Cycle3_GR_DDT_75_0015_EYoung_Ta_reduced.great Cycle3_GR_DDT_75_0015_EYoung_Tmb_CII.great	Calibrated to T_A^* scale ($\eta_f = 0.97$). Calibrated to T_A^* scale, baselines removed as explained in the Data Reduction letter. All scans quality validated. Calibrated ⁽³⁾ to T_{mb} scale, using η_{mb} (LFA-V) = (0.67, 0.71, 0.71, 0.70, 0.65, 0.66, 0.71) η_{mb} (LFA-H) = (0.66, --, 0.60, --, 0.66, 0.68, 0.70). Pixel H1 and H3 are not included. Independent fit of dry & wet atmosphere. Created with Cycle3_GR_DDT_75_0015_EYoung.class.	
3b	Cycle3_GR_DDT_75_0015_EYoung_CII.lmv Cycle3__GR_DDT_75_0015_EYoung_CII.fits Cycle3__GR_DDT_75_0015_EYoung_CII_final.fits	Gridded map for CII (1/ σ_{rms2} weighting of individual spectra, σ_{rms} baseline noise). See the attached CLASS script for details of the data processing. Equivalent map in fits format, and with an outer rim (45") removed.	

Notes: (1) Heyminck, S. et al.: GREAT: the SOFIA high-frequency heterodyne instrument. *Astron.Astrophys.* 542, L1 (2012)

(2) Risacher, C. et al.: First supra-THz Heterodyne Array Receivers for Astronomy with the SOFIA Observatory.

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(3) Guan, X. et al.: GREAT/SOFIA atmospheric calibration. *Astron.Astrophys.* 542, L4 (2012)