









$$T_{sys} = \frac{(1 + G_{im}) \exp \{ \tau_s A \}}{F_{eff}} [F_{eff} T_{atm} (1 - \exp \{ -\tau_s A \}) + (1 - F_{eff}) T_{cab} + T_{rec}] ,$$





Adrianus





















$$\sigma_K = \frac{T_{\text{sys}}}{\sqrt{2} dv \Delta t}.$$



$$\sigma_K = \frac{T_{\rm sys}}{\eta_{\rm spec} \sqrt{2} dv \Delta t}.$$



$$\sigma_K = \frac{T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv \Delta t}.$$





$$F = \sqrt{s_d} r \quad \text{with} \quad \sqrt{s_d} = \frac{2k}{A_{\text{eff}}} ;$$







$$\sigma_{J_y} = \frac{J_{\text{ant}}^{\text{sd}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv \Delta t}.$$





and

—

total

will

Q100

$$\text{rotation} = e^{-\frac{\phi^2}{2}}$$

$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv \Delta t}.$$

$$\sigma_{Jy} = \frac{j_{\rm ant}^{\rm int} T_{\rm sys}}{\eta_{\rm spec} \sqrt{n_{\rm ant} (n_{\rm ant} - 1)} dv \Delta t},$$









$$F = J_{\text{ant}} \pi \text{ with } J_{\text{ant}} = \frac{2k\Omega}{\lambda^2}.$$

QPR100

$$j_{\text{ant}}^{\text{int}} = \frac{j_{\text{ant}}^{\text{sd}}}{\eta_{\text{atm}}} = \frac{2k\Omega_{\text{prim}}}{\eta_{\text{atm}}\lambda^2}.$$

QWERTY



$$\sqrt{\frac{\rho_{\text{syn}}}{\rho_{\text{ant}}}} = \frac{2k\Omega_{\text{syn}}}{\lambda^2} \cdot$$

$$\sigma_K = \frac{\Omega_{\text{prim}}}{\Omega_{\text{syn}}} \frac{1}{\eta_{\text{atm}}} \frac{T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu \Delta t}, = \frac{\theta_{\text{prim}}^2}{\theta_{\text{maj}} \theta_{\text{min}}} \frac{1}{\eta_{\text{atm}}} \frac{T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} d\nu \Delta t},$$

Q. 100

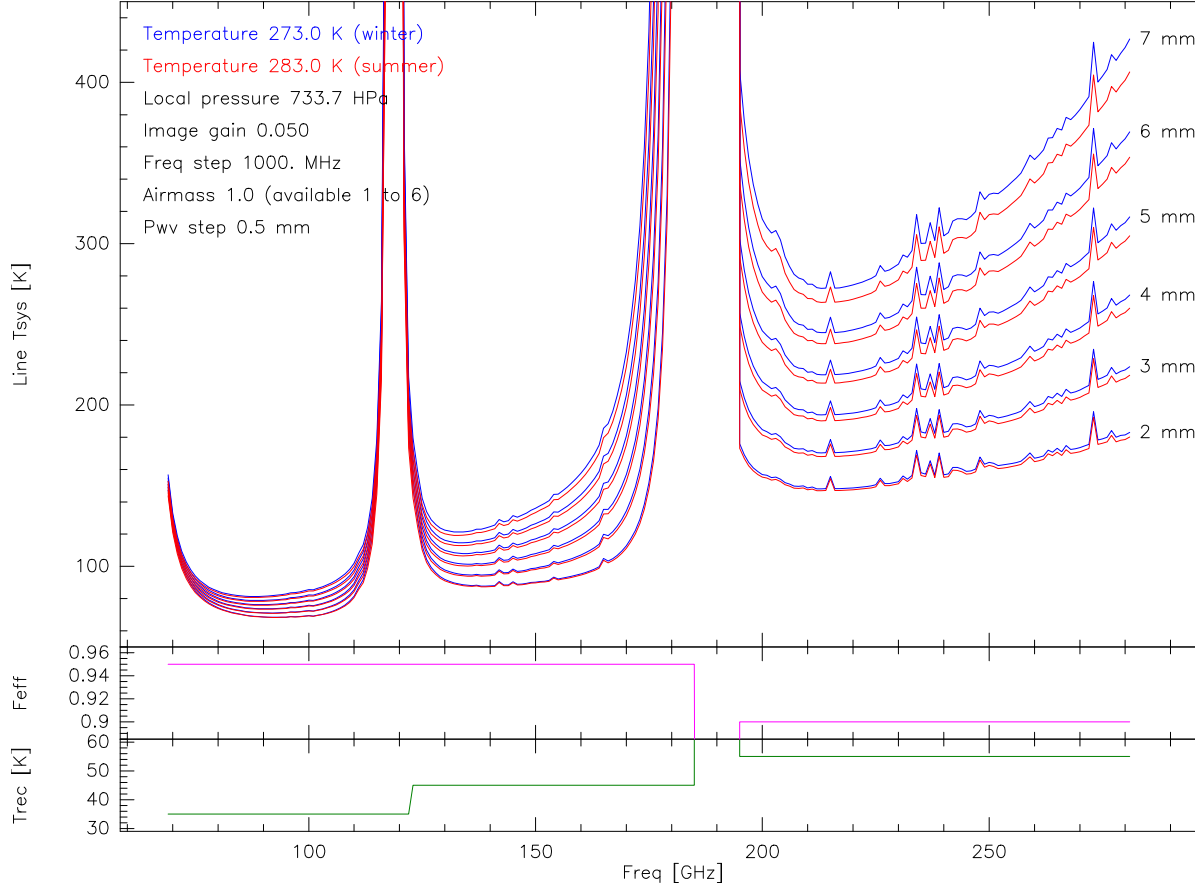
A pixelated, grayscale version of the number 9. The image is composed of a grid of squares in various shades of gray, from black to white, arranged to form the shape of the digit 9. The style is reminiscent of early digital art or a low-resolution scan.

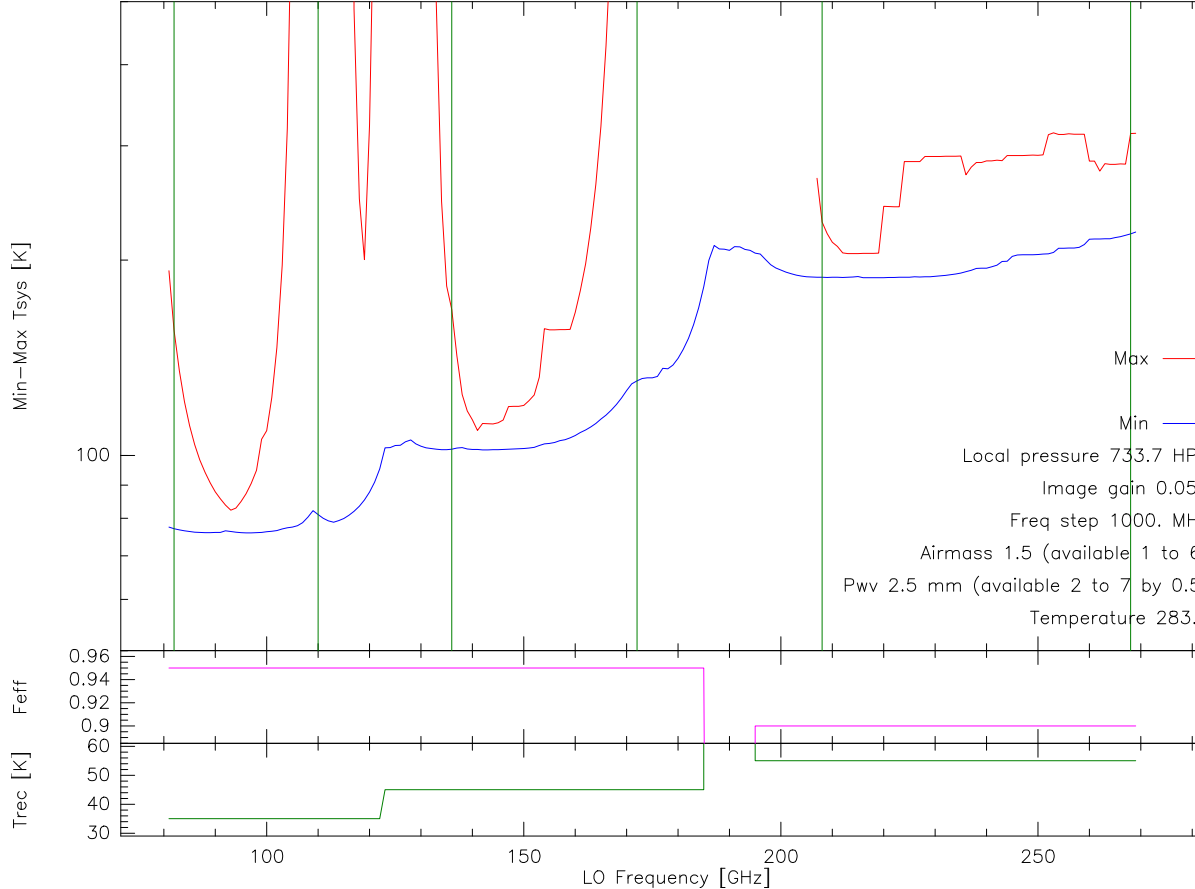


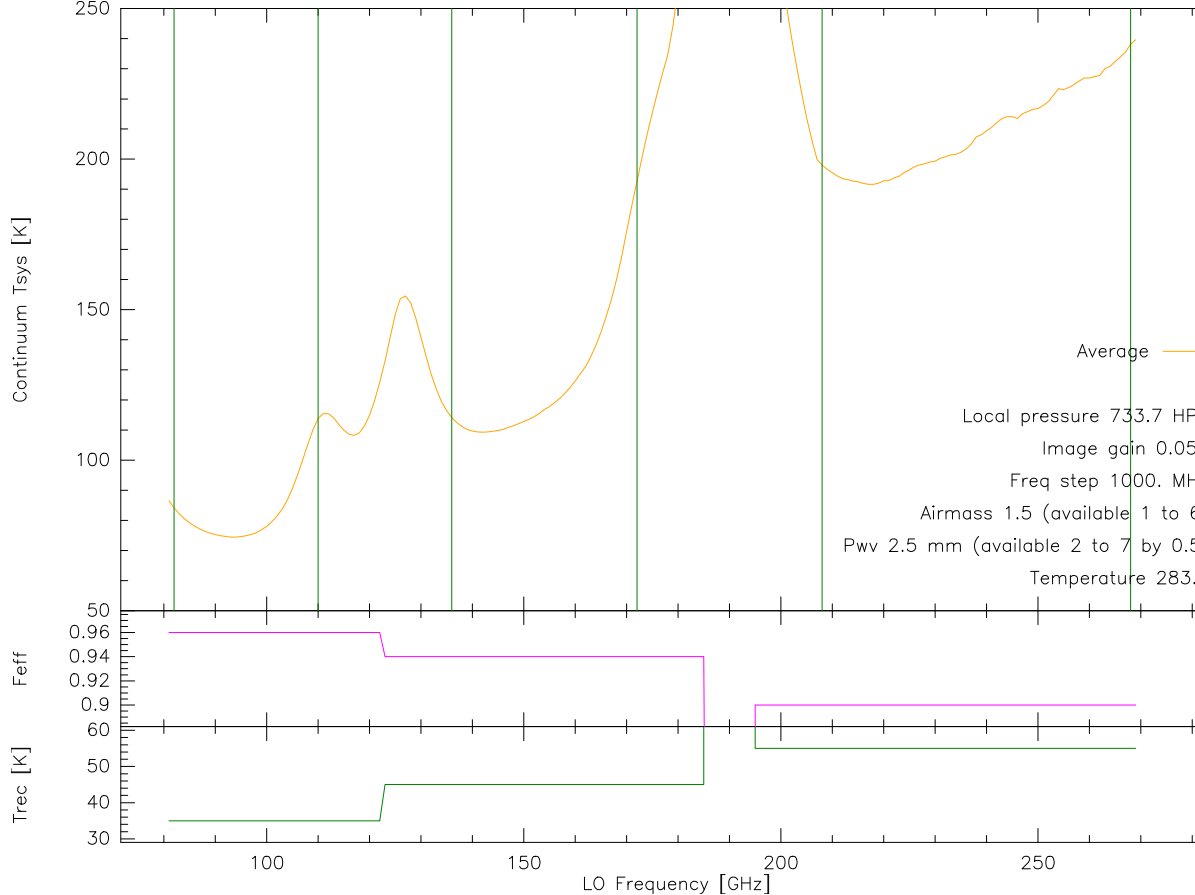


100%

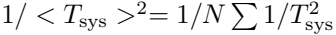
















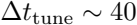
$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}} .$$

$$\sigma_{Jy} = \frac{j_{\rm ant}^{\rm int} T_{\rm sys}}{\eta_{\rm spec} \sqrt{n_{\rm ant} (n_{\rm ant} - 1)} dv n_{\rm pol} \Delta t_{\rm on}},$$

$$\sigma_K = \frac{\sigma_{Jy}}{J_{\text{ant}}^{\text{syn}}} \quad \text{with} \quad J_{\text{ant}}^{\text{syn}} = \frac{2\pi k \theta_{\text{maj}} \theta_{\text{min}}}{4 \ln 2 \lambda^2}.$$





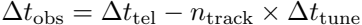








100%



$$v_{track} = \frac{\Delta t_{rel}}{\Delta t_{track} + \Delta t_{time}}$$

0.95

[illegible]

— 2019





2020-2021

opinion

$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

$$\Delta t_{on} = \frac{\Delta t_{tel} - n_{track} \times \Delta t_{tune}}{n_{tel}}$$



$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

with

$$\Delta t_{\text{on}} = \frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{tune}}}{n_{\text{tel}} \times n_{\text{sou}}}$$



$$n_{\text{beam}} = \frac{A_{\text{map}}}{A_{\text{beam}}}$$

1990



$$A_{\text{beam}} = \frac{0.8 \pi \theta_{\text{prim}}^2}{4 \ln(2)} ;$$



$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

with

$$\Delta t_{\text{on}} = \frac{\Delta t_{\text{tel}} - n_{\text{track}} \times \Delta t_{\text{tune}}}{n_{\text{tel}} \times n_{\text{beam}}}$$



$$n_{\text{point}} = n_{\text{beam}} \left(\frac{7}{4} \right)^2,$$



$$\Delta t_{\text{on}} = \frac{\Delta t_{\text{tel}} - n_{\text{tracks}} \times \Delta t_{\text{tune}}}{\eta_{\text{tel}} \eta_{\text{mos}} \times n_{\text{beam}}} \quad \text{with} \quad \eta_{\text{mos}} = \frac{\Delta t + \Delta t_{\text{slew}}}{\Delta t},$$



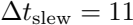
$$\frac{\Delta t}{1s} < \frac{6900}{\theta_{alias}/\theta_{syn}};$$

Q112

QWID

$$\Delta t_{\min} \leq \frac{1}{\eta} \frac{6900}{1 \text{ sec}} \sqrt{\frac{\theta_{\text{maj}} \theta_{\text{min}}}{A_{\text{map}}}},$$





1234567890

Apple

$$n_{\text{point}/\text{track}}^{\text{max}} = \frac{\Delta t_{\text{cycle}}}{\Delta t_{\text{min}} + \Delta t_{\text{slew}}} = 130.$$

$$n_{\text{point}/\text{track}} = \left(\frac{7}{4}\right)^2 \frac{n_{\text{beam}}}{n_{\text{track}}}.$$

POINT-TO-POINT

$$\sigma_{Jy} = \frac{j_{\text{ant}}^{\text{int}} T_{\text{sys}}}{\eta_{\text{spec}} \sqrt{n_{\text{ant}} (n_{\text{ant}} - 1)} dv n_{\text{pol}} \Delta t_{\text{on}}}$$

with

$$\Delta t_{\text{on}} = \frac{\Delta t_{\text{tel}} - n_{\text{tracks}} \times \Delta t_{\text{tune}}}{n_{\text{tel}} n_{\text{mos}} n_{\text{beam}}}$$



Wiederholung





$$\Omega = \frac{1}{\eta_{\text{tel}}}.$$

0-0gen+0gen0gen

Quesada

==

12

Waniwani = 2

video editing = 1

2021-2022

$$\Omega_{\text{total}} = 1 - \frac{\Delta t_{\text{on}}}{\Delta t_{\text{tel}}}$$



$$\Omega_{total} = 1 - \frac{\Delta t_{on} \times r_f}{\Delta t_{tel} \times r_f}$$