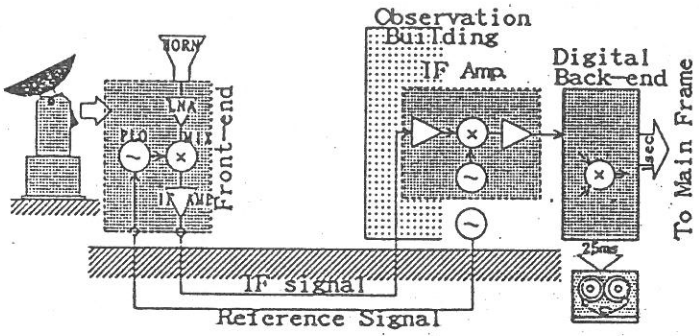
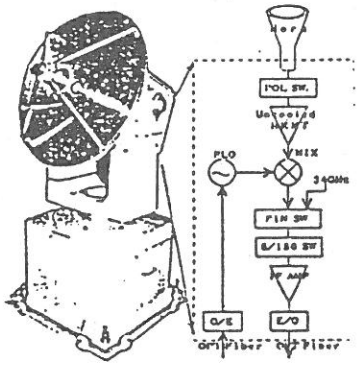
Receiver of the Nobeyama Radioheliograph

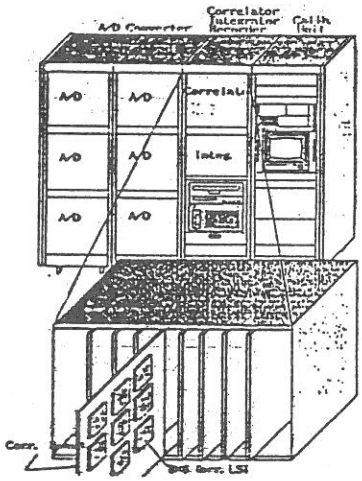
M Nishio

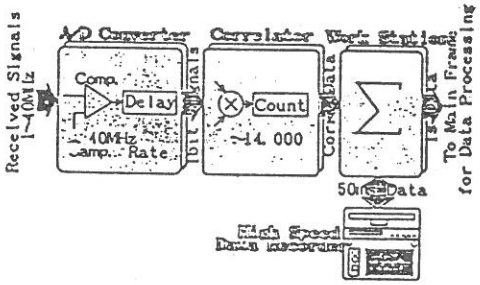
and

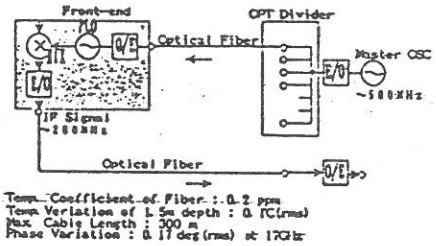
the Nobeyama Radioheliograph Group

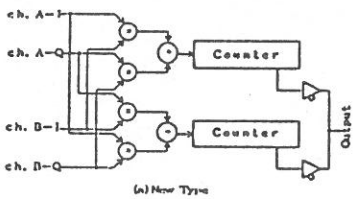


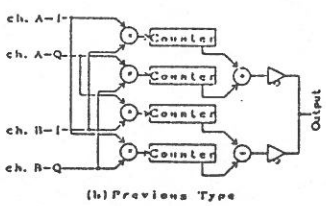








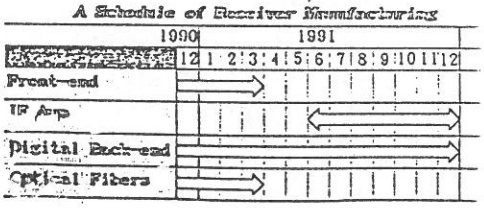


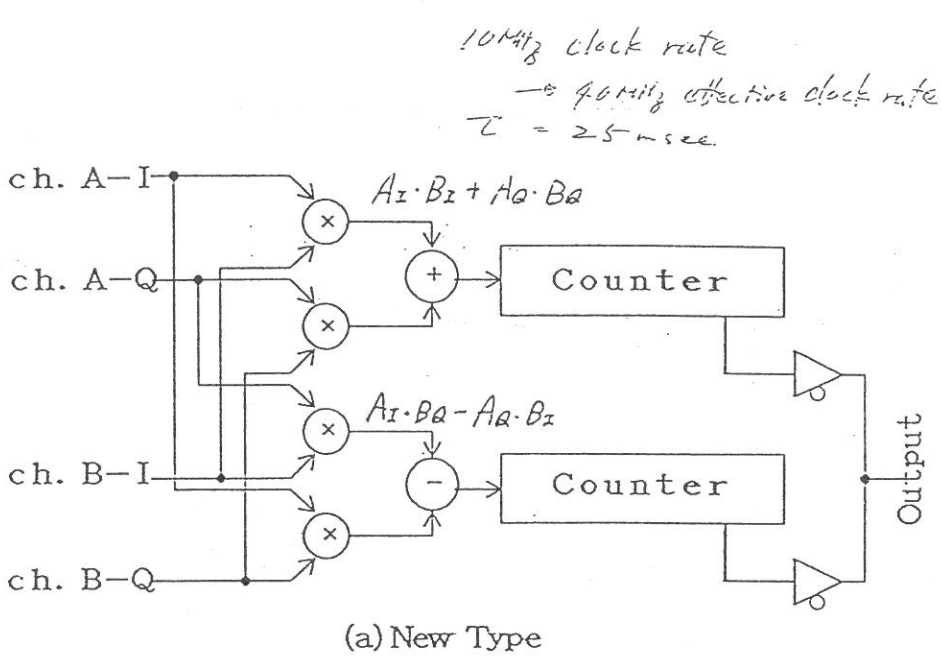


Specification of the Receiver

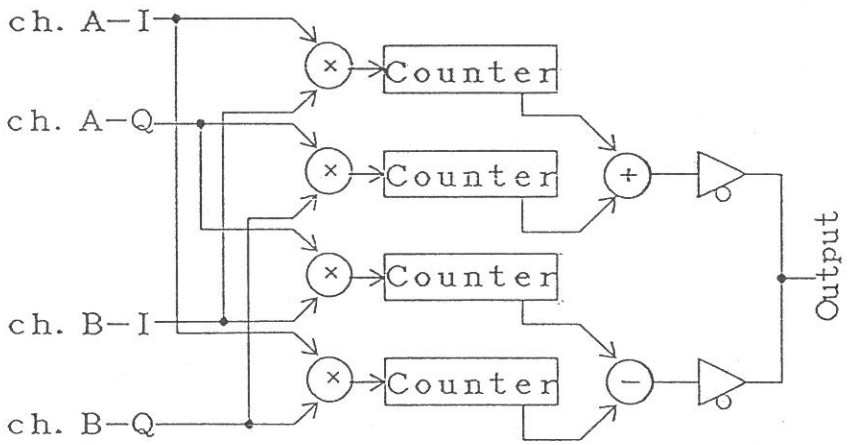
Observing Frequency	17 GHz
Bandwidth	40 MHz
Polaization	RCP & LCP (Time Shearing)
Temporal Resolution	50 ms & 1 s
Receier Noise Temp.	≦300 K
Phase Variation	≦3 deg.
Gain Variation	≦0.2 dB
Accuracy of Pol. Degree	≦1 %
Cross-talk between Rec. Channels	≦-00 dB
Dynamic Range of Image	100:1 (Snap Shot) 1000:1 (Synthesis)

A Schedule of Receiver Manufacturing

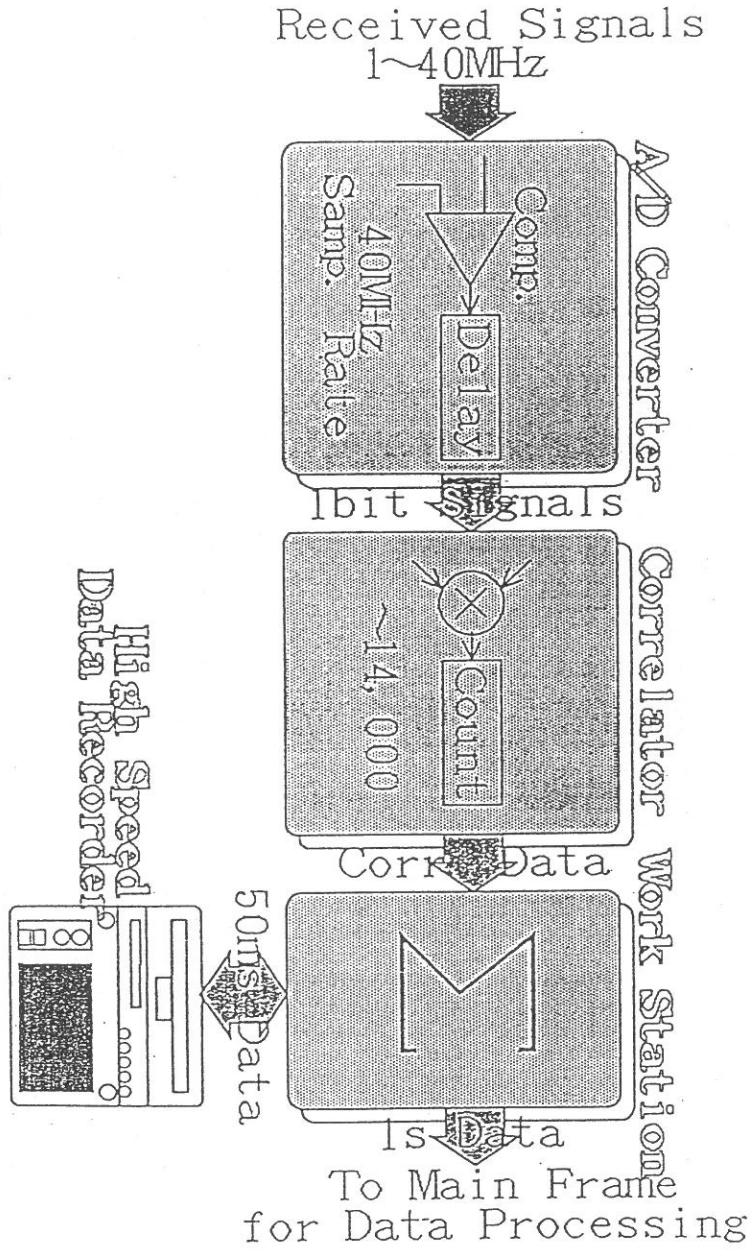


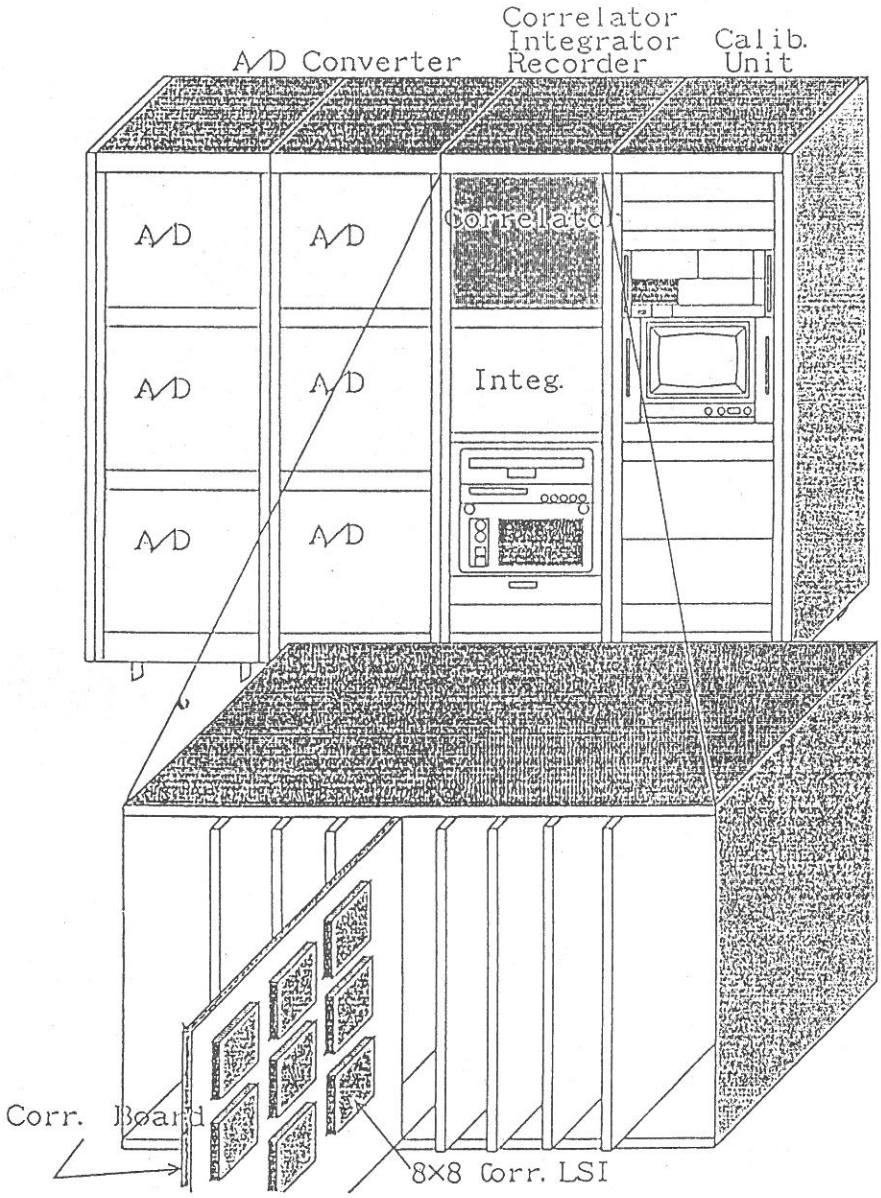


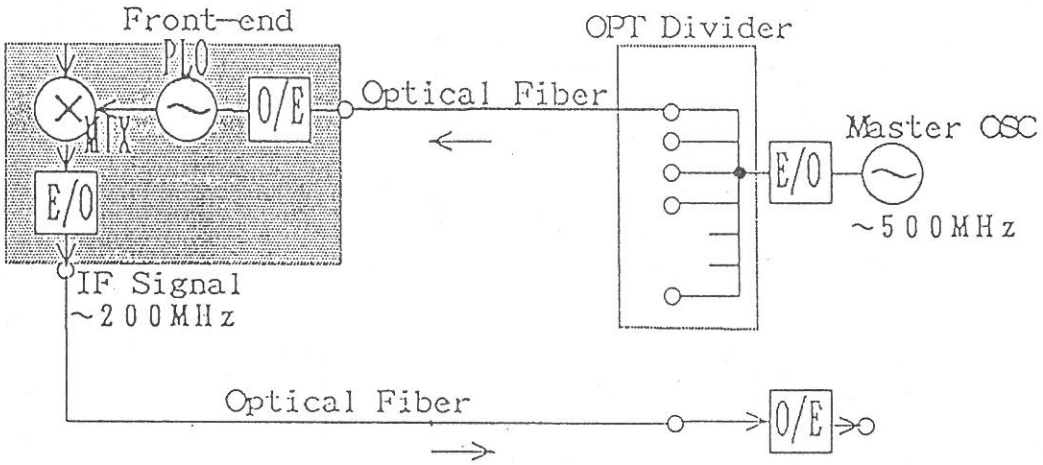
(a) New Type



(b) Previous Type





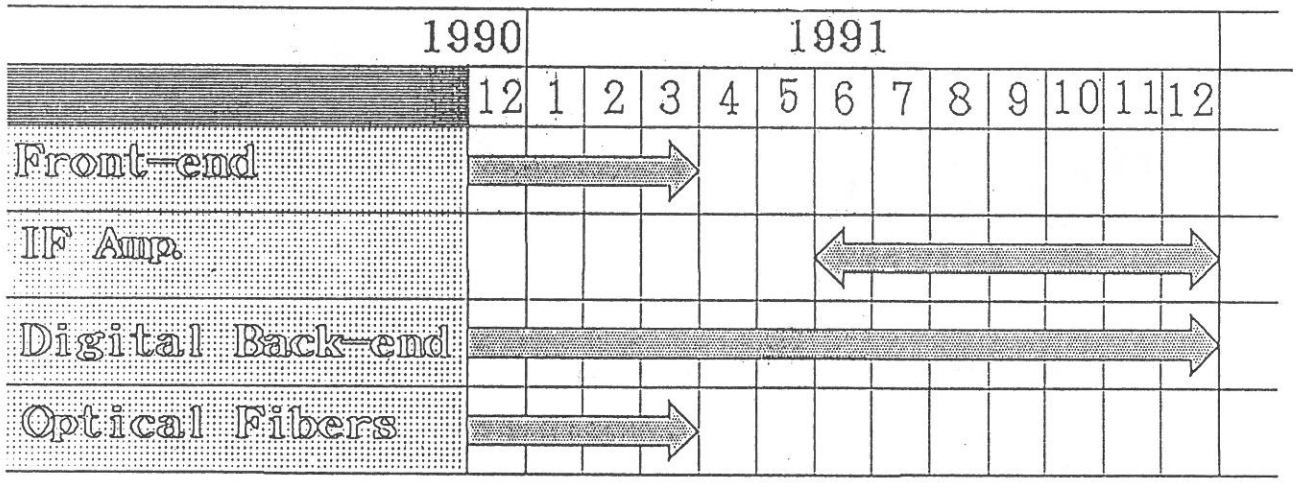


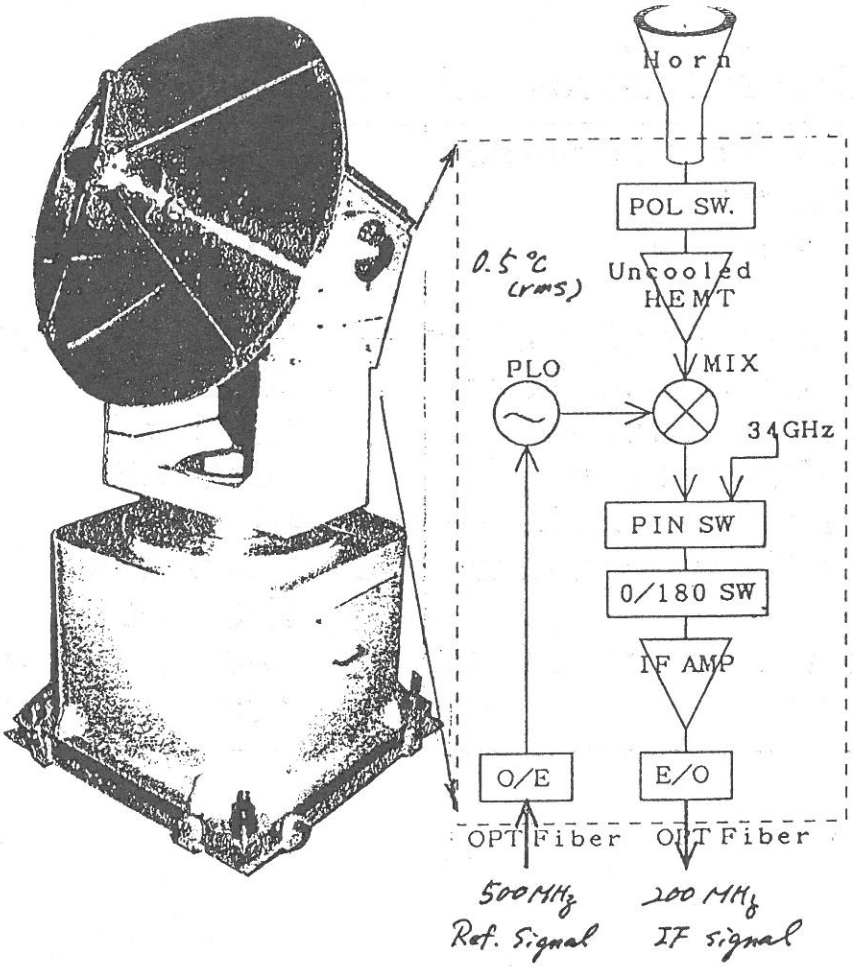
Temp. Coefficient of Fiber : 0.2 ppm
Temp. Veriation of 1.5m depth : 0.1℃(rms)
Max. Cable Length : 300 m
Phase Variation : 0.17 deg (rms) at 17GHz

Specification of the Receiver

Observing Frequency	17 GHz
Bandwidth	40 MHz
Polaization	RHCP & LHCP (Time Shearing)
Temporal Resolution	50 ms & 1 s
Receier Noise Temp.	≦300 K
Phase Variation	≦3 deg.
Gain Variation	≦0.2 dB
Accuracy of Pol. Degree	≦1 %
Cross-talk between Rec. Channels	≦-90 dB
Dynamic Range of Image	100:1 (Snap Shot) 1000:1 (Synthesis)

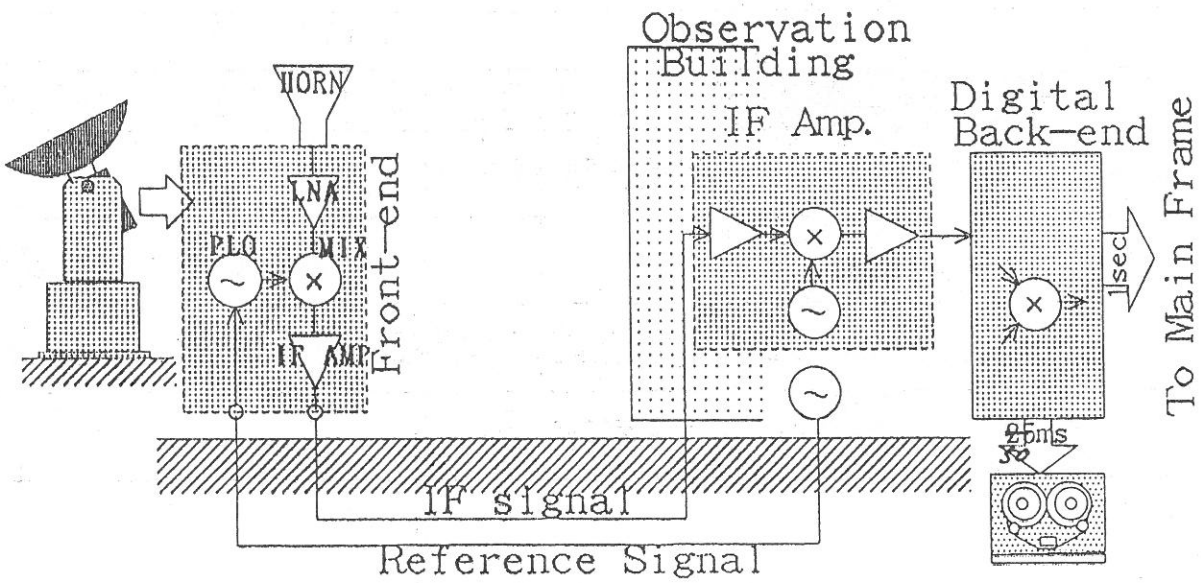
A Schedule of Receiver Manufacturing





Phase drift : 3 deg.
Gain drift : 0.2 dB

Walsh Switching



B.W : 40 MHz
Pol. : RHCP / LHCP
Corr. : 1 bit mode, DSB type