

ALFA Receiver (RF through fiber)  
 System Temperature and Power Levels to WAPP  
 Conversion to 275MHz  
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Component	Noise Figure dB	Noise Temp K	Gain dB	BW Device MHz	BW Min MHz	Tsys K	Total Gain dB	Power Density dBm/ MHz	Pno dBm	Po1 dBm	IP3 dBm	
						26.00						
LNA		3	40	2000	2,000.0	29.00	40	-84.0	-51.0			
1225-1525MHz BPF	0.5	35	-0.5	300	300.0	29.00	39.5	-84.5	-59.7			
Post Amp1	2.5	226	36	2500	300.0	29.03	75.5	-48.5	-23.7	20	35	
Fiber Optic Link	44	7,284,181	-3.5	2000	300.0	29.23	72	-51.9	-27.2	>10	26	Fiber Link AC231
Mixer	7	1,163	-7	1500	300.0	29.23	65	-58.9	-34.2			MaCom MDC-169
3dB	3	289	-3	1500	300.0	29.23	62	-61.9	-37.2			
LPF	1	75	-1	500	300.0	29.23	61	-62.9	-38.2			
IFAmp	3.6	374	16	500	300.0	29.23	77	-46.9	-22.2			
Power Splitter	3.5	359	-3.5	500	300.0	29.23	73.5	-50.4	-25.7			
Start of WAPP												
Cable Loss	0.5	35	-0.5	500	300.0	29.23	73	-50.9	-26.2			
Switch 1	1.5	120	-1.5	500	300.0	29.23	71.5	-52.4	-27.7	20		MCL ZASWA-2-50DR
15dB Step Atten.	14	6,994	-14	500	300.0	29.24	57.5	-66.4	-41.7	15		MCL ZSAT-31R5 7dB Loss
WAPP Amp 1	3.5	359	20	500	300.0	29.24	77.5	-46.4	-21.7	16	30	MCL ZFL500HLN
Switch 2	1.5	120	-1.5	500	300.0	29.24	76	-47.9	-23.2	20		MCL ZASWA-2-50DR
250-300MHz BPF	1	75	-1	50	50.0	29.24	75	-48.9	-32.0			FSY BE275-46-8SS
6dB	6	865	-6	500	50.0	29.24	69	-54.9	-38.0			
WAPP Amp 2	3.5	359	20	500	50.0	29.24	89	-34.9	-18.0	16	30	MCL ZFL500HLN