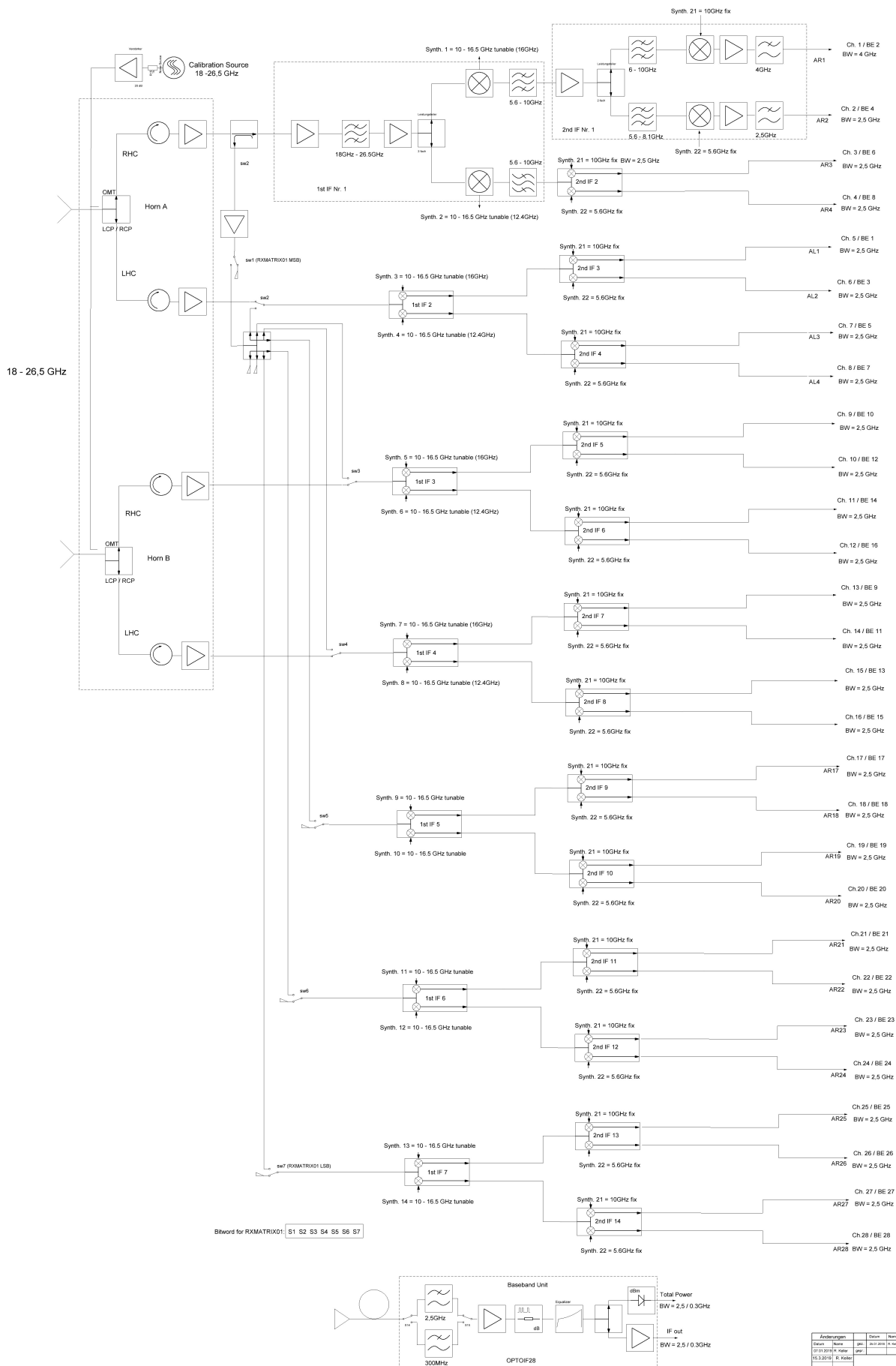


Technical Documentation of the K-Band Receiver 18 - 26.5 GHz (S14mm)

Type	HEMT cooled				
Channels	28	upper/lower band of 2 polarizations in 2 horns each + 20 zoom bands			
Receiver Noise	30K				
Frequency range	18 GHz - 26.5 GHz				
Polarization	LHC/RHC	2 horns			
Calibration	Noise diode	5 MHz phase cal			
1st IF	5.6 - 10 GHz				
2nd IF lower band	0 - 4 GHz	0 - 2.5 GHz	0 - 300 MHz		fsynth.21 = 10 GHz
2nd IF upper band		0 - 2.5 GHz	0 - 300 MHz		fsynth.22 = 5.6 GHz
<i>Synthesizer frequency for fsky at center of:</i>	<i>4 GHz IF</i>	<i>2.5 GHz IF</i>	<i>300 MHz IF</i>	<i>0.5-1 GHz IF</i>	
Highband (Ch.1, 3, 5...) fsynth.1,3,5...:	fsky - 8 GHz	fsky - 8.75 GHz	fsky - 9.85 GHz	fsky - 9.25GHz	(preset 16.0 GHz)
Lowband (Ch.2, 4, 6...): fsynth.2,4,6...:		fsky - 8.75 GHz	fsky - 9.85 GHz	fsky - 9.25GHz	(preset 12.4 GHz)



Simplified Block Diagram of the complete receiver, (RK on 15.3.2019)

[Block Diagram](#) of the 2nd IF conversion, (CK on 8.3.2019)

[Adresses and switch positions](#) of the synthesizer and switches, (CK on 27.4.2014)

S14MM(K Band)-**LHC**-Horn A [Frequency Conversion plan](#) for 22 GHz Sky Frequency

S14MM(K Band)-**RHC**-Horn A [Frequency Conversion plan](#) for 22 GHz Sky Frequency

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Last update: **2021/01/08 14:25**