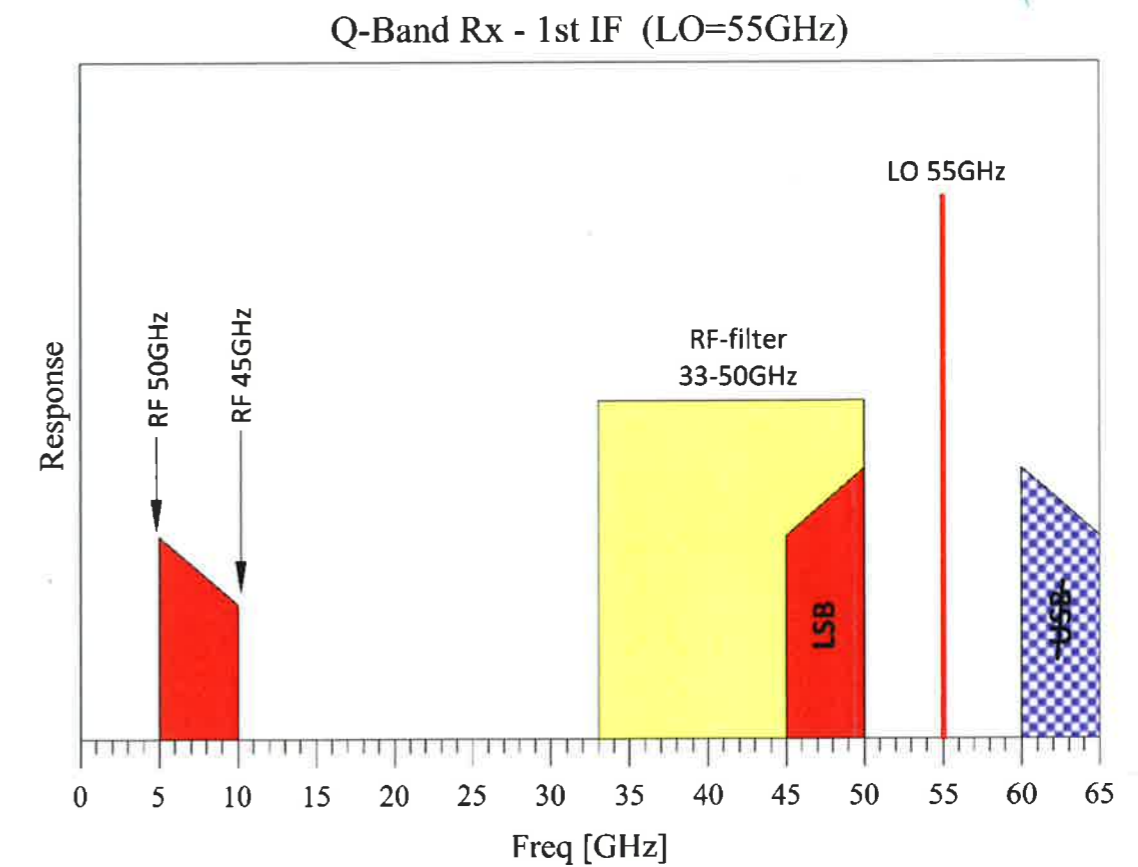
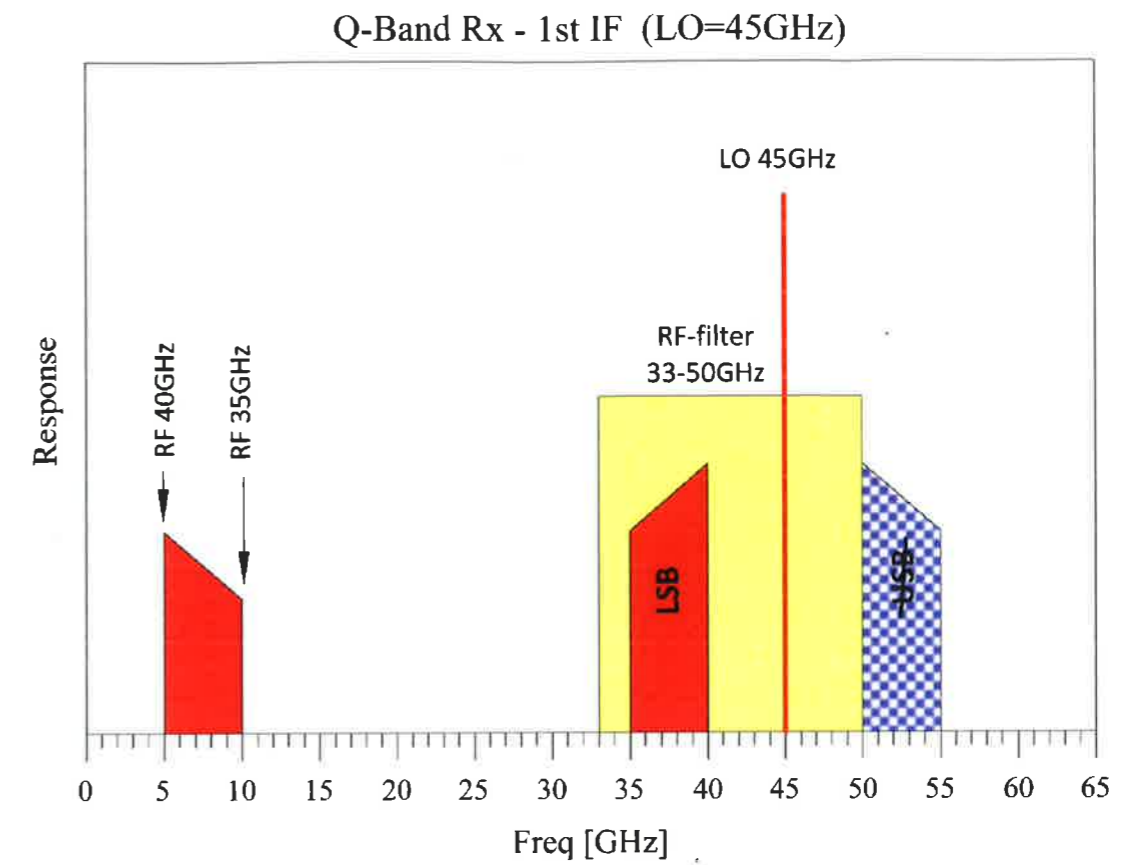
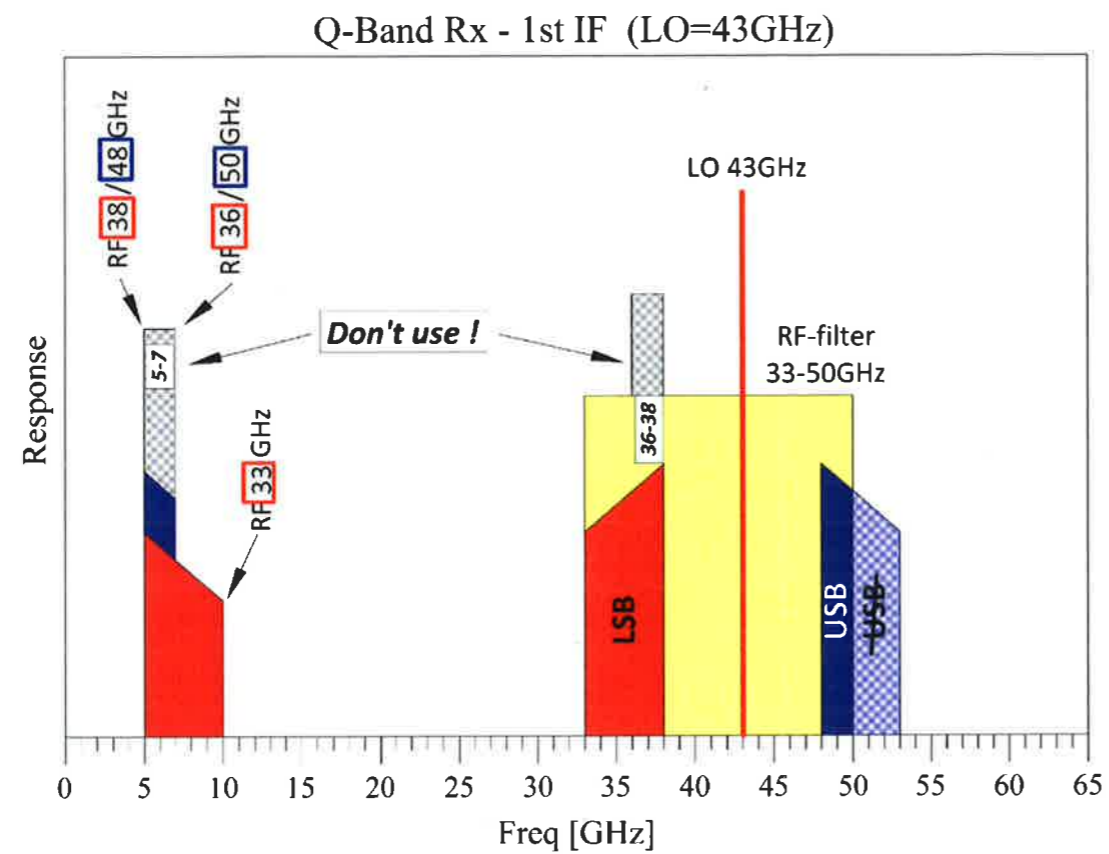
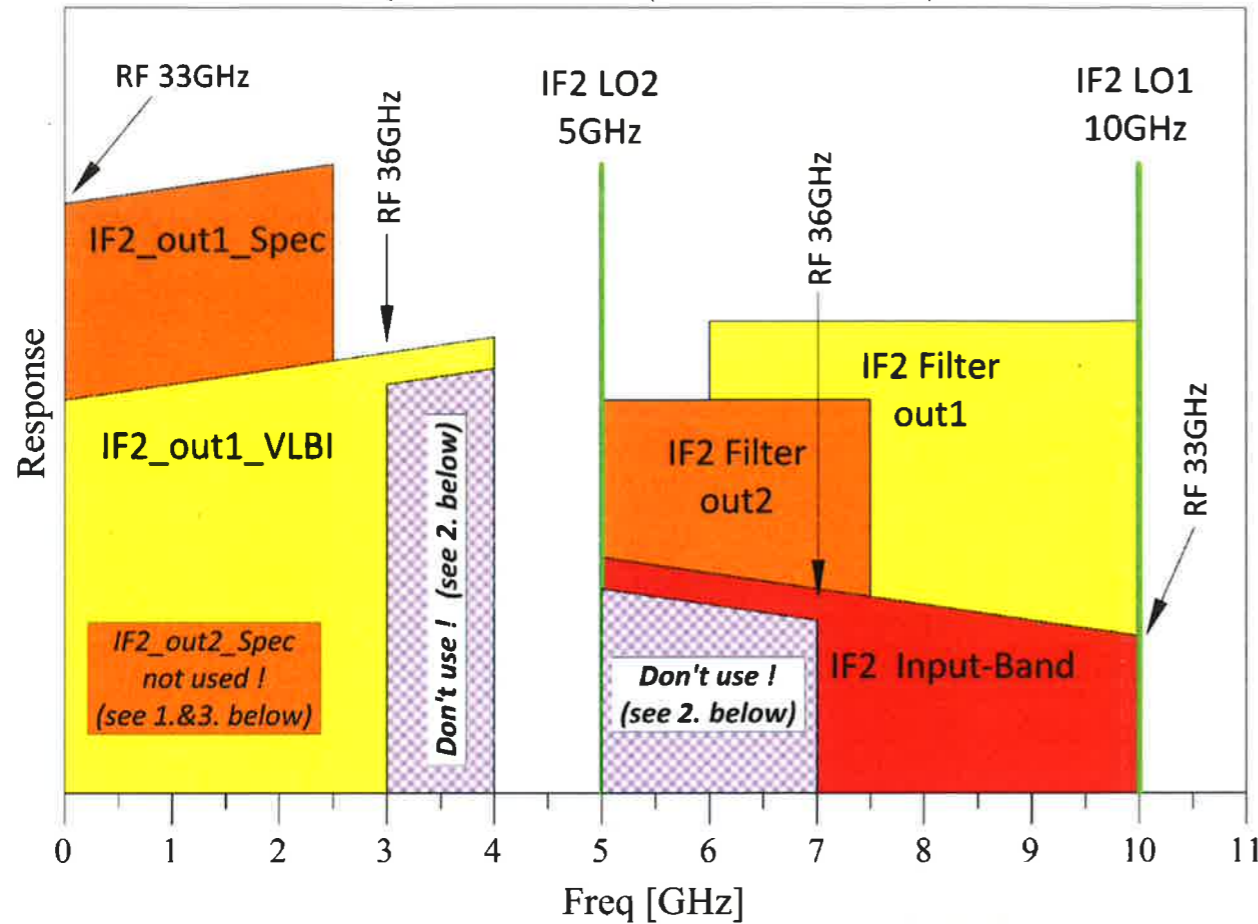


Q-Band Rx: Plan of 1st conversion

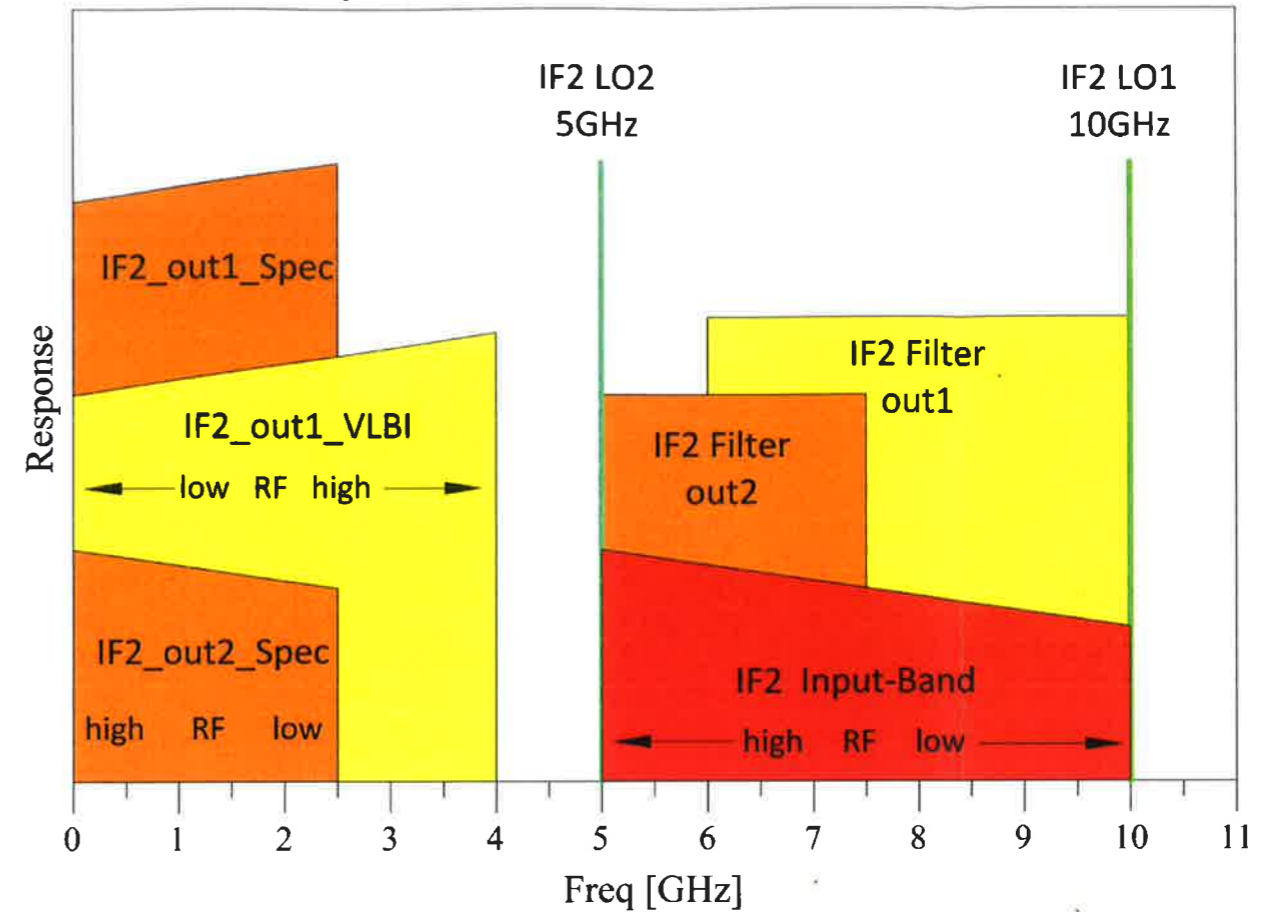


Änderungen		Datum	Name	Bezeichnung:	Blattzahl: 2
Datum	Name	gez.: 02.04.2019	F. Schäfer	Q-Band Rx: conversion	Blatt-Nr.: 1
		gepr.:			
				Zeichnungs-Nr.:	
				Q-Band Rx - Frequency-translation.pptx	

Q-Band 2nd IF (1st LO=43GHz)



Q-Band 2nd IF (1st LO=45 ... 55GHz)



1. For 1st LO < 45GHz RF-USB starts folding into IF2_out2_Spec starting from 0GHz. Don't use these frequencies ! IF2_out1_Spec is clean for all 1st LO settings.
2. For 1st LO < 44GHz RF-USB starts folding into IF2_out1_VLBI starting from 4GHz. Don't use these frequencies !
3. This does NOT affect Rx covering full 33-50GHz range !

Q-Band Rx : Frequency coverage

Sky frequ. GHz	1st LO (:4) GHz	VLBI - IF * 0 .. 4 GHz	Spectr.-IF1 * 0 .. 2.5 GHz	Spectr.-IF2 ** 0 .. 2.5 GHz	Inst. Bw Spectr. GHz
45-50	55 (13.75)	45 .. 49	45 .. 47.5	50 .. 47.5	5
40-45	50 (12.50)	40 .. 44	40 .. 42.5	45 .. 42.5	5
35-40	45 (11.25)	35 .. 39	35 .. 37.5	40 .. 37.5	5
34-38	44 (11.00)	34 .. 38	34 .. 36.5	38 .. 36.5	4
33-36	43 (10.75)	33 .. 36	33 .. 35.5	36 .. 35.5	3

* : 2nd-LO 10GHz fixed

** : 2nd-LO 5GHz fixed

Q-Band Rx: Plan of 2nd conversion

Änderungen		Datum	Name	Bezeichnung:	Blattzahl: 2
Datum	Name	gez.: 02.04.2019	F. Schäfer	Q-Band Rx: conversion	Blatt-Nr.: 2
		gepr.:			
				Zeichnungs-Nr.:	
				Q-Band Rx - Frequency-translation.pptx	

Do not use IF's above RF-frequencies printed in red, USB folding in !

Spec-IF1 → $f_{LO1} - 8.75$

RF-frequ. @ center of IF-bands [GHz]: Spec-IF2 → $f_{LO1} - 6.25$

VLBI-IF → $f_{LO1} - 8$