

**NOEMA frequency setup for the GMVA May 2023 session (16 Gbps, dual pol)**

RECORDER 2   MARK-6 4124													
RECORDER SLOT	RECORDER I/F	RX POL	RX SIDEBAND	BACKEND BASEBAND	NET SIDEBAND	POLYFIX UNIT #	POLYFIX UNIT I/F	THREAD ID	POLYFIX SUB-BAND	SUB-BAND SKY-FREQUENCY			
										f- (GHz)	fc (GHz)	f+ (GHz)	
1	eth2	V / LCP	LSB	LOWER /INNER	NET USB	6	SFP+ 2	8	32	86,268	86,300	86,332	
									33	86,332	86,364	86,396	
									34	86,396	86,428	86,460	
									35	86,460	86,492	86,524	
								9	36	86,524	86,556	86,588	
									37	86,588	86,620	86,652	
									38	86,652	86,684	86,716	
									39	86,716	86,748	86,780	
								10	40	86,780	86,812	86,844	
									41	86,844	86,876	86,908	
									42	86,908	86,940	86,972	
									43	86,972	87,004	87,036	
								11	44	87,036	87,068	87,100	
									45	87,100	87,132	87,164	
									46	87,164	87,196	87,228	
									47	87,228	87,260	<b>87,292</b>	
2	eth3	V / LCP	LSB	LOWER /INNER	NET USB	6	SFP+ 1	4	16	<b>85,244</b>	85,276	85,308	
									17	85,308	85,340	85,372	
									18	85,372	85,404	85,436	
									19	85,436	85,468	85,500	
								5	20	85,500	85,532	85,564	
									21	85,564	85,596	85,628	
									22	85,628	85,660	85,692	
									23	85,692	85,724	85,756	
								6	24	85,756	85,788	85,820	
									25	85,820	85,852	85,884	
									26	85,884	85,916	85,948	
									27	85,948	85,980	86,012	
								7	28	86,012	86,044	86,076	
									29	86,076	86,108	86,140	
									30	86,140	86,172	86,204	
									31	86,204	86,236	86,268	
3	eth4	H / RCP	LSB	LOWER /INNER	NET USB	2	SFP+ 1	4	16	<b>85,244</b>	85,276	85,308	
									17	85,308	85,340	85,372	
									18	85,372	85,404	85,436	
									19	85,436	85,468	85,500	
								5	20	85,500	85,532	85,564	
									21	85,564	85,596	85,628	
									22	85,628	85,660	85,692	
									23	85,692	85,724	85,756	
								6	24	85,756	85,788	85,820	
									25	85,820	85,852	85,884	
									26	85,884	85,916	85,948	
									27	85,948	85,980	86,012	
								7	28	86,012	86,044	86,076	
									29	86,076	86,108	86,140	
									30	86,140	86,172	86,204	
									31	86,204	86,236	86,268	
4	eth5	H / RCP	LSB	LOWER /INNER	NET USB	2	SFP+ 2	8	32	86,268	86,300	86,332	
									33	86,332	86,364	86,396	
									34	86,396	86,428	86,460	
									35	86,460	86,492	86,524	
								9	36	86,524	86,556	86,588	
									37	86,588	86,620	86,652	
									38	86,652	86,684	86,716	
									39	86,716	86,748	86,780	
								10	40	86,780	86,812	86,844	
									41	86,844	86,876	86,908	
									42	86,908	86,940	86,972	
									43	86,972	87,004	87,036	
								11	44	87,036	87,068	87,100	
									45	87,100	87,132	87,164	
									46	87,164	87,196	87,228	
									47	87,228	87,260	<b>87,292</b>	

LO values:

f\_LO1(GHz) **91,996** (User entry)  
 f\_LO2(GHz) 7,744 (Fixed value)

RG  
 Created: 2023-03-23  
 Last rev: 2023-04-28

Formulas:

f\_SKY (LSB | LOWER/INNER) = f\_LO1 - f\_LO2 + f\_IF2  
 f\_SKY (LSB | UPPER/OUTER) = f\_LO1 - f\_LO2 - f\_IF2  
 f\_SKY (USB | LOWER/INNER) = f\_LO1 + f\_LO2 - f\_IF2  
 f\_SKY (USB | UPPER/OUTER) = f\_LO1 + f\_LO2 + f\_IF2  
 fc\_IF2 (MHz) = n · 64; n = 0, 1, 2, ..., 63 (PolyFIX digital sub-band index)

Notes:

- [1] Band edges are highlighted in bold.
- [2] 10-GbE fiber-optic cabling between PolyFIX and recorders as for the EHT 230-GHz observations (5-9 GHz IF).