

# Results of NF-Measurements and Noise-Head ENR

Thanks to my 2nd-Operator, EDDY, ON7UN

# Our notes on 144 MHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
SM3JQU	I0JXX		0.52	25	
SM2CEW			0.62	24.5	BROADBAND LNA

# Our notes on 432 MHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
SM7THS	VHF D		0.67	18.4	
SM2CEW			0.79	21	BROADBAND LNA

# Our notes on 1296 MHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
SM4GGC	DDK		0.64	36	
SM3JQU	DDK		0.27	40	
SM6PGP			0.32	37	
ON7UN	HB9BBD		0.15	42	
HB9BBD	HB9BBD		0.15	42	
PA7JB	VHF D		0.38	34	
KL6M	W7CNK		0.32	34	
KL6M	HB9BBD		0.2	42,6	
SM2CEW	SM2CEW		0.88	12	BROADBAND

# Our notes on 2400 MHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
SM3JQU	DDK		0.39	26	
WB2BYP	WD5AGO		0.52	27	
SM6PGP			0.45	26	
SM2CEW			NO	NO	BROADBAND

# Our notes on 3,4 GHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
WA9FWB	HARRIS		5.4	15	
KL6M - 1			0.86	11	
KL6M - 2			0.61	14	

# Our notes on 5,7 GHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
SM3JQU	DB6NT		0.84	28	
SM6PQP			0.73	20	
KL6M - 1	HARRIS		1	28	
KL6M - 2			0.86	13	
KLM - 3			0.8	8.7	
KL6M - 4			0.81	13	
WA9FWB			5.8	10.6	
PA2DW	CHINESE		NO	NO	

# Our notes on 10 GHz LNAs

OWNER	MADE BY	#	NF	GAIN	REMARKS
WB2BYP	DU2		0.81	26	INCL ADAPTOR 0.1DB
HB9BBD	HB9BBD		0.76	22	INCL ADAPTOR 0.1DB
KL6M - 1	HARRIS		1.26	20.6	
KL6M - 2			2.14	17	
WB9FWB			2.2	23.6	WIDEBAND
SM6PGP	W6PY		0.86	20.6	
SM2CEW -1	TVRO		1.36	21	INCL ADAPTOR 0.1DB
SM2CEW-2	TVRO		1.05	21	INCL ADAPTOR 0.1DB



# Quantitative Summary

144 MHz		2
432 MHz		2
1296 MHz		9
2.3 GHz		4
3.4 GHz		3
5.7 GHz		8
10 GHz		8
Total LNA		36
Noise Heads		17

# Noise-Sources

I will hand out all Graphs to Peter, SM2CEW for distribution.  
Please refer to him for your documented noise head

A good noise source has an ENR with little ripple and a flat pattern. Please consider the blue curve as a reference for the ENR calculation

How to calculate your ENR?

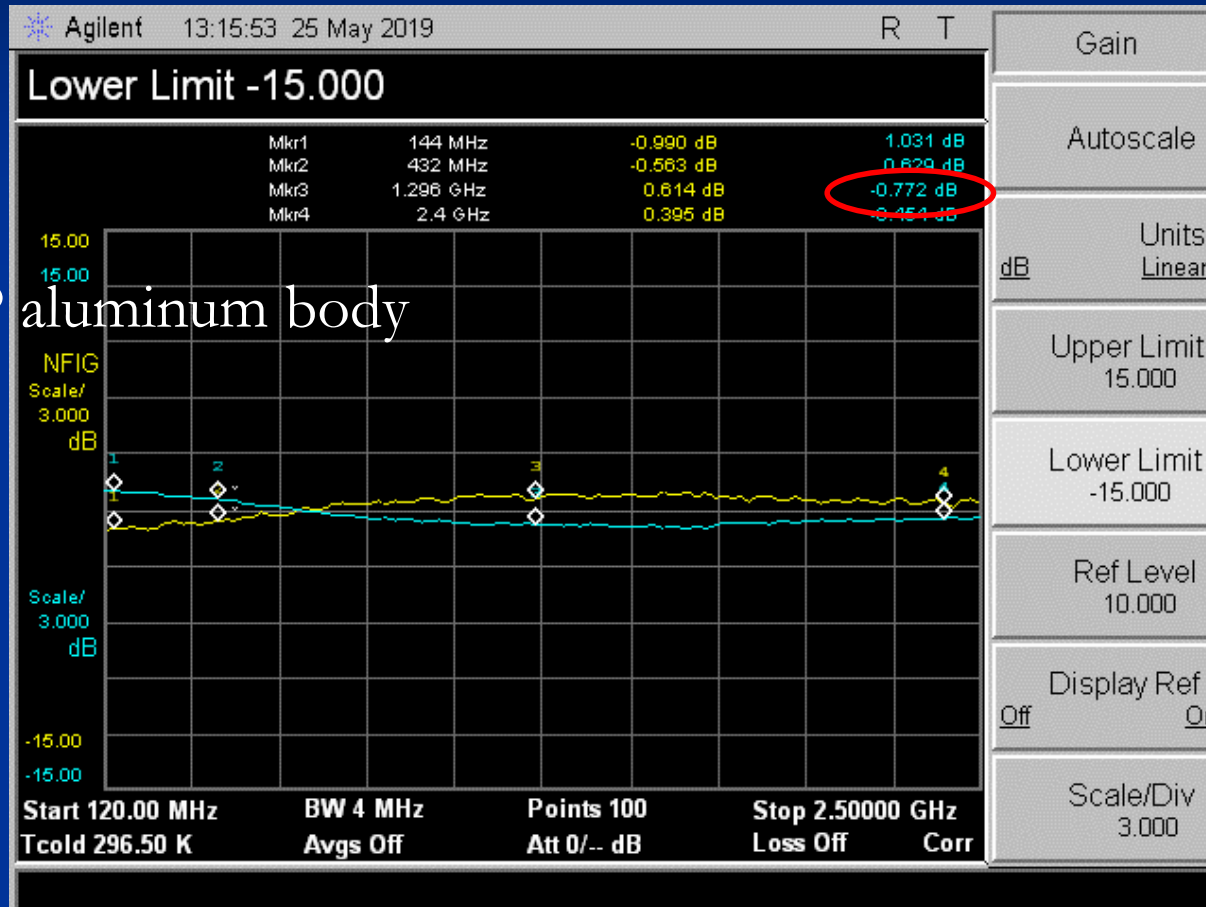
Add to the value of your Noise-Source shown e.g. @1296 MHz (0.772) to the ENR of my SNS Noise-Head @1296 MHz (interpolation!)  $5.551 + 0.772 = 6.323$

The result is the calibrated ENR of your Noise-Head

# Noise-Sources Low Bands

Example

SM7GEP aluminum body



# The Graphs..

ENR Reference to calculate your ENR:

Frequency 10.00000000 MHz

ENR Table

Noise Source Serial Number  
US41120217

Noise Source Model ID  
N4000A

Frequency	ENR Value
10.0000000 MHz	5.452 dB
100.000000 MHz	5.557 dB
1.0000000 GHz	5.423 dB
2.0000000 GHz	5.494 dB
3.0000000 GHz	5.518 dB
4.0000000 GHz	5.507 dB
5.0000000 GHz	5.469 dB
6.0000000 GHz	5.477 dB
7.0000000 GHz	5.453 dB
8.0000000 GHz	5.527 dB
9.0000000 GHz	5.566 dB
10.0000000 GHz	5.554 dB
11.0000000 GHz	5.584 dB
12.0000000 GHz	5.499 dB
13.0000000 GHz	5.595 dB

Use 'File' key to Load or Save a table.

5.551@1296MHz

# The Graphs..

ENR Reference to calculate your ENR:

Frequency 14.00000000 GHz

ENR Table

	Frequency	ENR Value
Noise Source Serial Number	100.000000 MHz	5.557 dB
<input type="text" value="US41120217"/>	1.00000000 GHz	5.423 dB
	2.00000000 GHz	5.494 dB
	3.00000000 GHz	5.518 dB
	4.00000000 GHz	5.507 dB
Noise Source Model ID	5.00000000 GHz	5.469 dB
<input type="text" value="N4000A"/>	6.00000000 GHz	5.477 dB
	7.00000000 GHz	5.453 dB
	8.00000000 GHz	5.527 dB
	9.00000000 GHz	5.566 dB
	10.00000000 GHz	5.554 dB
	11.00000000 GHz	5.584 dB
	12.00000000 GHz	5.499 dB
	13.00000000 GHz	5.595 dB
	14.00000000 GHz	5.529 dB

Use 'File' key to Load or Save a table.