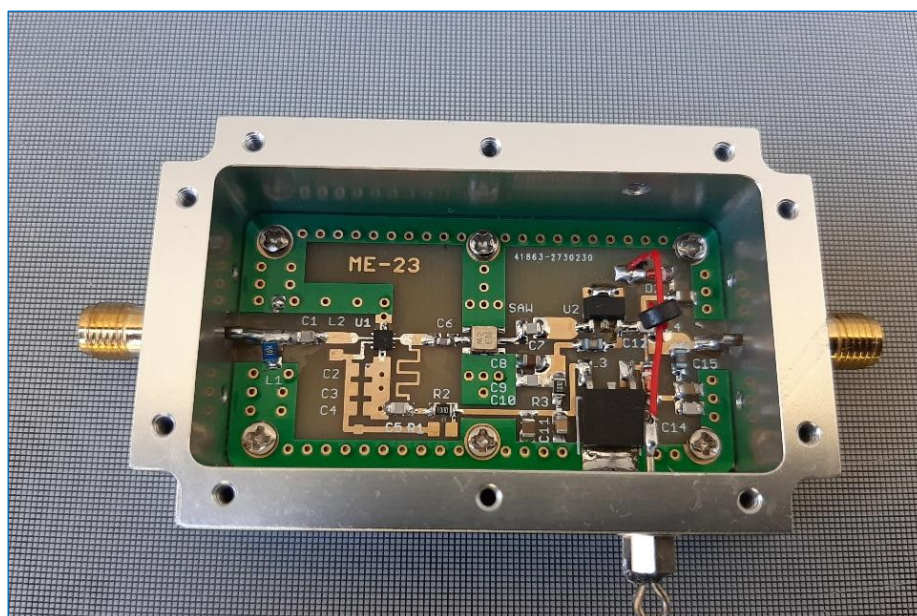


Mechanics & Electronics Inc.

EME Preamplifiers

ME-23 23cm EME Preamplifier



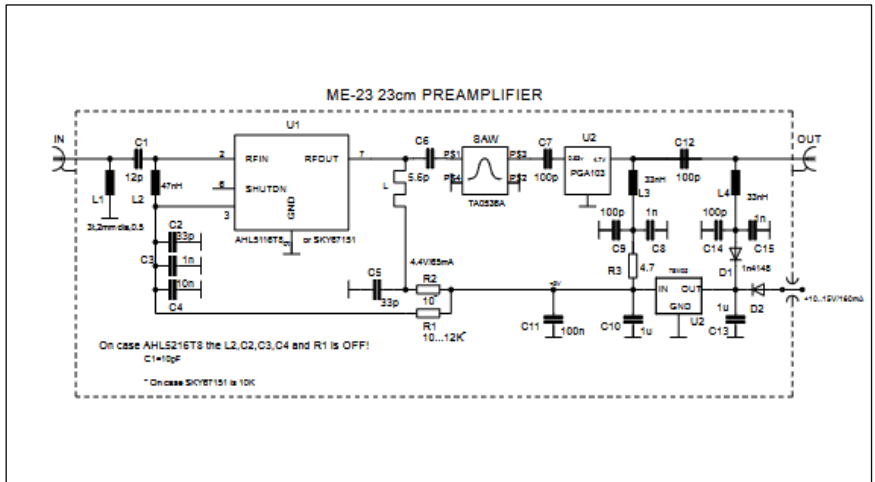
Introduction

The ME-23 23cm a 2 stage EME Preamplifier high dynamics, selective and low-noise preamplifier for 1296-1300 MHz.

We offer it for EME operation. The built in SAW filter gives clean signal and selectivity.

The preamplifier built in a stable ALU box furnished with SMA female connectors. The small dimension is optimal to use it near of your antennas in separate box.

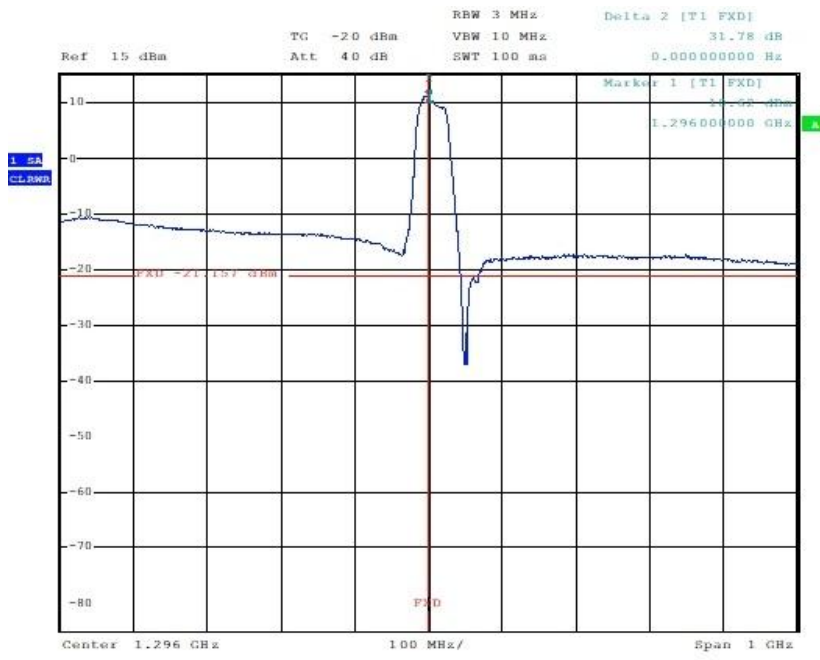
Technical data	ME-23
Frequency range:	1290-1300 MHz
Noise figure @ 22°C	Typ < 0.4 dB
Noise figure @ -18C	Typ < 0.27 dB
Gain S21, typ.:	31 dB
Input return loss	>17.4 dB
Output return loss	>19.3 dB
OIP3:	>+39.5dBm
IIP3:	Typ. + 8.5dBm
Device:	AHL5216T8+PGA103
Max. Input level:	25dBm
Operating voltage:	+10...+15V
Power consumption:	150mA
Dimensions:	85x50x20mm (w.conn)
Weight:	75g
RF connectors:	2x SMA female



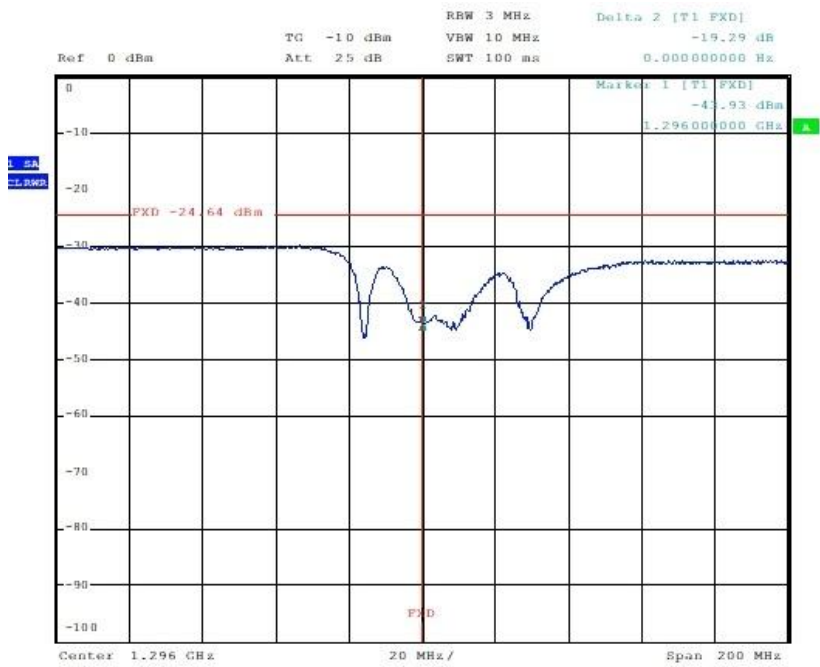
ME-23 Circuit Diagram

Direct		NOISE & GAIN			CALIBRATED
RBW:	1 MHz	RF Atten.	0 dB	2nd Stage Corr.	On
Average:	1	Auto Ref Level	On	Image Rejection	...
Current Value					
RF:	1.33 GHz	ENR	6.2 dB	NF:	1 dB
LO:	...	Loss In	0 dB	Noise Temp.	75.34 K
IF:	...	Loss Out	0 dB	Gain	17.82 dB
Frequency List Results					
RF	NF	Noise Temp	Gain		
1.27 GHz	3.60 dB	374.61 K	8.29 dB		
1.28 GHz	0.40 dB	28.31 K	26.92 dB		
1.29 GHz	0.31 dB	21.81 K	31.87 dB		
1.30 GHz	0.32 dB	22.03 K	31.38 dB		
1.31 GHz	0.29 dB	20.06 K	30.09 dB		
1.32 GHz	0.36 dB	24.89 K	30.13 dB		
1.33 GHz	1.00 dB	75.34 K	17.82 dB		

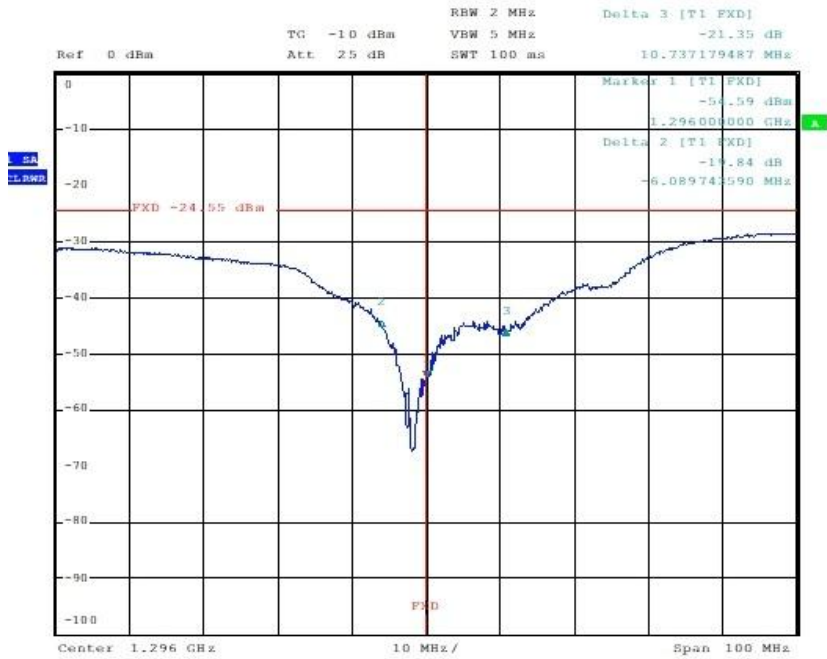
ME-23 NF Measurements.



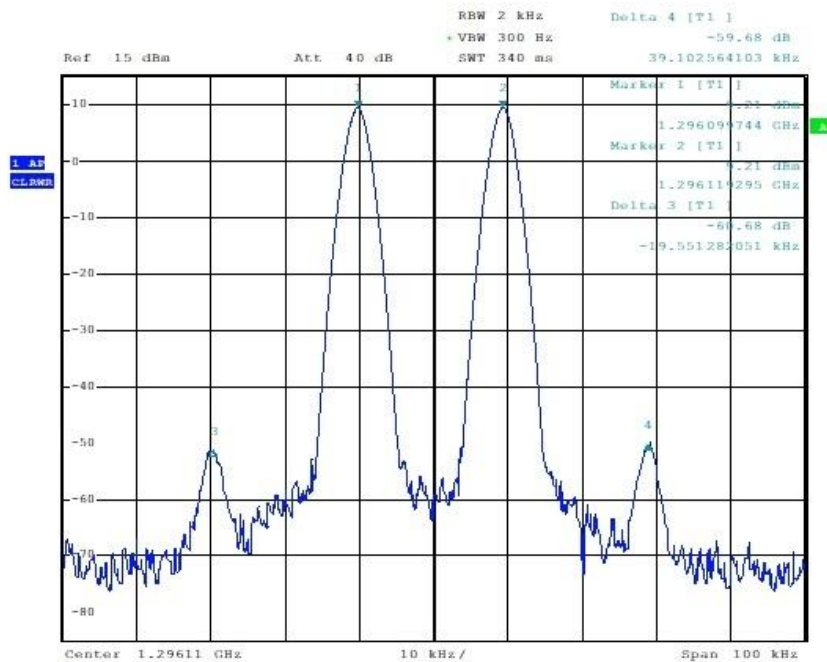
ME-23 +/- 50MHz BW



ME-23 Input return Loss.



ME-23 Output Return Loss.



OIP3 +39.5dBm

NOISE & GAIN					CALIBRATED
Direct					
RBW:	1 MHz	RF Atten.	0 dB	2nd Stage Corr.	On
Average:	1	Auto Ref Level	On	Image Rejection	...
Current Value					
RF:	1.31 GHz	ENR	6.2 dB	NF.	0.22 dB
LO:	...	Loss In	0 dB	Noise Temp.	15.32 K
IF:	...	Loss Out	0 dB	Gain	30.64 dB

Frequency List Results			
RF	NF	Noise Temp	Gain
1.28 GHz	0.28 dB	19.25 K	25.09 dB
1.29 GHz	0.21 dB	14.16 K	32.43 dB
1.30 GHz	0.23 dB	15.71 K	32.40 dB
1.31 GHz	0.22 dB	15.32 K	30.64 dB
1.32 GHz	0.27 dB	18.46 K	30.47 dB

ME-23 NF Measurements on -18°C